

Supplementary Text 6

40.1ns Q93WY9 SIMULATION DATA

	TS ELECT TOTAL PRESSURE	BOND VDW TEMP GPRESSURE	ANGLE BOUNDARY POTENTIAL VOLUME	DIHED MISC TOTAL3 PRESSAVG	IMPRP KINETIC TEMPAVG GPRESSAVG
[191]ENERGY:	0	4999.8078	5466.3194	5772.4511	305.5429
	-8134.0996	-1843.7802	0.0000	0.0000	7775.6378
	14341.8792	296.4639	6566.2414	14454.0148	296.4639
	2906.9481	466.8796	728456.8384	2906.9481	466.8796
[279]ENERGY:	10000	3189.6290	5372.8645	5772.7262	352.9152
	-13312.4858	-1563.0828	0.0000	0.0000	7870.9213
	7683.4877	300.0968	-187.4337	7747.4660	321.8834
	144.3399	115.6437	735475.2369	-0.1284	-0.0147
[318]ENERGY:	20000	3310.7142	5348.7964	5717.9680	311.8514
	-13460.3565	-1639.6275	0.0000	0.0000	7741.3509
	7330.6969	295.1566	-410.6541	7392.8458	298.4916
	-3.6076	1.8687	733208.9482	0.4936	0.5063
[370]ENERGY:	30000	3302.4411	5332.2753	5771.1947	343.8806
	-13640.7224	-1565.0050	0.0000	0.0000	7816.0831
	7360.1475	298.0060	-455.9356	7423.0826	300.4791
	6.5075	30.1525	728537.4003	0.3582	0.3695
[408]ENERGY:	40000	3328.1596	5339.2590	5771.9647	355.1878
	-13780.5478	-1570.1671	0.0000	0.0000	7826.2029
	7270.0592	298.3918	-556.1438	7336.5472	297.1183
	-8.6407	-20.8424	711892.0438	3.9213	3.9026
[460]ENERGY:	50000	3307.5300	5307.8902	5759.1695	331.4808
	-13748.2327	-1568.5930	0.0000	0.0000	7821.5762
	7210.8211	298.2154	-610.7551	7276.9016	300.3920
	-19.3502	1.6552	706270.9176	-0.2569	-0.2358
[498]ENERGY:	60000	3149.7592	5420.0209	5734.5158	329.9383
	-13670.4110	-1623.8743	0.0000	0.0000	7902.4475
	7242.3965	301.2988	-660.0510	7308.5010	296.6690
	124.6850	97.9537	715705.2994	0.6945	0.6735
[549]ENERGY:	70000	3287.2150	5366.8327	5734.7017	335.7602
	-13647.8582	-1724.9439	0.0000	0.0000	7834.8640
	7186.5715	298.7220	-648.2926	7248.7653	299.3904
	-164.3345	-89.9533	712000.6865	-0.8037	-0.7991
[586]ENERGY:	80000	3241.9688	5273.0821	5778.4420	351.7036
	-13716.4847	-1674.4155	0.0000	0.0000	7964.2153
	7218.5116	303.6539	-745.7037	7283.3567	298.5708
	-74.3919	-92.3141	734696.9518	-0.7541	-0.7668
[637]ENERGY:	90000	3238.6281	5310.1939	5824.2163	337.9477
	-13765.8102	-1631.1465	0.0000	0.0000	7746.5284
	7060.5577	295.3540	-685.9707	7129.2999	298.5867
	-2.7227	-80.7479	736230.1953	0.8356	0.8478
[677]ENERGY:	100000	3236.3599	5307.7785	5747.8780	332.6728
	-13771.0064	-1711.6380	0.0000	0.0000	7850.5704
	6992.6153	299.3209	-857.9551	7057.1860	296.9325
	89.1388	-14.9513	705965.2972	-1.7908	-1.7687
[728]ENERGY:	110000	3222.0286	5327.8896	5788.5150	313.7196
	-13879.8678	-1597.8366	0.0000	0.0000	7863.3914
	7037.8400	299.8097	-825.5515	7103.8962	297.0375
	-18.0528	-89.7528	680241.2341	3.4264	3.4213

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[764]ENERGY:	120000	3245.8473	5352.3219	5717.1681	347.0089
	-13854.5421	-1645.5611	0.0000	0.0000	7695.9106
	6858.1536	293.4241	-837.7571	6920.7460	297.1428
	-188.2022	-151.4988	666180.6792	-2.1118	-2.1215
[814]ENERGY:	130000	3271.2315	5411.9784	5720.3573	326.8963
	-13866.7089	-1679.5346	0.0000	0.0000	7765.0022
	6949.2222	296.0584	-815.7800	7011.3369	296.7823
	-4.8745	-58.4113	675134.1117	4.3739	4.3867
[850]ENERGY:	140000	3299.8419	5403.6674	5734.4972	344.6452
	-13848.4665	-1689.7605	0.0000	0.0000	7824.5560
	7068.9806	298.3290	-755.5753	7133.7471	297.7924
	19.1598	-6.9990	673243.8452	0.4809	0.4586
[900]ENERGY:	150000	3241.4089	5433.0005	5742.7048	321.9516
	-13872.8761	-1653.3276	0.0000	0.0000	7866.2599
	7079.1220	299.9191	-787.1380	7145.8130	299.7096
	98.5067	133.0162	691319.4090	3.7687	3.7796
[936]ENERGY:	160000	3220.4833	5350.9896	5765.7775	320.9108
	-13780.5275	-1602.3484	0.0000	0.0000	7806.5467
	7081.8319	297.6424	-724.7148	7142.7774	298.4003
	49.6024	81.1187	688945.9496	1.7483	1.7652
[986]ENERGY:	170000	3322.8100	5345.3153	5776.6333	325.2419
	-13905.9005	-1645.0953	0.0000	0.0000	7851.8029
	7070.8075	299.3679	-780.9954	7132.7989	298.9419
	44.6247	39.1822	707705.8740	-1.8875	-1.8784
[1022]ENERGY:	180000	3304.3984	5383.4209	5663.6439	
	339.4317	-13886.9689	-1594.7025	0.0000	0.0000
	7975.4606	7184.6841	304.0826	-790.7764	7254.6895
	300.0251	60.1850	22.4443	712211.8218	0.7402
	0.7168				
[1072]ENERGY:	190000	3298.2445	5425.2535	5766.6753	
	324.3027	-13928.3065	-1644.1822	0.0000	0.0000
	7846.2674	7088.2547	299.1568	-758.0127	7150.6231
	299.9245	-72.3984	-84.1196	692626.9100	3.6727
	3.6821				
[1111]ENERGY:	200000	3303.6705	5329.4833	5763.5689	
	334.6463	-13898.3785	-1577.8792	0.0000	0.0000
	7669.0404	6924.1518	292.3996	-744.8886	6988.4459
	298.8470	-20.5065	43.0158	672354.0153	4.4785
	4.4616				
[1161]ENERGY:	210000	3270.7582	5466.8753	5659.8662	
	339.9722	-13958.2659	-1587.0602	0.0000	0.0000
	7750.6770	6942.8227	295.5122	-807.8543	7006.6020
	299.1548	-5.3515	6.3538	690244.7411	2.1653
	2.1694				
[1197]ENERGY:	220000	3234.2794	5437.9984	5678.3187	
	336.3131	-13876.8442	-1623.9096	0.0000	0.0000
	7766.9305	6953.0864	296.1319	-813.8441	7014.7317
	299.6224	133.2029	1.3342	663258.2835	0.5533
	0.5398				
[1247]ENERGY:	230000	3260.9418	5487.7609	5679.7587	
	336.5154	-13924.7825	-1660.1468	0.0000	0.0000
	7877.2753	7057.3228	300.3391	-819.9525	7122.5849
	297.1957	58.3036	43.6604	644431.2248	-3.0436
	-3.0354				

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[1283]ENERGY:	240000	3282.0198	5392.5443	5684.4089
357.4245	-13955.4977	-1597.2995	0.0000	0.0000
7769.8185	6933.4189	296.2420	-836.3996	6991.7494
299.2619	114.1427	23.3173	667654.0578	1.5756
1.5592				
[1333]ENERGY:	250000	3235.9803	5410.8250	5689.0952
341.0679	-13956.6865	-1613.8646	0.0000	0.0000
7813.1439	6919.5611	297.8939	-893.5828	6984.4207
296.8334	135.1558	1.1311	652624.1953	2.7407
2.7459				
[1369]ENERGY:	260000	3259.2161	5383.3947	5719.5083
339.6894	-13926.3447	-1633.9289	0.0000	0.0000
7896.0904	7037.6254	301.0564	-858.4650	7101.9220
298.5331	-64.7558	-82.8163	672280.3830	0.1235
0.1345				
[1419]ENERGY:	270000	3236.5942	5466.9394	5722.2395
338.4589	-13957.4198	-1655.6909	0.0000	0.0000
7851.1847	7002.3059	299.3443	-848.8788	7070.0726
299.5463	65.2941	-14.7453	665605.2257	2.0154
1.9898				
[1455]ENERGY:	280000	3315.8239	5445.7966	5726.1096
303.3124	-14018.3714	-1673.8364	0.0000	0.0000
7847.8863	6946.7209	299.2186	-901.1654	7010.1424
299.7178	-193.3945	-105.9713	670041.0728	-3.9643
-3.9421				
[1505]ENERGY:	290000	3214.1677	5421.9023	5715.5375
335.8627	-13908.8344	-1604.9225	0.0000	0.0000
7777.8188	6951.5321	296.5471	-826.2867	7014.7788
298.3414	120.9856	93.7366	654907.7751	1.4212
1.4079				
[1544]ENERGY:	300000	3301.5510	5437.6849	5688.7394
336.5595	-13909.9324	-1682.1126	0.0000	0.0000
7781.8448	6954.3346	296.7006	-827.5101	7017.5132
297.7865	-12.6179	-89.2738	670824.8626	4.4300
4.4153				
[1594]ENERGY:	310000	3291.7837	5367.5769	5749.7393
326.9678	-13914.1023	-1612.3211	0.0000	0.0000
7773.0371	6982.6815	296.3648	-790.3556	7042.4926
298.9349	99.5621	12.7929	642216.2702	-0.3007
-0.2513				
[1630]ENERGY:	320000	3361.9638	5360.7632	5737.8385
336.6761	-13969.6801	-1692.3265	0.0000	0.0000
7788.5288	6923.7638	296.9554	-864.7650	6989.3741
298.0580	-74.4160	-128.1646	648221.4198	1.6609
1.6289				
[1680]ENERGY:	330000	3304.0422	5388.9137	5704.1670
325.7263	-13977.2603	-1631.9901	0.0000	0.0000
7877.2909	6990.8898	300.3397	-886.4012	7057.1005
297.3733	74.0362	27.4887	642829.7681	1.9855
2.0001				
[1716]ENERGY:	340000	3250.8072	5324.0818	5710.1313
345.1865	-14055.7796	-1629.8709	0.0000	0.0000
7828.8611	6773.4175	298.4932	-1055.4437	6836.7832
299.3579	83.6228	47.8290	642015.6588	2.3969

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2.3803
 [1766]ENERGY: 350000 3217.6963 5404.0071 5678.2123
 335.1649 -13984.1365 -1657.2724 0.0000 0.0000
 7769.8528 6763.5245 296.2433 -1006.3283 6827.2906
 297.4133 -68.9166 -21.1554 648346.6755 -2.3845
 -2.3718
 [1802]ENERGY: 360000 3306.1552 5408.5819 5706.5150
 321.9875 -13946.9753 -1708.7793 0.0000 0.0000
 7775.6491 6863.1340 296.4643 -912.5151 6922.3080
 299.5995 44.2840 -1.1775 642139.2257 3.2545
 3.2627
 [1852]ENERGY: 370000 3181.2185 5420.2693 5718.6141
 347.1248 -13932.6976 -1690.7947 0.0000 0.0000
 7875.7680 6919.5024 300.2816 -956.2656 6985.3413
 297.4473 47.0914 -53.3378 674614.8953 -1.2324
 -1.2489
 [1888]ENERGY: 380000 3287.5787 5470.4857 5703.5595
 342.3122 -13934.9289 -1643.2190 0.0000 0.0000
 7781.6225 7007.4107 296.6921 -774.2118 7068.8710
 298.2815 52.1228 10.8856 703524.3334 0.6326
 0.6454
 [1938]ENERGY: 390000 3280.5097 5327.8737 5686.4201
 321.3249 -13937.7121 -1655.9780 0.0000 0.0000
 7813.2555 6835.6938 297.8982 -977.5617 6903.0777
 299.2872 -8.0749 -56.6040 722412.6307 -1.0304
 -1.0323
 [1977]ENERGY: 400000 3182.4184 5436.7659 5729.3467
 332.7414 -13983.9860 -1627.8365 0.0000 0.0000
 7793.6403 6863.0902 297.1503 -930.5501 6925.0803
 298.9829 -51.7531 -62.6404 726932.9185 2.5828
 2.5814
 [2027]ENERGY: 410000 3235.9592 5359.1469 5727.0011
 323.2636 -13942.7613 -1611.6800 0.0000 0.0000
 7926.4547 7017.3842 302.2141 -909.0705 7084.9219
 298.1497 119.4820 90.7809 715121.3958 2.4100
 2.4218
 [2063]ENERGY: 420000 3312.3825 5417.5419 5675.9026
 335.8374 -13996.0908 -1604.6852 0.0000 0.0000
 7868.3569 7009.2452 299.9990 -859.1117 7076.3410
 298.4195 -69.9731 -26.4544 751271.7299 2.1821
 2.1589
 [2113]ENERGY: 430000 3228.8452 5422.3213 5692.0887
 331.0327 -13977.2814 -1607.4655 0.0000 0.0000
 7939.4322 7028.9732 302.7089 -910.4589 7094.1267
 300.8373 130.1503 99.6312 748868.5549 4.6291
 4.6387
 [2149]ENERGY: 440000 3317.0937 5459.0389 5684.4332
 331.1039 -14079.7984 -1556.6470 0.0000 0.0000
 7955.5099 7110.7342 303.3219 -844.7757 7172.5279
 301.0266 56.8317 77.3616 775569.8950 1.4706
 1.4809
 [2199]ENERGY: 450000 3199.9456 5415.2450 5694.0876
 329.8241 -13922.2607 -1655.0573 0.0000 0.0000
 7869.1907 6930.9749 300.0308 -938.2158 6998.6283

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298.8155	-109.5392	-117.9133	763203.5692	-0.1502
-0.1648				
[2235]ENERGY:	460000	3284.8034	5345.5300	5650.8951
340.3515	-13867.5213	-1704.4346	0.0000	0.0000
7747.5544	6797.1786	295.3932	-950.3759	6860.8472
298.3193	-110.9667	-107.0490	771921.1152	0.9352
0.9228				
[2285]ENERGY:	470000	3208.1614	5369.0488	5707.6233
332.5892	-14026.5240	-1575.8828	0.0000	0.0000
7887.5670	6902.5829	300.7315	-984.9841	6963.2897
297.3935	138.2403	115.1405	750029.1887	2.5443
2.5425				
[2321]ENERGY:	480000	3317.7552	5385.2364	5709.5449
319.6456	-13957.4189	-1610.7283	0.0000	0.0000
7816.1561	6980.1910	298.0088	-835.9651	7043.4918
298.7276	-4.8237	24.2269	740907.4338	0.7009
0.7000				
[2371]ENERGY:	490000	3222.0445	5361.4632	5640.6155
305.5886	-13956.6233	-1597.9446	0.0000	0.0000
7765.4219	6740.5659	296.0744	-1024.8560	6804.6173
297.9561	93.0425	79.8546	732734.2057	0.1310
0.1207				
[2410]ENERGY:	500000	3249.7353	5376.5026	5718.9523
342.3969	-13976.0588	-1621.7013	0.0000	0.0000
7766.6257	6856.4527	296.1203	-910.1730	6920.0987
296.6705	14.0501	-25.5571	737264.6681	-0.1526
-0.1563				
[2460]ENERGY:	510000	3230.6175	5442.8395	5653.7768
351.3087	-13996.1414	-1642.5414	0.0000	0.0000
7842.2638	6882.1234	299.0042	-960.1403	6945.0475
298.4663	-39.0496	-48.3517	715952.9136	0.6846
0.7016				
[2496]ENERGY:	520000	3231.5730	5387.1996	5722.8011
330.0320	-14040.4860	-1641.2392	0.0000	0.0000
7792.3520	6782.2324	297.1012	-1010.1196	6846.3878
297.0418	73.4665	0.2830	727123.7940	4.6682
4.6607				
[2546]ENERGY:	530000	3259.5345	5550.0297	5719.5473
303.8027	-14066.7780	-1659.3348	0.0000	0.0000
7906.2764	7013.0777	301.4448	-893.1988	7079.2904
300.2209	-19.4291	11.8341	780115.6322	-3.1171
-3.1137				
[2582]ENERGY:	540000	3235.5371	5402.8813	5692.9369
314.8675	-14003.4274	-1646.9159	0.0000	0.0000
7899.3017	6895.1814	301.1789	-1004.1203	6961.0198
299.2561	122.1470	126.4585	755425.4658	2.3829
2.3739				
[2632]ENERGY:	550000	3215.8780	5348.6171	5700.1722
346.0287	-13903.2201	-1694.5235	0.0000	0.0000
7780.2355	6793.1879	296.6392	-987.0477	6856.3338
299.0800	-2.6654	12.6989	758446.2796	2.7832
2.7679				
[2668]ENERGY:	560000	3264.7875	5332.1288	5721.2256
329.8433	-14025.6564	-1671.8250	0.0000	0.0000

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7796.2336	6746.7373	297.2492	-1049.4963	6811.9738
297.5905	-36.4256	-48.3576	759825.3431	-0.6703
-0.6691				
[2718]ENERGY:	570000	3223.7730	5340.8040	5730.4644
311.9277	-14022.3019	-1601.0836	0.0000	0.0000
7928.8285	6912.4121	302.3047	-1016.4163	6977.6452
298.3046	1.0875	57.7949	746617.1774	-2.4779
-2.4760				
[2754]ENERGY:	580000	3215.1177	5338.0845	5737.4726
330.7121	-14044.4279	-1613.5983	0.0000	0.0000
7882.1702	6845.5309	300.5257	-1036.6393	6914.2155
299.6784	5.3637	87.8232	747721.2050	-2.7072
-2.7013				
[2804]ENERGY:	590000	3226.5214	5342.2645	5738.8081
312.6248	-13980.0761	-1570.7331	0.0000	0.0000
7629.4797	6698.8893	290.8913	-930.5904	6760.9874
298.0199	205.3331	186.5452	704012.3720	-0.3842
-0.3969				
[2843]ENERGY:	600000	3266.7187	5475.4902	5732.6939
348.6558	-14092.7820	-1698.4657	0.0000	0.0000
7857.2037	6889.5146	299.5738	-967.6891	6953.4634
297.6639	-15.7694	-24.5487	725539.2592	3.5216
3.5033				
[2893]ENERGY:	610000	3302.6022	5298.5061	5681.2670
313.8317	-14045.4501	-1645.5659	0.0000	0.0000
7810.2571	6715.4481	297.7839	-1094.8090	6780.2727
297.3322	55.7743	21.4891	756778.9675	0.1689
0.1706				
[2929]ENERGY:	620000	3199.3516	5390.8425	5676.3784
340.2000	-14005.7476	-1703.7780	0.0000	0.0000
7703.5396	6600.7864	293.7150	-1102.7532	6664.4538
297.8343	-54.6534	-60.6829	780190.4471	3.1727
3.1957				
[2979]ENERGY:	630000	3227.9160	5350.5511	5733.6949
342.4140	-14021.3379	-1650.9258	0.0000	0.0000
7926.1866	6908.4991	302.2039	-1017.6876	6976.8855
298.3260	54.4327	20.5465	779945.2728	-0.7909
-0.7867				
[3015]ENERGY:	640000	3224.3778	5393.5915	5644.7400
337.2225	-14081.7057	-1649.1929	0.0000	0.0000
7853.0404	6722.0735	299.4151	-1130.9668	6784.7613
297.6203	93.7497	64.3105	794131.4452	0.4322
0.4319				
[3065]ENERGY:	650000	3211.2961	5384.2846	5649.7980
323.2831	-14087.9994	-1653.6166	0.0000	0.0000
7825.8856	6652.9313	298.3797	-1172.9543	6712.1038
299.3709	38.0915	8.7455	807527.2540	1.7360
1.7491				
[3101]ENERGY:	660000	3304.8021	5351.7865	5642.5121
345.9410	-14066.3151	-1624.0891	0.0000	0.0000
7840.2974	6794.9350	298.9292	-1045.3624	6856.3939
298.7503	52.5558	5.7695	786396.2731	-0.5361
-0.5521				
[3151]ENERGY:	670000	3270.7216	5406.3859	5605.0217

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343.5747	-13969.6026	-1678.3608	0.0000	0.0000
7868.5888	6846.3293	300.0079	-1022.2595	6908.6877
299.2083	-120.2489	-135.5122	778878.3072	-0.7877
-0.7615				
[3187]ENERGY:	680000	3268.5043	5441.2502	5687.9078
319.8395	-14018.0024	-1662.9773	0.0000	0.0000
7857.7386	6894.2608	299.5942	-963.4779	6959.2690
299.6854	-99.7076	-108.3319	740106.6255	2.2166
2.2037				
[3237]ENERGY:	690000	3264.2183	5378.9984	5718.5831
348.2574	-14125.0227	-1630.1571	0.0000	0.0000
7840.2173	6795.0946	298.9262	-1045.1227	6858.3988
298.1286	-25.0743	20.6720	724938.4926	-0.5169
-0.5313				
[3276]ENERGY:	700000	3273.7671	5301.5310	5718.7966
338.8485	-14031.0057	-1686.5259	0.0000	0.0000
7847.1948	6762.6065	299.1922	-1084.5883	6824.7635
298.7304	50.6020	-10.7668	724194.0809	3.6772
3.6852				
[3326]ENERGY:	710000	3219.6100	5436.3716	5704.1009
338.9782	-14055.7003	-1665.6235	0.0000	0.0000
7859.3799	6837.1167	299.6568	-1022.2632	6901.8822
298.3270	-24.9984	-20.7040	710720.2061	-0.0236
-0.0081				
[3362]ENERGY:	720000	3282.1918	5347.9030	5712.0321
358.7092	-13977.0497	-1725.2190	0.0000	0.0000
7848.1292	6846.6964	299.2278	-1001.4327	6909.5410
298.8771	-7.3693	9.1479	693383.8657	-1.3991
-1.4213				
[3412]ENERGY:	730000	3205.5226	5402.4972	5657.6895
333.1609	-14094.0439	-1602.9395	0.0000	0.0000
7904.8648	6806.7516	301.3910	-1098.1132	6874.3970
299.9713	79.8184	88.7274	690716.4583	1.7037
1.7168				
[3448]ENERGY:	740000	3281.3515	5422.5087	5632.3714
347.6282	-14066.2596	-1711.5042	0.0000	0.0000
7922.0177	6828.1138	302.0450	-1093.9040	6893.0338
299.4270	48.6284	-17.4648	707241.4812	3.5943
3.5861				
[3498]ENERGY:	750000	3224.2971	5354.2414	5670.9839
331.5271	-14110.3028	-1649.7442	0.0000	0.0000
7867.0429	6688.0452	299.9489	-1178.9976	6751.5102
298.8985	-31.4413	-21.5830	679316.7253	4.5655
4.5655				
[3534]ENERGY:	760000	3242.3149	5523.6384	5651.6948
343.3278	-14080.5905	-1676.2750	0.0000	0.0000
7776.9372	6781.0476	296.5135	-995.8895	6844.7851
300.0697	179.7338	109.6929	672587.6303	-0.2739
-0.2620				
[3584]ENERGY:	770000	3221.0673	5406.3014	5647.4158
319.6749	-13975.3458	-1676.0278	0.0000	0.0000
7927.5026	6870.5884	302.2541	-1056.9142	6932.2409
299.5592	87.5886	19.7775	676157.6194	0.7502
0.7323				

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[3620]ENERGY:	780000	3278.3228	5432.2522	5674.0608
356.2722	-14060.3074	-1695.7914	0.0000	0.0000
7947.7278	6932.5369	303.0252	-1015.1909	7003.2488
299.7970	89.4942	21.9896	666165.4678	3.2304
3.2285				
[3670]ENERGY:	790000	3256.7714	5452.4393	5681.6510
343.8038	-14147.2693	-1666.0795	0.0000	0.0000
7739.6199	6660.9365	295.0906	-1078.6834	6723.6447
299.9063	77.8376	62.5178	636173.1521	-1.0018
-0.9833				
[3709]ENERGY:	800000	3221.0457	5343.7904	5663.2167
318.5267	-14104.1157	-1623.3563	0.0000	0.0000
7819.5126	6638.6203	298.1367	-1180.8924	6704.2450
296.8575	50.4465	22.8922	621753.5797	-0.2462
-0.2353				
[3759]ENERGY:	810000	3293.9612	5364.3481	5648.4852
321.5073	-14089.7297	-1676.2118	0.0000	0.0000
7797.3674	6659.7277	297.2924	-1137.6397	6722.4222
297.8053	82.4238	52.3176	632578.3560	3.2397
3.2321				
[3795]ENERGY:	820000	3189.2135	5349.0251	5649.6275
328.1309	-14125.1694	-1682.5152	0.0000	0.0000
7826.7339	6535.0463	298.4121	-1291.6876	6598.4541
297.4417	34.1952	-20.1875	613491.0019	-3.4198
-3.4026				
[3845]ENERGY:	830000	3262.8894	5348.1664	5663.7297
350.3915	-14008.3684	-1681.2495	0.0000	0.0000
7800.9829	6736.5420	297.4302	-1064.4408	6799.2468
298.5060	-12.6289	-86.4981	606184.7576	-4.0246
-4.0265				
[3881]ENERGY:	840000	3226.7039	5402.7689	5728.4437
319.9525	-14006.9618	-1652.0100	0.0000	0.0000
7824.3048	6843.2021	298.3195	-981.1028	6907.4383
299.0259	97.4687	-8.4565	597684.2275	-0.5867
-0.5841				
[3931]ENERGY:	850000	3279.1309	5406.3615	5701.5200
336.0104	-13999.5694	-1762.6223	0.0000	0.0000
7905.6138	6866.4449	301.4195	-1039.1689	6932.2042
299.9421	-252.2892	-176.3382	584424.3981	-1.4104
-1.3483				
[3967]ENERGY:	860000	3212.1434	5454.0055	5693.1302
311.3594	-14034.4729	-1695.2572	0.0000	0.0000
7910.5776	6851.4860	301.6088	-1059.0916	6916.6576
300.8483	107.1295	69.6068	580673.4491	-2.1506
-2.1768				
[4017]ENERGY:	870000	3189.6716	5389.1667	5640.2651
331.7346	-14057.0513	-1714.7529	0.0000	0.0000
7786.5456	6565.5794	296.8798	-1220.9662	6632.5225
299.2433	-133.9249	-161.6964	559853.5206	1.2363
1.2608				
[4053]ENERGY:	880000	3260.9378	5417.3891	5642.7908
318.7754	-13984.8006	-1705.7354	0.0000	0.0000
7837.9497	6787.3068	298.8397	-1050.6429	6852.3929
297.3539	-120.8846	-60.5289	567294.4042	-0.0543

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-0.0592
 [4103]ENERGY: 890000 3275.4669 5362.1317 5642.0377
 349.1689 -13979.3511 -1687.3731 0.0000 0.0000
 7710.8590 6672.9400 293.9941 -1037.9190 6732.8473
 298.1196 -88.0577 -98.6335 593166.0846 1.5359
 1.5132
 [4142]ENERGY: 900000 3340.1615 5290.1428 5649.2525
 338.3317 -13980.4817 -1720.5052 0.0000 0.0000
 7863.3335 6780.2351 299.8075 -1083.0984 6844.5363
 298.2437 -6.2099 7.1920 621066.2771 0.5049
 0.5225
 [4192]ENERGY: 910000 3203.5313 5383.3922 5650.5137
 308.8976 -14055.0337 -1720.0620 0.0000 0.0000
 7759.1776 6530.4167 295.8363 -1228.7609 6596.1768
 298.4935 227.4135 74.9976 626611.0917 8.8564
 8.8623
 [4228]ENERGY: 920000 3176.9391 5333.3923 5679.5058
 329.1833 -13999.8382 -1697.3261 0.0000 0.0000
 7724.0272 6545.8836 294.4961 -1178.1437 6608.2253
 297.0285 209.6455 67.2341 648813.0554 4.5145
 4.5288
 [4278]ENERGY: 930000 3267.6177 5341.8617 5729.4090
 312.4129 -14047.2215 -1738.9713 0.0000 0.0000
 7803.3099 6668.4183 297.5190 -1134.8916 6731.4620
 296.4609 25.7245 165.6629 649171.0619 -3.3962
 -3.3851
 [4314]ENERGY: 940000 3237.6544 5388.2327 5702.7501
 335.2091 -14044.4042 -1697.8784 0.0000 0.0000
 7767.1117 6688.6755 296.1388 -1078.4362 6747.5136
 297.4293 12.4632 -10.2105 679527.1381 1.7844
 1.7969
 [4364]ENERGY: 950000 3238.1719 5412.7025 5716.2576
 336.5048 -14084.7956 -1674.5447 0.0000 0.0000
 7867.7278 6812.0244 299.9751 -1055.7034 6876.2287
 297.6650 79.4139 93.8653 699268.9735 0.2295
 0.2477
 [4400]ENERGY: 960000 3189.2775 5424.4183 5669.0132
 334.9287 -14065.6018 -1725.4981 0.0000 0.0000
 7820.0239 6646.5617 298.1562 -1173.4622 6709.9534
 298.7645 -3.3488 -82.8217 699368.1179 0.4565
 0.4540
 [4450]ENERGY: 970000 3244.5325 5369.0285 5729.5760
 337.1085 -14200.5800 -1646.8741 0.0000 0.0000
 7838.8022 6671.5937 298.8722 -1167.2085 6733.9812
 298.0225 136.0881 93.0758 678882.1484 3.4071
 3.3918
 [4486]ENERGY: 980000 3182.2751 5350.1287 5705.9557
 318.2984 -14082.5612 -1754.8582 0.0000 0.0000
 7940.6109 6659.8494 302.7539 -1280.7615 6728.0708
 296.9105 51.2341 0.7363 663954.5152 -3.6318
 -3.6273
 [4536]ENERGY: 990000 3304.8242 5336.1974 5706.8806
 309.3838 -13991.1156 -1712.9476 0.0000 0.0000
 7834.5683 6787.7911 298.7108 -1046.7772 6850.0224

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297.1302	-58.7813	-14.2871	678044.6499	0.1673
0.1879				
[4575]ENERGY: 1000000	3312.1413	5316.0854	5680.2132	
346.7949	-14044.9965	-1740.1730	0.0000	0.0000
7781.5025	6651.5677	296.6875	-1129.9348	6718.3571
299.5392	-63.5255	-44.1165	680285.8938	-0.3585
-0.3588				
[268]ENERGY: 1010000	3272.9194	5382.7451	5684.1767	343.9548
-14046.7669	-1766.1922	0.0000	0.0000	7778.7189
6649.5557	296.6151	-1129.1632	6715.6748	297.5243
129.2834	19.8355	680285.8938	1.1530	1.1379
[307]ENERGY: 1020000	3225.6458	5337.2926	5702.9259	319.2071
-13981.5448	-1697.2839	0.0000	0.0000	7748.5471
6654.7898	295.4646	-1093.7573	6715.8053	297.6042
108.5357	53.6129	680285.8938	-2.3898	-2.3891
[359]ENERGY: 1030000	3227.7852	5279.6463	5730.1135	343.0516
-14042.5697	-1696.8883	0.0000	0.0000	7808.3973
6649.5358	297.7468	-1158.8615	6715.1163	297.5940
-71.3604	-33.7209	680285.8938	1.2778	1.2860
[397]ENERGY: 1040000	3264.3479	5358.0692	5713.7550	356.0034
-14042.4322	-1705.8477	0.0000	0.0000	7712.0329
6655.9284	294.0722	-1056.1045	6716.3438	297.4642
-154.4198	-135.8219	680285.8938	0.1889	0.1875
[449]ENERGY: 1050000	3198.4383	5430.8157	5652.4053	330.0917
-13988.2129	-1755.0251	0.0000	0.0000	7785.2945
6653.8074	296.8658	-1131.4870	6716.2917	297.4187
48.8103	-12.4780	680285.8938	-1.7985	-1.8090
[487]ENERGY: 1060000	3265.9425	5347.3148	5687.5245	330.3672
-14001.6926	-1700.0647	0.0000	0.0000	7723.4438
6652.8355	294.5074	-1070.6082	6717.5677	297.4894
99.2200	125.0836	680285.8938	0.6468	0.6603
[538]ENERGY: 1070000	3270.3471	5422.0737	5654.1689	310.7094
-14119.8430	-1633.9929	0.0000	0.0000	7750.2552
6653.7185	295.5297	-1096.5368	6717.5067	297.5562
87.8024	167.9633	680285.8938	0.6554	0.6678
[575]ENERGY: 1080000	3139.5932	5364.2400	5639.2814	322.5109
-14093.8709	-1672.9380	0.0000	0.0000	7952.4779
6651.2944	303.2408	-1301.1835	6716.5509	297.6607
178.0171	146.3261	680285.8938	-0.9001	-0.9209
[626]ENERGY: 1090000	3272.2008	5344.9419	5660.1477	337.6950
-13975.8920	-1752.7699	0.0000	0.0000	7770.3281
6656.6517	296.2951	-1113.6764	6717.3922	297.7352
-75.5723	-20.3781	680285.8938	-0.4792	-0.4781
[666]ENERGY: 1100000	3157.2030	5368.1728	5692.8733	315.1590
-14037.1312	-1649.6861	0.0000	0.0000	7805.2263
6651.8171	297.6259	-1153.4092	6716.5854	297.7141
119.1789	77.4351	680285.8938	1.5141	1.5057
[717]ENERGY: 1110000	3249.4776	5306.7149	5749.3735	350.4405
-14052.2199	-1722.5757	0.0000	0.0000	7772.7098
6653.9207	296.3860	-1118.7892	6717.5524	297.9462
-31.3451	-9.6658	680285.8938	0.4761	0.4755
[753]ENERGY: 1120000	3200.7451	5404.2183	5653.2680	332.9931
-14096.6629	-1703.0657	0.0000	0.0000	7861.7895
6653.2854	299.7827	-1208.5041	6717.0625	298.0004

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	91.2148	95.8344	680285.8938	0.5893	0.6025
[803]ENERGY:	1130000	3173.0303	5393.2928	5655.8264	316.1367
	-14123.6718	-1679.4207	0.0000	0.0000	7917.6024
	6652.7961	301.9109	-1264.8063	6717.2028	297.9790
	125.6450	127.0497	680285.8938	-0.9608	-0.9555
[839]ENERGY:	1140000	3185.5060	5265.3488	5719.5400	333.5665
	-13952.5284	-1751.2525	0.0000	0.0000	7853.4098
	6653.5902	299.4632	-1199.8196	6716.8233	297.9872
	34.4170	-41.1491	680285.8938	0.7487	0.7441
[889]ENERGY:	1150000	3250.1318	5349.8187	5728.7503	319.3475
	-14104.2608	-1676.8769	0.0000	0.0000	7787.3584
	6654.2690	296.9445	-1133.0894	6715.9176	297.9400
	0.7192	-4.4171	680285.8938	0.3747	0.3782
[925]ENERGY:	1160000	3233.2499	5385.9394	5726.5583	332.4843
	-14146.8756	-1684.0720	0.0000	0.0000	7805.6790
	6652.9632	297.6431	-1152.7158	6718.0922	297.8930
	75.3928	13.8103	680285.8938	-1.6426	-1.6436
[975]ENERGY:	1170000	3178.8957	5444.4943	5721.6181	351.0226
	-14123.3254	-1723.2718	0.0000	0.0000	7801.7888
	6651.2223	297.4948	-1150.5665	6717.5592	297.8618
	20.2473	-13.1399	680285.8938	0.5170	0.5259
[1011]ENERGY:	1180000	3155.4534	5430.0743	5696.9581	
	327.8736	-14025.7471	-1725.7938	0.0000	0.0000
	7795.6722	6654.4907	297.2616	-1141.1815	6718.5976
	297.7763	90.6659	82.0859	680285.8938	-0.8084
	-0.8085				
[1061]ENERGY:	1190000	3264.4363	5330.7345	5700.3991	
	335.4259	-14129.2425	-1713.7638	0.0000	0.0000
	7865.2361	6653.2256	299.9141	-1212.0105	6717.7648
	297.8318	110.7022	-12.7245	680285.8938	0.7213
	0.7032				
[1100]ENERGY:	1200000	3262.6017	5377.0471	5686.3092	
	328.4500	-14006.2403	-1784.9086	0.0000	0.0000
	7788.1997	6651.4588	296.9766	-1136.7409	6718.6561
	298.0358	112.4585	11.6492	680285.8938	0.3544
	0.3732				
[1150]ENERGY:	1210000	3229.6409	5349.4887	5706.7094	
	334.4625	-14084.2662	-1742.0762	0.0000	0.0000
	7858.6627	6652.6220	299.6635	-1206.0408	6717.8006
	298.0213	-109.3712	3.5023	680285.8938	-0.8718
	-0.8799				
[1186]ENERGY:	1220000	3171.7044	5457.2234	5680.3139	
	338.5091	-14097.1335	-1742.0490	0.0000	0.0000
	7846.5842	6655.1525	299.2029	-1191.4317	6718.6998
	298.1310	52.5628	-29.5889	680285.8938	2.1164
	2.1092				
[1236]ENERGY:	1230000	3111.1770	5478.2201	5724.8969	
	314.8995	-14113.0225	-1707.0100	0.0000	0.0000
	7847.5708	6656.7317	299.2405	-1190.8391	6719.0038
	298.0902	172.0253	94.1982	680285.8938	-1.2035
	-1.2026				
[1272]ENERGY:	1240000	3181.9996	5453.8594	5708.7953	
	347.2111	-14153.4735	-1755.2922	0.0000	0.0000
	7869.8871	6652.9867	300.0915	-1216.9003	6719.2916

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297.9452	57.1392	-27.9507	680285.8938	0.1265
0.1208				
[1322]ENERGY: 1250000	3232.7986	5415.8146	5698.3256	
307.9360	-14030.6693	-1700.6700	0.0000	0.0000
7733.5610	6657.0965	294.8932	-1076.4645	6718.5760
297.9616	119.3616	176.8703	680285.8938	-0.5198
-0.5168				
[1358]ENERGY: 1260000	3243.4574	5495.5760	5718.7860	
331.0663	-14120.2862	-1781.0650	0.0000	0.0000
7769.7663	6657.3008	296.2737	-1112.4655	6719.8572
298.0534	37.2449	27.9544	680285.8938	-0.8107
-0.8095				
[1408]ENERGY: 1270000	3126.9500	5391.7811	5707.6534	
331.1525	-14025.6078	-1720.4985	0.0000	0.0000
7842.4336	6653.8643	299.0446	-1188.5694	6718.8750
298.2713	60.9287	131.5401	680285.8938	1.9194
1.9278				
[1444]ENERGY: 1280000	3263.7516	5326.2988	5690.3423	
304.2728	-14026.6150	-1683.2816	0.0000	0.0000
7781.7092	6656.4781	296.7291	-1125.2310	6718.4387
298.0905	30.7290	2.0084	680285.8938	-1.2752
-1.2737				
[1494]ENERGY: 1290000	3159.4293	5457.3482	5625.9533	
322.2337	-14087.9028	-1725.0028	0.0000	0.0000
7901.8306	6653.8895	301.3095	-1247.9412	6719.2240
298.4214	5.0555	16.8925	680285.8938	1.2377
1.2482				
[1533]ENERGY: 1300000	3184.7104	5336.4634	5729.1061	
333.9880	-14128.3741	-1705.4085	0.0000	0.0000
7899.7715	6650.2567	301.2310	-1249.5148	6718.5802
298.3255	93.0867	95.0853	680285.8938	0.0058
-0.0019				
[1583]ENERGY: 1310000	3151.4056	5314.3040	5726.2109	
340.0689	-14000.2724	-1726.2687	0.0000	0.0000
7850.6782	6656.1265	299.3590	-1194.5517	6717.9500
298.5389	-34.6349	-28.3500	680285.8938	3.5540
3.5482				
[1619]ENERGY: 1320000	3184.0201	5461.4396	5732.4319	
329.4166	-14024.8567	-1810.3901	0.0000	0.0000
7782.6233	6654.6847	296.7640	-1127.9386	6720.0067
298.2954	-17.6440	-16.0420	680285.8938	-4.0587
-4.0504				
[1669]ENERGY: 1330000	3228.6925	5435.7260	5699.3010	
331.0508	-14055.6402	-1769.3954	0.0000	0.0000
7789.2205	6658.9552	297.0155	-1130.2653	6719.3163
298.5037	-87.6665	-129.5686	680285.8938	-1.8661
-1.8813				
[1705]ENERGY: 1340000	3204.9174	5359.8980	5668.7455	
355.1809	-14055.8973	-1741.9910	0.0000	0.0000
7860.4833	6651.3367	299.7329	-1209.1467	6718.8197
298.3613	51.5841	3.3051	680285.8938	-2.7649
-2.7671				
[1755]ENERGY: 1350000	3235.1891	5355.9872	5696.2845	
339.2340	-14077.4351	-1699.5771	0.0000	0.0000

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7807.5463	6657.2287	297.7143	-1150.3175	6720.2006
298.4347	-102.4258	-31.2616	680285.8938	-1.9035
-1.8987				
[1791]ENERGY: 1360000	3278.0907	5336.7861	5719.0171	
347.2500	-14060.1488	-1733.9438	0.0000	0.0000
7771.3945	6658.4458	296.3358	-1112.9487	6720.7628
298.4039	67.8265	38.5037	680285.8938	-4.2439
-4.2412				
[1841]ENERGY: 1370000	3181.0407	5419.0970	5678.8982	
331.5864	-14007.0528	-1787.4074	0.0000	0.0000
7841.1232	6657.2853	298.9947	-1183.8379	6721.0731
298.3674	76.9093	-17.1033	680285.8938	0.2562
0.2495				
[1877]ENERGY: 1380000	3237.2396	5389.0003	5678.6927	
338.3095	-14158.5928	-1665.1685	0.0000	0.0000
7837.4980	6656.9788	298.8564	-1180.5193	6720.2955
298.5453	129.7983	156.0896	680285.8938	-2.8244
-2.8139				
[1927]ENERGY: 1390000	3219.6624	5390.7906	5683.1418	
321.3720	-14126.9929	-1678.2466	0.0000	0.0000
7844.7316	6654.4589	299.1323	-1190.2728	6721.2555
298.7720	-100.3024	-56.5766	680285.8938	2.4049
2.4158				
[1966]ENERGY: 1400000	3242.0740	5365.6570	5695.2196	
350.1132	-13973.9807	-1824.2084	0.0000	0.0000
7806.0778	6660.9525	297.6583	-1145.1253	6722.2285
298.8128	34.5710	-66.8621	680285.8938	-2.3998
-2.4173				
[2016]ENERGY: 1410000	3219.9297	5318.4600	5694.8403	
337.1267	-14050.6603	-1712.4609	0.0000	0.0000
7853.1470	6660.3824	299.4532	-1192.7646	6722.0194
298.4774	-21.5795	-37.9365	680285.8938	-5.1040
-5.0976				
[2052]ENERGY: 1420000	3247.8390	5365.6272	5700.9636	
336.5113	-14021.7761	-1815.1006	0.0000	0.0000
7844.5019	6658.5664	299.1235	-1185.9355	6721.2470
298.3864	-117.2650	-115.9506	680285.8938	-1.2236
-1.2250				
[2102]ENERGY: 1430000	3209.4104	5353.1185	5738.5737	
325.8432	-14056.8428	-1735.2571	0.0000	0.0000
7822.3332	6657.1791	298.2782	-1165.1541	6721.6857
298.4965	195.6906	121.3226	680285.8938	0.9124
0.9076				
[2138]ENERGY: 1440000	3274.7188	5411.9285	5636.5723	
315.7109	-14125.4494	-1712.0451	0.0000	0.0000
7856.4913	6657.9273	299.5807	-1198.5640	6720.5967
298.5528	-151.3197	-102.7445	680285.8938	0.1387
0.1341				
[2188]ENERGY: 1450000	3235.9586	5455.7832	5630.6644	
349.6392	-14090.1043	-1702.5277	0.0000	0.0000
7777.1188	6656.5323	296.5541	-1120.5865	6720.5580
298.5913	-96.8896	-92.8696	680285.8938	-3.9159
-3.9162				
[2224]ENERGY: 1460000	3307.5657	5350.4768	5705.7654	

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316.7408	-14074.2044	-1761.9439	0.0000	0.0000
7815.5396	6659.9401	298.0191	-1155.5995	6720.6927
298.5602	-194.6656	-137.2739	680285.8938	-6.2237
-6.2252				
[2274]ENERGY: 1470000	3149.7976	5440.9526	5683.3048	
349.7944	-14079.0967	-1689.2982	0.0000	0.0000
7800.4869	6655.9414	297.4451	-1144.5455	6719.8002
298.3144	163.0257	153.3641	680285.8938	-10.4562
-10.4536				
[2310]ENERGY: 1480000	3307.7754	5377.8788	5667.9661	
346.2541	-14056.7768	-1755.1598	0.0000	0.0000
7771.2244	6659.1622	296.3293	-1112.0622	6720.3756
298.3622	-68.9212	-99.0793	680285.8938	-7.7330
-7.7225				
[2360]ENERGY: 1490000	3143.9966	5405.6099	5695.6730	
307.2975	-14030.5143	-1699.9191	0.0000	0.0000
7834.3902	6656.5338	298.7379	-1177.8564	6719.5454
298.6241	44.1513	65.2632	680285.8938	-11.3061
-11.3014				
[2399]ENERGY: 1500000	3203.5238	5381.3578	5723.3110	
317.3186	-14031.1832	-1775.3581	0.0000	0.0000
7837.7496	6656.7195	298.8660	-1181.0301	6720.1326
298.5472	21.6190	-32.6739	680285.8938	-7.1648
-7.1794				
[2449]ENERGY: 1510000	3227.2815	5364.1836	5666.6062	
337.7421	-14039.1096	-1762.3200	0.0000	0.0000
7860.7217	6655.1055	299.7420	-1205.6162	6720.4682
298.5137	-140.8812	-118.6625	680285.8938	-5.7473
-5.7380				
[2485]ENERGY: 1520000	3229.0267	5404.0746	5668.5595	
367.4359	-14040.9428	-1752.1171	0.0000	0.0000
7780.2431	6656.2797	296.6732	-1123.9633	6720.0121
298.5356	75.2863	30.9851	680285.8938	-4.7564
-4.7830				
[2535]ENERGY: 1530000	3305.4621	5316.5243	5636.5819	
345.2985	-14096.6948	-1667.6648	0.0000	0.0000
7816.4050	6655.9120	298.0521	-1160.4930	6719.5029
298.7543	-2.9982	54.4168	680285.8938	0.0552
0.0913				
[2571]ENERGY: 1540000	3240.0718	5397.5934	5657.1666	
316.5625	-13989.5624	-1785.8307	0.0000	0.0000
7821.8226	6657.8239	298.2587	-1163.9987	6720.5811
298.7506	-41.6706	-106.3842	680285.8938	-3.7482
-3.7604				
[2621]ENERGY: 1550000	3242.1534	5314.5032	5648.4633	
350.6408	-14108.9993	-1652.3752	0.0000	0.0000
7861.4925	6655.8788	299.7714	-1205.6137	6719.7712
298.5133	-42.3115	-88.9053	680285.8938	-4.1505
-4.1526				
[2657]ENERGY: 1560000	3204.2024	5318.7822	5682.2310	
309.6335	-14047.9863	-1614.4591	0.0000	0.0000
7806.3477	6658.7514	297.6686	-1147.5962	6721.0773
298.7114	49.9454	64.9969	680285.8938	-4.4147
-4.4073				

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[2707]ENERGY: 1570000	3204.4597	5334.3692	5677.2698	
342.6491	-14005.9196	-1708.4749	0.0000	0.0000
7811.1304	6655.4838	297.8510	-1155.6466	6721.3814
298.6115	80.0651	37.7484	680285.8938	-4.8934
-4.9152				
[2743]ENERGY: 1580000	3266.9969	5382.2789	5655.0797	
313.6797	-13993.7172	-1771.0690	0.0000	0.0000
7807.6801	6660.9292	297.7194	-1146.7509	6723.6721
298.7706	-14.7879	-66.4696	680285.8938	-4.2297
-4.2220				
[2793]ENERGY: 1590000	3245.5075	5441.4392	5642.2008	
292.9615	-14107.4808	-1738.1365	0.0000	0.0000
7883.3143	6659.8060	300.6035	-1223.5083	6722.6895
298.8344	67.7438	-45.4253	680285.8938	-4.1969
-4.2073				
[2832]ENERGY: 1600000	3286.8643	5438.6772	5644.6476	
319.8318	-14059.7982	-1729.5878	0.0000	0.0000
7760.3129	6660.9478	295.9132	-1099.3651	6722.2379
298.7349	-123.8304	-87.8160	680285.8938	-3.1877
-3.1768				
[2882]ENERGY: 1610000	3230.0556	5362.3512	5654.0116	
329.9583	-14023.6671	-1720.8318	0.0000	0.0000
7828.7092	6660.5872	298.5213	-1168.1220	6723.2775
298.6633	33.6578	-37.9116	680285.8938	-5.7508
-5.7472				
[2918]ENERGY: 1620000	3204.2328	5319.5739	5706.7613	
341.4377	-14015.6732	-1750.5198	0.0000	0.0000
7854.3837	6660.1963	299.5003	-1194.1874	6721.9594
298.6029	66.7141	63.7924	680285.8938	-5.0492
-5.0407				
[2968]ENERGY: 1630000	3270.1090	5386.7555	5685.3559	
332.6955	-14061.9630	-1772.1086	0.0000	0.0000
7816.7750	6657.6194	298.0662	-1159.1557	6722.0156
298.7846	-70.6949	-81.5343	680285.8938	-9.0341
-9.0463				
[3004]ENERGY: 1640000	3288.1767	5342.1590	5662.8377	
316.9436	-13995.0616	-1747.5182	0.0000	0.0000
7793.9080	6661.4452	297.1943	-1132.4628	6723.3359
298.7063	36.7019	-39.7161	680285.8938	-2.5277
-2.5176				
[3054]ENERGY: 1650000	3204.2607	5403.6352	5672.2728	
341.7004	-14014.9860	-1785.6422	0.0000	0.0000
7837.6548	6658.8957	298.8624	-1178.7590	6722.9919
298.6206	11.6396	-13.7768	680285.8938	-3.4714
-3.4742				
[3090]ENERGY: 1660000	3238.5695	5445.7180	5697.4600	
312.4727	-14060.9496	-1711.8981	0.0000	0.0000
7739.6292	6661.0017	295.1245	-1078.6275	6723.6606
298.7760	20.9102	-33.0301	680285.8938	-6.6590
-6.6590				
[3140]ENERGY: 1670000	3282.4234	5432.5784	5663.0546	
345.0452	-14093.6496	-1756.1975	0.0000	0.0000
7789.6513	6662.9058	297.0320	-1126.7455	6724.8315
298.7487	5.0900	-19.0726	680285.8938	-4.8301

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-4.8255
 [3176]ENERGY: 1680000 3152.5679 5349.0778 5692.1905
 321.7117 -14031.8564 -1712.1564 0.0000 0.0000
 7885.9564 6657.4913 300.7042 -1228.4650 6723.1305
 298.7993 128.4767 88.3500 680285.8938 -7.6567
 -7.6702
 [3226]ENERGY: 1690000 3219.7758 5394.1565 5674.3842
 319.9615 -14123.0928 -1677.3530 0.0000 0.0000
 7854.1436 6661.9756 299.4912 -1192.1679 6723.4050
 298.9097 -35.6913 -1.6491 680285.8938 -3.9864
 -3.9758
 [3265]ENERGY: 1700000 3234.6306 5449.1678 5674.6235
 313.4904 -14137.1672 -1705.9699 0.0000 0.0000
 7830.5597 6659.3348 298.5919 -1171.2249 6723.4310
 298.8473 110.8040 59.2748 680285.8938 -8.0678
 -8.0773
 [3315]ENERGY: 1710000 3254.8682 5303.7486 5654.1728
 343.3185 -14025.2718 -1690.2664 0.0000 0.0000
 7820.7506 6661.3206 298.2178 -1159.4300 6723.6282
 298.7147 127.7638 74.0278 680285.8938 -5.3616
 -5.3484
 [3351]ENERGY: 1720000 3260.6702 5464.2595 5688.8971
 356.8274 -14144.8853 -1675.3905 0.0000 0.0000
 7711.1880 6661.5664 294.0400 -1049.6215 6723.3811
 298.7409 -16.7144 -26.1026 680285.8938 -5.6650
 -5.6955
 [3401]ENERGY: 1730000 3223.3770 5371.1218 5657.7241
 314.9728 -14065.8517 -1720.8632 0.0000 0.0000
 7877.7396 6658.2204 300.3909 -1219.5192 6723.0973
 298.7913 -16.8871 11.6973 680285.8938 -4.2750
 -4.2586
 [3437]ENERGY: 1740000 3202.3057 5444.4932 5686.2345
 342.1213 -14104.5701 -1789.4851 0.0000 0.0000
 7880.3729 6661.4723 300.4913 -1218.9006 6723.0504
 298.9949 133.5127 83.6205 680285.8938 -5.9379
 -5.9311
 [3487]ENERGY: 1750000 3242.7503 5337.0821 5694.9427
 310.2285 -14054.7132 -1760.3434 0.0000 0.0000
 7888.6883 6658.6353 300.8084 -1230.0530 6722.6835
 299.0250 29.7505 -63.0324 680285.8938 -2.9965
 -2.9914
 [3523]ENERGY: 1760000 3175.7301 5324.8581 5695.9168
 343.7622 -14025.6514 -1746.7224 0.0000 0.0000
 7892.1734 6660.0669 300.9413 -1232.1065 6723.8080
 299.1259 -12.2112 -29.2171 680285.8938 -4.9016
 -4.9187
 [3573]ENERGY: 1770000 3244.1179 5342.2677 5684.7257
 337.9630 -14036.7877 -1726.1755 0.0000 0.0000
 7817.6451 6663.7562 298.0994 -1153.8889 6723.6765
 299.1876 70.5337 55.3621 680285.8938 -3.5597
 -3.5630
 [3609]ENERGY: 1780000 3191.0110 5323.0023 5704.1804
 330.0572 -13965.5588 -1820.0013 0.0000 0.0000
 7898.1144 6660.8052 301.1678 -1237.3092 6724.1736

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299.0766	-81.0057	-125.0687	680285.8938	-10.3940
-10.3971				
[3659]ENERGY: 1790000	3274.2704	5465.5437	5678.7780	
335.3993	-14148.0184	-1796.3832	0.0000	0.0000
7847.9869	6657.5766	299.2564	-1190.4103	6723.1944
299.5904	-63.0025	-80.3472	680285.8938	-6.6740
-6.6604				
[3698]ENERGY: 1800000	3279.4237	5373.8551	5720.1128	
323.4563	-14134.8300	-1830.6924	0.0000	0.0000
7924.1845	6655.5100	302.1619	-1268.6745	6723.1299
299.7654	-169.9109	-89.3253	680285.8938	-15.8563
-15.8448				
[3748]ENERGY: 1810000	3211.9109	5350.8998	5714.3072	
337.2091	-13996.7371	-1896.1282	0.0000	0.0000
7939.6320	6661.0937	302.7510	-1278.5383	6724.1192
299.8223	79.5972	36.1001	680285.8938	-14.9961
-15.0103				
[3784]ENERGY: 1820000	3236.8417	5365.5471	5710.1173	
322.3250	-14135.2086	-1749.2013	0.0000	0.0000
7907.4788	6657.9001	301.5249	-1249.5787	6722.3556
299.8948	139.4691	136.7510	680285.8938	-23.4279
-23.4177				
[3834]ENERGY: 1830000	3119.7272	5489.6424	5680.0391	
338.1086	-14106.5077	-1762.7579	0.0000	0.0000
7900.2963	6658.5479	301.2510	-1241.7484	6722.1946
299.9441	4.3040	8.9168	680285.8938	-21.2221
-21.2246				
[3870]ENERGY: 1840000	3194.4287	5349.2745	5710.3282	
324.8113	-14150.5626	-1776.8380	0.0000	0.0000
8004.0395	6655.4816	305.2069	-1348.5579	6722.7541
300.1176	67.8791	23.2774	680285.8938	-19.0422
-19.0604				
[3920]ENERGY: 1850000	3297.4440	5334.6040	5724.7694	
341.0169	-14147.5087	-1764.2158	0.0000	0.0000
7872.3057	6658.4156	300.1837	-1213.8901	6724.5912
300.1716	41.2460	-7.7438	680285.8938	-18.6442
-18.6123				
[3956]ENERGY: 1860000	3279.0016	5314.9713	5715.9988	
325.9160	-14067.2940	-1822.8014	0.0000	0.0000
7908.1646	6653.9569	301.5511	-1254.2078	6722.1647
300.1101	-3.7518	-3.6357	680285.8938	-18.7316
-18.7499				
[4006]ENERGY: 1870000	3243.2908	5377.9316	5678.7447	
348.7317	-14137.1613	-1765.3402	0.0000	0.0000
7912.9803	6659.1776	301.7347	-1253.8027	6720.7203
299.9289	-50.4015	6.0141	680285.8938	-19.5620
-19.5495				
[4042]ENERGY: 1880000	3223.9123	5401.0666	5720.2742	
331.5384	-14107.6517	-1799.0564	0.0000	0.0000
7886.9988	6657.0823	300.7440	-1229.9166	6722.7633
300.1205	107.5546	66.8510	680285.8938	-20.5668
-20.5826				
[4092]ENERGY: 1890000	3286.0278	5348.4262	5644.4122	
321.1753	-14107.0190	-1729.5724	0.0000	0.0000

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7893.4957	6656.9459	300.9917	-1236.5498	6721.3232
300.0504	112.2919	-3.6792	680285.8938	-18.0090
-18.0177				
[4131]ENERGY: 1900000	3223.2864	5407.5134	5660.5267	
342.7023	-14062.2548	-1780.1749	0.0000	0.0000
7868.6011	6660.2003	300.0425	-1208.4008	6722.5289
300.1416	-32.3041	42.8455	680285.8938	-18.4202
-18.4002				
[4181]ENERGY: 1910000	3214.4906	5359.2186	5710.0440	
340.0774	-14109.6010	-1734.4180	0.0000	0.0000
7879.6890	6659.5004	300.4652	-1220.1886	6723.7451
300.3128	140.6522	55.7300	680285.8938	-18.7200
-18.7259				
[4217]ENERGY: 1920000	3224.5769	5379.3887	5713.3663	
337.5569	-14082.4941	-1748.7789	0.0000	0.0000
7836.9614	6660.5773	298.8360	-1176.3841	6723.8913
300.0920	157.2679	19.9261	680285.8938	-16.5315
-16.5519				
[4267]ENERGY: 1930000	3136.6912	5301.3810	5667.2122	
365.6627	-13986.7293	-1767.1186	0.0000	0.0000
7943.0212	6660.1203	302.8802	-1282.9009	6724.1069
300.0710	77.1344	44.7145	680285.8938	-18.0556
-18.0392				
[4303]ENERGY: 1940000	3198.8290	5345.6425	5662.0181	
333.0184	-14023.0798	-1785.0433	0.0000	0.0000
7928.6643	6660.0491	302.3328	-1268.6152	6723.9118
300.4163	-40.7045	-53.8174	680285.8938	-19.2161
-19.2186				
[4353]ENERGY: 1950000	3274.0497	5366.4059	5746.0938	
328.7355	-14209.6005	-1695.3797	0.0000	0.0000
7847.9435	6658.2483	299.2547	-1189.6952	6723.3653
300.4319	-49.3843	72.4690	680285.8938	-20.6453
-20.6190				
[4389]ENERGY: 1960000	3207.3606	5369.7335	5676.7163	
317.9893	-14128.2320	-1725.2846	0.0000	0.0000
7941.1081	6659.3911	302.8073	-1281.7170	6723.6533
300.5053	102.8896	77.6187	680285.8938	-20.4273
-20.4458				
[4439]ENERGY: 1970000	3230.2311	5377.8639	5714.8963	
333.3134	-14232.0062	-1675.8991	0.0000	0.0000
7910.7758	6659.1751	301.6506	-1251.6007	6724.0092
300.4345	291.6387	254.6083	680285.8938	-21.8200
-21.8214				
[4475]ENERGY: 1980000	3270.7988	5420.8616	5695.8159	
360.9722	-14114.7858	-1739.7167	0.0000	0.0000
7768.1852	6662.1312	296.2134	-1106.0540	6724.0593
300.2664	139.8252	23.0120	680285.8938	-22.2707
-22.2597				
[4525]ENERGY: 1990000	3271.2176	5350.5374	5680.6534	
337.1454	-14092.7087	-1748.1453	0.0000	0.0000
7862.0067	6660.7064	299.7910	-1201.3003	6725.6752
300.3802	107.2367	55.7048	680285.8938	-16.9065
-16.9158				
[4564]ENERGY: 2000000	3247.4889	5381.3306	5685.0846	

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349.2871	-14041.5618	-1825.6361	0.0000	0.0000
7865.9741	6661.9674	299.9423	-1204.0067	6725.0738
300.3038	218.0084	99.7029	680285.8938	-20.6777
-20.6804				
[4614]ENERGY: 2010000	3211.5785	5380.5482	5595.4507	
330.1805	-13960.3042	-1770.0753	0.0000	0.0000
7873.4962	6660.8746	300.2291	-1212.6215	6725.4298
300.4311	-33.2692	-44.2933	680285.8938	-16.9240
-16.9135				
[4650]ENERGY: 2020000	3251.9348	5499.4491	5716.3003	
323.5107	-14215.3670	-1741.7796	0.0000	0.0000
7829.6839	6663.7321	298.5585	-1165.9518	6725.8350
300.1613	-15.1371	-10.3656	680285.8938	-20.5973
-20.5905				
[4700]ENERGY: 2030000	3312.8740	5359.0987	5653.3533	
339.7776	-14080.9756	-1780.1399	0.0000	0.0000
7857.1086	6661.0968	299.6042	-1196.0118	6724.6137
300.2000	-71.6316	-12.1017	680285.8938	-19.7669
-19.7871				
[4736]ENERGY: 2040000	3333.9502	5340.5488	5675.0027	
337.6362	-14082.9386	-1793.7566	0.0000	0.0000
7856.3019	6666.7446	299.5735	-1189.5573	6726.9604
300.5452	-24.0334	-22.2532	680285.8938	-18.8646
-18.8430				
[4786]ENERGY: 2050000	3199.9159	5407.9587	5651.8796	
352.4624	-14148.2631	-1768.8544	0.0000	0.0000
7962.6520	6657.7511	303.6288	-1304.9009	6726.6854
300.3719	-96.6571	-22.6618	680285.8938	-18.1959
-18.2048				
[4822]ENERGY: 2060000	3266.9979	5314.5992	5670.3217	
341.1655	-14066.9197	-1736.4271	0.0000	0.0000
7871.3070	6661.0446	300.1456	-1210.2624	6726.8195
300.4344	148.4265	79.6070	680285.8938	-19.7112
-19.7291				
[4872]ENERGY: 2070000	3231.0787	5435.9935	5735.4354	
349.3257	-14212.6144	-1709.6021	0.0000	0.0000
7834.8573	6664.4741	298.7557	-1170.3832	6726.7117
300.4412	-7.8106	-39.0289	680285.8938	-22.4109
-22.4137				
[4908]ENERGY: 2080000	3287.3535	5369.2006	5744.8161	
340.3847	-14164.3624	-1807.5632	0.0000	0.0000
7891.4045	6661.2337	300.9120	-1230.1708	6727.1052
300.3559	-155.7066	-158.0319	680285.8938	-20.1161
-20.1095				
[4958]ENERGY: 2090000	3286.8665	5407.5234	5712.1693	
321.6727	-14134.3038	-1778.4286	0.0000	0.0000
7843.7186	6659.2182	299.0936	-1184.5005	6726.3349
300.3637	99.1845	36.5597	680285.8938	-16.4251
-16.4297				
[4997]ENERGY: 2100000	3295.2573	5434.7082	5622.4432	
325.8135	-14130.0484	-1835.3320	0.0000	0.0000
7946.9769	6659.8187	303.0310	-1287.1582	6726.2906
300.4349	-180.2000	-202.4652	680285.8938	-15.9110
-15.9215				

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[5047]ENERGY: 2110000	3256.2977	5392.3566	5665.7388	
336.6709	-14115.3663	-1796.9079	0.0000	0.0000
7921.6550	6660.4447	302.0655	-1261.2103	6724.1804
300.2692	-91.0068	-49.3878	680285.8938	-16.2240
-16.1992				
[5083]ENERGY: 2120000	3245.9678	5346.1293	5685.9485	
345.3887	-14099.7786	-1769.6544	0.0000	0.0000
7908.6898	6662.6910	301.5711	-1245.9987	6725.5013
300.3188	67.7701	-74.5061	680285.8938	-16.2074
-16.2062				
[5133]ENERGY: 2130000	3237.2745	5421.3547	5726.4476	
307.4984	-14146.2491	-1787.3731	0.0000	0.0000
7898.8595	6657.8127	301.1963	-1241.0469	6726.2143
300.2167	-34.6944	-49.0825	680285.8938	-20.4352
-20.4622				
[5169]ENERGY: 2140000	3312.4072	5333.8108	5700.3755	
354.8024	-14159.1382	-1751.5095	0.0000	0.0000
7870.9131	6661.6612	300.1306	-1209.2518	6725.7240
300.2215	79.5936	76.0507	680285.8938	-19.9603
-19.9383				
[5219]ENERGY: 2150000	3244.8752	5437.2214	5723.8178	
326.4441	-14202.2139	-1755.2083	0.0000	0.0000
7883.8023	6658.7385	300.6221	-1225.0638	6725.5318
300.2641	87.8807	37.4327	680285.8938	-21.1918
-21.2116				
[5255]ENERGY: 2160000	3280.5560	5393.9261	5779.6627	
330.2170	-14247.6001	-1746.5490	0.0000	0.0000
7872.3654	6662.5782	300.1860	-1209.7873	6725.5086
300.1909	87.0566	24.0104	680285.8938	-20.3519
-20.3410				
[5305]ENERGY: 2170000	3213.2529	5380.9848	5735.7577	
351.1335	-14172.9287	-1720.6711	0.0000	0.0000
7875.8588	6663.3879	300.3192	-1212.4709	6725.6787
300.1236	74.5558	22.8191	680285.8938	-19.7950
-19.7845				
[5341]ENERGY: 2180000	3290.0552	5339.3048	5722.7020	
316.4418	-14113.4551	-1800.6128	0.0000	0.0000
7907.0171	6661.4530	301.5073	-1245.5641	6726.7994
300.2492	-201.9225	-141.1467	680285.8938	-16.3116
-16.2960				
[5391]ENERGY: 2190000	3254.4652	5415.3816	5674.9982	
334.5786	-14141.7790	-1752.6506	0.0000	0.0000
7877.7673	6662.7612	300.3920	-1215.0061	6725.5542
300.2024	-82.2924	-82.3068	680285.8938	-17.6033
-17.6011				
[5430]ENERGY: 2200000	3309.1996	5353.5560	5732.3161	
314.4571	-14058.4391	-1771.7018	0.0000	0.0000
7787.3104	6666.6983	296.9427	-1120.6121	6727.0939
300.1949	44.7297	-41.7566	680285.8938	-21.6440
-21.6646				
[5480]ENERGY: 2210000	3184.9733	5420.1440	5734.9468	
338.2878	-14106.2295	-1788.1757	0.0000	0.0000
7878.4199	6662.3666	300.4169	-1216.0532	6725.9803
300.0975	60.3271	-1.1196	680285.8938	-24.5363

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-24.5311
 [5516]ENERGY: 2220000 3285.7263 5419.4494 5721.1701
 355.5297 -14195.8571 -1717.8428 0.0000 0.0000
 7794.6335 6662.8091 297.2219 -1131.8244 6726.0017
 300.3139 6.8139 -68.3018 680285.8938 -26.7335
 -26.7434
 [5566]ENERGY: 2230000 3313.1119 5340.8504 5706.6694
 333.4633 -14146.1084 -1751.7239 0.0000 0.0000
 7865.4642 6661.7268 299.9228 -1203.7374 6726.1344
 300.3739 -58.6294 -75.9070 680285.8938 -26.6698
 -26.6676
 [5602]ENERGY: 2240000 3346.3410 5332.6458 5683.9383
 325.5625 -14100.0164 -1757.8012 0.0000 0.0000
 7834.3846 6665.0545 298.7377 -1169.3301 6726.2266
 300.2523 -78.5861 -80.5079 680285.8938 -25.3058
 -25.3109
 [5652]ENERGY: 2250000 3220.6067 5392.3310 5726.8194
 321.3538 -14146.4340 -1752.0401 0.0000 0.0000
 7900.3856 6663.0224 301.2544 -1237.3632 6727.3294
 300.5993 -33.9564 -55.2354 680285.8938 -27.8941
 -27.8902
 [5688]ENERGY: 2260000 3311.5370 5406.8249 5693.0157
 328.4548 -14160.2155 -1770.6550 0.0000 0.0000
 7851.1896 6660.1515 299.3785 -1191.0380 6725.5411
 300.5394 54.7898 21.3295 680285.8938 -23.1143
 -23.1046
 [5738]ENERGY: 2270000 3248.5546 5370.4252 5650.9116
 335.4384 -14122.2295 -1760.5656 0.0000 0.0000
 7939.2920 6661.8267 302.7380 -1277.4654 6726.5783
 300.4178 -33.2783 -56.6541 680285.8938 -25.9346
 -25.9388
 [5774]ENERGY: 2280000 3213.1469 5369.3251 5665.5143
 330.9136 -14157.9360 -1729.7822 0.0000 0.0000
 7971.6727 6662.8543 303.9727 -1308.8183 6726.8897
 300.4930 111.1400 8.3489 680285.8938 -24.9106
 -24.9139
 [5824]ENERGY: 2290000 3280.1869 5419.4505 5678.4074
 317.1124 -14138.3522 -1803.9078 0.0000 0.0000
 7910.5329 6663.4302 301.6414 -1247.1027 6728.1933
 300.5835 111.3678 99.5131 680285.8938 -29.3395
 -29.3335
 [5863]ENERGY: 2300000 3163.7890 5454.9649 5692.2311
 324.1418 -14065.3707 -1772.9635 0.0000 0.0000
 7866.6302 6663.4228 299.9673 -1203.2073 6727.4431
 300.6081 100.4771 45.5867 680285.8938 -27.5126
 -27.5190
 [5913]ENERGY: 2310000 3321.8926 5360.4496 5678.3858
 328.2197 -14060.0655 -1735.8031 0.0000 0.0000
 7773.8157 6666.8950 296.4281 -1106.9207 6727.3234
 300.5085 -107.8365 -38.4268 680285.8938 -24.7102
 -24.6921
 [5949]ENERGY: 2320000 3291.5437 5383.9553 5636.9210
 325.6881 -14149.7988 -1756.0291 0.0000 0.0000
 7930.9435 6663.2237 302.4197 -1267.7199 6726.6558

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300.4573	-136.2576	-159.1405	680285.8938	-23.8850
-23.8847				
[5999]ENERGY: 2330000	3157.4016	5429.0671	5674.9908	
333.0222	-14091.5200	-1847.8456	0.0000	0.0000
8004.6340	6659.7500	305.2296	-1344.8839	6726.6789
300.5291	14.9713	70.1100	680285.8938	-27.0161
-27.0241				
[6035]ENERGY: 2340000	3229.3055	5445.6528	5720.1769	
335.1174	-14157.2923	-1787.8321	0.0000	0.0000
7877.0411	6662.1694	300.3643	-1214.8717	6726.2975
300.6368	15.3042	-1.3168	680285.8938	-23.5962
-23.6044				
[6085]ENERGY: 2350000	3233.9432	5486.9297	5688.2738	
334.7811	-14162.6944	-1839.8046	0.0000	0.0000
7919.8751	6661.3040	301.9976	-1258.5712	6727.6945
300.7292	-23.9389	-66.5680	680285.8938	-29.2515
-29.2530				
[6121]ENERGY: 2360000	3231.9233	5434.0179	5695.3544	
329.0870	-14197.0090	-1708.9888	0.0000	0.0000
7881.4779	6665.8628	300.5335	-1215.6150	6728.7376
300.6887	84.2930	31.1557	680285.8938	-20.2826
-20.2773				
[6171]ENERGY: 2370000	3258.7103	5328.3649	5710.4721	
333.3461	-14115.4754	-1758.5032	0.0000	0.0000
7905.3858	6662.3007	301.4451	-1243.0851	6727.8094
300.7559	-89.2130	-29.3044	680285.8938	-30.6053
-30.6097				
[6207]ENERGY: 2380000	3233.7200	5428.4465	5662.5125	
321.8327	-14092.4532	-1753.4218	0.0000	0.0000
7864.2624	6664.8991	299.8770	-1199.3633	6727.7042
300.7681	91.6291	24.5316	680285.8938	-24.1549
-24.1712				
[6257]ENERGY: 2390000	3242.9300	5334.1238	5678.9466	
335.3573	-14090.6419	-1761.4253	0.0000	0.0000
7923.2697	6662.5602	302.1271	-1260.7096	6728.1838
300.7379	52.5610	-27.1962	680285.8938	-23.3884
-23.3762				
[6296]ENERGY: 2400000	3221.3991	5477.5546	5667.5504	
327.0907	-14104.4791	-1829.8880	0.0000	0.0000
7907.0527	6666.2803	301.5087	-1240.7724	6728.5927
300.6180	11.2951	36.8624	680285.8938	-23.1770
-23.1696				
[6346]ENERGY: 2410000	3301.4173	5399.6543	5685.2995	
336.0158	-14111.1449	-1731.1129	0.0000	0.0000
7787.5759	6667.7050	296.9528	-1119.8710	6728.8834
300.4726	65.0396	26.7128	680285.8938	-26.4799
-26.4864				
[6382]ENERGY: 2420000	3188.4490	5475.4085	5718.0266	
337.5680	-14180.9188	-1725.6077	0.0000	0.0000
7854.9958	6667.9215	299.5237	-1187.0743	6730.0271
300.7202	177.2840	54.1968	680285.8938	-23.1808
-23.1808				
[6432]ENERGY: 2430000	3236.9445	5366.1959	5744.8600	
322.0956	-14143.7501	-1754.6075	0.0000	0.0000

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7895.6621	6667.4006	301.0743	-1228.2616	6730.0034
300.8953	279.5538	206.7533	680285.8938	-24.7229
-24.7258				
[6468]ENERGY: 2440000	3305.5937	5479.4365	5655.7209	
327.0423	-14131.4654	-1798.1745	0.0000	0.0000
7828.6603	6666.8140	298.5194	-1161.8463	6729.8461
300.9059	-166.6567	-144.8705	680285.8938	-24.1808
-24.1586				
[6518]ENERGY: 2450000	3279.3936	5299.0034	5669.5526	
329.0265	-14101.8725	-1691.3831	0.0000	0.0000
7882.6025	6666.3228	300.5763	-1216.2797	6728.9423
300.9094	-7.5830	32.0958	680285.8938	-19.1104
-19.1215				
[6554]ENERGY: 2460000	3209.5741	5290.8751	5681.8238	
313.5956	-14044.4580	-1755.3734	0.0000	0.0000
7967.0501	6663.0872	303.7965	-1303.9629	6729.6623
301.1327	75.9021	42.0056	680285.8938	-21.3471
-21.3593				
[6604]ENERGY: 2470000	3292.0190	5497.6076	5704.0393	
340.0591	-14205.1535	-1753.1257	0.0000	0.0000
7791.4109	6666.8566	297.0991	-1124.5543	6730.6265
300.8863	-24.0856	-41.6303	680285.8938	-18.2816
-18.2699				
[6640]ENERGY: 2480000	3223.3250	5341.0459	5672.9680	
332.5084	-14143.1131	-1743.3598	0.0000	0.0000
7977.1738	6660.5482	304.1825	-1316.6256	6729.9036
300.7860	10.6651	-23.9131	680285.8938	-22.4628
-22.4667				
[6690]ENERGY: 2490000	3230.7824	5331.7656	5725.8539	
334.5818	-14121.1784	-1731.0535	0.0000	0.0000
7893.6086	6664.3604	300.9960	-1229.2482	6730.4183
300.9503	31.2781	-21.0698	680285.8938	-17.6746
-17.6626				
[6729]ENERGY: 2500000	3289.1030	5368.9118	5722.5283	
312.9915	-14132.4633	-1820.9980	0.0000	0.0000
7923.9914	6664.0646	302.1546	-1259.9268	6730.1022
300.8109	-91.8866	-139.4196	680285.8938	-27.2209
-27.2401				
[6779]ENERGY: 2510000	3262.1350	5239.6396	5719.4457	
330.3285	-14095.5048	-1673.2707	0.0000	0.0000
7881.4194	6664.1926	300.5312	-1217.2268	6729.6491
300.9045	80.9287	-6.4844	680285.8938	-25.0545
-25.0537				
[6815]ENERGY: 2520000	3235.6704	5347.1669	5688.0420	
309.7628	-14179.6861	-1679.9921	0.0000	0.0000
7942.3084	6663.2722	302.8530	-1279.0362	6728.4640
300.7041	82.2655	39.3475	680285.8938	-26.7042
-26.7022				
[6865]ENERGY: 2530000	3189.2209	5450.9110	5706.7413	
334.5539	-14047.6051	-1833.6665	0.0000	0.0000
7865.1827	6665.3383	299.9121	-1199.8444	6729.9083
300.8647	90.4197	43.6594	680285.8938	-21.7706
-21.7615				
[6901]ENERGY: 2540000	3284.4725	5434.0251	5728.9827	

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327.7802	-14150.6241	-1811.0708	0.0000	0.0000
7851.9604	6665.5260	299.4079	-1186.4344	6730.4827
300.7681	-47.1641	-9.9730	680285.8938	-20.9248
-20.9378				
[6951]ENERGY: 2550000	3337.1994	5423.3751	5687.6710	
330.1772	-14205.1289	-1747.7211	0.0000	0.0000
7842.4972	6668.0701	299.0471	-1174.4272	6730.6522
300.8917	20.4258	-29.6973	680285.8938	-21.3728
-21.3752				
[6987]ENERGY: 2560000	3337.7466	5335.4695	5695.4346	
336.1057	-14101.4832	-1833.7214	0.0000	0.0000
7898.9947	6668.5463	301.2014	-1230.4484	6732.4305
301.1080	21.4518	-0.2053	680285.8938	-20.9789
-20.9710				
[7037]ENERGY: 2570000	3310.0369	5423.0725	5742.2164	
358.5029	-14268.3782	-1733.2102	0.0000	0.0000
7835.6634	6667.9038	298.7865	-1167.7596	6731.8250
300.9498	93.8808	51.2251	680285.8938	-24.2891
-24.2841				
[7073]ENERGY: 2580000	3296.5399	5436.6335	5680.3145	
331.6235	-14215.8857	-1752.3036	0.0000	0.0000
7891.5205	6668.4426	300.9164	-1223.0779	6731.1491
300.9708	55.7669	-7.0252	680285.8938	-24.2911
-24.2850				
[7123]ENERGY: 2590000	3232.4632	5389.3311	5712.0527	
330.1178	-14079.6781	-1805.4003	0.0000	0.0000
7887.7324	6666.6188	300.7720	-1221.1135	6730.7549
301.1220	70.7867	32.7811	680285.8938	-28.6690
-28.6663				
[7162]ENERGY: 2600000	3310.8690	5305.5399	5624.7046	
320.6358	-14116.8892	-1772.6898	0.0000	0.0000
7993.4008	6665.5709	304.8013	-1327.8299	6731.2384
301.0249	-120.2083	-32.0830	680285.8938	-26.2457
-26.2290				
[7212]ENERGY: 2610000	3185.8188	5399.8234	5683.5137	
348.8793	-14101.6556	-1770.1356	0.0000	0.0000
7919.2436	6665.4876	301.9735	-1253.7560	6731.1458
301.1575	17.4256	-17.4240	680285.8938	-27.5003
-27.5139				
[7248]ENERGY: 2620000	3201.0941	5421.1726	5705.1325	
342.5566	-14179.7350	-1732.3045	0.0000	0.0000
7907.9025	6665.8188	301.5411	-1242.0838	6731.9552
301.0651	92.9768	38.0084	680285.8938	-30.2454
-30.2624				
[7298]ENERGY: 2630000	3300.6887	5344.4810	5714.2949	
337.8298	-14126.8433	-1785.1165	0.0000	0.0000
7884.3980	6669.7326	300.6448	-1214.6654	6733.0765
301.0902	-15.7029	0.0310	680285.8938	-25.1026
-25.0830				
[7334]ENERGY: 2640000	3218.6528	5401.2489	5740.7151	
326.2883	-14106.6091	-1780.3426	0.0000	0.0000
7870.9300	6670.8834	300.1313	-1200.0466	6732.8757
301.0739	201.6096	19.0467	680285.8938	-29.2165
-29.2308				

Supplementary Text 6

[7384]ENERGY: 2650000	3245.8963	5333.2795	5806.4586	
354.8067	-14137.0548	-1760.5876	0.0000	0.0000
7828.0949	6670.8936	298.4979	-1157.2012	6733.9244
301.3070	119.8824	70.3745	680285.8938	-25.5884
-25.5866				
[7420]ENERGY: 2660000	3276.8789	5430.5140	5663.4525	
326.5028	-14162.8926	-1780.1998	0.0000	0.0000
7916.8174	6671.0733	301.8810	-1245.7442	6731.7297
301.2872	-54.6725	-35.2426	680285.8938	-28.2387
-28.2395				
[7470]ENERGY: 2670000	3245.1100	5467.4628	5672.0450	
318.1876	-14133.3981	-1764.1473	0.0000	0.0000
7862.8797	6668.1397	299.8243	-1194.7400	6732.7953
301.2050	-67.2673	12.0859	680285.8938	-27.7463
-27.7334				
[7506]ENERGY: 2680000	3271.0955	5378.3366	5730.8701	
320.4947	-14204.4077	-1726.9236	0.0000	0.0000
7897.2752	6666.7409	301.1358	-1230.5343	6732.1642
301.1082	-25.0735	-4.2123	680285.8938	-27.4074
-27.4264				
[7556]ENERGY: 2690000	3198.5745	5447.8261	5729.9479	
351.4550	-14128.2967	-1820.2684	0.0000	0.0000
7890.5922	6669.8305	300.8810	-1220.7616	6733.6486
301.1946	21.4727	-65.4332	680285.8938	-21.9532
-21.9500				
[7595]ENERGY: 2700000	3272.5790	5344.8215	5728.8829	
336.0232	-14127.5432	-1771.3603	0.0000	0.0000
7888.9715	6672.3746	300.8192	-1216.5969	6733.8832
301.3314	-35.2323	-47.3642	680285.8938	-26.3319
-26.3269				
[7645]ENERGY: 2710000	3191.6071	5504.1674	5674.6198	
336.2629	-14257.6089	-1705.7873	0.0000	0.0000
7927.9701	6671.2311	302.3063	-1256.7390	6733.4781
301.2163	11.9012	-6.0561	680285.8938	-27.0721
-27.0964				
[7681]ENERGY: 2720000	3180.5971	5418.3519	5724.9547	
346.2597	-14117.0774	-1772.9598	0.0000	0.0000
7888.6970	6668.8232	300.8087	-1219.8738	6733.7886
301.1809	-3.0108	14.6180	680285.8938	-24.6603
-24.6315				
[7731]ENERGY: 2730000	3228.8625	5474.0272	5659.5869	
324.7858	-14157.4995	-1766.3800	0.0000	0.0000
7904.2633	6667.6462	301.4023	-1236.6171	6734.4313
301.1359	-48.0441	-18.7086	680285.8938	-25.0919
-25.1009				
[7767]ENERGY: 2740000	3195.8635	5415.7300	5769.6703	
317.5661	-14222.4476	-1725.5995	0.0000	0.0000
7919.0634	6669.8463	301.9667	-1249.2171	6734.2358
301.2049	110.1035	17.8545	680285.8938	-26.1425
-26.1478				
[7817]ENERGY: 2750000	3294.2653	5335.2124	5703.7557	
320.9882	-14168.9822	-1740.9146	0.0000	0.0000
7926.6390	6670.9637	302.2555	-1255.6753	6734.4324
301.2071	-17.1964	-47.4678	680285.8938	-23.0095

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-23.0107
 [7853]ENERGY: 2760000 3204.7539 5480.9314 5706.5756
 342.3942 -14217.0706 -1774.7816 0.0000 0.0000
 7926.3051 6669.1080 302.2428 -1257.1970 6734.1367
 301.4018 -107.3096 -125.1888 680285.8938 -23.4526
 -23.4373
 [7903]ENERGY: 2770000 3298.8727 5459.9358 5697.9185
 348.6350 -14193.6971 -1842.2346 0.0000 0.0000
 7902.7829 6672.2132 301.3459 -1230.5697 6734.3799
 301.4578 -63.6515 -63.2451 680285.8938 -26.3589
 -26.3536
 [7939]ENERGY: 2780000 3258.0979 5453.7362 5723.4462
 326.4421 -14222.3690 -1813.9371 0.0000 0.0000
 7943.6346 6669.0508 302.9036 -1274.5838 6734.1614
 301.6843 -53.1076 -23.4529 680285.8938 -26.4703
 -26.4683
 [7989]ENERGY: 2790000 3310.1923 5433.0459 5708.2650
 324.7771 -14267.9760 -1777.2846 0.0000 0.0000
 7944.1662 6675.1859 302.9239 -1268.9803 6737.3119
 301.6949 -44.1979 -54.1722 680285.8938 -23.9951
 -24.0001
 [8028]ENERGY: 2800000 3224.3337 5393.5792 5735.5956
 334.2089 -14124.2967 -1727.4954 0.0000 0.0000
 7834.9136 6670.8389 298.7579 -1164.0747 6735.9548
 301.6274 19.0941 -56.7308 680285.8938 -22.8954
 -22.9184
 [8078]ENERGY: 2810000 3267.7431 5405.0309 5698.3491
 333.2643 -14180.2967 -1720.4536 0.0000 0.0000
 7869.1618 6672.7990 300.0638 -1196.3628 6736.0817
 301.7073 -68.9734 11.1380 680285.8938 -22.4772
 -22.4867
 [8114]ENERGY: 2820000 3255.9070 5370.4328 5727.5928
 337.6408 -14113.8997 -1787.3165 0.0000 0.0000
 7883.2617 6673.6189 300.6015 -1209.6428 6735.4227
 301.6353 -210.1092 -179.4922 680285.8938 -25.6567
 -25.6244
 [8164]ENERGY: 2830000 3337.9455 5348.0926 5717.5736
 342.6440 -14096.5591 -1852.3539 0.0000 0.0000
 7878.0864 6675.4292 300.4041 -1202.6572 6737.1586
 301.4789 -34.0511 -78.0152 680285.8938 -24.5920
 -24.6065
 [8200]ENERGY: 2840000 3314.9025 5423.5688 5708.7336
 347.6051 -14168.4220 -1854.7382 0.0000 0.0000
 7903.7062 6675.3560 301.3811 -1228.3502 6735.6855
 301.7338 -98.9867 -122.9422 680285.8938 -29.0627
 -29.0624
 [8250]ENERGY: 2850000 3257.9040 5483.1555 5670.7629
 332.4951 -14182.3559 -1761.0913 0.0000 0.0000
 7869.1677 6670.0381 300.0641 -1199.1296 6736.2759
 301.7380 71.8643 -54.7967 680285.8938 -28.7427
 -28.7584
 [8286]ENERGY: 2860000 3296.4450 5422.1096 5707.0214
 335.0418 -14187.0184 -1768.5199 0.0000 0.0000
 7866.3650 6671.4446 299.9572 -1194.9204 6735.8030

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301.7411	-154.9791	-170.4817	680285.8938	-27.4831
-27.4656				
[8336]ENERGY: 2870000	3277.8137	5430.1408	5719.7337	
331.0683	-14221.0936	-1839.1769	0.0000	0.0000
7969.6226	6668.1086	303.8946	-1301.5140	6736.6436
301.6597	-74.5522	-82.2984	680285.8938	-25.1974
-25.1996				
[8372]ENERGY: 2880000	3259.1511	5412.9318	5732.8171	
321.2703	-14122.9774	-1767.1295	0.0000	0.0000
7838.2386	6674.3019	298.8847	-1163.9367	6736.5679
301.5855	-55.0279	-64.8628	680285.8938	-24.0206
-23.9999				
[8422]ENERGY: 2890000	3217.3264	5433.6663	5714.3607	
338.2184	-14205.0002	-1792.1712	0.0000	0.0000
7965.5230	6671.9234	303.7382	-1293.5996	6735.9152
301.7194	-21.3897	-73.1689	680285.8938	-26.3611
-26.3824				
[8461]ENERGY: 2900000	3301.9642	5405.2204	5701.2232	
338.0469	-14155.2124	-1815.0679	0.0000	0.0000
7897.1159	6673.2903	301.1298	-1223.8256	6737.0493
301.7216	-2.8262	-128.5458	680285.8938	-29.2380
-29.2452				
[8511]ENERGY: 2910000	3230.3995	5394.8502	5689.1937	
332.5508	-14071.5043	-1777.8132	0.0000	0.0000
7875.2031	6672.8797	300.2942	-1202.3233	6736.6056
301.6748	21.9701	30.8085	680285.8938	-24.6926
-24.6915				
[8547]ENERGY: 2920000	3228.3190	5353.3124	5720.0646	
326.0864	-14206.3802	-1758.9026	0.0000	0.0000
8005.6817	6668.1814	305.2696	-1337.5003	6735.4182
301.6508	241.7229	96.9366	680285.8938	-27.4983
-27.4915				
[8597]ENERGY: 2930000	3305.2974	5409.2372	5660.2363	
328.4527	-14159.5405	-1776.4787	0.0000	0.0000
7905.3164	6672.5208	301.4425	-1232.7956	6736.9039
301.6194	-134.3592	-167.0333	680285.8938	-29.4981
-29.4943				
[8633]ENERGY: 2940000	3260.1046	5413.6360	5655.4530	
328.8157	-14180.4358	-1756.7310	0.0000	0.0000
7951.6942	6672.5366	303.2109	-1279.1576	6738.4193
301.7785	-99.1172	-74.5560	680285.8938	-27.7598
-27.7663				
[8683]ENERGY: 2950000	3226.9365	5418.9797	5756.0322	
330.6125	-14270.3013	-1716.4566	0.0000	0.0000
7928.0123	6673.8153	302.3079	-1254.1970	6738.1253
301.8628	105.7885	26.9203	680285.8938	-23.6979
-23.6991				
[8719]ENERGY: 2960000	3221.3784	5403.9357	5696.5599	
352.2534	-14172.2126	-1754.8478	0.0000	0.0000
7925.1761	6672.2432	302.1997	-1252.9329	6737.6352
301.8646	-127.8129	-82.2292	680285.8938	-22.4327
-22.4108				
[8769]ENERGY: 2970000	3251.1455	5529.5155	5681.7406	
347.7049	-14215.4466	-1819.8111	0.0000	0.0000

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7895.4062	6670.2551	301.0646	-1225.1510	6739.3686
301.7235	-56.7343	-80.9032	680285.8938	-25.1183
-25.0991				
[8805]ENERGY: 2980000	3326.7671	5456.1337	5731.2514	
342.7100	-14226.3377	-1816.3599	0.0000	0.0000
7861.9346	6676.0992	299.7882	-1185.8354	6739.2606
301.6731	-68.1578	-112.1838	680285.8938	-23.0779
-23.1062				
[8855]ENERGY: 2990000	3322.9228	5449.3895	5689.4182	
331.3690	-14169.5721	-1818.4304	0.0000	0.0000
7868.6735	6673.7705	300.0452	-1194.9030	6738.3913
301.5412	-78.9801	-57.0779	680285.8938	-24.5535
-24.5553				
[8894]ENERGY: 3000000	3319.9294	5405.7358	5698.6499	
360.9079	-14205.7395	-1763.2641	0.0000	0.0000
7863.6530	6679.8723	299.8538	-1183.7807	6739.1453
301.6292	53.2016	-27.1104	680285.8938	-26.4583
-26.4663				
[8944]ENERGY: 3010000	3327.4501	5428.5227	5681.2987	
340.4762	-14139.6396	-1846.9303	0.0000	0.0000
7882.6669	6673.8446	300.5788	-1208.8223	6738.0561
301.7163	-44.2173	-58.8911	680285.8938	-22.2223
-22.2085				
[8980]ENERGY: 3020000	3246.7131	5410.6340	5698.1097	
343.2709	-14175.4108	-1744.9524	0.0000	0.0000
7897.3085	6675.6730	301.1371	-1221.6355	6739.0134
301.6999	-87.2076	-134.7390	680285.8938	-26.7558
-26.7603				
[9030]ENERGY: 3030000	3303.9420	5391.6052	5704.9029	
328.6121	-14195.7849	-1877.1144	0.0000	0.0000
8017.6422	6673.8051	305.7256	-1343.8371	6739.2842
301.7816	-130.6435	-127.1231	680285.8938	-24.2433
-24.2415				
[9066]ENERGY: 3040000	3240.0259	5370.5253	5752.7562	
351.5461	-14116.8920	-1789.5166	0.0000	0.0000
7867.9945	6676.4394	300.0193	-1191.5551	6739.6138
301.8567	16.3732	-17.5192	680285.8938	-27.2252
-27.2289				
[9116]ENERGY: 3050000	3208.7029	5453.7632	5676.4159	
337.1009	-14205.6795	-1721.6764	0.0000	0.0000
7924.8041	6673.4313	302.1856	-1251.3729	6737.3967
301.8078	167.6894	136.6962	680285.8938	-23.0366
-23.0351				
[9152]ENERGY: 3060000	3259.6914	5410.5961	5685.2934	
330.5101	-14253.1288	-1726.2349	0.0000	0.0000
7963.8889	6670.6164	303.6759	-1293.2726	6737.6229
301.7195	-79.4085	-44.6596	680285.8938	-26.8726
-26.8689				
[9202]ENERGY: 3070000	3261.6322	5436.2987	5682.0263	
340.7706	-14171.3715	-1841.1290	0.0000	0.0000
7966.8490	6675.0762	303.7888	-1291.7728	6738.7775
301.8934	-4.3322	27.0755	680285.8938	-26.4574
-26.4553				
[9238]ENERGY: 3080000	3312.7321	5313.3554	5676.9663	

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309.0691	-14161.6382	-1752.6217	0.0000	0.0000
7976.5944	6674.4575	304.1604	-1302.1369	6738.7042
301.7991	-213.7417	-199.8228	680285.8938	-25.9270
-25.9275				
[9288]ENERGY: 3090000	3279.8707	5388.2776	5763.1192	
356.4637	-14218.6353	-1742.8844	0.0000	0.0000
7848.8841	6675.0956	299.2906	-1173.7885	6738.7368
301.6937	-22.2980	-24.6872	680285.8938	-27.7624
-27.7589				
[9327]ENERGY: 3100000	3288.0398	5334.2582	5726.2732	
313.8130	-14123.9685	-1775.0518	0.0000	0.0000
7911.0373	6674.4011	301.6606	-1236.6361	6738.7897
301.6424	-39.4955	-52.5863	680285.8938	-23.9817
-23.9867				
[9377]ENERGY: 3110000	3298.7411	5415.1879	5730.4697	
334.7914	-14269.3488	-1720.5678	0.0000	0.0000
7883.6250	6672.8986	300.6153	-1210.7265	6739.0467
301.7338	82.1870	-75.8756	680285.8938	-25.4325
-25.4510				
[9413]ENERGY: 3120000	3268.2737	5411.8898	5683.4499	
348.7264	-14163.3769	-1733.2450	0.0000	0.0000
7861.5249	6677.2429	299.7726	-1184.2821	6739.1058
301.7554	65.5229	35.6464	680285.8938	-24.3614
-24.3569				
[9463]ENERGY: 3130000	3251.1926	5388.0198	5769.1256	
333.6533	-14207.3627	-1733.7046	0.0000	0.0000
7874.3793	6675.3032	300.2628	-1199.0761	6740.1870
301.7097	230.4668	164.9622	680285.8938	-25.6176
-25.6382				
[9499]ENERGY: 3140000	3243.1635	5366.5486	5728.1038	
331.3780	-14329.2160	-1640.4580	0.0000	0.0000
7974.1599	6673.6798	304.0676	-1300.4801	6738.3645
301.6596	91.2830	85.0058	680285.8938	-24.6480
-24.6193				
[9549]ENERGY: 3150000	3242.2839	5553.7923	5634.9906	
349.2301	-14250.3541	-1715.0959	0.0000	0.0000
7861.1079	6675.9548	299.7567	-1185.1531	6739.3902
301.8552	92.4151	79.6594	680285.8938	-30.7585
-30.7406				
[9585]ENERGY: 3160000	3313.3628	5356.2012	5677.0595	
332.4302	-14122.8665	-1792.8813	0.0000	0.0000
7918.4528	6681.7587	301.9434	-1236.6942	6740.5781
301.9253	-204.1384	-185.5670	680285.8938	-30.9354
-30.9363				
[9635]ENERGY: 3170000	3269.3778	5489.2843	5664.4154	
334.2763	-14248.2380	-1765.7433	0.0000	0.0000
7932.1362	6675.5086	302.4651	-1256.6276	6741.2877
301.8204	-161.3725	-86.5056	680285.8938	-28.0017
-28.0188				
[9671]ENERGY: 3180000	3218.1353	5450.9364	5710.2930	
354.4454	-14235.7940	-1776.3624	0.0000	0.0000
7954.7131	6676.3667	303.3260	-1278.3464	6741.1724
301.9534	140.6957	77.8856	680285.8938	-21.8691
-21.8699				

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[9721]ENERGY: 3190000	3309.3262	5343.4027	5707.1874	
327.2889	-14154.1050	-1783.3871	0.0000	0.0000
7927.5588	6677.2720	302.2906	-1250.2868	6742.0705
301.9707	-195.5996	-167.2166	680285.8938	-25.7099
-25.7191				
[9760]ENERGY: 3200000	3280.6665	5546.7241	5732.2960	
326.9288	-14335.9351	-1729.8736	0.0000	0.0000
7857.9839	6678.7905	299.6376	-1179.1934	6741.4768
301.8108	-42.9931	-39.1059	680285.8938	-27.7203
-27.7117				
[9810]ENERGY: 3210000	3293.2167	5405.6561	5741.9863	
331.8821	-14116.2781	-1835.0565	0.0000	0.0000
7859.0083	6680.4150	299.6767	-1178.5933	6743.0107
301.9853	-110.5749	-106.5363	680285.8938	-24.9241
-24.9298				
[9846]ENERGY: 3220000	3251.8381	5416.5740	5732.1399	
333.0843	-14196.9087	-1758.9306	0.0000	0.0000
7900.6748	6678.4718	301.2655	-1222.2030	6742.3568
302.1722	86.8143	44.3524	680285.8938	-23.6853
-23.6840				
[9896]ENERGY: 3230000	3213.3323	5460.5571	5692.0000	
351.8060	-14163.3471	-1746.6423	0.0000	0.0000
7873.7801	6681.4861	300.2399	-1192.2940	6744.0186
302.1231	37.8656	-29.8680	680285.8938	-26.0393
-26.0222				
[9932]ENERGY: 3240000	3321.7131	5367.0175	5745.0806	
325.4846	-14129.5431	-1800.0647	0.0000	0.0000
7854.1008	6683.7888	299.4895	-1170.3121	6743.8891
302.1750	115.2479	7.4445	680285.8938	-20.9897
-21.0086				
[9982]ENERGY: 3250000	3219.4671	5451.4864	5666.2208	
335.7023	-14249.2113	-1765.7807	0.0000	0.0000
8018.1795	6676.0640	305.7461	-1342.1155	6744.8809
302.0226	77.1222	76.7893	680285.8938	-21.5264
-21.5306				
[10018]ENERGY: 3260000	3250.3576	5420.3229	5708.2888	
347.5391	-14192.0110	-1779.1571	0.0000	0.0000
7924.7086	6680.0489	302.1819	-1244.6597	6744.8372
302.0402	33.5993	-80.7991	680285.8938	-21.2086
-21.1932				
[10068]ENERGY: 3270000	3224.2719	5564.6840	5713.4867	
325.4809	-14264.3730	-1748.3314	0.0000	0.0000
7868.2846	6683.5037	300.0304	-1184.7809	6744.9943
302.1065	-34.7933	-5.9795	680285.8938	-23.4181
-23.4220				
[10104]ENERGY: 3280000	3320.8176	5500.5592	5694.6615	
338.8941	-14212.2765	-1783.1792	0.0000	0.0000
7823.0622	6682.5390	298.3060	-1140.5232	6744.8883
302.1954	-67.9656	-29.0278	680285.8938	-20.5330
-20.5389				
[10154]ENERGY: 3290000	3224.2026	5466.8164	5670.0709	
311.6760	-14172.0057	-1772.8092	0.0000	0.0000
7950.5612	6678.5121	303.1677	-1272.0491	6743.7361
302.1250	-197.0100	-73.9148	680285.8938	-23.9015

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-23.8832
 [10193]ENERGY: 3300000 3292.3345 5433.3165 5756.9671
 339.0678 -14091.6565 -1857.9457 0.0000 0.0000
 7811.2106 6683.2944 297.8541 -1127.9161 6745.6426
 302.2540 135.9484 120.8069 680285.8938 -21.4015
 -21.4182
 [10243]ENERGY: 3310000 3269.6049 5424.1305 5731.8333
 337.2537 -14192.6980 -1829.1750 0.0000 0.0000
 7937.0277 6677.9770 302.6517 -1259.0507 6744.3753
 302.3059 64.9911 70.4039 680285.8938 -21.6131
 -21.6048
 [10279]ENERGY: 3320000 3308.3521 5365.9902 5726.0419
 333.6123 -14226.2802 -1749.7641 0.0000 0.0000
 7922.3164 6680.2686 302.0907 -1242.0478 6743.7180
 302.1810 164.2150 86.2970 680285.8938 -22.2582
 -22.2589
 [10329]ENERGY: 3330000 3263.5066 5434.1091 5690.2402
 344.6756 -14150.5982 -1801.3516 0.0000 0.0000
 7897.1686 6677.7504 301.1318 -1219.4182 6741.7831
 302.2432 -3.8106 -131.4538 680285.8938 -26.5430
 -26.5464
 [10365]ENERGY: 3340000 3239.1703 5462.1521 5706.8485
 334.2053 -14207.9984 -1763.7651 0.0000 0.0000
 7910.7522 6681.3648 301.6497 -1229.3873 6743.6043
 302.2787 112.1202 15.1558 680285.8938 -24.7455
 -24.7449
 [10415]ENERGY: 3350000 3241.5615 5388.1814 5736.7048
 341.4730 -14194.0085 -1709.9185 0.0000 0.0000
 7877.9056 6681.8993 300.3972 -1196.0063 6742.9433
 302.0649 94.3721 94.4984 680285.8938 -26.7948
 -26.7990
 [10451]ENERGY: 3360000 3309.1738 5468.9842 5708.7581
 315.8059 -14206.3064 -1788.7462 0.0000 0.0000
 7873.5212 6681.1906 300.2301 -1192.3306 6742.6442
 302.1672 52.6841 41.2132 680285.8938 -22.2882
 -22.2728
 [10501]ENERGY: 3370000 3286.9129 5353.2536 5723.1626
 318.6123 -14231.4226 -1726.8600 0.0000 0.0000
 7956.2732 6679.9319 303.3855 -1276.3413 6743.7931
 301.9507 -52.5944 -45.2260 680285.8938 -28.0496
 -28.0723
 [10537]ENERGY: 3380000 3299.5167 5390.1481 5696.3444
 322.9504 -14179.6930 -1789.1275 0.0000 0.0000
 7937.9648 6678.1039 302.6874 -1259.8610 6743.8553
 302.1179 -65.1825 -56.9491 680285.8938 -22.6723
 -22.6780
 [10587]ENERGY: 3390000 3248.4128 5455.1508 5739.6545
 333.7826 -14283.5826 -1728.4980 0.0000 0.0000
 7918.5778 6683.4978 301.9481 -1235.0800 6745.0131
 302.3335 169.7329 149.1519 680285.8938 -27.9074
 -27.9012
 [10626]ENERGY: 3400000 3311.5052 5500.0759 5707.5799
 322.8925 -14228.2707 -1804.2314 0.0000 0.0000
 7871.3265 6680.8780 300.1464 -1190.4485 6743.8297

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302.2451	-100.9465	-111.6964	680285.8938	-22.4106
-22.4007				
[10676]ENERGY: 3410000	3295.8087	5445.6436	5669.1595	
332.2822	-14160.1531	-1772.1475	0.0000	0.0000
7870.3693	6680.9626	300.1099	-1189.4067	6745.1694
302.3945	72.0061	82.4492	680285.8938	-23.8216
-23.8231				
[10712]ENERGY: 3420000	3217.9798	5487.6014	5687.4495	
335.8153	-14233.9586	-1719.8958	0.0000	0.0000
7904.7926	6679.7841	301.4225	-1225.0085	6745.3723
302.3798	178.4769	53.5115	680285.8938	-24.7390
-24.7280				
[10762]ENERGY: 3430000	3218.5668	5507.1722	5737.8021	
341.9551	-14296.0204	-1768.3675	0.0000	0.0000
7937.6245	6678.7328	302.6744	-1258.8917	6745.9374
302.3667	34.0241	-31.3433	680285.8938	-25.2389
-25.2616				
[10798]ENERGY: 3440000	3319.9545	5409.1037	5762.5783	
328.9498	-14253.6418	-1765.1361	0.0000	0.0000
7882.7763	6684.5847	300.5830	-1198.1917	6745.9113
302.3174	-80.2011	-100.4280	680285.8938	-28.3058
-28.2889				
[10848]ENERGY: 3450000	3264.2394	5456.1788	5722.0629	
335.3453	-14250.7217	-1742.2772	0.0000	0.0000
7897.9162	6682.7438	301.1603	-1215.1724	6746.3054
302.4229	54.3388	4.0207	680285.8938	-30.3329
-30.3529				
[10884]ENERGY: 3460000	3275.9313	5374.9215	5712.1521	
335.5534	-14221.7403	-1731.5776	0.0000	0.0000
7937.5578	6682.7982	302.6719	-1254.7596	6746.1555
302.4824	-42.0895	19.7717	680285.8938	-28.3305
-28.3052				
[10934]ENERGY: 3470000	3321.6221	5400.7044	5703.1826	
342.8402	-14260.3987	-1785.3037	0.0000	0.0000
7960.1226	6682.7695	303.5323	-1277.3531	6745.9772
302.3453	-75.8349	26.3402	680285.8938	-28.1956
-28.1935				
[10970]ENERGY: 3480000	3290.7224	5369.4732	5692.0968	
329.5222	-14200.2194	-1779.8833	0.0000	0.0000
7984.4322	6686.1440	304.4593	-1298.2882	6746.1293
302.3808	9.7013	-100.2234	680285.8938	-28.8158
-28.8298				
[11020]ENERGY: 3490000	3273.3974	5361.7520	5755.4493	
333.7271	-14119.5965	-1917.0399	0.0000	0.0000
7997.0711	6684.7605	304.9412	-1312.3106	6746.6955
302.4374	-229.1939	-224.5202	680285.8938	-26.2187
-26.2140				
[11059]ENERGY: 3500000	3247.0707	5464.8978	5708.9915	
323.7214	-14227.2812	-1783.9865	0.0000	0.0000
7949.6451	6683.0589	303.1328	-1266.5863	6746.4702
302.5261	14.5575	-11.4591	680285.8938	-27.5925
-27.5855				
[11109]ENERGY: 3510000	3264.8078	5357.4408	5663.3572	
333.5268	-14148.4780	-1753.5793	0.0000	0.0000

Supplementary Text 6

7963.4539	6680.5290	303.6593	-1282.9249	6744.4056
302.5561	-0.5591	30.0823	680285.8938	-28.4549
-28.4670				
[11145]ENERGY: 3520000	3284.6306	5485.4782	5692.5257	
324.5246	-14172.6257	-1829.8688	0.0000	0.0000
7898.4978	6683.1625	301.1825	-1215.3354	6747.5295
302.5483	56.5859	-15.8056	680285.8938	-25.5099
-25.5188				
[11195]ENERGY: 3530000	3284.2921	5418.1749	5699.1592	
355.8590	-14268.8745	-1701.1720	0.0000	0.0000
7894.3456	6681.7843	301.0241	-1212.5613	6746.7404
302.4340	-15.1176	11.8754	680285.8938	-28.7443
-28.7236				
[11231]ENERGY: 3540000	3332.4372	5377.5241	5676.0621	
324.2793	-14180.0169	-1783.3599	0.0000	0.0000
7934.7723	6681.6981	302.5657	-1253.0742	6747.4077
302.5343	93.5141	1.8228	680285.8938	-25.4831
-25.4920				
[11281]ENERGY: 3550000	3263.7121	5491.8945	5715.4752	
314.1793	-14215.5414	-1837.0431	0.0000	0.0000
7946.7782	6679.4548	303.0235	-1267.3234	6746.4755
302.6414	-60.1321	-5.4666	680285.8938	-29.2796
-29.2681				
[11317]ENERGY: 3560000	3310.8507	5429.6536	5698.7461	
345.5782	-14155.1291	-1805.4049	0.0000	0.0000
7860.9768	6685.2714	299.7517	-1175.7054	6747.5081
302.5402	-4.7370	-82.2061	680285.8938	-31.1694
-31.1939				
[11367]ENERGY: 3570000	3243.3431	5464.8228	5712.6261	
336.0068	-14218.4636	-1733.5994	0.0000	0.0000
7880.5149	6685.2505	300.4967	-1195.2644	6748.7214
302.5816	151.1748	215.7027	680285.8938	-28.9827
-28.9654				
[11403]ENERGY: 3580000	3271.6021	5552.6273	5636.4273	
338.1990	-14193.6927	-1791.0170	0.0000	0.0000
7868.9133	6683.0594	300.0544	-1185.8539	6748.2207
302.4374	-1.1700	-20.5874	680285.8938	-28.2828
-28.2872				
[11453]ENERGY: 3590000	3293.1988	5428.2587	5697.0567	
306.9785	-14214.1514	-1777.1580	0.0000	0.0000
7946.5189	6680.7023	303.0136	-1265.8167	6749.5012
302.4342	-86.9447	-17.4646	680285.8938	-29.0578
-29.0370				
[11492]ENERGY: 3600000	3353.0443	5447.5646	5720.4466	
327.9389	-14210.9604	-1790.0076	0.0000	0.0000
7839.6308	6687.6573	298.9378	-1151.9736	6750.5488
302.3984	-216.5047	-167.8892	680285.8938	-23.3293
-23.3503				
[11542]ENERGY: 3610000	3252.2038	5487.4154	5704.2695	
314.6701	-14222.9814	-1823.8836	0.0000	0.0000
7972.9398	6684.6337	304.0211	-1288.3061	6750.8743
302.4319	176.8144	123.0355	680285.8938	-22.2776
-22.2954				
[11578]ENERGY: 3620000	3306.5497	5403.2369	5723.9347	

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355.6674	-14141.1569	-1839.2466	0.0000	0.0000
7877.8374	6686.8227	300.3946	-1191.0147	6749.8522
302.4659	13.9510	51.1920	680285.8938	-21.0835
-21.0746				
[11628]ENERGY: 3630000	3329.0778	5416.0023	5719.8462	
327.2065	-14212.8784	-1818.7082	0.0000	0.0000
7926.8703	6687.4164	302.2643	-1239.4539	6751.5950
302.6964	-36.2551	-79.4413	680285.8938	-25.1092
-25.1003				
[11664]ENERGY: 3640000	3188.7545	5499.1751	5715.9492	
312.0201	-14267.2794	-1726.3187	0.0000	0.0000
7961.4435	6683.7443	303.5827	-1277.6992	6750.5745
302.7046	-38.5421	-4.6287	680285.8938	-27.0325
-27.0212				
[11714]ENERGY: 3650000	3232.0061	5348.2160	5722.5781	
340.8420	-14161.2728	-1789.6692	0.0000	0.0000
7991.8252	6684.5256	304.7412	-1307.2996	6749.5932
302.4769	63.9986	35.1999	680285.8938	-19.6337
-19.6533				
[11750]ENERGY: 3660000	3324.4752	5370.1089	5734.3706	
322.4461	-14214.3146	-1774.4012	0.0000	0.0000
7920.8463	6683.5313	302.0346	-1237.3150	6749.3464
302.3799	-156.6960	-186.6303	680285.8938	-24.0157
-24.0029				
[11800]ENERGY: 3670000	3218.6973	5568.6514	5671.0026	
325.8932	-14117.7023	-1833.7114	0.0000	0.0000
7853.4299	6686.2606	299.4639	-1167.1693	6750.2511
302.3800	-43.0001	-73.8874	680285.8938	-21.1111
-21.1305				
[11836]ENERGY: 3680000	3343.5976	5353.6123	5689.7238	
353.4566	-14148.2561	-1792.5384	0.0000	0.0000
7888.0055	6687.6013	300.7824	-1200.4043	6749.0846
302.4100	3.4625	-53.3387	680285.8938	-21.8009
-21.7924				
[11886]ENERGY: 3690000	3310.2416	5439.4170	5680.9887	
346.6430	-14099.5970	-1859.9371	0.0000	0.0000
7869.1785	6686.9347	300.0645	-1182.2438	6750.4350
302.3744	-90.7010	-114.9231	680285.8938	-24.3138
-24.3276				
[11925]ENERGY: 3700000	3236.8271	5448.9633	5711.9562	
358.8602	-14192.8071	-1745.2870	0.0000	0.0000
7870.8176	6689.3303	300.1270	-1181.4874	6748.6544
302.7278	-68.7459	-30.6802	680285.8938	-26.0595
-26.0363				
[11975]ENERGY: 3710000	3261.8653	5385.8457	5753.6372	
344.3457	-14136.3822	-1840.8619	0.0000	0.0000
7919.7665	6688.2162	301.9935	-1231.5504	6748.9374
302.9231	-49.2960	-145.3022	680285.8938	-22.3410
-22.3511				
[12011]ENERGY: 3720000	3314.3307	5360.9778	5721.9427	
325.7947	-14178.7855	-1763.6170	0.0000	0.0000
7907.6863	6688.3297	301.5328	-1219.3566	6748.6331
302.9081	54.1556	-11.1513	680285.8938	-26.0355
-26.0239				

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[12061]ENERGY: 3730000	3295.5083	5426.8155	5748.9104	
353.1154	-14233.7515	-1797.6798	0.0000	0.0000
7893.3750	6686.2933	300.9871	-1207.0817	6748.9200
302.9538	-85.7233	-90.2166	680285.8938	-26.6638
-26.6761				
[12097]ENERGY: 3740000	3284.0804	5492.5118	5700.6876	
343.6084	-14253.6292	-1817.2614	0.0000	0.0000
7937.4223	6687.4200	302.6667	-1250.0023	6748.6039
303.0156	-97.3558	-127.6005	680285.8938	-23.8553
-23.8599				
[12147]ENERGY: 3750000	3277.5089	5388.2800	5686.1356	
330.3857	-14144.4194	-1824.4913	0.0000	0.0000
7971.0061	6684.4055	303.9473	-1286.6006	6749.2510
302.9128	-56.0345	-89.5740	680285.8938	-24.7068
-24.7015				
[12183]ENERGY: 3760000	3347.4435	5437.0694	5749.8511	
324.1451	-14235.8876	-1789.1194	0.0000	0.0000
7855.4254	6688.9274	299.5400	-1166.4980	6749.0303
303.0860	46.7603	-49.2540	680285.8938	-21.6775
-21.6872				
[12233]ENERGY: 3770000	3259.9381	5416.9699	5696.4955	
327.2657	-14144.2748	-1812.6534	0.0000	0.0000
7943.6624	6687.4034	302.9047	-1256.2590	6749.3649
302.9362	11.1935	-15.3537	680285.8938	-20.6133
-20.5839				
[12269]ENERGY: 3780000	3297.3302	5289.4419	5696.9643	
342.0499	-14160.4112	-1752.7210	0.0000	0.0000
7973.2982	6685.9524	304.0347	-1287.3459	6749.7304
303.0373	3.2844	47.7777	680285.8938	-22.7547
-22.7443				
[12319]ENERGY: 3790000	3296.3927	5418.9175	5711.1885	
334.8887	-14186.4643	-1812.0967	0.0000	0.0000
7924.5690	6687.3954	302.1766	-1237.1736	6750.0101
303.0413	-10.6766	-66.9819	680285.8938	-24.6023
-24.6245				
[12358]ENERGY: 3800000	3255.7275	5474.9968	5660.7641	
313.2304	-14207.7044	-1779.6507	0.0000	0.0000
7965.7856	6683.1493	303.7482	-1282.6363	6750.1942
303.0639	96.1550	0.1058	680285.8938	-22.9030
-22.9090				
[12408]ENERGY: 3810000	3250.5265	5466.3689	5737.5051	
329.0945	-14238.3954	-1818.7134	0.0000	0.0000
7956.9909	6683.3771	303.4129	-1273.6138	6750.3336
303.1970	-46.8471	-58.1241	680285.8938	-22.3522
-22.3385				
[12444]ENERGY: 3820000	3298.9050	5512.1949	5689.4991	
332.0813	-14227.7915	-1814.4984	0.0000	0.0000
7894.0220	6684.4124	301.0118	-1209.6096	6750.4298
303.0532	-34.6924	-54.8925	680285.8938	-22.5947
-22.5994				
[12494]ENERGY: 3830000	3264.4315	5485.0386	5752.1592	
336.9480	-14281.2515	-1828.2297	0.0000	0.0000
7956.6716	6685.7676	303.4007	-1270.9040	6749.7975
303.2143	55.2248	11.3241	680285.8938	-20.2914

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-20.2960
 [12530]ENERGY: 3840000 3246.2915 5470.4378 5720.4630
 342.3300 -14188.7804 -1783.9635 0.0000 0.0000
 7880.7030 6687.4815 300.5039 -1193.2215 6750.9766
 303.1938 -71.6865 -112.8447 680285.8938 -19.7463
 -19.7328
 [12580]ENERGY: 3850000 3230.9796 5490.2878 5707.1771
 317.7844 -14184.4495 -1812.1109 0.0000 0.0000
 7935.4538 6685.1224 302.5917 -1250.3314 6749.4275
 303.1415 -52.0967 -72.7979 680285.8938 -18.2027
 -18.2200
 [12616]ENERGY: 3860000 3285.3790 5475.3624 5686.1338
 350.2642 -14143.8277 -1841.5571 0.0000 0.0000
 7879.8925 6691.6470 300.4730 -1188.2455 6751.4708
 303.2353 -125.7819 -119.0317 680285.8938 -19.2320
 -19.2265
 [12666]ENERGY: 3870000 3371.3791 5399.6528 5695.6996
 327.5356 -14234.2583 -1783.3621 0.0000 0.0000
 7911.4615 6688.1082 301.6768 -1223.3533 6751.7829
 303.2069 -70.0349 -120.4284 680285.8938 -24.3974
 -24.4102
 [12702]ENERGY: 3880000 3254.3442 5408.9583 5738.2594
 330.7799 -14182.2125 -1739.2748 0.0000 0.0000
 7879.6594 6690.5140 300.4641 -1189.1455 6751.2319
 303.1272 -9.2836 29.5230 680285.8938 -16.4641
 -16.4399
 [12752]ENERGY: 3890000 3312.7632 5418.8696 5670.4474
 334.9984 -14195.7358 -1820.2870 0.0000 0.0000
 7961.8358 6682.8916 303.5976 -1278.9441 6751.1349
 302.9519 -279.7253 -236.1476 680285.8938 -22.8667
 -22.8790
 [12791]ENERGY: 3900000 3358.4686 5347.6859 5714.6621
 328.7202 -14244.7231 -1824.1794 0.0000 0.0000
 8004.6793 6685.3136 305.2313 -1319.3657 6751.0054
 303.2683 -76.1916 -99.1502 680285.8938 -18.4895
 -18.4955
 [12841]ENERGY: 3910000 3307.3217 5495.4770 5733.8788
 316.1752 -14195.3270 -1848.1143 0.0000 0.0000
 7877.7111 6687.1224 300.3898 -1190.5887 6750.7150
 303.2350 -96.7064 -138.9317 680285.8938 -18.7733
 -18.7549
 [12877]ENERGY: 3920000 3313.7516 5469.2425 5688.5152
 327.2183 -14228.6165 -1786.5846 0.0000 0.0000
 7903.1593 6686.6858 301.3602 -1216.4735 6750.1252
 303.3465 -81.7757 -52.1890 680285.8938 -24.0111
 -24.0102
 [12927]ENERGY: 3930000 3242.2278 5371.4015 5702.7719
 346.4733 -14096.5446 -1830.0312 0.0000 0.0000
 7947.5801 6683.8787 303.0540 -1263.7013 6751.2133
 303.0216 3.9838 -64.9509 680285.8938 -24.4021
 -24.4240
 [12963]ENERGY: 3940000 3342.1670 5381.8098 5721.0317
 326.0268 -14170.2136 -1810.3434 0.0000 0.0000
 7894.6243 6685.1026 301.0348 -1209.5218 6749.2906

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303.3296	94.6629	-48.3097	680285.8938	-22.7121
-22.7194				
[13013]ENERGY: 3950000	3294.5829	5473.4561	5748.6175	
329.6600	-14182.3920	-1843.3708	0.0000	0.0000
7870.6131	6691.1668	300.1192	-1179.4463	6751.9071
303.2336	-18.8090	-61.5819	680285.8938	-23.8686
-23.8528				
[13049]ENERGY: 3960000	3264.3999	5457.6423	5717.3882	
328.0451	-14198.1678	-1851.7215	0.0000	0.0000
7970.3473	6687.9334	303.9222	-1282.4139	6750.1390
303.4048	-114.8850	-70.1073	680285.8938	-21.4050
-21.4048				
[13099]ENERGY: 3970000	3230.3879	5373.5211	5711.0397	
340.8793	-14160.3405	-1779.5117	0.0000	0.0000
7973.5681	6689.5440	304.0450	-1284.0241	6750.9522
303.2991	-67.1824	-104.7018	680285.8938	-21.0921
-21.0974				
[13135]ENERGY: 3980000	3286.6826	5484.9406	5720.2372	
337.8305	-14318.8374	-1769.6861	0.0000	0.0000
7944.8491	6686.0166	302.9499	-1258.8325	6750.1750
303.1224	-100.5497	-84.5324	680285.8938	-25.3819
-25.3676				
[13185]ENERGY: 3990000	3251.1489	5415.6968	5673.1103	
345.4362	-14199.5021	-1781.8298	0.0000	0.0000
7984.7376	6688.7979	304.4709	-1295.9397	6751.2257
303.3324	87.3734	-1.7445	680285.8938	-21.3239
-21.3328				
[13224]ENERGY: 4000000	3185.3275	5445.0355	5764.3337	
334.7140	-14228.8909	-1779.3612	0.0000	0.0000
7964.5985	6685.7570	303.7030	-1278.8415	6750.6612
303.4057	133.5599	85.9653	680285.8938	-19.7591
-19.7632				
[13274]ENERGY: 4010000	3294.1061	5460.7904	5670.9410	
344.9614	-14268.9003	-1785.1245	0.0000	0.0000
7969.7845	6686.5587	303.9007	-1283.2258	6749.5304
303.4921	-109.7532	-72.9814	680285.8938	-20.7610
-20.7424				
[13310]ENERGY: 4020000	3257.2884	5397.6653	5741.4043	
328.3356	-14262.3221	-1796.1023	0.0000	0.0000
8018.7453	6685.0145	305.7677	-1333.7307	6750.4372
303.6254	-103.5004	-66.5156	680285.8938	-26.2146
-26.2269				
[13360]ENERGY: 4030000	3340.2773	5483.1062	5702.0617	
331.4548	-14283.7784	-1767.1491	0.0000	0.0000
7882.5458	6688.5184	300.5742	-1194.0275	6751.6479
303.5481	-88.8200	-54.7263	680285.8938	-20.9586
-20.9596				
[13396]ENERGY: 4040000	3240.2182	5440.5336	5762.0039	
351.3555	-14203.1577	-1730.2846	0.0000	0.0000
7828.4786	6689.1474	298.5125	-1139.3311	6752.0770
303.4807	34.5016	36.2926	680285.8938	-20.0668
-20.0674				
[13446]ENERGY: 4050000	3216.8837	5393.4695	5754.5620	
317.9460	-14144.0201	-1865.9124	0.0000	0.0000

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8013.0387	6685.9673	305.5501	-1327.0713	6753.3772
303.3128	-44.5747	-55.8984	680285.8938	-20.7190
-20.6988				
[13482]ENERGY: 4060000	3309.2427	5532.2967	5703.1546	
319.5612	-14208.5745	-1841.4246	0.0000	0.0000
7876.1638	6690.4199	300.3308	-1185.7439	6754.0918
303.4532	3.3095	-20.1159	680285.8938	-23.9125
-23.9246				
[13532]ENERGY: 4070000	3339.2706	5314.8065	5705.0950	
352.6604	-14198.2329	-1768.9696	0.0000	0.0000
7945.4347	6690.0648	302.9722	-1255.3699	6753.9616
303.5295	59.0112	-21.1026	680285.8938	-17.4037
-17.4187				
[13568]ENERGY: 4080000	3314.9513	5349.3006	5722.7036	
330.2578	-14235.0397	-1747.9291	0.0000	0.0000
7954.8892	6689.1336	303.3328	-1265.7556	6754.4600
303.5500	89.8698	85.7959	680285.8938	-19.1752
-19.1607				
[13618]ENERGY: 4090000	3274.7937	5363.9604	5740.8067	
326.0477	-14204.5228	-1749.6568	0.0000	0.0000
7939.3914	6690.8203	302.7418	-1248.5711	6754.2207
303.3709	19.9041	-0.5482	680285.8938	-21.8047
-21.8157				
[13657]ENERGY: 4100000	3312.0560	5387.8442	5753.2533	
343.8958	-14276.8368	-1641.0825	0.0000	0.0000
7812.4062	6691.5363	297.8996	-1120.8699	6755.0804
303.4894	74.8129	132.3706	680285.8938	-20.1912
-20.1800				
[13707]ENERGY: 4110000	3297.6383	5467.2407	5680.1244	
322.1334	-14225.2975	-1731.3150	0.0000	0.0000
7879.7990	6690.3233	300.4694	-1189.4757	6754.8401
303.5050	15.4288	19.8875	680285.8938	-21.9118
-21.9256				
[13743]ENERGY: 4120000	3287.8036	5432.2974	5715.1316	
335.7687	-14190.1968	-1807.6870	0.0000	0.0000
7914.2179	6687.3354	301.7819	-1226.8825	6753.3005
303.4476	-69.1083	21.1161	680285.8938	-20.2835
-20.2794				
[13793]ENERGY: 4130000	3315.8964	5354.2431	5745.2237	
325.7543	-14183.4634	-1806.4391	0.0000	0.0000
7941.3153	6692.5303	302.8152	-1248.7850	6757.0772
303.4819	-13.4627	-54.4622	680285.8938	-21.1770
-21.1606				
[13829]ENERGY: 4140000	3290.4491	5471.2298	5701.5169	
335.4178	-14243.4675	-1810.6282	0.0000	0.0000
7947.8329	6692.3508	303.0637	-1255.4821	6755.6212
303.5045	3.8848	-13.2149	680285.8938	-20.1835
-20.1907				
[13879]ENERGY: 4150000	3332.9911	5398.3011	5748.7834	
332.0508	-14252.9657	-1858.2465	0.0000	0.0000
7992.4087	6693.3229	304.7634	-1299.0858	6756.2654
303.3926	-125.7769	-166.1817	680285.8938	-22.3084
-22.3152				
[13915]ENERGY: 4160000	3277.0179	5367.0200	5702.2583	

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345.0322	-14102.8235	-1804.5459	0.0000	0.0000
7908.4872	6692.4463	301.5634	-1216.0409	6756.5904
303.5255	-174.1861	-83.1445	680285.8938	-21.5030
-21.4952				
[13965]ENERGY: 4170000	3273.3455	5422.0422	5735.4587	
337.9049	-14289.4730	-1785.6500	0.0000	0.0000
7996.8248	6690.4531	304.9318	-1306.3716	6756.2211
303.4521	39.2413	-18.8039	680285.8938	-17.8057
-17.8093				
[14001]ENERGY: 4180000	3250.4766	5335.1654	5772.9067	
326.6050	-14177.2689	-1746.8011	0.0000	0.0000
7928.5346	6689.6182	302.3278	-1238.9163	6755.7118
303.5497	-32.0121	37.1413	680285.8938	-21.3379
-21.3331				
[14051]ENERGY: 4190000	3291.7452	5380.5041	5754.8233	
338.4014	-14227.1744	-1756.0026	0.0000	0.0000
7911.1855	6693.4824	301.6663	-1217.7031	6755.9782
303.5249	-135.3590	-100.4948	680285.8938	-19.9202
-19.9289				
[14090]ENERGY: 4200000	3268.9151	5369.3235	5696.9764	
333.9563	-14133.3109	-1818.4029	0.0000	0.0000
7975.4883	6692.9457	304.1182	-1282.5426	6757.9361
303.5865	55.3133	-1.4044	680285.8938	-24.7278
-24.7322				
[14140]ENERGY: 4210000	3320.7659	5396.1591	5749.6872	
334.0161	-14235.0089	-1800.1467	0.0000	0.0000
7926.9592	6692.4319	302.2677	-1234.5273	6757.7320
303.7158	17.3011	-17.7294	680285.8938	-20.8050
-20.8103				
[14176]ENERGY: 4220000	3322.1417	5372.4611	5723.6151	
325.4702	-14198.9035	-1748.2580	0.0000	0.0000
7903.1647	6699.6914	301.3604	-1203.4733	6758.8817
303.7953	-10.5430	-49.1505	680285.8938	-22.8011
-22.7992				
[14226]ENERGY: 4230000	3261.3201	5342.2094	5779.2991	
323.6247	-14248.1568	-1750.7885	0.0000	0.0000
7987.7195	6695.2275	304.5846	-1292.4921	6758.7147
303.8065	1.6672	18.8671	680285.8938	-22.8504
-22.8579				
[14262]ENERGY: 4240000	3310.7237	5450.6174	5688.7577	
349.6355	-14216.2770	-1784.7238	0.0000	0.0000
7897.3027	6696.0360	301.1369	-1201.2667	6759.5081
303.7869	37.0457	9.6248	680285.8938	-21.8455
-21.8221				
[14312]ENERGY: 4250000	3253.2191	5452.4176	5749.0748	
327.9697	-14267.1175	-1781.1252	0.0000	0.0000
7961.1569	6695.5955	303.5718	-1265.5614	6759.6730
303.6232	41.2977	-38.7817	680285.8938	-23.2973
-23.3049				
[14348]ENERGY: 4260000	3286.8735	5292.5637	5743.2052	
344.2831	-14198.0327	-1782.3746	0.0000	0.0000
8007.9096	6694.4278	305.3545	-1313.4817	6759.9020
303.6534	2.2562	32.7343	680285.8938	-20.3945
-20.3889				

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[14398]ENERGY: 4270000	3257.3045	5361.6168	5722.5725	
322.4632	-14195.1231	-1752.1784	0.0000	0.0000
7981.2326	6697.8881	304.3373	-1283.3445	6759.7006
303.6326	-167.8303	-84.2461	680285.8938	-19.3595
-19.3610				
[14434]ENERGY: 4280000	3210.5656	5483.1877	5688.7060	
371.0432	-14151.2262	-1821.9314	0.0000	0.0000
7914.6849	6695.0297	301.7997	-1219.6552	6759.8746
303.5446	39.1165	-25.0831	680285.8938	-20.5042
-20.4984				
[14484]ENERGY: 4290000	3287.1732	5337.0663	5710.5485	
334.8818	-14241.7137	-1775.9069	0.0000	0.0000
8041.1654	6693.2146	306.6226	-1347.9507	6760.5554
303.4525	10.4291	34.7674	680285.8938	-19.6231
-19.6309				
[14523]ENERGY: 4300000	3296.2149	5353.8555	5686.6268	
357.2700	-14199.0380	-1736.9075	0.0000	0.0000
7939.0028	6697.0244	302.7270	-1241.9783	6759.9307
303.6106	83.8483	23.7623	680285.8938	-17.4463
-17.4459				
[14573]ENERGY: 4310000	3372.9032	5352.2815	5706.0290	
361.1821	-14140.4453	-1832.9541	0.0000	0.0000
7879.7336	6698.7300	300.4669	-1181.0036	6760.8239
303.5020	39.0027	26.0019	680285.8938	-19.3751
-19.3880				
[14609]ENERGY: 4320000	3317.0914	5444.5341	5722.1009	
344.5645	-14244.2816	-1826.0840	0.0000	0.0000
7938.1188	6696.0442	302.6933	-1242.0746	6761.8371
303.6993	-100.9924	-85.6038	680285.8938	-21.1885
-21.1621				
[14659]ENERGY: 4330000	3317.2033	5406.6644	5728.8804	
344.2515	-14096.2694	-1905.4423	0.0000	0.0000
7903.3742	6698.6622	301.3684	-1204.7121	6762.6144
303.6147	-143.6947	-219.6924	680285.8938	-20.4682
-20.4948				
[14695]ENERGY: 4340000	3244.3248	5475.1626	5649.8770	
342.1960	-14226.7417	-1799.1192	0.0000	0.0000
8010.0673	6695.7669	305.4368	-1314.3004	6761.1841
303.3511	5.5377	28.9034	680285.8938	-24.7059
-24.6803				
[14745]ENERGY: 4350000	3278.0676	5463.1066	5713.7222	
325.8957	-14247.8701	-1850.7999	0.0000	0.0000
8013.8210	6695.9432	305.5799	-1317.8779	6760.8645
303.5521	14.8290	-5.9449	680285.8938	-23.0302
-23.0597				
[14781]ENERGY: 4360000	3291.4679	5406.5440	5772.6170	
310.2809	-14202.1525	-1858.2086	0.0000	0.0000
7978.8357	6699.3844	304.2459	-1279.4513	6759.9758
303.7242	130.2715	15.5788	680285.8938	-20.8550
-20.8556				
[14831]ENERGY: 4370000	3225.4647	5349.3998	5720.0618	
326.2463	-14134.1252	-1757.1067	0.0000	0.0000
7969.4210	6699.3618	303.8869	-1270.0592	6760.7154
303.4103	111.3694	64.6787	680285.8938	-22.9462

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-22.9266
 [14867]ENERGY: 4380000 3348.2654 5440.4416 5715.9758
 330.5905 -14268.5303 -1771.7661 0.0000 0.0000
 7904.7115 6699.6884 301.4194 -1205.0230 6760.2468
 303.7118 -15.6711 -63.6853 680285.8938 -20.6653
 -20.6759
 [14917]ENERGY: 4390000 3246.9568 5446.3869 5747.2398
 326.7060 -14237.6108 -1820.0658 0.0000 0.0000
 7987.4686 6697.0815 304.5751 -1290.3871 6762.3767
 303.6867 -109.5599 -69.5778 680285.8938 -17.1787
 -17.1659
 [14956]ENERGY: 4400000 3366.1354 5428.1969 5699.9493
 330.2275 -14248.6580 -1814.1159 0.0000 0.0000
 7936.6261 6698.3613 302.6364 -1238.2648 6764.0146
 303.8219 -84.0253 -78.6791 680285.8938 -19.5285
 -19.5234
 [15006]ENERGY: 4410000 3274.1463 5400.9083 5642.7868
 329.9945 -14212.3489 -1802.2429 0.0000 0.0000
 8065.4127 6698.6568 307.5472 -1366.7558 6761.9516
 303.8717 -86.1128 -103.5693 680285.8938 -19.2829
 -19.3074
 [15042]ENERGY: 4420000 3314.7254 5369.5064 5676.2863
 350.4887 -14198.8908 -1768.3618 0.0000 0.0000
 7955.4854 6699.2396 303.3555 -1256.2458 6763.1383
 303.7987 -30.9380 -81.6786 680285.8938 -16.6466
 -16.6572
 [15092]ENERGY: 4430000 3309.7639 5379.1837 5749.7420
 338.7237 -14307.0645 -1766.2155 0.0000 0.0000
 7994.4293 6698.5624 304.8405 -1295.8668 6761.6440
 303.9031 3.9661 120.9926 680285.8938 -16.6320
 -16.5815
 [15128]ENERGY: 4440000 3268.5244 5488.4096 5708.7980
 335.8702 -14198.7453 -1762.5664 0.0000 0.0000
 7863.1105 6703.4011 299.8331 -1159.7094 6763.1782
 303.7572 91.2287 16.7919 680285.8938 -15.9393
 -15.9715
 [15178]ENERGY: 4450000 3339.0900 5399.5595 5745.6879
 347.0902 -14323.0201 -1757.8558 0.0000 0.0000
 7948.0769 6698.6286 303.0730 -1249.4483 6763.2420
 303.8039 -71.2934 -86.4815 680285.8938 -11.7860
 -11.7799
 [15214]ENERGY: 4460000 3317.5963 5390.5148 5739.4409
 318.5450 -14234.6839 -1740.2128 0.0000 0.0000
 7910.9737 6702.1740 301.6582 -1208.7997 6763.1679
 303.8339 56.3009 0.0625 680285.8938 -17.8452
 -17.8528
 [15264]ENERGY: 4470000 3326.2055 5481.6748 5721.4665
 343.0302 -14190.3463 -1846.3438 0.0000 0.0000
 7863.5257 6699.2126 299.8489 -1164.3131 6764.2186
 303.7874 -171.8865 -108.2690 680285.8938 -17.9844
 -17.9783
 [15300]ENERGY: 4480000 3397.0561 5435.3151 5673.0692
 320.9448 -14326.0336 -1767.8920 0.0000 0.0000
 7967.7955 6700.2551 303.8249 -1267.5405 6763.1761

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303.9290	-23.6692	-88.2827	680285.8938	-13.9118
-13.9096				
[15350]ENERGY: 4490000	3312.1987	5507.2494	5727.6902	
327.7311	-14277.1001	-1761.7475	0.0000	0.0000
7861.9249	6697.9465	299.7879	-1163.9783	6763.9494
303.9288	8.2300	23.2107	680285.8938	-15.5273
-15.5258				
[15389]ENERGY: 4500000	3248.6011	5463.4068	5686.7784	
330.4621	-14200.2101	-1795.7054	0.0000	0.0000
7968.0971	6701.4300	303.8364	-1266.6671	6764.6997
303.8677	108.7837	99.4364	680285.8938	-17.6019
-17.6109				
[15439]ENERGY: 4510000	3215.6645	5437.8695	5695.8705	
334.1280	-14232.4476	-1801.5518	0.0000	0.0000
8050.0726	6699.6057	306.9623	-1350.4670	6764.7855
303.7089	-41.0379	-108.4530	680285.8938	-16.4991
-16.5177				
[15475]ENERGY: 4520000	3277.0249	5449.3908	5718.6918	
341.4159	-14172.9215	-1798.4625	0.0000	0.0000
7883.1823	6698.3217	300.5985	-1184.8606	6764.3259
303.7630	83.5946	50.8428	680285.8938	-16.8958
-16.8669				
[15525]ENERGY: 4530000	3290.4806	5479.6068	5655.7765	
324.5484	-14229.2716	-1817.9644	0.0000	0.0000
7997.8621	6701.0383	304.9714	-1296.8237	6764.2813
303.8084	-55.5863	-177.7452	680285.8938	-17.2535
-17.2556				
[15561]ENERGY: 4540000	3290.0319	5379.8764	5706.9605	
319.7570	-14262.5230	-1730.5661	0.0000	0.0000
7996.5867	6700.1234	304.9227	-1296.4633	6764.0796
304.0009	-65.7342	-48.5312	680285.8938	-15.4516
-15.4556				
[15611]ENERGY: 4550000	3343.2317	5425.3508	5672.1525	
336.9252	-14283.8840	-1768.0743	0.0000	0.0000
7974.4475	6700.1496	304.0785	-1274.2980	6765.8089
303.8216	13.0044	-7.3608	680285.8938	-12.9181
-12.9115				
[15647]ENERGY: 4560000	3253.3278	5398.7778	5754.5627	
355.0460	-14232.6759	-1803.4799	0.0000	0.0000
7974.7716	6700.3301	304.0909	-1274.4415	6766.0818
303.7231	26.5971	-3.2168	680285.8938	-13.7754
-13.7784				
[15697]ENERGY: 4570000	3340.1890	5400.3463	5745.0037	
356.6984	-14225.2623	-1820.1818	0.0000	0.0000
7907.5703	6704.3636	301.5284	-1203.2067	6765.9117
303.8407	23.5453	-15.7850	680285.8938	-15.6229
-15.6281				
[15733]ENERGY: 4580000	3244.3971	5493.3764	5711.2323	
325.1914	-14173.2513	-1863.0863	0.0000	0.0000
7963.5356	6701.3953	303.6625	-1262.1404	6765.4864
303.9509	84.6100	18.7553	680285.8938	-13.5526
-13.5487				
[15783]ENERGY: 4590000	3299.2213	5393.8451	5706.1283	
318.9668	-14227.9142	-1761.5765	0.0000	0.0000

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7973.5478	6702.2186	304.0442	-1271.3292	6764.6207
303.9333	-84.2990	-50.7883	680285.8938	-11.7201
-11.7165				
[15822]ENERGY: 4600000	3277.7834	5452.6270	5689.5270	
345.9983	-14189.5019	-1820.4097	0.0000	0.0000
7944.8734	6700.8975	302.9508	-1243.9759	6765.4580
303.8994	-43.8113	-69.0379	680285.8938	-17.7434
-17.7630				
[15872]ENERGY: 4610000	3286.8169	5330.8959	5762.0548	
343.9552	-14196.5202	-1819.8801	0.0000	0.0000
7992.8734	6700.1959	304.7812	-1292.6775	6765.8547
303.8428	161.5504	85.9033	680285.8938	-17.4464
-17.4395				
[15908]ENERGY: 4620000	3260.6685	5425.5742	5699.8264	
348.7563	-14216.4116	-1835.7329	0.0000	0.0000
8014.3652	6697.0461	305.6007	-1317.3191	6765.9045
303.8659	-124.1855	-93.0397	680285.8938	-17.5779
-17.5749				
[15958]ENERGY: 4630000	3210.2302	5417.0166	5768.9892	
327.8703	-14234.7332	-1821.2101	0.0000	0.0000
8030.9994	6699.1625	306.2350	-1331.8369	6765.8575
303.8941	-60.3370	46.2671	680285.8938	-12.9735
-12.9652				
[15994]ENERGY: 4640000	3208.4287	5429.5389	5732.1022	
329.4041	-14190.6506	-1850.0629	0.0000	0.0000
8039.8178	6698.5782	306.5712	-1341.2396	6765.6005
303.7553	155.8783	56.9839	680285.8938	-13.8307
-13.8348				
[16044]ENERGY: 4650000	3253.1108	5378.2851	5730.0721	
304.5874	-14226.0543	-1735.0791	0.0000	0.0000
7997.1711	6702.0931	304.9450	-1295.0780	6766.4607
303.8463	137.1269	41.1825	680285.8938	-12.0916
-12.1051				
[16080]ENERGY: 4660000	3313.1857	5454.5832	5676.3740	
326.3596	-14234.1510	-1821.6042	0.0000	0.0000
7986.8686	6701.6158	304.5522	-1285.2528	6766.2307
303.8900	31.7130	-20.9532	680285.8938	-9.0114
-8.9789				
[16130]ENERGY: 4670000	3223.2270	5428.2611	5722.8859	
345.9115	-14208.8731	-1800.6570	0.0000	0.0000
7991.8087	6702.5641	304.7406	-1289.2446	6765.8078
303.8979	45.8960	37.4275	680285.8938	-15.4108
-15.4363				
[16166]ENERGY: 4680000	3290.1572	5461.5098	5742.5450	
327.3746	-14203.1172	-1795.9152	0.0000	0.0000
7882.9716	6705.5258	300.5904	-1177.4459	6766.7908
304.1098	-88.0702	-61.8995	680285.8938	-14.1200
-14.1056				
[16216]ENERGY: 4690000	3300.2084	5444.2507	5732.3734	
337.8976	-14207.8607	-1827.9563	0.0000	0.0000
7922.3836	6701.2967	302.0933	-1221.0869	6767.0324
303.9065	-3.5580	-64.0760	680285.8938	-9.6810
-9.6892				
[16255]ENERGY: 4700000	3279.7070	5418.7106	5684.4154	

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337.0858	-14250.2014	-1816.4985	0.0000	0.0000
8042.3015	6695.5204	306.6659	-1346.7811	6765.8131
303.9101	-73.1553	-94.0238	680285.8938	-11.7731
-11.7626				
[16305]ENERGY: 4710000	3240.8614	5432.2314	5682.5636	
342.2015	-14102.1974	-1815.3606	0.0000	0.0000
7925.0128	6705.3127	302.1935	-1219.7002	6767.6907
303.8742	-69.4258	-59.9508	680285.8938	-14.5796
-14.6015				
[16341]ENERGY: 4720000	3360.1679	5480.6205	5725.5666	
360.1734	-14301.4162	-1861.4564	0.0000	0.0000
7942.7346	6706.3903	302.8693	-1236.3443	6768.3106
303.9881	-197.0799	-106.7953	680285.8938	-7.7800
-7.7643				
[16391]ENERGY: 4730000	3232.0433	5472.9807	5763.4306	
328.8589	-14228.4500	-1835.2030	0.0000	0.0000
7969.3303	6702.9909	303.8834	-1266.3394	6768.0704
304.0286	125.2571	30.4761	680285.8938	-10.2619
-10.2676				
[16427]ENERGY: 4740000	3296.6594	5476.7065	5702.4951	
315.9747	-14261.0610	-1886.3334	0.0000	0.0000
8055.6646	6700.1060	307.1755	-1355.5586	6768.3295
303.8866	-113.7066	-200.0972	680285.8938	-12.5068
-12.5115				
[16477]ENERGY: 4750000	3285.6822	5373.5596	5710.7790	
334.1271	-14197.5010	-1747.1523	0.0000	0.0000
7942.4889	6701.9835	302.8599	-1240.5054	6767.1897
303.8224	-9.3469	19.3509	680285.8938	-11.3423
-11.3353				
[16513]ENERGY: 4760000	3269.3958	5374.9987	5777.5239	
344.8446	-14271.5771	-1806.7756	0.0000	0.0000
8013.2049	6701.6151	305.5564	-1311.5898	6767.2205
303.8211	202.1595	96.9262	680285.8938	-7.5967
-7.6015				
[16563]ENERGY: 4770000	3373.3522	5458.6386	5773.3219	
339.4801	-14248.2774	-1895.7678	0.0000	0.0000
7903.2415	6703.9891	301.3633	-1199.2523	6768.2653
303.8735	-14.8668	28.2176	680285.8938	-12.5036
-12.4860				
[16599]ENERGY: 4780000	3208.2657	5439.6528	5669.9834	
345.8501	-14189.0311	-1771.0736	0.0000	0.0000
8000.5861	6704.2334	305.0752	-1296.3527	6768.0263
303.8350	-22.1254	-50.6351	680285.8938	-9.8359
-9.8624				
[16649]ENERGY: 4790000	3227.3008	5361.6920	5780.2216	
345.4564	-14156.9945	-1834.2981	0.0000	0.0000
7978.0858	6701.4641	304.2173	-1276.6218	6767.2742
304.0265	124.0566	77.4988	680285.8938	-10.0008
-9.9990				
[16688]ENERGY: 4800000	3304.5676	5452.0318	5747.3646	
334.2560	-14303.4671	-1753.6296	0.0000	0.0000
7919.2958	6700.4190	301.9755	-1218.8768	6766.6899
303.9588	-132.0984	-112.6174	680285.8938	-10.4645
-10.4473				

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[16738]ENERGY: 4810000	3180.5607	5454.0862	5729.4084	
342.1319	-14267.9871	-1724.0743	0.0000	0.0000
7988.2608	6702.3866	304.6053	-1285.8742	6767.3011
304.0234	-75.6058	-57.1107	680285.8938	-12.8947
-12.9047				
[16774]ENERGY: 4820000	3248.3232	5382.2425	5750.1638	
349.3663	-14204.4160	-1799.4001	0.0000	0.0000
7980.2424	6706.5222	304.2995	-1273.7202	6767.7745
303.9611	43.2705	63.1585	680285.8938	-17.5736
-17.5618				
[16824]ENERGY: 4830000	3293.0445	5463.5854	5687.6986	
351.1928	-14220.6463	-1892.0204	0.0000	0.0000
8018.4525	6701.3072	305.7565	-1317.1453	6768.5003
304.0101	-207.3410	-170.2634	680285.8938	-18.0873
-18.0973				
[16860]ENERGY: 4840000	3287.1233	5408.2015	5755.7917	
355.7623	-14238.1910	-1799.5403	0.0000	0.0000
7933.6016	6702.7491	302.5210	-1230.8525	6768.2276
303.9776	106.1513	156.6727	680285.8938	-14.1015
-14.0996				
[16910]ENERGY: 4850000	3272.6819	5440.9350	5742.5597	
337.4877	-14292.4712	-1825.4522	0.0000	0.0000
8026.0844	6701.8254	306.0475	-1324.2591	6767.8291
304.1011	-47.7488	-63.1906	680285.8938	-15.5002
-15.4964				
[16946]ENERGY: 4860000	3229.1532	5398.2288	5755.1844	
334.5909	-14230.9694	-1815.8141	0.0000	0.0000
8030.8995	6701.2733	306.2311	-1329.6263	6767.8745
304.3139	119.7522	71.1038	680285.8938	-13.1916
-13.1837				
[16996]ENERGY: 4870000	3300.2865	5330.8144	5690.1919	
330.4548	-14106.7051	-1851.1545	0.0000	0.0000
8006.6024	6700.4904	305.3047	-1306.1120	6767.0672
304.3694	-93.3327	-89.2700	680285.8938	-13.3723
-13.3831				
[17032]ENERGY: 4880000	3160.0121	5448.2817	5703.4762	
360.4703	-14226.2436	-1754.4576	0.0000	0.0000
8011.0264	6702.5655	305.4734	-1308.4609	6766.9129
304.1216	108.9469	51.9312	680285.8938	-14.2995
-14.3026				
[17082]ENERGY: 4890000	3191.1605	5291.6702	5764.6225	
342.7787	-14189.5979	-1762.3907	0.0000	0.0000
8065.4221	6703.6652	307.5476	-1361.7569	6768.6786
304.2114	200.4672	77.5935	680285.8938	-12.9775
-12.9863				
[17121]ENERGY: 4900000	3268.9763	5320.0724	5734.8812	
317.7386	-14109.5571	-1829.6025	0.0000	0.0000
8002.8053	6705.3142	305.1599	-1297.4911	6768.6873
304.1832	130.0225	14.1797	680285.8938	-14.6667
-14.6657				
[17171]ENERGY: 4910000	3295.3800	5456.4326	5708.9999	
369.6413	-14281.8388	-1779.3882	0.0000	0.0000
7929.7241	6698.9509	302.3732	-1230.7732	6767.2117
304.1307	46.8093	-27.5963	680285.8938	-14.0150

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-14.0048
[17207]ENERGY: 4920000 3229.9223 5426.8905 5685.3260
357.4397 -14182.0315 -1782.5239 0.0000 0.0000
7965.8490 6700.8722 303.7507 -1264.9769 6766.8442
304.0992 41.4004 -23.8775 680285.8938 -10.7716
-10.7698
[17257]ENERGY: 4930000 3311.3156 5462.6367 5694.8376
347.6633 -14252.9274 -1790.5872 0.0000 0.0000
7932.5375 6705.4761 302.4804 -1227.0613 6768.8605
304.2659 -58.0986 -30.5537 680285.8938 -16.3168
-16.3057
[17293]ENERGY: 4940000 3266.8427 5470.9072 5712.2222
324.5167 -14188.6359 -1808.4729 0.0000 0.0000
7929.8790 6707.2589 302.3791 -1222.6201 6770.9284
304.2608 62.2779 -34.1934 680285.8938 -18.1826
-18.2138
[17343]ENERGY: 4950000 3329.1499 5453.8622 5706.0433
331.3030 -14187.6533 -1846.3034 0.0000 0.0000
7918.4103 6704.8120 301.9418 -1213.5982 6770.2364
304.2680 -128.4598 -74.1066 680285.8938 -15.6161
-15.6007
[17379]ENERGY: 4960000 3239.7354 5487.5979 5722.6316
342.3752 -14221.1234 -1822.7432 0.0000 0.0000
7954.3826 6702.8560 303.3134 -1251.5266 6769.3243
303.9430 -62.2934 -80.8827 680285.8938 -12.8178
-12.8163
[17429]ENERGY: 4970000 3212.5472 5420.5039 5741.9705
327.8161 -14153.2382 -1845.5122 0.0000 0.0000
8003.3881 6707.4755 305.1821 -1295.9126 6769.5410
303.8933 -69.4660 -114.8278 680285.8938 -14.1818
-14.1865
[17465]ENERGY: 4980000 3268.6963 5416.1749 5698.5471
343.9133 -14205.9843 -1844.8938 0.0000 0.0000
8027.4910 6703.9444 306.1012 -1323.5466 6769.8121
304.1324 48.5273 8.0129 680285.8938 -12.6882
-12.6861
[17515]ENERGY: 4990000 3370.8057 5419.6198 5721.9552
351.6465 -14315.2898 -1766.1244 0.0000 0.0000
7921.7910 6704.4039 302.0707 -1217.3871 6768.2879
304.0891 -82.8188 -69.0566 680285.8938 -13.4485
-13.4343
[17554]ENERGY: 5000000 3316.7967 5453.9257 5783.7490
334.9787 -14355.7714 -1807.9806 0.0000 0.0000
7973.9744 6699.6725 304.0605 -1274.3019 6769.0730
304.2121 -83.4338 -64.6575 680285.8938 -12.8661
-12.8864
[17604]ENERGY: 5010000 3289.0208 5405.6976 5720.7844
327.5081 -14186.7065 -1778.4740 0.0000 0.0000
7927.1905 6705.0209 302.2766 -1222.1696 6769.9634
304.0905 -29.2042 -34.7870 680285.8938 -15.1342
-15.1243
[17640]ENERGY: 5020000 3317.5380 5493.2195 5682.6076
317.9586 -14252.4379 -1800.9925 0.0000 0.0000
7948.9353 6706.8285 303.1057 -1242.1068 6770.3944

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303.9661	-39.3797	-51.8309	680285.8938	-12.0393
-12.0479				
[17690]ENERGY: 5030000	3235.5844	5461.6463	5735.6715	
326.1001	-14220.1467	-1822.2656	0.0000	0.0000
7988.7469	6705.3369	304.6238	-1283.4100	6770.2772
304.1290	41.7103	-26.4263	680285.8938	-8.3874
-8.3808				
[17726]ENERGY: 5040000	3296.5775	5538.4184	5679.3080	
325.0053	-14269.5669	-1782.3864	0.0000	0.0000
7919.5435	6706.8995	301.9850	-1212.6440	6771.6788
304.1066	157.2876	143.4673	680285.8938	-13.2959
-13.2995				
[17776]ENERGY: 5050000	3263.5418	5336.2704	5769.6937	
318.9173	-14209.0600	-1726.5575	0.0000	0.0000
7954.3530	6707.1586	303.3123	-1247.1943	6771.7837
304.2208	-4.0252	78.4931	680285.8938	-8.6842
-8.6769				
[17812]ENERGY: 5060000	3239.4523	5444.9134	5738.3220	
353.5938	-14204.3351	-1843.0769	0.0000	0.0000
7977.9065	6706.7760	304.2104	-1271.1305	6772.9325
304.1469	145.4297	24.7561	680285.8938	-13.7126
-13.7221				
[17862]ENERGY: 5070000	3254.9183	5451.5966	5712.5762	
353.9569	-14129.4947	-1885.0290	0.0000	0.0000
7947.4227	6705.9469	303.0480	-1241.4758	6772.6581
304.1984	40.1682	-4.8916	680285.8938	-11.0702
-11.0591				
[17898]ENERGY: 5080000	3301.8809	5362.3173	5759.1187	
337.8153	-14195.8779	-1848.2583	0.0000	0.0000
7989.1449	6706.1409	304.6390	-1283.0041	6771.3198
304.1223	-90.2265	-77.6318	680285.8938	-16.3464
-16.3613				
[17948]ENERGY: 5090000	3312.7234	5321.5228	5677.5391	
345.6278	-14146.1750	-1789.2150	0.0000	0.0000
7988.1206	6710.1438	304.5999	-1277.9769	6772.4951
304.2036	124.9699	100.0942	680285.8938	-11.3405
-11.3409				
[17987]ENERGY: 5100000	3349.1198	5386.5116	5722.5732	
338.7536	-14173.0470	-1857.8789	0.0000	0.0000
7942.3377	6708.3699	302.8541	-1233.9678	6772.9577
304.1702	-116.9010	-131.0356	680285.8938	-14.3722
-14.3651				
[18037]ENERGY: 5110000	3281.0597	5457.6817	5678.1419	
350.1578	-14191.4078	-1832.9357	0.0000	0.0000
7968.0663	6710.7639	303.8352	-1257.3024	6773.9404
304.4373	106.3408	-1.8102	680285.8938	-11.1096
-11.0926				
[18073]ENERGY: 5120000	3243.2792	5389.2803	5776.8861	
355.1225	-14203.8649	-1814.3828	0.0000	0.0000
7960.6456	6706.9661	303.5523	-1253.6795	6771.9178
304.2048	-107.7914	-71.3285	680285.8938	-15.0968
-15.1116				
[18123]ENERGY: 5130000	3285.1919	5431.7293	5771.0665	
324.1178	-14221.8836	-1855.7545	0.0000	0.0000

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7974.8028	6709.2702	304.0921	-1265.5326	6774.6000
304.2152	73.1001	-15.6233	680285.8938	-15.9198
-15.9193				
[18159]ENERGY: 5140000	3261.6572	5528.6460	5714.1187	
335.5962	-14294.7059	-1830.3172	0.0000	0.0000
7990.9673	6705.9623	304.7085	-1285.0049	6774.1925
304.4181	-25.9916	0.5487	680285.8938	-14.4622
-14.4527				
[18209]ENERGY: 5150000	3300.6489	5424.0425	5716.2836	
322.6629	-14200.5456	-1823.4686	0.0000	0.0000
7967.3795	6707.0033	303.8090	-1260.3763	6773.2118
304.2747	51.6693	8.9056	680285.8938	-15.1274
-15.1245				
[18245]ENERGY: 5160000	3263.3844	5396.8983	5698.8393	
327.4421	-14255.6999	-1757.0210	0.0000	0.0000
8033.5103	6707.3535	306.3307	-1326.1568	6774.5717
304.3716	80.0536	16.0549	680285.8938	-16.1056
-16.1130				
[18295]ENERGY: 5170000	3279.8766	5492.2126	5688.8618	
327.5259	-14200.5868	-1815.8973	0.0000	0.0000
7940.0477	6712.0406	302.7668	-1228.0072	6774.5132
304.3869	27.1714	-23.2047	680285.8938	-16.8819
-16.8777				
[18331]ENERGY: 5180000	3296.1748	5434.4469	5716.0798	
327.5600	-14240.5515	-1767.1491	0.0000	0.0000
7944.8507	6711.4115	302.9500	-1233.4392	6773.7929
304.1412	121.1180	81.1874	680285.8938	-14.6414
-14.6449				
[18381]ENERGY: 5190000	3258.8909	5483.9712	5766.1675	
369.4049	-14216.6377	-1848.4073	0.0000	0.0000
7898.7536	6712.1432	301.1922	-1186.6104	6774.9604
304.4182	2.2160	-36.5464	680285.8938	-15.0915
-15.0955				
[18420]ENERGY: 5200000	3264.0963	5410.8766	5712.7209	
360.2979	-14152.9247	-1892.3356	0.0000	0.0000
8008.5672	6711.2987	305.3796	-1297.2685	6775.0061
304.4361	-132.0025	-167.6371	680285.8938	-15.1637
-15.1816				
[18470]ENERGY: 5210000	3371.5415	5403.7006	5692.6184	
334.1310	-14171.8264	-1839.6744	0.0000	0.0000
7922.4830	6712.9735	302.0971	-1209.5095	6775.3043
304.3184	-189.7687	-157.8501	680285.8938	-14.2645
-14.2464				
[18506]ENERGY: 5220000	3285.2493	5381.2270	5735.8567	
325.3352	-14101.6200	-1884.0845	0.0000	0.0000
7970.5022	6712.4658	303.9281	-1258.0364	6775.3555
304.3791	-90.7124	-29.0722	680285.8938	-14.5140
-14.5161				
[18556]ENERGY: 5230000	3273.7027	5487.4577	5713.0429	
340.1038	-14328.8548	-1716.4202	0.0000	0.0000
7943.1777	6712.2098	302.8862	-1230.9679	6774.3527
304.4189	35.3880	87.6950	680285.8938	-17.5613
-17.5635				
[18592]ENERGY: 5240000	3319.2232	5458.6098	5751.0176	

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326.6163	-14206.4040	-1883.7766	0.0000	0.0000
7949.5693	6714.8557	303.1299	-1234.7137	6776.8429
304.5317	23.7974	-30.4296	680285.8938	-15.3276
-15.3256				
[18642]ENERGY: 5250000	3314.8777	5401.9716	5747.0367	
333.0428	-14271.7319	-1781.3237	0.0000	0.0000
7966.2399	6710.1131	303.7656	-1256.1269	6775.7353
304.4288	-47.2795	-30.5255	680285.8938	-20.9217
-20.9187				
[18678]ENERGY: 5260000	3200.6349	5467.3474	5744.9881	
317.7197	-14242.3246	-1810.5107	0.0000	0.0000
8028.1420	6705.9967	306.1260	-1322.1453	6775.3816
304.5078	-31.6122	-42.5002	680285.8938	-20.5924
-20.6004				
[18728]ENERGY: 5270000	3237.9677	5437.2927	5767.5503	
342.6503	-14266.1117	-1794.5125	0.0000	0.0000
7985.6547	6710.4916	304.5059	-1275.1631	6776.5562
304.5564	128.4559	72.7079	680285.8938	-16.9833
-16.9851				
[18764]ENERGY: 5280000	3291.0420	5411.9370	5679.2639	
320.1729	-14143.4466	-1822.7909	0.0000	0.0000
7978.1334	6714.3117	304.2191	-1263.8217	6775.9363
304.5913	11.4539	-13.7056	680285.8938	-16.2381
-16.2280				
[18814]ENERGY: 5290000	3279.9311	5508.4498	5732.9044	
334.3252	-14197.1976	-1834.4440	0.0000	0.0000
7891.5847	6715.5536	300.9188	-1176.0311	6776.9619
304.4986	2.6817	-9.7268	680285.8938	-16.5588
-16.5495				
[18853]ENERGY: 5300000	3251.6544	5442.5711	5704.1070	
339.5949	-14269.4008	-1754.7059	0.0000	0.0000
7995.3958	6709.2166	304.8773	-1286.1792	6776.4954
304.5634	18.2213	-4.1991	680285.8938	-15.8492
-15.8611				
[18903]ENERGY: 5310000	3251.9385	5421.7772	5756.2110	
311.5193	-14218.2385	-1801.3422	0.0000	0.0000
7991.0876	6712.9529	304.7131	-1278.1347	6777.0043
304.4837	87.0808	55.0746	680285.8938	-14.5644
-14.5636				
[18939]ENERGY: 5320000	3332.7415	5363.9903	5741.3897	
337.7688	-14257.9429	-1791.9940	0.0000	0.0000
7986.7392	6712.6927	304.5472	-1274.0465	6776.3264
304.4119	-99.8989	9.0502	680285.8938	-15.0865
-15.0728				
[18989]ENERGY: 5330000	3281.3387	5463.3251	5726.7456	
351.2263	-14280.7937	-1856.3901	0.0000	0.0000
8028.7060	6714.1578	306.1475	-1314.5481	6776.7777
304.4618	-28.1458	-46.0384	680285.8938	-16.1112
-16.1370				
[19025]ENERGY: 5340000	3310.7968	5386.8651	5725.2162	
324.4885	-14128.5590	-1908.4513	0.0000	0.0000
7999.2428	6709.5991	305.0240	-1289.6437	6777.1648
304.6241	-245.0045	-249.9489	680285.8938	-15.4832
-15.4801				

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[19075]ENERGY: 5350000	3223.6116	5457.0463	5690.1504	
333.8830	-14228.6032	-1699.4958	0.0000	0.0000
7940.6860	6717.2783	302.7912	-1223.4077	6777.5180
304.3122	117.5763	35.2505	680285.8938	-16.7347
-16.7361				
[19111]ENERGY: 5360000	3265.2646	5493.4264	5735.7948	
351.7074	-14260.2044	-1841.7502	0.0000	0.0000
7969.3270	6713.5657	303.8833	-1255.7613	6780.0723
304.2828	11.3976	-41.8205	680285.8938	-15.7677
-15.7551				
[19161]ENERGY: 5370000	3376.0802	5376.3403	5687.7548	
321.5037	-14228.8779	-1850.4967	0.0000	0.0000
8031.0748	6713.3791	306.2378	-1317.6956	6780.1202
304.3408	-90.1237	-103.8343	680285.8938	-8.9793
-8.9629				
[19197]ENERGY: 5380000	3266.8138	5442.7340	5722.3481	
327.2356	-14243.5237	-1802.4163	0.0000	0.0000
8000.9013	6714.0928	305.0873	-1286.8085	6779.2231
304.3572	69.5289	-6.1089	680285.8938	-18.7337
-18.7574				
[19247]ENERGY: 5390000	3238.1981	5434.4047	5751.1104	
340.7741	-14143.1023	-1920.7862	0.0000	0.0000
8014.4424	6715.0412	305.6036	-1299.4012	6780.3280
304.5662	-19.2294	-47.6470	680285.8938	-11.7864
-11.7830				
[19286]ENERGY: 5400000	3281.0201	5521.0522	5720.7201	
335.6585	-14308.1732	-1781.8251	0.0000	0.0000
7948.8195	6717.2721	303.1013	-1231.5474	6780.2339
304.3995	173.0326	66.8971	680285.8938	-13.5391
-13.5304				
[19336]ENERGY: 5410000	3321.2001	5550.8413	5744.3258	
351.3104	-14265.0497	-1831.0958	0.0000	0.0000
7846.5335	6718.0657	299.2010	-1128.4678	6780.0666
304.4656	-84.1798	-81.1386	680285.8938	-12.8032
-12.7945				
[19372]ENERGY: 5420000	3269.6395	5386.3796	5702.8303	
328.2839	-14164.7900	-1785.1305	0.0000	0.0000
7980.7037	6717.9165	304.3171	-1262.7871	6780.0159
304.4666	152.0175	124.4078	680285.8938	-11.7606
-11.7787				
[19422]ENERGY: 5430000	3297.1791	5472.3600	5743.8917	
339.0650	-14197.8864	-1828.4723	0.0000	0.0000
7891.9240	6718.0611	300.9318	-1173.8629	6781.5144
304.3705	-43.2117	-68.6920	680285.8938	-12.1746
-12.1814				
[19458]ENERGY: 5440000	3310.2972	5401.9696	5677.8548	
333.2882	-14217.4607	-1821.8140	0.0000	0.0000
8033.4201	6717.5553	306.3273	-1315.8648	6781.4148
304.4397	-19.7089	-48.5912	680285.8938	-11.0213
-11.0053				
[19508]ENERGY: 5450000	3237.6458	5437.8967	5728.2002	
362.3297	-14201.9823	-1838.8947	0.0000	0.0000
7993.1844	6718.3796	304.7930	-1274.8047	6781.3793
304.5842	48.0475	-30.3364	680285.8938	-8.4363

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-8.4388
 [19544]ENERGY: 5460000 3267.2645 5494.8988 5681.7376
 319.0099 -14253.7350 -1796.6321 0.0000 0.0000
 8005.4828 6718.0265 305.2620 -1287.4563 6780.8311
 304.6238 96.0920 83.9173 680285.8938 -12.7154
 -12.7295
 [19594]ENERGY: 5470000 3343.8732 5439.9929 5733.1219
 328.2310 -14284.0349 -1807.3863 0.0000 0.0000
 7962.5545 6716.3523 303.6250 -1246.2023 6781.9849
 304.6267 127.0316 137.4205 680285.8938 -9.8801
 -9.8622
 [19630]ENERGY: 5480000 3255.8179 5390.3981 5765.0210
 333.4783 -14228.0794 -1775.4180 0.0000 0.0000
 7975.8857 6717.1035 304.1334 -1258.7821 6782.1232
 304.6394 4.5175 -19.6215 680285.8938 -13.5003
 -13.5128
 [19680]ENERGY: 5490000 3248.3751 5522.4787 5689.5534
 336.8648 -14318.6477 -1718.0849 0.0000 0.0000
 7957.4663 6718.0057 303.4310 -1239.4607 6782.3891
 304.7719 41.1621 81.3977 680285.8938 -13.2612
 -13.2637
 [19719]ENERGY: 5500000 3330.0661 5430.3889 5752.3560
 340.0750 -14315.5060 -1774.7292 0.0000 0.0000
 7955.2094 6717.8603 303.3450 -1237.3491 6782.9859
 304.7755 39.8499 -5.2739 680285.8938 -16.2160
 -16.2075
 [19769]ENERGY: 5510000 3267.4575 5472.7607 5741.5410
 339.9000 -14260.9887 -1824.0221 0.0000 0.0000
 7984.4723 6721.1207 304.4608 -1263.3516 6783.5168
 304.8050 -26.2845 -91.3864 680285.8938 -14.2076
 -14.2129
 [19805]ENERGY: 5520000 3315.5470 5479.6087 5667.3796
 319.0729 -14177.5200 -1826.4915 0.0000 0.0000
 7944.3944 6721.9911 302.9326 -1222.4032 6783.5286
 304.7714 -51.6259 -49.6027 680285.8938 -15.6531
 -15.6475
 [19855]ENERGY: 5530000 3375.3325 5351.7888 5696.1014
 335.3263 -14217.7962 -1787.8454 0.0000 0.0000
 7968.0079 6720.9152 303.8330 -1247.0927 6783.3428
 304.6536 130.2882 76.1452 680285.8938 -11.7832
 -11.7845
 [19891]ENERGY: 5540000 3359.3778 5498.4709 5739.5610
 340.7697 -14304.9073 -1813.1609 0.0000 0.0000
 7900.0010 6720.1122 301.2398 -1179.8888 6783.1656
 304.5465 -130.7609 -10.5448 680285.8938 -15.2193
 -15.2233
 [19941]ENERGY: 5550000 3245.5954 5360.4950 5768.7382
 349.0015 -14259.9639 -1801.1519 0.0000 0.0000
 8056.5305 6719.2447 307.2085 -1337.2858 6783.6971
 304.7283 70.4914 19.1828 680285.8938 -17.9640
 -17.9550
 [19977]ENERGY: 5560000 3278.5224 5536.8987 5780.6100
 352.0793 -14327.6997 -1859.1146 0.0000 0.0000
 7955.0155 6716.3117 303.3376 -1238.7039 6784.0083

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304.7498	-134.6850	-143.1351	680285.8938	-18.3087
-18.3086				
[20027]ENERGY: 5570000	3238.8496	5471.2325	5757.8711	
326.8149	-14318.2985	-1769.4314	0.0000	0.0000
8012.0675	6719.1057	305.5131	-1292.9618	6784.5727
304.8776	-50.7983	-20.2228	680285.8938	-12.3167
-12.3185				
[20063]ENERGY: 5580000	3313.8542	5373.0942	5700.3450	
342.8407	-14300.2526	-1782.6506	0.0000	0.0000
8069.1897	6716.4206	307.6912	-1352.7691	6783.7114
304.7615	55.1760	-4.2022	680285.8938	-15.6490
-15.6596				
[20113]ENERGY: 5590000	3329.8235	5409.3746	5745.2797	
350.6149	-14266.4394	-1826.5658	0.0000	0.0000
7979.5193	6721.6067	304.2719	-1257.9126	6784.7437
304.8210	104.8022	21.9776	680285.8938	-14.4223
-14.4322				
[20152]ENERGY: 5600000	3318.6237	5400.3120	5736.2695	
330.2245	-14287.8115	-1790.9146	0.0000	0.0000
8012.7764	6719.4800	305.5401	-1293.2964	6784.2650
304.9373	-31.1006	-82.5984	680285.8938	-10.1901
-10.1766				
[20202]ENERGY: 5610000	3314.0792	5487.7659	5738.4651	
340.5804	-14294.8454	-1832.5140	0.0000	0.0000
7966.5383	6720.0696	303.7770	-1246.4687	6784.5910
305.0154	-138.2785	-160.2527	680285.8938	-9.9579
-9.9456				
[20238]ENERGY: 5620000	3288.4560	5548.6419	5681.6601	
332.7200	-14309.2199	-1812.8660	0.0000	0.0000
7991.3049	6720.6969	304.7213	-1270.6080	6785.6737
305.0411	116.9259	-7.1634	680285.8938	-9.5609
-9.5807				
[20288]ENERGY: 5630000	3341.1260	5386.6445	5751.5944	
308.1212	-14166.2037	-1827.4962	0.0000	0.0000
7929.8736	6723.6597	302.3789	-1206.2139	6785.5705
304.9770	-194.5882	-65.2418	680285.8938	-16.2554
-16.2235				
[20324]ENERGY: 5640000	3310.3651	5525.1083	5703.1527	
352.9092	-14300.7413	-1845.9351	0.0000	0.0000
7971.3506	6716.2095	303.9605	-1255.1411	6785.9513
304.9510	-36.6371	9.7996	680285.8938	-12.6001
-12.5978				
[20374]ENERGY: 5650000	3326.7397	5476.9120	5734.3887	
329.1487	-14291.2485	-1816.2824	0.0000	0.0000
7963.3840	6723.0421	303.6567	-1240.3419	6785.8825
305.1004	-53.8632	-59.7785	680285.8938	-12.4074
-12.4410				
[20410]ENERGY: 5660000	3293.2850	5455.7541	5761.0394	
336.5422	-14209.9992	-1820.0235	0.0000	0.0000
7905.2386	6721.8367	301.4395	-1183.4020	6786.1306
304.8845	17.5743	17.0684	680285.8938	-13.4492
-13.4383				
[20460]ENERGY: 5670000	3332.7008	5489.6672	5737.4765	
329.4794	-14211.8929	-1838.3248	0.0000	0.0000

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7885.2035	6724.3097	300.6755	-1160.8937	6786.7568
304.6552	-28.7440	-34.2149	680285.8938	-18.0412
-18.0265				
[20496]ENERGY: 5680000	3262.7427	5464.7662	5702.5645	
331.6652	-14250.8126	-1849.6672	0.0000	0.0000
8055.5443	6716.8030	307.1709	-1338.7412	6786.3435
304.6683	-130.3824	-108.7906	680285.8938	-15.5254
-15.5416				
[20546]ENERGY: 5690000	3360.6565	5410.1167	5733.5659	
361.7513	-14352.8155	-1775.0710	0.0000	0.0000
7986.9801	6725.1839	304.5564	-1261.7962	6785.8148
304.5840	31.4936	-70.5995	680285.8938	-14.5874
-14.5973				
[20585]ENERGY: 5700000	3309.4968	5390.2868	5711.8071	
353.5286	-14201.2571	-1786.7958	0.0000	0.0000
7945.5306	6722.5970	302.9759	-1222.9336	6786.6111
304.6722	-128.2405	-32.2491	680285.8938	-11.3100
-11.2843				
[20635]ENERGY: 5710000	3300.4284	5476.1944	5715.8791	
337.8863	-14294.3210	-1829.0887	0.0000	0.0000
8015.1504	6722.1288	305.6306	-1293.0216	6785.7927
304.7748	-145.0238	-122.0475	680285.8938	-16.9940
-17.0059				
[20671]ENERGY: 5720000	3194.5169	5485.5864	5707.3926	
349.5839	-14191.9209	-1832.1778	0.0000	0.0000
8005.7025	6718.6836	305.2703	-1287.0189	6786.5592
304.7890	19.1695	27.0950	680285.8938	-9.4588
-9.4598				
[20721]ENERGY: 5730000	3370.0458	5432.8331	5701.1777	
321.6506	-14271.6353	-1849.9853	0.0000	0.0000
8020.9926	6725.0792	305.8534	-1295.9134	6788.9564
304.7647	-126.0716	-122.8959	680285.8938	-18.8396
-18.8439				
[20757]ENERGY: 5740000	3318.0447	5482.0563	5738.0427	
352.4317	-14289.4285	-1895.5062	0.0000	0.0000
8019.6432	6725.2837	305.8019	-1294.3594	6790.4330
304.9668	103.2145	57.3633	680285.8938	-15.2454
-15.2572				
[20807]ENERGY: 5750000	3299.4279	5470.1448	5770.3128	
348.2713	-14361.6438	-1852.1332	0.0000	0.0000
8049.6117	6723.9915	306.9447	-1325.6202	6789.8022
305.0304	75.2631	1.1555	680285.8938	-15.6727
-15.6614				
[20843]ENERGY: 5760000	3271.4054	5440.5236	5768.2474	
332.8815	-14258.7579	-1860.6906	0.0000	0.0000
8031.0960	6724.7054	306.2386	-1306.3906	6788.4885
305.1797	-57.4675	-63.9296	680285.8938	-12.2081
-12.1937				
[20893]ENERGY: 5770000	3377.9488	5343.1084	5716.3720	
348.0742	-14238.5616	-1802.5519	0.0000	0.0000
7984.2224	6728.6122	304.4513	-1255.6102	6789.7093
305.1021	187.9335	84.1672	680285.8938	-12.3500
-12.3552				
[20929]ENERGY: 5780000	3280.2794	5552.5463	5771.8375	

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345.9695	-14338.6912	-1855.4876	0.0000	0.0000
7970.9210	6727.3748	303.9441	-1243.5461	6790.9546
305.0884	-8.0503	-17.2053	680285.8938	-9.1780
-9.1759				
[20979]ENERGY: 5790000	3195.2873	5387.8397	5757.0364	
339.1610	-14157.0599	-1886.9488	0.0000	0.0000
8090.3816	6725.6972	308.4993	-1364.6844	6790.3920
305.0767	11.3388	35.9125	680285.8938	-13.5622
-13.5692				
[21018]ENERGY: 5800000	3231.5178	5442.5278	5715.0636	
346.7546	-14184.1190	-1863.0676	0.0000	0.0000
8038.0970	6726.7741	306.5056	-1311.3228	6790.1589
305.3668	109.5214	27.9411	680285.8938	-12.1999
-12.1971				
[21068]ENERGY: 5810000	3344.4412	5535.6836	5688.2574	
328.5797	-14267.7238	-1855.9988	0.0000	0.0000
7952.4443	6725.6836	303.2395	-1226.7608	6791.3837
305.4216	45.3258	55.9209	680285.8938	-13.9554
-13.9531				
[21104]ENERGY: 5820000	3292.5422	5492.2206	5764.8051	
322.0928	-14276.1716	-1772.6423	0.0000	0.0000
7904.7032	6727.5500	301.4191	-1177.1532	6791.2242
305.4058	142.3498	57.4153	680285.8938	-13.3667
-13.3684				
[21154]ENERGY: 5830000	3295.6955	5454.1865	5721.2916	
342.8522	-14244.9710	-1831.9045	0.0000	0.0000
7989.6403	6726.7905	304.6579	-1262.8497	6791.1294
305.3847	-3.3615	-65.8529	680285.8938	-9.5915
-9.6020				
[21190]ENERGY: 5840000	3243.6922	5464.0108	5742.9567	
323.6036	-14304.6693	-1759.3104	0.0000	0.0000
8015.5019	6725.7856	305.6440	-1289.7164	6792.0768
305.2200	0.7037	1.3814	680285.8938	-15.0506
-15.0477				
[21240]ENERGY: 5850000	3259.8947	5463.3772	5657.7929	
346.9533	-14248.9138	-1792.1099	0.0000	0.0000
8037.4345	6724.4291	306.4803	-1313.0055	6792.1570
305.3070	139.6408	148.0179	680285.8938	-19.5623
-19.5413				
[21276]ENERGY: 5860000	3236.7613	5374.0153	5731.2700	
340.5493	-14265.5468	-1765.5166	0.0000	0.0000
8077.9699	6729.5024	308.0260	-1348.4675	6792.5925
305.4706	87.8365	101.4354	680285.8938	-9.7778
-9.7960				
[21326]ENERGY: 5870000	3205.3574	5465.8297	5742.8309	
356.3285	-14267.3958	-1813.1983	0.0000	0.0000
8040.1568	6729.9093	306.5841	-1310.2475	6793.3641
305.3611	239.6148	188.1138	680285.8938	-15.8357
-15.8165				
[21362]ENERGY: 5880000	3244.5668	5355.1510	5760.2113	
337.7494	-14271.4774	-1733.5560	0.0000	0.0000
8035.6442	6728.2894	306.4121	-1307.3548	6793.2792
305.4137	24.8337	6.8882	680285.8938	-11.6360
-11.6409				

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[21412]ENERGY: 5890000	3303.0628	5400.9516	5720.8993	
332.8722	-14263.2159	-1821.5919	0.0000	0.0000
8059.0951	6732.0732	307.3063	-1327.0219	6794.3043
305.3100	-46.5663	-32.3131	680285.8938	-10.1531
-10.1710				
[21451]ENERGY: 5900000	3331.2498	5434.9181	5707.9898	
333.5626	-14265.7421	-1834.2252	0.0000	0.0000
8018.3901	6726.1432	305.7541	-1292.2469	6793.2468
305.2495	140.3180	139.2217	680285.8938	-8.4226
-8.4109				
[21501]ENERGY: 5910000	3293.6472	5565.5312	5703.5412	
343.8890	-14335.3656	-1813.0071	0.0000	0.0000
7971.6674	6729.9031	303.9725	-1241.7643	6793.8405
305.4148	43.8719	13.1113	680285.8938	-13.7780
-13.7908				
[21537]ENERGY: 5920000	3331.6434	5412.3602	5711.1307	
349.9557	-14195.4317	-1805.6251	0.0000	0.0000
7929.6242	6733.6572	302.3694	-1195.9670	6794.6045
305.3884	107.7796	67.2222	680285.8938	-11.6772
-11.6782				
[21587]ENERGY: 5930000	3214.3642	5573.5439	5726.2887	
317.0203	-14336.4369	-1836.8969	0.0000	0.0000
8070.3267	6728.2099	307.7346	-1342.1168	6793.8830
305.6053	-16.7055	3.2389	680285.8938	-13.1654
-13.1402				
[21623]ENERGY: 5940000	3328.9818	5412.3554	5674.5758	
328.2862	-14261.8738	-1806.7825	0.0000	0.0000
8053.2267	6728.7696	307.0825	-1324.4571	6794.1769
305.6794	133.3877	76.5724	680285.8938	-13.1651
-13.1806				
[21673]ENERGY: 5950000	3293.3894	5442.6882	5699.1072	
333.6907	-14200.6701	-1814.3729	0.0000	0.0000
7977.4175	6731.2501	304.1918	-1246.1674	6795.1522
305.6685	-22.8228	0.3717	680285.8938	-14.0652
-14.0700				
[21709]ENERGY: 5960000	3304.6716	5437.7626	5728.3469	
329.9355	-14320.7857	-1818.1424	0.0000	0.0000
8068.6129	6730.4014	307.6692	-1338.2115	6794.7341
305.6656	-94.8825	-89.5917	680285.8938	-10.6767
-10.6849				
[21759]ENERGY: 5970000	3378.6103	5436.1085	5715.6870	
349.6439	-14319.6368	-1796.4243	0.0000	0.0000
7971.0247	6735.0133	303.9480	-1236.0114	6795.8887
305.7599	-23.6546	12.0248	680285.8938	-10.4118
-10.4131				
[21795]ENERGY: 5980000	3283.9000	5341.4026	5747.0893	
317.4734	-14247.7022	-1781.7251	0.0000	0.0000
8070.1944	6730.6324	307.7295	-1339.5620	6795.4747
305.7023	128.2101	31.5155	680285.8938	-11.1018
-11.1012				
[21845]ENERGY: 5990000	3328.3782	5368.7224	5723.5009	
314.4497	-14215.9161	-1817.5503	0.0000	0.0000
8029.8711	6731.4559	306.1919	-1298.4152	6796.2975
305.5705	-12.3951	-38.0204	680285.8938	-15.6143

Supplementary Text 6

-15.6132
 [21884]ENERGY: 6000000 3267.0205 5407.6350 5741.2131
 328.4195 -14161.2594 -1802.7680 0.0000 0.0000
 7950.7907 6731.0515 303.1765 -1219.7393 6796.1214
 305.3300 -86.1474 -67.1391 680285.8938 -10.8120
 -10.8191
 [21934]ENERGY: 6010000 3268.0784 5513.2212 5662.1939
 330.4218 -14226.6816 -1756.9922 0.0000 0.0000
 7945.6949 6735.9364 302.9822 -1209.7585 6797.5456
 305.6182 135.7156 21.2826 680285.8938 -11.6571
 -11.6555
 [21970]ENERGY: 6020000 3294.1237 5397.4853 5727.6972
 345.4872 -14255.6470 -1807.8873 0.0000 0.0000
 8030.9400 6732.1991 306.2327 -1298.7409 6798.3995
 305.5072 210.0864 136.8275 680285.8938 -15.1787
 -15.1574
 [22020]ENERGY: 6030000 3181.0972 5404.2132 5714.3535
 328.9826 -14120.3116 -1827.7174 0.0000 0.0000
 8050.4206 6731.0381 306.9755 -1319.3825 6796.3191
 305.4880 236.2480 200.3982 680285.8938 -10.1349
 -10.1571
 [22056]ENERGY: 6040000 3303.5236 5396.6894 5716.1377
 334.6958 -14278.7236 -1833.2255 0.0000 0.0000
 8090.4119 6729.5093 308.5005 -1360.9026 6796.5942
 305.3694 112.0975 -79.5643 680285.8938 -11.9824
 -11.9536
 [22106]ENERGY: 6050000 3311.3555 5445.2400 5704.2605
 334.5922 -14252.5213 -1783.1555 0.0000 0.0000
 7973.5894 6733.3608 304.0458 -1240.2286 6796.9688
 305.2583 126.3987 40.8558 680285.8938 -17.8592
 -17.8667
 [22142]ENERGY: 6060000 3316.8957 5413.8758 5688.9058
 318.6937 -14200.9596 -1816.5671 0.0000 0.0000
 8013.1293 6733.9735 305.5535 -1279.1558 6796.0069
 305.3717 21.4461 9.4296 680285.8938 -13.2931
 -13.3042
 [22192]ENERGY: 6070000 3251.6985 5560.1480 5693.7836
 349.6780 -14344.0376 -1747.2392 0.0000 0.0000
 7966.5344 6730.5658 303.7768 -1235.9687 6797.5911
 305.3972 61.7455 31.3395 680285.8938 -8.1504
 -8.1551
 [22228]ENERGY: 6080000 3293.4552 5399.1374 5758.5885
 345.1242 -14299.6847 -1740.0734 0.0000 0.0000
 7974.7785 6731.3257 304.0912 -1243.4528 6796.9030
 305.4966 -38.6561 -28.6369 680285.8938 -11.4652
 -11.4641
 [22278]ENERGY: 6090000 3210.0476 5511.3545 5735.2519
 336.4810 -14117.4272 -1861.3548 0.0000 0.0000
 7919.7998 6734.1528 301.9947 -1185.6470 6796.7614
 305.4394 -100.0734 -114.7663 680285.8938 -9.3161
 -9.3061
 [22317]ENERGY: 6100000 3344.4095 5382.5286 5716.8726
 323.4208 -14155.6593 -1803.2466 0.0000 0.0000
 7926.1907 6734.5162 302.2384 -1191.6745 6797.5183

Supplementary Text 6

305.4761	26.2546	-31.2021	680285.8938	-13.5453
-13.5368				
[22367]ENERGY: 6110000	3373.6560	5426.8456	5688.2387	
353.7767	-14302.5429	-1817.4170	0.0000	0.0000
8010.3567	6732.9138	305.4478	-1277.4429	6798.6285
305.3043	-37.4957	-53.5473	680285.8938	-16.3540
-16.3647				
[22403]ENERGY: 6120000	3246.2206	5499.6069	5690.2607	
321.5646	-14189.4378	-1833.5078	0.0000	0.0000
7997.0692	6731.7765	304.9411	-1265.2927	6797.6175
305.5269	98.3143	66.6666	680285.8938	-14.7665
-14.7648				
[22453]ENERGY: 6130000	3301.4417	5452.6983	5690.9037	
322.4369	-14261.8626	-1807.3469	0.0000	0.0000
8035.4189	6733.6900	306.4035	-1301.7290	6798.3516
305.6443	-53.9521	-64.7205	680285.8938	-14.2306
-14.2187				
[22489]ENERGY: 6140000	3258.1225	5589.7403	5677.0973	
341.4940	-14308.6112	-1774.5782	0.0000	0.0000
7951.3689	6734.6334	303.1985	-1216.7355	6798.6660
305.5830	65.4322	33.8223	680285.8938	-11.2485
-11.2597				
[22539]ENERGY: 6150000	3318.2655	5476.4229	5722.2947	
324.7706	-14264.7498	-1814.6762	0.0000	0.0000
7971.2732	6733.6008	303.9575	-1237.6724	6798.5999
305.6889	78.2501	16.9881	680285.8938	-14.5208
-14.5271				
[22575]ENERGY: 6160000	3306.8825	5446.8338	5715.3970	
333.0688	-14320.9119	-1772.3130	0.0000	0.0000
8023.4143	6732.3714	305.9457	-1291.0429	6798.2272
305.6373	71.2603	17.8556	680285.8938	-11.9459
-11.9427				
[22625]ENERGY: 6170000	3400.6373	5440.4140	5725.9343	
335.0374	-14290.9608	-1831.9648	0.0000	0.0000
7951.0670	6730.1644	303.1870	-1220.9026	6798.1091
305.8422	-131.0103	-106.5070	680285.8938	-7.7728
-7.7750				
[22661]ENERGY: 6180000	3300.5682	5418.0999	5672.5323	
334.7945	-14224.2264	-1838.1532	0.0000	0.0000
8070.5432	6734.1584	307.7428	-1336.3848	6798.4291
305.8233	28.5034	-18.0146	680285.8938	-10.6546
-10.6448				
[22711]ENERGY: 6190000	3294.4757	5488.9293	5733.9874	
315.2489	-14272.9341	-1710.5938	0.0000	0.0000
7888.8033	6737.9168	300.8128	-1150.8866	6799.2133
305.7474	175.6833	78.2681	680285.8938	-8.2384
-8.2474				
[22750]ENERGY: 6200000	3288.0020	5424.0128	5793.4439	
350.8587	-14293.8458	-1808.8963	0.0000	0.0000
7979.6155	6733.1910	304.2756	-1246.4246	6797.8768
306.0403	-17.6665	-28.8381	680285.8938	-8.6593
-8.6372				
[22800]ENERGY: 6210000	3278.1212	5504.0910	5703.1823	
359.4933	-14343.7550	-1714.5678	0.0000	0.0000

Supplementary Text 6

7949.1126	6735.6776	303.1125	-1213.4350	6799.1332
306.1454	86.2596	16.7690	680285.8938	-7.4301
-7.4533				
[22836]ENERGY: 6220000	3252.8211	5471.7577	5678.6413	
322.3966	-14252.7423	-1841.9024	0.0000	0.0000
8105.4825	6736.4545	309.0751	-1369.0280	6800.1388
306.0592	30.8245	-32.3672	680285.8938	-11.0055
-10.9972				
[22886]ENERGY: 6230000	3254.5624	5471.2881	5684.8904	
337.2828	-14234.5989	-1842.0540	0.0000	0.0000
8063.3313	6734.7022	307.4678	-1328.6291	6799.6244
306.0420	-69.1189	-8.1232	680285.8938	-8.8311
-8.8265				
[22922]ENERGY: 6240000	3361.8474	5438.2862	5696.9714	
362.9552	-14226.9091	-1844.8998	0.0000	0.0000
7949.3691	6737.6204	303.1223	-1211.7487	6801.0683
306.0652	79.2793	-5.2868	680285.8938	-6.8610
-6.8635				
[22972]ENERGY: 6250000	3418.3298	5463.0685	5606.5780	
327.1896	-14317.1801	-1747.4021	0.0000	0.0000
7985.6756	6736.2593	304.5067	-1249.4163	6801.2049
306.0240	74.6329	19.7340	680285.8938	-3.8673
-3.8845				
[23008]ENERGY: 6260000	3255.9135	5300.3522	5701.2892	
315.7577	-14204.4126	-1730.4713	0.0000	0.0000
8097.4286	6735.8573	308.7680	-1361.5713	6801.3260
305.7640	1.7369	-24.8197	680285.8938	-8.8356
-8.8205				
[23058]ENERGY: 6270000	3248.4480	5460.0355	5754.8398	
349.4679	-14223.7880	-1861.8936	0.0000	0.0000
8011.9207	6739.0303	305.5075	-1272.8904	6803.4936
305.8212	88.2113	26.2014	680285.8938	-10.0424
-10.0563				
[23094]ENERGY: 6280000	3299.4899	5396.6287	5681.2976	
341.9095	-14185.5507	-1785.3601	0.0000	0.0000
7987.1080	6735.5227	304.5613	-1251.5853	6802.4325
306.0066	-38.6016	-77.5081	680285.8938	-11.7207
-11.7241				
[23144]ENERGY: 6290000	3397.8661	5454.6495	5720.1700	
329.1192	-14359.0097	-1794.9291	0.0000	0.0000
7989.8222	6737.6883	304.6648	-1252.1340	6800.4580
305.8011	-56.2427	-64.2043	680285.8938	-12.8644
-12.8602				
[23183]ENERGY: 6300000	3319.0241	5428.4513	5732.7461	
364.3074	-14328.3428	-1801.7859	0.0000	0.0000
8020.9239	6735.3240	305.8508	-1285.5999	6802.0362
306.2714	108.0819	81.9932	680285.8938	-11.6608
-11.6423				
[23233]ENERGY: 6310000	3284.3192	5429.8110	5718.2993	
374.9141	-14228.6614	-1868.4248	0.0000	0.0000
8026.0601	6736.3175	306.0466	-1289.7426	6801.8265
306.1120	136.3633	120.7742	680285.8938	-16.9361
-16.9444				
[23269]ENERGY: 6320000	3287.5657	5441.0218	5728.2679	

Supplementary Text 6

340.2755	-14267.6430	-1874.6986	0.0000	0.0000
8082.8284	6737.6178	308.2113	-1345.2106	6802.8212
305.9943	-94.2000	-110.9926	680285.8938	-15.5438
-15.5340				
[23319]ENERGY: 6330000	3300.3247	5381.2160	5701.7777	
331.9516	-14214.0798	-1869.1948	0.0000	0.0000
8102.7747	6734.7700	308.9719	-1368.0047	6801.7638
306.1651	-59.7789	-13.6902	680285.8938	-13.1591
-13.1543				
[23355]ENERGY: 6340000	3291.2112	5446.0468	5707.9580	
336.3269	-14344.1897	-1744.1450	0.0000	0.0000
8040.5756	6733.7839	306.6001	-1306.7918	6802.7292
306.0524	-28.2767	-76.8579	680285.8938	-12.3758
-12.3849				
[23405]ENERGY: 6350000	3300.8702	5455.9495	5671.0783	
362.4655	-14232.3283	-1813.5399	0.0000	0.0000
7993.0193	6737.5146	304.7867	-1255.5047	6803.0642
306.1383	-21.8315	-57.0726	680285.8938	-12.7521
-12.7634				
[23441]ENERGY: 6360000	3343.6187	5368.0914	5649.7969	
329.2220	-14198.6457	-1835.6702	0.0000	0.0000
8079.6530	6736.0661	308.0902	-1343.5869	6802.3641
306.1477	-100.6380	-78.2544	680285.8938	-11.7405
-11.7384				
[23491]ENERGY: 6370000	3367.1301	5494.1833	5712.2544	
329.3328	-14284.1886	-1862.1568	0.0000	0.0000
7983.2133	6739.7685	304.4128	-1243.4448	6803.5910
306.0633	-3.4296	3.7292	680285.8938	-15.2753
-15.2783				
[23527]ENERGY: 6380000	3315.8071	5500.1989	5726.2072	
352.8041	-14345.4505	-1825.3167	0.0000	0.0000
8016.0552	6740.3053	305.6651	-1275.7499	6803.0299
306.1221	-180.8532	-130.2917	680285.8938	-10.6315
-10.6120				
[23577]ENERGY: 6390000	3336.6794	5423.7974	5760.2179	
357.9815	-14315.2081	-1861.4342	0.0000	0.0000
8036.0478	6738.0817	306.4275	-1297.9661	6802.3778
305.9920	-11.3891	-83.0677	680285.8938	-10.3675
-10.3976				
[23616]ENERGY: 6400000	3350.5985	5550.2066	5731.6912	
323.7695	-14316.6089	-1911.3661	0.0000	0.0000
8007.5354	6735.8262	305.3402	-1271.7092	6802.8259
305.8504	-160.4361	-68.4899	680285.8938	-16.2913
-16.2575				
[23666]ENERGY: 6410000	3247.1689	5521.2654	5754.5417	
333.3902	-14303.3135	-1852.2638	0.0000	0.0000
8035.6529	6736.4419	306.4124	-1299.2111	6803.6723
305.7013	99.9359	92.1609	680285.8938	-19.1341
-19.1692				
[23702]ENERGY: 6420000	3314.6121	5499.5009	5721.9393	
343.9166	-14328.8889	-1840.3556	0.0000	0.0000
8028.8788	6739.6032	306.1541	-1289.2756	6803.1174
305.9125	75.3126	-1.5429	680285.8938	-12.8803
-12.8635				

Supplementary Text 6

[23752]ENERGY: 6430000	3327.3799	5447.7885	5748.7734	
357.7833	-14287.5615	-1814.7972	0.0000	0.0000
7959.6611	6739.0274	303.5147	-1220.6337	6802.2896
305.9931	69.5237	5.3498	680285.8938	-13.4468
-13.4338				
[23788]ENERGY: 6440000	3294.0591	5327.1250	5648.5334	
298.9905	-14192.0235	-1804.7728	0.0000	0.0000
8160.9415	6732.8531	311.1899	-1428.0884	6801.9129
305.8395	-9.2388	6.9947	680285.8938	-19.7114
-19.7265				
[23838]ENERGY: 6450000	3333.1671	5485.1984	5728.3827	
318.6264	-14280.7438	-1820.2707	0.0000	0.0000
7974.6626	6739.0227	304.0867	-1235.6399	6802.8452
305.9028	87.4057	35.7639	680285.8938	-17.2018
-17.1937				
[23874]ENERGY: 6460000	3255.3849	5418.8501	5701.6404	
352.4700	-14341.4193	-1751.7117	0.0000	0.0000
8099.9050	6735.1193	308.8624	-1364.7857	6803.1928
306.0357	-28.8634	-36.2831	680285.8938	-18.6351
-18.6528				
[23924]ENERGY: 6470000	3334.6693	5430.9363	5750.7978	
336.6538	-14184.1217	-1904.1386	0.0000	0.0000
7975.8476	6740.6446	304.1319	-1235.2030	6804.1551
305.9404	-115.4886	-135.9166	680285.8938	-14.9875
-14.9927				
[23960]ENERGY: 6480000	3267.8380	5469.2586	5668.5848	
342.6496	-14248.0351	-1775.3917	0.0000	0.0000
8015.6228	6740.5269	305.6486	-1275.0959	6803.7965
305.8200	-56.1353	32.0512	680285.8938	-19.5838
-19.5566				
[24010]ENERGY: 6490000	3318.3032	5473.1759	5747.0562	
345.0284	-14337.7826	-1770.2764	0.0000	0.0000
7961.6010	6737.1057	303.5887	-1224.4953	6803.3282
305.9405	37.3100	26.6228	680285.8938	-16.4258
-16.4389				
[24049]ENERGY: 6500000	3320.4939	5426.5214	5732.2709	
345.6163	-14264.8066	-1779.4291	0.0000	0.0000
7958.6141	6739.2808	303.4748	-1219.3333	6803.7619
305.8200	90.6657	58.0120	680285.8938	-15.3941
-15.3909				
[24099]ENERGY: 6510000	3254.0034	5423.8705	5721.0153	
347.6913	-14314.7371	-1798.8376	0.0000	0.0000
8103.7933	6736.7992	309.0107	-1366.9941	6802.8224
305.8377	-9.6766	-73.0892	680285.8938	-15.9593
-15.9806				
[24135]ENERGY: 6520000	3292.6340	5366.0397	5729.4145	
343.7440	-14225.2553	-1808.8441	0.0000	0.0000
8038.6588	6736.3914	306.5270	-1302.2673	6803.5479
305.8841	-40.1980	-18.9093	680285.8938	-11.9457
-11.9214				
[24185]ENERGY: 6530000	3297.6419	5520.9814	5705.8752	
334.3667	-14258.9935	-1851.4046	0.0000	0.0000
7993.6455	6742.1126	304.8106	-1251.5330	6802.7283
305.9808	24.0714	-8.8310	680285.8938	-13.5638

Supplementary Text 6

-13.5626
 [24221]ENERGY: 6540000 3258.7190 5426.3960 5686.0751
 360.7291 -14249.9926 -1773.9154 0.0000 0.0000
 8033.9442 6741.9553 306.3472 -1291.9889 6803.4517
 306.2508 11.8485 -0.9607 680285.8938 -16.6461
 -16.6550
 [24271]ENERGY: 6550000 3207.4406 5497.1143 5687.2969
 361.5028 -14274.6913 -1825.5396 0.0000 0.0000
 8084.1611 6737.2849 308.2621 -1346.8763 6803.5786
 306.1654 88.8609 63.0708 680285.8938 -14.1446
 -14.1291
 [24307]ENERGY: 6560000 3283.8094 5491.5706 5708.5513
 353.2482 -14306.1023 -1865.8492 0.0000 0.0000
 8068.4433 6733.6713 307.6628 -1334.7720 6803.2635
 306.0838 -141.6667 -42.6650 680285.8938 -18.8226
 -18.8121
 [24357]ENERGY: 6570000 3350.7631 5490.3510 5672.6806
 332.8220 -14254.1495 -1815.1016 0.0000 0.0000
 7964.7198 6742.0853 303.7076 -1222.6344 6804.8406
 306.2494 -73.8615 -73.6156 680285.8938 -13.6115
 -13.6290
 [24393]ENERGY: 6580000 3309.3311 5496.6080 5740.3468
 352.4177 -14246.9996 -1866.3293 0.0000 0.0000
 7953.9918 6739.3665 303.2985 -1214.6253 6803.7210
 306.3427 -18.8048 -27.1537 680285.8938 -13.5031
 -13.4962
 [24443]ENERGY: 6590000 3357.6212 5409.6616 5698.1406
 324.2975 -14201.3150 -1817.6345 0.0000 0.0000
 7970.0012 6740.7727 303.9090 -1229.2285 6802.8620
 306.3348 -61.3174 -49.7040 680285.8938 -15.0585
 -15.0657
 [24482]ENERGY: 6600000 3377.0044 5485.7011 5714.3109
 341.3308 -14418.5714 -1834.8463 0.0000 0.0000
 8072.7250 6737.6547 307.8260 -1335.0704 6804.0190
 306.2615 133.2667 56.9373 680285.8938 -12.6071
 -12.5971
 [24532]ENERGY: 6610000 3347.0414 5469.9929 5674.4331
 323.5585 -14256.3535 -1849.7622 0.0000 0.0000
 8031.2827 6740.1929 306.2458 -1291.0898 6804.4381
 306.4305 -8.0459 -21.5720 680285.8938 -12.3580
 -12.3596
 [24568]ENERGY: 6620000 3283.9428 5561.3121 5710.8499
 300.8329 -14234.9747 -1913.1826 0.0000 0.0000
 8031.6235 6740.4040 306.2588 -1291.2195 6805.6575
 306.2161 -19.1993 -21.6948 680285.8938 -13.3558
 -13.3514
 [24618]ENERGY: 6630000 3254.0589 5355.7009 5697.3628
 334.4602 -14201.6804 -1894.3003 0.0000 0.0000
 8191.7552 6737.3573 312.3648 -1454.3980 6804.8109
 306.3799 -125.0716 -192.2820 680285.8938 -12.7962
 -12.8184
 [24654]ENERGY: 6640000 3333.6452 5396.2756 5697.3292
 352.7124 -14279.0395 -1827.0036 0.0000 0.0000
 8062.5997 6736.5190 307.4399 -1326.0808 6805.0321

Supplementary Text 6

306.2522	-93.6396	-105.9790	680285.8938	-13.9507
-13.9528				
[24704]ENERGY: 6650000	3259.1650	5465.2266	5686.7066	
331.0538	-14257.8151	-1726.8311	0.0000	0.0000
7981.8746	6739.3805	304.3618	-1242.4942	6805.1260
306.0941	116.7811	86.5845	680285.8938	-14.4009
-14.4043				
[24740]ENERGY: 6660000	3284.4356	5557.7893	5704.5213	
343.0901	-14305.1668	-1818.4957	0.0000	0.0000
7972.7417	6738.9156	304.0135	-1233.8261	6804.9287
305.9569	88.3392	-10.4453	680285.8938	-14.8539
-14.8598				
[24790]ENERGY: 6670000	3336.8716	5527.1828	5665.7548	
324.6971	-14284.7499	-1860.6848	0.0000	0.0000
8029.0485	6738.1203	306.1606	-1290.9283	6805.5820
306.0550	26.8017	54.5761	680285.8938	-14.6603
-14.6302				
[24826]ENERGY: 6680000	3254.0850	5385.1087	5692.2426	
333.0035	-14200.7988	-1831.2784	0.0000	0.0000
8108.2269	6740.5894	309.1798	-1367.6375	6805.8634
305.9097	0.9370	-1.7318	680285.8938	-15.5999
-15.6126				
[24876]ENERGY: 6690000	3396.3383	5449.9281	5689.6000	
333.1055	-14280.7164	-1763.0162	0.0000	0.0000
7920.9810	6746.2203	302.0398	-1174.7607	6806.5042
306.1996	-54.8423	-63.3925	680285.8938	-9.4706
-9.4576				
[24915]ENERGY: 6700000	3305.6212	5319.5673	5733.9805	
334.2469	-14269.3332	-1730.6425	0.0000	0.0000
8050.7564	6744.1967	306.9883	-1306.5598	6807.8711
306.3169	258.2193	89.4731	680285.8938	-14.4147
-14.4224				
[24965]ENERGY: 6710000	3294.9155	5438.7434	5713.6072	
327.7746	-14299.2571	-1779.1426	0.0000	0.0000
8045.1311	6741.7720	306.7738	-1303.3591	6807.7004
306.3019	-73.5925	-89.8108	680285.8938	-14.0751
-14.0843				
[25001]ENERGY: 6720000	3303.1824	5426.5033	5726.1171	
342.4455	-14210.5744	-1877.5558	0.0000	0.0000
8034.7748	6744.8928	306.3789	-1289.8820	6808.0908
306.0404	67.4529	37.6265	680285.8938	-9.3267
-9.3110				
[25051]ENERGY: 6730000	3390.1249	5459.0785	5644.1274	
311.4298	-14250.7579	-1794.4475	0.0000	0.0000
7983.7595	6743.3147	304.4336	-1240.4449	6807.6349
306.3010	-44.0651	-26.1170	680285.8938	-12.0298
-12.0448				
[25087]ENERGY: 6740000	3338.7814	5423.8440	5754.1329	
374.0536	-14229.8036	-1883.0538	0.0000	0.0000
7968.2412	6746.1957	303.8419	-1222.0455	6808.3880
306.4127	7.2081	-10.7928	680285.8938	-14.6615
-14.6490				
[25137]ENERGY: 6750000	3319.8042	5407.2374	5719.8063	
329.6018	-14270.0479	-1799.0371	0.0000	0.0000

Supplementary Text 6

8036.2208	6743.5857	306.4341	-1292.6352	6809.4137
306.4110	-3.7403	15.0635	680285.8938	-9.5917
-9.6025				
[25173]ENERGY: 6760000	3399.5605	5410.1159	5745.9106	
342.3587	-14360.2341	-1737.6073	0.0000	0.0000
7946.8424	6746.9468	303.0259	-1199.8957	6810.4961
306.3791	95.6410	39.1435	680285.8938	-13.6008
-13.5887				
[25223]ENERGY: 6770000	3344.3436	5486.0136	5729.1001	
339.3046	-14328.6602	-1846.9414	0.0000	0.0000
8022.0437	6745.2040	305.8935	-1276.8397	6809.8541
306.1998	-10.0290	-40.0352	680285.8938	-12.9656
-12.9834				
[25259]ENERGY: 6780000	3244.1211	5584.5906	5721.7904	
321.0310	-14252.8344	-1822.8110	0.0000	0.0000
7950.5331	6746.4209	303.1666	-1204.1122	6811.1019
306.3933	229.4470	151.6046	680285.8938	-15.1333
-15.1184				
[25309]ENERGY: 6790000	3306.9545	5534.9060	5711.6147	
351.5630	-14242.3343	-1920.2792	0.0000	0.0000
8003.7436	6746.1683	305.1957	-1257.5753	6812.2923
306.2551	-100.0125	-138.9291	680285.8938	-13.0364
-13.0447				
[25348]ENERGY: 6800000	3343.0096	5402.0851	5677.3459	
312.9293	-14287.2627	-1766.5080	0.0000	0.0000
8063.4562	6745.0554	307.4726	-1318.4008	6810.1309
306.3201	127.2151	113.6911	680285.8938	-13.4540
-13.4406				
[25398]ENERGY: 6810000	3304.0254	5512.0311	5715.0712	
319.5011	-14270.3927	-1805.2722	0.0000	0.0000
7973.9325	6748.8963	304.0589	-1225.0361	6811.6478
306.4332	17.2773	26.9924	680285.8938	-15.7584
-15.7754				
[25434]ENERGY: 6820000	3261.3227	5379.0804	5749.0523	
356.8055	-14273.7110	-1733.3437	0.0000	0.0000
8007.4606	6746.6668	305.3374	-1260.7939	6811.1941
306.2560	89.4367	51.3952	680285.8938	-11.6190
-11.6196				
[25484]ENERGY: 6830000	3275.5877	5436.8285	5742.7590	
350.0688	-14342.3379	-1734.4586	0.0000	0.0000
8018.4850	6746.9326	305.7578	-1271.5524	6811.4851
306.1873	70.4174	13.0879	680285.8938	-13.8630
-13.8660				
[25520]ENERGY: 6840000	3271.3252	5463.7297	5702.7016	
328.1100	-14338.2740	-1720.2501	0.0000	0.0000
8036.6768	6744.0190	306.4514	-1292.6578	6811.9672
306.1017	17.8139	28.2708	680285.8938	-13.5622
-13.5608				
[25570]ENERGY: 6850000	3263.2589	5488.8400	5717.9585	
346.3614	-14321.6022	-1781.9930	0.0000	0.0000
8033.7794	6746.6031	306.3410	-1287.1764	6812.9065
306.3194	89.4141	63.7877	680285.8938	-13.8183
-13.8164				
[25606]ENERGY: 6860000	3342.4764	5532.4302	5774.2828	

Supplementary Text 6

352.9581	-14282.3341	-1895.9822	0.0000	0.0000
7927.5617	6751.3929	302.2907	-1176.1687	6815.3486
306.1937	-58.4090	-97.9747	680285.8938	-12.8544
-12.8516				
[25656]ENERGY: 6870000	3240.7498	5462.5767	5724.0935	
331.7667	-14176.1894	-1883.8548	0.0000	0.0000
8051.2422	6750.3846	307.0068	-1300.8576	6813.3194
306.4074	139.5975	114.5771	680285.8938	-10.9234
-10.9202				
[25692]ENERGY: 6880000	3322.1694	5486.8445	5751.1783	
326.8131	-14281.0696	-1846.1009	0.0000	0.0000
7989.1133	6748.9481	304.6378	-1240.1652	6812.0290
306.5048	-14.5917	13.2412	680285.8938	-17.0566
-17.0634				
[25742]ENERGY: 6890000	3282.1058	5467.3238	5741.8682	
350.8496	-14230.7327	-1879.8375	0.0000	0.0000
8016.0405	6747.6177	305.6646	-1268.4228	6812.7623
306.5713	-23.2400	-17.1755	680285.8938	-9.9526
-9.9543				
[25781]ENERGY: 6900000	3348.4098	5366.7030	5741.5834	
336.6788	-14300.3251	-1814.1549	0.0000	0.0000
8068.4783	6747.3732	307.6641	-1321.1051	6812.6139
306.2888	-27.1378	-43.6274	680285.8938	-10.5785
-10.5710				
[25831]ENERGY: 6910000	3341.0218	5472.7318	5721.3090	
345.3482	-14244.6192	-1856.5250	0.0000	0.0000
7971.0646	6750.3312	303.9495	-1220.7334	6812.6615
306.3995	79.3714	34.5939	680285.8938	-14.7204
-14.7112				
[25867]ENERGY: 6920000	3291.0712	5505.1331	5715.3013	
318.2482	-14238.3044	-1847.8594	0.0000	0.0000
8004.4185	6748.0085	305.2214	-1256.4100	6811.6438
306.3874	-42.7036	-31.0238	680285.8938	-14.2414
-14.2476				
[25917]ENERGY: 6930000	3318.8507	5440.2292	5674.9986	
349.2429	-14215.6143	-1859.0739	0.0000	0.0000
8038.4886	6747.1217	306.5205	-1291.3669	6811.9537
306.5138	201.0567	125.3710	680285.8938	-13.0540
-13.0478				
[25953]ENERGY: 6940000	3345.8780	5355.2801	5731.2175	
338.5049	-14267.6371	-1785.6162	0.0000	0.0000
8030.8930	6748.5202	306.2309	-1282.3727	6811.7478
306.6000	-4.7731	-22.7308	680285.8938	-16.8462
-16.8303				
[26003]ENERGY: 6950000	3340.8839	5365.9746	5766.3256	
341.7559	-14182.3257	-1848.9814	0.0000	0.0000
7967.3228	6750.9558	303.8069	-1216.3671	6812.0662
306.6488	-37.6263	-49.6674	680285.8938	-12.2298
-12.2580				
[26039]ENERGY: 6960000	3307.0234	5486.4186	5737.5132	
341.4928	-14275.4667	-1820.7397	0.0000	0.0000
7973.0513	6749.2929	304.0253	-1223.7584	6811.8401
306.7167	-123.1602	-7.7181	680285.8938	-13.3857
-13.3533				

Supplementary Text 6

[26089]ENERGY: 6970000	3308.2002	5392.9331	5700.0292	
349.1254	-14271.6222	-1788.6629	0.0000	0.0000
8056.0469	6746.0498	307.1901	-1309.9971	6812.0304
306.5744	35.0742	54.6281	680285.8938	-14.9075
-14.9426				
[26125]ENERGY: 6980000	3327.2541	5515.7402	5704.0772	
338.8360	-14353.9197	-1787.8554	0.0000	0.0000
8002.1394	6746.2719	305.1345	-1255.8676	6811.9599
306.6353	-22.9209	-46.4509	680285.8938	-12.1484
-12.1442				
[26175]ENERGY: 6990000	3288.1156	5596.2423	5726.3902	
329.8060	-14291.3159	-1865.9643	0.0000	0.0000
7962.7520	6746.0260	303.6326	-1216.7260	6812.9673
306.6640	-170.4113	-164.2055	680285.8938	-15.1287
-15.1164				
[26214]ENERGY: 7000000	3357.6873	5443.4384	5721.5112	
350.9739	-14329.7573	-1807.0847	0.0000	0.0000
8008.9455	6745.7143	305.3940	-1263.2312	6812.8722
306.7096	98.0848	-48.5774	680285.8938	-13.8369
-13.8409				
[26264]ENERGY: 7010000	3349.2429	5500.5967	5746.7685	
340.2720	-14355.0459	-1733.5341	0.0000	0.0000
7898.4007	6746.7007	301.1788	-1151.7000	6811.5475
306.6292	154.3809	149.5480	680285.8938	-17.6784
-17.6767				
[26300]ENERGY: 7020000	3268.1673	5486.3247	5713.1298	
326.7386	-14319.3159	-1834.3988	0.0000	0.0000
8105.2930	6745.9387	309.0679	-1359.3543	6813.4771
306.6709	13.8482	0.2253	680285.8938	-14.1126
-14.1252				
[26350]ENERGY: 7030000	3296.8657	5403.5853	5674.6102	
333.3028	-14205.0507	-1869.8626	0.0000	0.0000
8112.5130	6745.9638	309.3432	-1366.5492	6812.8531
306.6819	-140.8825	-119.6170	680285.8938	-13.8931
-13.8760				
[26386]ENERGY: 7040000	3324.4579	5383.5820	5681.5359	
337.0992	-14287.2506	-1815.4275	0.0000	0.0000
8121.1882	6745.1850	309.6740	-1376.0032	6811.9222
306.5739	-93.6689	-145.7001	680285.8938	-13.8813
-13.8957				
[26436]ENERGY: 7050000	3257.8411	5474.5555	5753.1953	
336.3622	-14277.0015	-1842.1652	0.0000	0.0000
8040.4439	6743.2313	306.5951	-1297.2126	6811.6659
306.7140	5.3521	-81.3183	680285.8938	-13.0880
-13.0908				
[26472]ENERGY: 7060000	3282.6583	5514.1285	5752.5581	
346.8123	-14302.2627	-1821.2534	0.0000	0.0000
7975.5030	6748.1442	304.1188	-1227.3589	6813.0906
306.6226	93.7327	-6.5858	680285.8938	-12.2203
-12.2167				
[26522]ENERGY: 7070000	3293.4573	5446.3705	5751.0029	
348.5950	-14343.6988	-1786.4949	0.0000	0.0000
8038.1046	6747.3365	306.5059	-1290.7681	6812.3891
306.5138	38.2680	46.8580	680285.8938	-15.2381

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-15.2427
 [26558]ENERGY: 7080000 3282.3771 5417.2965 5750.0302
 345.1909 -14231.5290 -1830.9136 0.0000 0.0000
 8013.7402 6746.1924 305.5768 -1267.5479 6811.6879
 306.5297 -39.2584 -60.2619 680285.8938 -15.5702
 -15.5765
 [26608]ENERGY: 7090000 3398.6681 5456.6941 5739.5402
 322.8778 -14306.8294 -1842.5004 0.0000 0.0000
 7982.1956 6750.6461 304.3740 -1231.5495 6811.1840
 306.7265 -28.9133 -4.6749 680285.8938 -17.6913
 -17.6838
 [26647]ENERGY: 7100000 3279.2405 5384.1446 5704.5848
 338.4436 -14243.8148 -1883.6596 0.0000 0.0000
 8162.7902 6741.7293 311.2604 -1421.0609 6810.3073
 306.6349 -101.3910 -58.7475 680285.8938 -15.2208
 -15.2139
 [26697]ENERGY: 7110000 3290.3139 5485.8600 5657.4926
 325.3859 -14344.3913 -1765.6035 0.0000 0.0000
 8095.5402 6744.5979 308.6960 -1350.9424 6811.8456
 306.6546 62.7979 6.0527 680285.8938 -11.8766
 -11.8664
 [26733]ENERGY: 7120000 3266.0312 5451.7966 5795.2241
 349.6020 -14258.4204 -1877.7294 0.0000 0.0000
 8020.9214 6747.4255 305.8507 -1273.4959 6811.2104
 306.5634 -90.8409 -51.8953 680285.8938 -11.9305
 -11.9332
 [26783]ENERGY: 7130000 3193.1702 5486.4578 5770.9850
 330.2058 -14266.2295 -1810.2618 0.0000 0.0000
 8038.6080 6742.9355 306.5251 -1295.6725 6811.8469
 306.5399 134.8973 72.0253 680285.8938 -12.0225
 -12.0373
 [26819]ENERGY: 7140000 3347.2852 5475.7913 5681.3154
 324.5665 -14317.2425 -1797.3762 0.0000 0.0000
 8034.2387 6748.5785 306.3585 -1285.6602 6810.7169
 306.6365 -171.5579 -90.6858 680285.8938 -12.6924
 -12.6698
 [26869]ENERGY: 7150000 3299.7958 5512.9206 5747.2094
 325.4218 -14275.9322 -1810.7782 0.0000 0.0000
 7949.0644 6747.7015 303.1106 -1201.3629 6810.6748
 306.4542 -39.5729 -6.4512 680285.8938 -14.7469
 -14.7629
 [26905]ENERGY: 7160000 3341.6634 5398.2694 5765.0304
 319.3695 -14214.5464 -1867.6995 0.0000 0.0000
 8004.5210 6746.6079 305.2253 -1257.9131 6810.2565
 306.6359 -89.2134 -107.3654 680285.8938 -14.1917
 -14.2057
 [26955]ENERGY: 7170000 3271.2134 5424.4314 5706.1192
 333.4151 -14272.1652 -1813.6347 0.0000 0.0000
 8099.7069 6749.0861 308.8549 -1350.6208 6812.5565
 306.7599 133.9277 145.0264 680285.8938 -15.2764
 -15.2519
 [26991]ENERGY: 7180000 3297.5463 5364.1800 5741.8957
 329.0102 -14226.2609 -1840.6692 0.0000 0.0000
 8079.7288 6745.4311 308.0931 -1334.2978 6813.2767

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306.7683	-127.6270	-159.8208	680285.8938	-11.5803
-11.5993				
[27041]ENERGY: 7190000	3344.3022	5485.7679	5739.5118	
344.2024	-14347.1921	-1780.7759	0.0000	0.0000
7964.9635	6750.7798	303.7169	-1214.1837	6814.2299
306.8897	0.1487	4.6604	680285.8938	-10.3843
-10.3668				
[27080]ENERGY: 7200000	3325.7978	5452.7228	5727.5864	
313.3046	-14282.5194	-1883.5305	0.0000	0.0000
8097.7753	6751.1371	308.7812	-1346.6382	6814.9626
306.7406	-168.3558	-145.1243	680285.8938	-13.8582
-13.8493				
[27130]ENERGY: 7210000	3326.5780	5407.8941	5682.3320	
346.2214	-14326.6409	-1719.1714	0.0000	0.0000
8035.0326	6752.2458	306.3887	-1282.7868	6814.3794
306.4468	-52.3633	-14.0067	680285.8938	-14.0234
-14.0457				
[27166]ENERGY: 7220000	3180.6002	5420.4452	5781.1377	
319.5536	-14378.9868	-1742.0152	0.0000	0.0000
8164.2857	6745.0204	311.3174	-1419.2653	6814.5316
306.4666	160.3046	123.1425	680285.8938	-11.4451
-11.4497				
[27216]ENERGY: 7230000	3317.2990	5351.1097	5751.9326	
319.3777	-14242.9597	-1855.5472	0.0000	0.0000
8104.5962	6745.8084	309.0413	-1358.7878	6814.8525
306.3528	-95.6815	-57.8383	680285.8938	-14.0574
-14.0380				
[27252]ENERGY: 7240000	3367.6036	5470.8256	5692.5472	
314.1425	-14286.3548	-1791.4752	0.0000	0.0000
7985.3309	6752.6197	304.4935	-1232.7112	6815.4041
306.2682	-18.8449	-90.5928	680285.8938	-16.8886
-16.8833				
[27302]ENERGY: 7250000	3300.0781	5433.7772	5759.6268	
362.9617	-14330.9082	-1851.8698	0.0000	0.0000
8076.6350	6750.3008	307.9751	-1326.3343	6816.6670
306.5031	49.4119	-41.4672	680285.8938	-12.6560
-12.6644				
[27338]ENERGY: 7260000	3343.2740	5329.8666	5738.4759	
325.2491	-14253.7386	-1804.9709	0.0000	0.0000
8072.7839	6750.9400	307.8283	-1321.8439	6815.1644
306.5621	45.6226	-0.6019	680285.8938	-8.5305
-8.5464				
[27388]ENERGY: 7270000	3333.5059	5451.7395	5755.6063	
339.5042	-14295.6425	-1791.8701	0.0000	0.0000
7961.1834	6754.0268	303.5728	-1207.1566	6815.1173
306.4128	-45.0403	-88.9045	680285.8938	-14.4413
-14.4357				
[27424]ENERGY: 7280000	3195.1032	5467.1117	5723.3713	
312.9817	-14298.9837	-1788.8559	0.0000	0.0000
8138.6905	6749.4187	310.3414	-1389.2718	6814.9508
306.3217	97.0800	61.5473	680285.8938	-10.8831
-10.8779				
[27474]ENERGY: 7290000	3293.5719	5399.4663	5716.0144	
328.7180	-14182.8390	-1800.6190	0.0000	0.0000

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7999.3792	6753.6918	305.0292	-1245.6874	6815.6382
306.3433	155.5452	59.8870	680285.8938	-15.3492
-15.3548				
[27513]ENERGY: 7300000	3329.5052	5382.3360	5740.1213	
329.7795	-14269.0855	-1821.6617	0.0000	0.0000
8058.8171	6749.8119	307.2957	-1309.0052	6814.7631
306.3675	-45.2909	-123.8975	680285.8938	-11.8919
-11.9013				
[27563]ENERGY: 7310000	3312.6026	5435.9912	5719.2882	
349.8391	-14233.5148	-1784.2520	0.0000	0.0000
7953.7096	6753.6639	303.2878	-1200.0457	6816.0040
306.2945	102.2908	1.9683	680285.8938	-13.4001
-13.3940				
[27599]ENERGY: 7320000	3370.9375	5417.3136	5710.4399	
331.6773	-14337.8319	-1767.3134	0.0000	0.0000
8025.0369	6750.2600	306.0076	-1274.7770	6816.3827
306.4553	-115.6774	-128.6107	680285.8938	-14.3026
-14.2852				
[27649]ENERGY: 7330000	3362.0836	5426.6839	5734.4636	
355.2635	-14279.9493	-1814.3782	0.0000	0.0000
7967.7132	6751.8804	303.8218	-1215.8328	6815.8567
306.3644	39.2197	80.1188	680285.8938	-14.0267
-14.0452				
[27685]ENERGY: 7340000	3309.8367	5478.6352	5698.3649	
334.9942	-14251.8828	-1803.5731	0.0000	0.0000
7983.4377	6749.8127	304.4214	-1233.6250	6816.1442
306.3527	7.7862	-6.9533	680285.8938	-17.4311
-17.4124				
[27735]ENERGY: 7350000	3218.6185	5441.5595	5780.0480	
319.0755	-14171.8000	-1912.4970	0.0000	0.0000
8077.1840	6752.1884	307.9960	-1324.9955	6819.1365
306.3775	107.7183	-29.6918	680285.8938	-16.1390
-16.1305				
[27771]ENERGY: 7360000	3293.9479	5511.6871	5722.8282	
362.0144	-14230.5496	-1869.5511	0.0000	0.0000
7965.9110	6756.2879	303.7530	-1209.6232	6819.0365
306.6070	-61.7826	-31.6652	680285.8938	-11.6158
-11.6325				
[27821]ENERGY: 7370000	3366.1538	5491.6430	5729.8516	
317.7452	-14274.9461	-1861.3777	0.0000	0.0000
7993.0922	6762.1621	304.7895	-1230.9301	6820.9172
306.6569	144.7160	-36.5798	680285.8938	-15.6002
-15.6006				
[27857]ENERGY: 7380000	3211.3872	5411.8671	5699.0078	
326.0087	-14203.0232	-1840.0011	0.0000	0.0000
8145.4147	6750.6611	310.5978	-1394.7535	6819.4648
306.7225	-69.1011	-99.0307	680285.8938	-15.7779
-15.7870				
[27907]ENERGY: 7390000	3255.3517	5494.7492	5716.0270	
336.5479	-14279.6567	-1828.3979	0.0000	0.0000
8060.0810	6754.7021	307.3439	-1305.3788	6821.1406
306.6476	134.0252	36.2204	680285.8938	-17.0712
-17.0537				
[27946]ENERGY: 7400000	3308.1911	5407.6777	5692.5489	

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321.7093	-14257.7509	-1846.6640	0.0000	0.0000
8123.6041	6749.3162	309.7661	-1374.2879	6819.3138
306.7426	-59.1927	-77.2474	680285.8938	-16.1414
-16.1629				
[27996]ENERGY: 7410000	3268.9313	5452.7624	5784.5185	
369.5692	-14263.7018	-1817.4169	0.0000	0.0000
7958.3243	6752.9871	303.4637	-1205.3372	6821.1345
306.5861	34.1079	-50.0893	680285.8938	-18.7536
-18.7541				
[28032]ENERGY: 7420000	3339.6108	5468.8527	5750.9368	
350.8949	-14284.2890	-1833.0597	0.0000	0.0000
7967.0172	6759.9637	303.7952	-1207.0535	6820.2952
306.5503	-36.4561	-23.6300	680285.8938	-15.0673
-15.0556				
[28082]ENERGY: 7430000	3312.8281	5404.8931	5745.7762	
343.3649	-14331.6613	-1802.1294	0.0000	0.0000
8080.5961	6753.6676	308.1262	-1326.9285	6821.3335
306.7231	-63.8035	-69.7142	680285.8938	-17.5508
-17.5646				
[28118]ENERGY: 7440000	3349.1445	5440.1830	5707.2766	
337.6131	-14319.4500	-1852.7826	0.0000	0.0000
8091.0603	6753.0450	308.5252	-1338.0153	6821.3642
306.7719	-130.7410	-161.4301	680285.8938	-17.1938
-17.1855				
[28168]ENERGY: 7450000	3304.5967	5466.2811	5748.7484	
332.1467	-14281.4243	-1825.1011	0.0000	0.0000
8012.9081	6758.1556	305.5451	-1254.7525	6821.5152
306.5943	63.7865	63.8824	680285.8938	-17.1140
-17.1023				
[28204]ENERGY: 7460000	3268.5148	5456.3442	5755.7869	
311.4704	-14367.6718	-1790.4625	0.0000	0.0000
8121.9822	6755.9643	309.7043	-1366.0179	6822.2874
306.5102	126.8599	52.1499	680285.8938	-18.6541
-18.6816				
[28254]ENERGY: 7470000	3337.9994	5407.0950	5652.2877	
336.7042	-14280.9827	-1798.1585	0.0000	0.0000
8098.3070	6753.2521	308.8015	-1345.0549	6820.1575
306.6317	96.2668	31.9037	680285.8938	-17.8453
-17.8225				
[28290]ENERGY: 7480000	3322.5581	5379.2193	5748.0950	
337.6223	-14307.7810	-1805.9635	0.0000	0.0000
8081.5927	6755.3428	308.1642	-1326.2499	6820.3092
306.6135	-109.9654	-114.0403	680285.8938	-16.7431
-16.7431				
[28340]ENERGY: 7490000	3337.5393	5418.0061	5700.2389	
333.5297	-14210.1902	-1804.2182	0.0000	0.0000
7983.0286	6757.9342	304.4058	-1225.0944	6821.9069
306.6359	48.7413	-33.7440	680285.8938	-14.0382
-14.0426				
[28379]ENERGY: 7500000	3329.4951	5547.6197	5689.3792	
364.1041	-14329.1801	-1867.5283	0.0000	0.0000
8026.2382	6760.1277	306.0534	-1266.1105	6823.0433
306.8490	-65.7460	-68.9375	680285.8938	-15.0805
-15.0906				

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[28429]ENERGY: 7510000	3342.9437	5478.0261	5711.4165	
323.1322	-14345.5915	-1824.0998	0.0000	0.0000
8070.4129	6756.2401	307.7379	-1314.1728	6823.8582
306.7911	-13.4925	-7.0831	680285.8938	-13.4575
-13.4391				
[28465]ENERGY: 7520000	3332.2289	5466.6409	5704.8895	
343.8265	-14385.3889	-1779.5500	0.0000	0.0000
8076.9588	6759.6057	307.9875	-1317.3531	6823.9834
306.8430	21.2909	-56.3517	680285.8938	-13.1083
-13.1109				
[28515]ENERGY: 7530000	3231.2550	5527.1407	5737.1673	
352.1619	-14332.9568	-1829.5013	0.0000	0.0000
8074.7951	6760.0620	307.9050	-1314.7331	6824.3761
306.9349	157.6341	20.3887	680285.8938	-14.2152
-14.2364				
[28551]ENERGY: 7540000	3272.4551	5499.8004	5731.4233	
318.4598	-14404.9570	-1787.2173	0.0000	0.0000
8129.0082	6758.9724	309.9722	-1370.0357	6823.2504
306.7224	-21.2257	10.2770	680285.8938	-16.6464
-16.6172				
[28601]ENERGY: 7550000	3306.5495	5493.8431	5744.5553	
348.6764	-14359.9091	-1786.4127	0.0000	0.0000
8011.8300	6759.1325	305.5040	-1252.6975	6824.5133
306.9544	54.7753	-3.8521	680285.8938	-15.0865
-15.0888				
[28637]ENERGY: 7560000	3336.9826	5439.3866	5750.8936	
348.2870	-14338.6518	-1834.3505	0.0000	0.0000
8052.8081	6755.3556	307.0666	-1297.4526	6825.0798
306.9432	53.8801	-1.9892	680285.8938	-17.2046
-17.2171				
[28687]ENERGY: 7570000	3304.2141	5525.1076	5754.6660	
335.8867	-14302.8354	-1918.3881	0.0000	0.0000
8060.6531	6759.3041	307.3657	-1301.3491	6825.2027
306.8679	59.6576	-94.1058	680285.8938	-13.4230
-13.4199				
[28723]ENERGY: 7580000	3278.4521	5478.0176	5785.5393	
349.9280	-14273.0873	-1868.1743	0.0000	0.0000
8007.0321	6757.7075	305.3210	-1249.3246	6824.9338
306.9041	-22.9687	-85.3720	680285.8938	-11.1347
-11.1353				
[28773]ENERGY: 7590000	3284.1868	5486.4598	5728.3649	
341.8076	-14312.1726	-1871.2110	0.0000	0.0000
8105.9320	6763.3674	309.0923	-1342.5646	6824.9054
306.9407	104.9732	42.6784	680285.8938	-10.5138
-10.5112				
[28812]ENERGY: 7600000	3317.6977	5412.4458	5795.8198	
333.1492	-14289.2815	-1811.5213	0.0000	0.0000
8001.2570	6759.5667	305.1008	-1241.6903	6824.8436
307.0101	163.7439	87.4985	680285.8938	-12.1522
-12.1595				
[28862]ENERGY: 7610000	3363.4786	5441.7513	5692.4578	
344.8383	-14283.4139	-1893.9016	0.0000	0.0000
8093.8390	6759.0496	308.6311	-1334.7894	6824.4594
306.9562	-127.9908	-106.2521	680285.8938	-11.3917

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-11.3883
 [28898]ENERGY: 7620000 3340.7818 5401.2444 5713.5451
 356.3794 -14388.9222 -1809.1846 0.0000 0.0000
 8142.9431 6756.7870 310.5036 -1386.1561 6825.1428
 307.0100 148.0706 81.0676 680285.8938 -12.5973
 -12.5941
 [28948]ENERGY: 7630000 3283.0193 5450.9710 5779.1266
 350.2322 -14263.1628 -1814.0077 0.0000 0.0000
 7975.5062 6761.6850 304.1189 -1213.8212 6823.3958
 306.9665 23.1534 10.5073 680285.8938 -13.2970
 -13.3003
 [28984]ENERGY: 7640000 3296.2974 5522.6829 5721.0717
 345.6755 -14322.6560 -1808.5477 0.0000 0.0000
 8006.3759 6760.8996 305.2960 -1245.4762 6824.2698
 306.9014 -85.7009 -30.2911 680285.8938 -10.2016
 -10.1894
 [29034]ENERGY: 7650000 3304.5394 5506.9507 5784.6675
 320.7240 -14357.7486 -1802.5532 0.0000 0.0000
 8003.5519 6760.1317 305.1883 -1243.4201 6823.9926
 306.9834 230.5362 141.7772 680285.8938 -10.8513
 -10.8845
 [29070]ENERGY: 7660000 3296.0779 5457.9158 5727.5956
 338.4888 -14322.2590 -1846.4471 0.0000 0.0000
 8105.8043 6757.1762 309.0874 -1348.6281 6824.3197
 306.9191 134.6523 70.8572 680285.8938 -9.7159
 -9.7098
 [29120]ENERGY: 7670000 3330.0906 5477.2644 5709.2718
 335.3841 -14307.9893 -1849.7157 0.0000 0.0000
 8066.0538 6760.3596 307.5716 -1305.6941 6824.5318
 306.7470 -194.6418 -183.7791 680285.8938 -8.6281
 -8.6061
 [29156]ENERGY: 7680000 3382.2051 5468.9815 5684.0186
 315.6617 -14277.7323 -1917.1120 0.0000 0.0000
 8101.8395 6757.8623 308.9362 -1343.9772 6825.3584
 306.9713 -105.1473 -83.9386 680285.8938 -6.5882
 -6.6145
 [29206]ENERGY: 7690000 3268.7604 5387.3703 5729.9753
 335.4403 -14306.0312 -1772.1513 0.0000 0.0000
 8115.8970 6759.2608 309.4722 -1356.6362 6824.5679
 307.0246 -0.4882 -66.2259 680285.8938 -6.5655
 -6.5560
 [29245]ENERGY: 7700000 3264.9013 5382.5389 5740.3934
 326.0152 -14210.1432 -1891.3008 0.0000 0.0000
 8149.4878 6761.8927 310.7531 -1387.5952 6826.6030
 306.9784 118.2441 -9.0096 680285.8938 -8.9076
 -8.9066
 [29295]ENERGY: 7710000 3381.5858 5409.4469 5719.8699
 343.3480 -14374.2109 -1782.5843 0.0000 0.0000
 8064.7339 6762.1893 307.5213 -1302.5445 6826.0524
 306.9026 -163.6924 -75.9908 680285.8938 -9.0423
 -9.0265
 [29331]ENERGY: 7720000 3342.2407 5465.9102 5650.5194
 350.0503 -14353.9728 -1787.5238 0.0000 0.0000
 8096.8265 6764.0505 308.7451 -1332.7760 6826.7846

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306.9486	100.5202	30.1739	680285.8938	-7.0489
-7.0652				
[29381]ENERGY: 7730000	3397.3277	5431.4008	5705.7898	
345.7569	-14334.4724	-1777.6113	0.0000	0.0000
7996.4636	6764.6552	304.9181	-1231.8085	6826.4542
306.9485	-27.6982	1.9364	680285.8938	-9.2745
-9.2598				
[29417]ENERGY: 7740000	3284.4266	5472.2431	5814.0362	
333.9631	-14409.1550	-1766.1396	0.0000	0.0000
8035.0100	6764.3844	306.3879	-1270.6256	6827.2632
306.9425	-8.9506	-20.6663	680285.8938	-9.1382
-9.1355				
[29467]ENERGY: 7750000	3370.0687	5493.7100	5723.7258	
335.6031	-14330.7422	-1807.3559	0.0000	0.0000
7978.1834	6763.1929	304.2210	-1214.9905	6828.5049
306.8958	-106.9312	-132.0125	680285.8938	-7.8373
-7.8499				
[29503]ENERGY: 7760000	3338.1870	5408.1328	5678.5360	
317.8816	-14214.6430	-1918.3631	0.0000	0.0000
8149.4785	6759.2098	310.7528	-1390.2687	6826.6529
306.8297	91.8379	130.1248	680285.8938	-7.4170
-7.4090				
[29553]ENERGY: 7770000	3309.8641	5505.9143	5712.7152	
330.6789	-14299.3717	-1826.0666	0.0000	0.0000
8032.0894	6765.8235	306.2765	-1266.2659	6828.4090
306.8404	-24.1969	-84.3996	680285.8938	-10.6631
-10.6525				
[29589]ENERGY: 7780000	3318.3897	5520.9092	5725.2033	
323.7118	-14249.6308	-1891.5230	0.0000	0.0000
8016.9088	6763.9688	305.6977	-1252.9400	6827.6493
306.8208	-40.4427	-6.8020	680285.8938	-6.4852
-6.4832				
[29639]ENERGY: 7790000	3275.9851	5533.7584	5688.6220	
324.2691	-14356.5892	-1804.8640	0.0000	0.0000
8098.8666	6760.0480	308.8228	-1338.8186	6826.8292
307.1627	4.9618	-37.6831	680285.8938	-7.0560
-7.0777				
[29678]ENERGY: 7800000	3249.0059	5420.7227	5716.9366	
340.2778	-14277.9351	-1784.0365	0.0000	0.0000
8096.5515	6761.5229	308.7346	-1335.0286	6826.9463
307.1216	-25.4266	-20.5253	680285.8938	-9.3314
-9.3321				
[29728]ENERGY: 7810000	3280.3336	5494.2886	5699.5232	
330.8385	-14278.4750	-1861.3775	0.0000	0.0000
8094.6671	6759.7986	308.6627	-1334.8685	6827.1658
307.1151	164.5258	80.2986	680285.8938	-7.7200
-7.7316				
[29764]ENERGY: 7820000	3395.3918	5509.7196	5734.1928	
315.2529	-14371.7272	-1829.1261	0.0000	0.0000
8010.9007	6764.6046	305.4686	-1246.2962	6828.1134
307.2333	-30.6858	11.8099	680285.8938	-12.7033
-12.6759				
[29814]ENERGY: 7830000	3228.6912	5481.6964	5679.5011	
344.3013	-14209.9941	-1772.6044	0.0000	0.0000

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8015.9441	6767.5355	305.6609	-1248.4086	6829.0285
307.1872	87.0664	109.7657	680285.8938	-10.0118
-10.0107				
[29850]ENERGY: 7840000	3282.2503	5471.6422	5680.3968	
317.6238	-14361.5881	-1776.7786	0.0000	0.0000
8149.8413	6763.3878	310.7666	-1386.4535	6829.1661
307.1910	0.9342	-1.7573	680285.8938	-6.2171
-6.2111				
[29900]ENERGY: 7850000	3277.7706	5540.6562	5720.0526	
344.5236	-14360.2509	-1853.8055	0.0000	0.0000
8095.2647	6764.2113	308.6855	-1331.0534	6829.5078
307.2500	-16.3658	-64.6482	680285.8938	-7.9477
-7.9646				
[29936]ENERGY: 7860000	3295.9558	5436.4394	5743.1468	
340.2479	-14318.2074	-1814.0265	0.0000	0.0000
8078.7218	6762.2778	308.0547	-1316.4440	6828.9477
307.1336	-73.6972	-75.0002	680285.8938	-6.1155
-6.1153				
[29986]ENERGY: 7870000	3232.9638	5466.5025	5741.8438	
318.3471	-14265.7458	-1841.7316	0.0000	0.0000
8110.9628	6763.1427	309.2841	-1347.8201	6828.5373
306.9322	25.3410	10.2685	680285.8938	-10.3997
-10.3916				
[30022]ENERGY: 7880000	3282.3380	5481.7410	5679.5464	
339.9078	-14349.1935	-1786.4874	0.0000	0.0000
8114.4349	6762.2872	309.4165	-1352.1477	6828.4103
306.9176	162.9172	162.9826	680285.8938	-5.6709
-5.7019				
[30072]ENERGY: 7890000	3267.7756	5489.0701	5739.5300	
353.6272	-14251.0927	-1830.3693	0.0000	0.0000
7996.1098	6764.6509	304.9046	-1231.4589	6828.6956
306.8574	-32.3209	-86.5848	680285.8938	-8.8398
-8.8246				
[30111]ENERGY: 7900000	3360.1869	5546.1227	5770.8334	
337.4287	-14418.8694	-1854.2285	0.0000	0.0000
8021.5839	6763.0576	305.8759	-1258.5263	6828.4410
307.1254	61.9838	23.2253	680285.8938	-9.8624
-9.8493				
[30161]ENERGY: 7910000	3188.2460	5592.3470	5693.6789	
349.8106	-14354.2451	-1794.3574	0.0000	0.0000
8086.6236	6762.1037	308.3560	-1324.5199	6829.3116
307.0902	48.6822	-39.4074	680285.8938	-4.9844
-4.9953				
[30197]ENERGY: 7920000	3324.5127	5421.0769	5753.1488	
344.6811	-14316.0859	-1810.9694	0.0000	0.0000
8048.6607	6765.0249	306.9084	-1283.6358	6829.3736
307.1318	116.7663	14.5901	680285.8938	-10.4001
-10.3922				
[30247]ENERGY: 7930000	3290.3328	5429.0858	5744.6888	
354.4470	-14238.1532	-1876.4468	0.0000	0.0000
8058.1902	6762.1445	307.2718	-1296.0456	6828.6600
307.1921	165.7077	125.5704	680285.8938	-7.4810
-7.4987				
[30283]ENERGY: 7940000	3288.7784	5548.0506	5753.1218	

Supplementary Text 6

330.3445	-14420.8611	-1807.4010	0.0000	0.0000
8070.4728	6762.5061	307.7401	-1307.9667	6829.8857
307.0922	61.1721	-9.9176	680285.8938	-8.0195
-8.0034				
[30333]ENERGY: 7950000	3276.8371	5467.0068	5756.7923	
373.3206	-14335.7145	-1801.6759	0.0000	0.0000
8026.4913	6763.0576	306.0631	-1263.4337	6829.1906
307.1021	64.2060	68.5898	680285.8938	-9.1470
-9.1448				
[30369]ENERGY: 7960000	3327.4571	5506.6209	5711.8277	
327.7819	-14382.9749	-1779.7759	0.0000	0.0000
8053.6591	6764.5959	307.0990	-1289.0632	6828.9358
306.9466	73.7431	-19.5578	680285.8938	-11.0493
-11.0512				
[30419]ENERGY: 7970000	3272.3082	5451.0257	5701.7237	
344.8977	-14206.1728	-1830.0034	0.0000	0.0000
8035.9667	6769.7460	306.4244	-1266.2208	6830.6381
307.0046	2.6011	0.0950	680285.8938	-9.2800
-9.2702				
[30455]ENERGY: 7980000	3314.5809	5549.3142	5733.4628	
342.5898	-14424.6083	-1802.1081	0.0000	0.0000
8050.0147	6763.2460	306.9600	-1286.7686	6828.4670
307.0618	-153.0862	-31.2780	680285.8938	-8.1167
-8.1236				
[30505]ENERGY: 7990000	3326.7745	5482.0726	5699.9983	
347.7946	-14349.3375	-1786.8459	0.0000	0.0000
8046.4575	6766.9141	306.8244	-1279.5434	6829.6458
306.9480	134.7446	68.3197	680285.8938	-8.5374
-8.5298				
[30544]ENERGY: 8000000	3309.7223	5500.2943	5741.9187	
351.1498	-14288.7508	-1826.3900	0.0000	0.0000
7982.9561	6770.9002	304.4030	-1212.0558	6830.7017
307.1641	-93.9191	-87.5102	680285.8938	-11.2149
-11.2318				
[30594]ENERGY: 8010000	3326.6048	5583.1567	5713.2929	
347.5697	-14345.2571	-1869.7449	0.0000	0.0000
8013.8801	6769.5022	305.5822	-1244.3779	6831.7987
307.0814	-47.1916	-56.0510	680285.8938	-6.8114
-6.8015				
[30630]ENERGY: 8020000	3338.1087	5444.1586	5700.7144	
352.5358	-14251.2424	-1828.3735	0.0000	0.0000
8010.8125	6766.7141	305.4652	-1244.0984	6831.1945
307.0402	-14.5293	-38.4035	680285.8938	-7.3499
-7.3617				
[30680]ENERGY: 8030000	3289.5852	5416.1248	5776.1436	
349.7058	-14318.1104	-1816.1588	0.0000	0.0000
8066.3637	6763.6539	307.5835	-1302.7099	6831.1691
306.8423	-30.9132	-40.0318	680285.8938	-8.9596
-8.9563				
[30716]ENERGY: 8040000	3252.6704	5474.4981	5672.1838	
315.7470	-14179.2503	-1850.5296	0.0000	0.0000
8081.7427	6767.0622	308.1699	-1314.6805	6831.9582
306.9028	111.8597	86.4382	680285.8938	-4.1431
-4.1438				

Supplementary Text 6

[30766]ENERGY: 8050000	3318.9774	5542.5147	5749.8390	
342.2524	-14330.9234	-1808.5260	0.0000	0.0000
7956.1447	6770.2787	303.3806	-1185.8659	6832.3646
307.0627	74.7381	15.5756	680285.8938	-3.9091
-3.9082				
[30802]ENERGY: 8060000	3288.0852	5462.4755	5723.1050	
338.0175	-14292.9430	-1795.6852	0.0000	0.0000
8046.1960	6769.2509	306.8144	-1276.9450	6832.0608
307.1840	95.2864	6.8883	680285.8938	-9.2159
-9.2269				
[30852]ENERGY: 8070000	3311.0739	5588.7922	5705.4997	
319.6226	-14324.0445	-1780.9006	0.0000	0.0000
7953.3780	6773.4214	303.2751	-1179.9566	6834.0378
307.0038	108.5060	26.9614	680285.8938	-5.9910
-5.9792				
[30888]ENERGY: 8080000	3349.5348	5442.1083	5696.6077	
326.5928	-14335.6329	-1752.6717	0.0000	0.0000
8042.1046	6768.6435	306.6584	-1273.4610	6834.3658
307.0794	-131.1316	-74.4564	680285.8938	-7.6422
-7.6287				
[30938]ENERGY: 8090000	3356.3246	5526.8156	5751.1739	
341.3276	-14310.5272	-1820.4624	0.0000	0.0000
7928.5859	6773.2379	302.3298	-1155.3479	6833.3097
307.0473	70.7755	46.7511	680285.8938	-4.0297
-4.0452				
[30977]ENERGY: 8100000	3283.2026	5480.7282	5717.1544	
331.6234	-14273.7958	-1838.4572	0.0000	0.0000
8071.4909	6771.9465	307.7790	-1299.5445	6833.9017
307.1637	45.4158	-11.3434	680285.8938	-8.0339
-8.0208				
[31027]ENERGY: 8110000	3350.7437	5559.1434	5723.6966	
355.6527	-14324.0348	-1852.8169	0.0000	0.0000
7956.4581	6768.8429	303.3926	-1187.6152	6833.1223
307.1593	-48.4605	-98.1595	680285.8938	-10.7592
-10.7760				
[31063]ENERGY: 8120000	3282.5484	5455.8298	5703.2814	
344.3934	-14303.9250	-1801.8569	0.0000	0.0000
8088.2028	6768.4740	308.4162	-1319.7288	6833.3619
307.1716	96.2225	94.7634	680285.8938	-9.4780
-9.4737				
[31113]ENERGY: 8130000	3361.8152	5412.8773	5728.8422	
332.7716	-14319.2766	-1831.5770	0.0000	0.0000
8082.1103	6767.5630	308.1839	-1314.5473	6834.0172
307.2662	52.7015	-17.4447	680285.8938	-5.3236
-5.3317				
[31149]ENERGY: 8140000	3305.7711	5490.8508	5719.2753	
331.0258	-14234.6028	-1901.5055	0.0000	0.0000
8055.9700	6766.7847	307.1871	-1289.1852	6833.4387
307.1463	-22.3558	8.7783	680285.8938	-15.2464
-15.2265				
[31199]ENERGY: 8150000	3236.4968	5479.6093	5754.6799	
356.9262	-14315.2859	-1839.9214	0.0000	0.0000
8095.7695	6768.2744	308.7047	-1327.4950	6833.5156
307.4613	174.6824	96.5661	680285.8938	-4.2344

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-4.2465

[31235]ENERGY: 8160000	3336.5582	5502.5507	5703.0151
336.9666	-14324.8708	-1856.3801	0.0000
8072.6985	6770.5383	307.8250	-1302.1602
307.3512	92.2552	8.4917	680285.8938
-11.6056			-11.5997

[31285]ENERGY: 8170000	3259.4188	5508.3603	5686.0672
325.7576	-14245.8212	-1832.4071	0.0000
8068.5845	6769.9600	307.6681	-1298.6245
307.1818	114.4949	-11.8562	680285.8938
-8.3522			-8.3441

[31321]ENERGY: 8180000	3313.8906	5446.7866	5698.7256
320.2638	-14322.8846	-1783.6299	0.0000
8094.4493	6767.6015	308.6544	-1326.8478
307.0191	-67.8386	16.8556	680285.8938
-6.3272			-6.3513

[31371]ENERGY: 8190000	3346.1176	5442.8038	5726.7776
332.3534	-14353.0187	-1803.2098	0.0000
8074.8574	6766.6813	307.9073	-1308.1761
307.1029	9.9052	53.6806	680285.8938
-1.9500			-1.9564

[31410]ENERGY: 8200000	3273.7862	5506.1250	5746.9361
336.6045	-14368.6800	-1765.3549	0.0000
8035.5702	6764.9870	306.4092	-1270.5831
307.1125	104.5588	65.9484	680285.8938
-4.2070			-4.2068

[31460]ENERGY: 8210000	3296.9704	5466.8293	5719.7888
296.7944	-14243.7730	-1812.2990	0.0000
8044.9364	6769.2474	306.7664	-1275.6890
307.2474	25.0896	22.5689	680285.8938
-6.6824			-6.6634

[31496]ENERGY: 8220000	3334.6435	5534.1044	5665.4838
323.0738	-14277.9147	-1898.4730	0.0000
8088.5579	6769.4757	308.4298	-1319.0822
307.2878	-58.8320	-103.0578	680285.8938
-1.0679			-1.0789

[31546]ENERGY: 8230000	3311.7839	5498.9143	5708.7567
331.0996	-14279.8355	-1835.1786	0.0000
8035.8927	6771.4330	306.4215	-1264.4596
307.2200	53.2430	50.6183	680285.8938
-9.2008			-9.1911

[31582]ENERGY: 8240000	3293.5323	5486.7402	5688.9947
346.7526	-14210.3630	-1882.8191	0.0000
8043.5683	6766.4059	306.7142	-1277.1624
307.2540	36.1013	-0.0780	680285.8938
-3.3309			-3.3353

[31632]ENERGY: 8250000	3358.4498	5439.3833	5742.8251
343.4353	-14350.2193	-1853.6564	0.0000
8086.9649	6767.1828	308.3690	-1319.7822
307.2756	44.5826	-15.6991	680285.8938
-3.6397			-3.6517

[31668]ENERGY: 8260000	3218.6829	5512.2320	5708.2240
318.7156	-14267.8751	-1789.0680	0.0000
8067.2814	6768.1927	307.6184	-1299.0887
			6835.2886

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307.3988	201.0909	95.0420	680285.8938	-1.5382
-1.5619				
[31718]ENERGY: 8270000	3294.4777	5500.8126	5694.8654	
349.1719	-14273.9284	-1824.2254	0.0000	0.0000
8031.6058	6772.7797	306.2581	-1258.8262	6836.8919
307.4477	60.0113	-30.2153	680285.8938	-4.6216
-4.6112				
[31754]ENERGY: 8280000	3263.6582	5393.3773	5765.4929	
345.6829	-14331.1360	-1784.5121	0.0000	0.0000
8116.7533	6769.3164	309.5049	-1347.4368	6836.3064
307.4737	-139.2169	-105.8512	680285.8938	-2.4668
-2.4631				
[31804]ENERGY: 8290000	3286.9336	5485.0673	5729.8918	
336.6414	-14299.9935	-1864.6333	0.0000	0.0000
8097.6247	6771.5321	308.7755	-1326.0926	6835.5656
307.5969	26.7085	18.5244	680285.8938	-6.8582
-6.8684				
[31843]ENERGY: 8300000	3330.1248	5559.5365	5695.3434	
324.1182	-14340.1197	-1830.4104	0.0000	0.0000
8037.1191	6775.7119	306.4683	-1261.4072	6836.4166
307.6715	87.1843	95.1737	680285.8938	-4.4406
-4.4335				
[31893]ENERGY: 8310000	3327.4123	5340.7374	5744.4766	
347.6810	-14346.3244	-1763.8261	0.0000	0.0000
8118.8630	6769.0198	309.5853	-1349.8432	6835.2655
307.5547	-189.8755	-64.2445	680285.8938	-8.2953
-8.2687				
[31929]ENERGY: 8320000	3288.3203	5451.6755	5684.2094	
302.1985	-14240.5748	-1805.1926	0.0000	0.0000
8089.1516	6769.7879	308.4524	-1319.3637	6835.8653
307.2985	-2.8502	-22.7005	680285.8938	-6.7173
-6.7320				
[31979]ENERGY: 8330000	3284.5680	5503.7798	5739.7941	
347.9811	-14235.2879	-1861.1112	0.0000	0.0000
7992.4351	6772.1592	304.7644	-1220.2759	6837.6033
307.5223	-12.1727	-53.5466	680285.8938	-2.7853
-2.7951				
[32015]ENERGY: 8340000	3318.0216	5411.7422	5771.7311	
334.6831	-14303.5117	-1837.3978	0.0000	0.0000
8074.1210	6769.3895	307.8793	-1304.7315	6835.8866
307.5782	-107.2918	-86.6953	680285.8938	-2.5452
-2.5427				
[32065]ENERGY: 8350000	3363.5729	5379.6408	5748.7521	
335.4642	-14275.8307	-1832.5332	0.0000	0.0000
8047.5113	6766.5775	306.8646	-1280.9339	6834.7070
307.5647	92.8605	41.3744	680285.8938	-6.1953
-6.1912				
[32101]ENERGY: 8360000	3369.4048	5331.4269	5754.8154	
365.7389	-14266.8496	-1781.0599	0.0000	0.0000
7997.0608	6770.5373	304.9408	-1226.5235	6836.2512
307.4059	41.9411	18.9493	680285.8938	-3.8522
-3.8492				
[32151]ENERGY: 8370000	3299.9520	5446.9302	5736.4914	
346.3750	-14355.6231	-1790.6735	0.0000	0.0000

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8089.9103	6773.3624	308.4813	-1316.5479	6836.8625
307.5200	75.8847	14.6398	680285.8938	-1.1319
-1.1469				
[32187]ENERGY: 8380000	3277.3903	5485.6115	5725.0485	
320.4559	-14290.2298	-1788.2868	0.0000	0.0000
8043.5126	6773.5022	306.7121	-1270.0105	6836.7986
307.5938	189.8673	107.4879	680285.8938	-6.0964
-6.0951				
[32237]ENERGY: 8390000	3325.2268	5589.6035	5737.8195	
330.7746	-14397.8059	-1895.1734	0.0000	0.0000
8080.2835	6770.7285	308.1142	-1309.5550	6836.5419
307.4627	-154.0945	-160.1804	680285.8938	-3.3810
-3.3763				
[32276]ENERGY: 8400000	3286.8358	5398.6850	5759.5177	
323.0456	-14311.4856	-1828.9629	0.0000	0.0000
8145.3648	6773.0005	310.5959	-1372.3643	6837.2347
307.5159	-51.5254	-121.7341	680285.8938	-8.6031
-8.5903				
[32326]ENERGY: 8410000	3351.3540	5519.6044	5741.2544	
348.7909	-14277.3631	-1882.5216	0.0000	0.0000
7968.5220	6769.6410	303.8526	-1198.8810	6837.5205
307.7216	-44.0656	-40.0214	680285.8938	-2.1770
-2.1767				
[32362]ENERGY: 8420000	3356.5299	5438.8530	5702.6648	
347.8829	-14311.4739	-1829.4983	0.0000	0.0000
8065.5175	6770.4760	307.5512	-1295.0415	6837.0631
307.6027	19.4727	-20.7590	680285.8938	-8.0152
-8.0345				
[32412]ENERGY: 8430000	3367.0725	5478.1957	5687.5357	
333.0979	-14305.4159	-1800.2568	0.0000	0.0000
8017.6451	6777.8741	305.7257	-1239.7710	6837.7112
307.8096	-51.7018	-8.6326	680285.8938	-3.4882
-3.4919				
[32448]ENERGY: 8440000	3324.7940	5461.1332	5750.1988	
345.3414	-14286.3569	-1772.9354	0.0000	0.0000
7951.9022	6774.0775	303.2189	-1177.8247	6838.1800
307.7697	-71.4729	-58.6820	680285.8938	-7.6810
-7.6771				
[32498]ENERGY: 8450000	3293.0235	5450.1513	5748.9789	
356.1730	-14298.7906	-1800.1705	0.0000	0.0000
8021.1194	6770.4849	305.8582	-1250.6345	6836.8917
307.6113	50.2248	60.1118	680285.8938	-2.8652
-2.8545				
[32534]ENERGY: 8460000	3257.6491	5433.9583	5719.8562	
313.6525	-14232.2535	-1836.8326	0.0000	0.0000
8118.4429	6774.4729	309.5693	-1343.9700	6836.8046
307.7240	87.1883	16.1994	680285.8938	-6.1921
-6.2027				
[32584]ENERGY: 8470000	3322.1865	5559.2431	5690.5310	
342.7262	-14362.4995	-1852.1361	0.0000	0.0000
8073.7247	6773.7758	307.8641	-1299.9489	6836.4150
307.6320	61.0348	97.6989	680285.8938	-7.5621
-7.5570				
[32620]ENERGY: 8480000	3301.9719	5393.0197	5740.3284	

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339.0631	-14229.7494	-1865.7417	0.0000	0.0000
8093.6100	6772.5020	308.6224	-1321.1080	6838.2843
307.6432	-34.2775	-20.9824	680285.8938	-8.2308
-8.2199				
[32670]ENERGY: 8490000	3313.7382	5480.8662	5746.0501	
327.6867	-14383.5084	-1785.4619	0.0000	0.0000
8072.2450	6771.6159	307.8077	-1300.6291	6837.8993
307.6146	99.7205	37.6332	680285.8938	-6.8680
-6.8702				
[32709]ENERGY: 8500000	3309.6744	5508.6268	5741.6524	
350.7616	-14376.0014	-1769.5996	0.0000	0.0000
8011.5589	6776.6732	305.4937	-1234.8857	6839.1727
307.6941	133.3582	67.1730	680285.8938	-6.3579
-6.3726				
[32759]ENERGY: 8510000	3277.9956	5523.7645	5734.5947	
318.5989	-14296.6804	-1844.0053	0.0000	0.0000
8061.6870	6775.9550	307.4051	-1285.7320	6839.2767
307.8459	28.0436	51.6543	680285.8938	-9.6455
-9.6377				
[32795]ENERGY: 8520000	3266.8926	5430.5641	5749.4546	
352.0250	-14260.8979	-1839.4738	0.0000	0.0000
8074.9128	6773.4773	307.9094	-1301.4355	6839.6868
307.9285	42.2992	-14.0623	680285.8938	-6.6450
-6.6530				
[32845]ENERGY: 8530000	3343.9990	5536.3351	5721.2584	
342.4928	-14320.0078	-1869.6781	0.0000	0.0000
8018.9194	6773.3189	305.7743	-1245.6005	6839.9382
307.8499	69.1205	40.0665	680285.8938	-6.9152
-6.9141				
[32881]ENERGY: 8540000	3295.4433	5535.2985	5717.7837	
337.3369	-14277.3311	-1888.0475	0.0000	0.0000
8052.4886	6772.9725	307.0544	-1279.5162	6839.6536
307.7699	81.1643	17.3851	680285.8938	-7.5582
-7.5632				
[32931]ENERGY: 8550000	3360.1915	5438.0540	5666.5608	
331.6747	-14270.3350	-1844.4678	0.0000	0.0000
8094.9960	6776.6741	308.6753	-1318.3219	6839.7074
307.7676	35.9211	24.2182	680285.8938	-6.9631
-6.9640				
[32967]ENERGY: 8560000	3294.3923	5469.7538	5712.7469	
354.2695	-14277.5963	-1885.0393	0.0000	0.0000
8104.7439	6773.2708	309.0470	-1331.4731	6839.7971
307.8769	-86.5170	-78.0294	680285.8938	-9.0776
-9.0548				
[33017]ENERGY: 8570000	3289.8320	5485.7367	5718.7402	
360.3640	-14280.2709	-1859.2718	0.0000	0.0000
8060.5658	6775.6961	307.3624	-1284.8698	6840.2965
307.8156	75.3665	14.5746	680285.8938	-9.6277
-9.6452				
[33053]ENERGY: 8580000	3379.8472	5476.9148	5716.1409	
327.3033	-14404.4088	-1820.3136	0.0000	0.0000
8097.0494	6772.5332	308.7535	-1324.5162	6840.8679
307.7940	-42.2331	-53.6471	680285.8938	-6.4406
-6.4266				

Supplementary Text 6

[33103]ENERGY: 8590000	3372.2209	5420.2764	5726.3714	
341.4297	-14240.0846	-1885.9377	0.0000	0.0000
8043.3256	6777.6018	306.7050	-1265.7238	6840.7348
307.8416	-37.7752	-56.7267	680285.8938	-7.0020
-7.0237				
[33142]ENERGY: 8600000	3280.8919	5483.1084	5734.1192	
336.3029	-14242.7389	-1844.5935	0.0000	0.0000
8030.3381	6777.4281	306.2097	-1252.9100	6841.3198
307.7486	-160.7502	-91.1631	680285.8938	-3.8564
-3.8383				
[33192]ENERGY: 8610000	3274.8147	5521.3735	5719.1690	
351.2894	-14226.3089	-1889.1415	0.0000	0.0000
8022.1679	6773.3642	305.8982	-1248.8038	6841.4936
307.6662	-34.3739	-38.1281	680285.8938	-6.7821
-6.7738				
[33228]ENERGY: 8620000	3365.8034	5425.1840	5715.7058	
318.9042	-14260.1580	-1863.4734	0.0000	0.0000
8073.1796	6775.1456	307.8434	-1298.0340	6841.6150
307.8005	55.0094	9.6091	680285.8938	-6.1705
-6.1785				
[33278]ENERGY: 8630000	3336.2314	5473.6213	5688.7357	
332.5310	-14386.6496	-1740.2810	0.0000	0.0000
8069.8946	6774.0834	307.7181	-1295.8112	6839.6201
307.8032	165.8162	130.2257	680285.8938	-6.7911
-6.7903				
[33314]ENERGY: 8640000	3345.8959	5493.9130	5691.1503	
321.5629	-14297.0015	-1919.5011	0.0000	0.0000
8138.4820	6774.5014	310.3334	-1363.9805	6841.6745
307.7413	-49.9216	-10.1689	680285.8938	-6.1733
-6.1812				
[33364]ENERGY: 8650000	3293.0170	5410.6351	5734.2144	
331.4552	-14344.4565	-1828.1538	0.0000	0.0000
8176.6268	6773.3382	311.7880	-1403.2887	6841.3474
307.6857	162.1697	72.4745	680285.8938	-2.1617
-2.1599				
[33400]ENERGY: 8660000	3320.7787	5395.2395	5737.1800	
340.1815	-14314.0513	-1844.6901	0.0000	0.0000
8140.6602	6775.2986	310.4165	-1365.3616	6841.3815
307.7360	165.1877	76.2172	680285.8938	-12.5811
-12.5767				
[33450]ENERGY: 8670000	3319.7024	5405.3458	5764.0383	
349.3334	-14264.0966	-1816.9032	0.0000	0.0000
8020.4319	6777.8519	305.8320	-1242.5799	6841.5590
307.8106	56.5666	30.6923	680285.8938	-6.2523
-6.2427				
[33486]ENERGY: 8680000	3401.4327	5441.1331	5760.8887	
330.6721	-14378.3112	-1821.2832	0.0000	0.0000
8039.5325	6774.0646	306.5603	-1265.4678	6841.3726
307.6923	-75.7233	-17.8771	680285.8938	-8.8884
-8.9104				
[33536]ENERGY: 8690000	3369.5909	5416.4442	5728.5711	
349.6961	-14253.4271	-1789.5678	0.0000	0.0000
7954.3072	6775.6145	303.3106	-1178.6926	6840.5388
307.7038	22.7069	13.2839	680285.8938	-7.6956

Supplementary Text 6

-7.6912

[33575]ENERGY: 8700000	3348.4265	5576.1572	5707.2224
327.6072	-14341.6413	-1852.4149	0.0000 0.0000
8012.4220	6777.7789	305.5266	-1234.6431 6839.8173
307.5876	-198.1858	-33.1887	680285.8938 -6.3915

-6.3658

[33625]ENERGY: 8710000	3281.9894	5456.4925	5706.1502
337.8530	-14283.9233	-1854.1562	0.0000 0.0000
8129.0265	6773.4321	309.9729	-1355.5944 6841.3942
307.7673	-117.2230	-55.7004	680285.8938 -9.3822

-9.3874

[33661]ENERGY: 8720000	3404.7229	5436.8461	5706.7291
340.5255	-14303.8191	-1838.5961	0.0000 0.0000
8031.6418	6778.0503	306.2595	-1253.5915 6843.8707
307.6885	-8.0067	67.6011	680285.8938 -7.2786

-7.2951

[33711]ENERGY: 8730000	3352.5197	5462.7619	5701.2790
353.8158	-14284.8155	-1867.8891	0.0000 0.0000
8060.7950	6778.4670	307.3711	-1282.3281 6844.2759
307.7672	-66.5566	-91.8772	680285.8938 -10.6384

-10.6345

[33747]ENERGY: 8740000	3299.3303	5477.5948	5727.7987
334.4068	-14267.8274	-1853.9535	0.0000 0.0000
8062.4978	6779.8476	307.4360	-1282.6502 6844.3632
307.9049	-37.5398	-52.2757	680285.8938 -5.7974

-5.7918

[33797]ENERGY: 8750000	3307.3209	5469.9834	5646.8945
339.1350	-14222.4039	-1825.0624	0.0000 0.0000
8068.2822	6784.1497	307.6566	-1284.1325 6845.6402
307.8338	-11.7721	-108.0643	680285.8938 -9.1074

-9.1210

[33833]ENERGY: 8760000	3354.5437	5481.9830	5706.8626
325.1228	-14257.5659	-1860.2179	0.0000 0.0000
8028.2105	6778.9389	306.1286	-1249.2716 6844.6517
307.8094	48.9241	32.4214	680285.8938 -9.3775

-9.3719

[33883]ENERGY: 8770000	3334.9485	5466.2682	5778.6867
331.8179	-14327.8753	-1847.3627	0.0000 0.0000
8046.5697	6783.0530	306.8287	-1263.5167 6845.0042
308.0239	-101.3797	-63.9746	680285.8938 -6.3919

-6.3882

[33919]ENERGY: 8780000	3327.8934	5439.0465	5694.0760
332.8390	-14235.5535	-1857.9265	0.0000 0.0000
8080.1836	6780.5586	308.1104	-1299.6251 6845.5184
307.8084	18.5777	32.1390	680285.8938 -7.7270

-7.7369

[33969]ENERGY: 8790000	3362.6186	5413.8485	5716.0043
346.5518	-14255.2289	-1885.5072	0.0000 0.0000
8081.9805	6780.2676	308.1789	-1301.7129 6846.2623
307.8691	72.7017	11.0796	680285.8938 -6.1066

-6.1089

[34008]ENERGY: 8800000	3306.6660	5458.4889	5686.9460
337.9371	-14271.8305	-1842.1764	0.0000 0.0000
8104.2415	6780.2724	309.0278	-1323.9691 6845.7990

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307.8888	99.6998	31.7372	680285.8938	-7.9190
-7.9004				
[34058]ENERGY: 8810000	3357.2751	5470.5324	5750.7344	
320.0553	-14320.8370	-1818.3022	0.0000	0.0000
8023.3487	6782.8067	305.9432	-1240.5420	6846.0317
307.9983	-49.3247	-59.7520	680285.8938	-8.8267
-8.8446				
[34094]ENERGY: 8820000	3330.2523	5516.9765	5762.3043	
344.9354	-14339.6047	-1835.5472	0.0000	0.0000
8003.7240	6783.0406	305.1949	-1220.6834	6846.6607
307.9453	-135.6354	-54.1733	680285.8938	-7.4705
-7.4600				
[34144]ENERGY: 8830000	3331.7417	5410.7942	5711.3824	
349.9557	-14277.3472	-1838.6336	0.0000	0.0000
8095.9349	6783.8281	308.7111	-1312.1068	6848.8672
307.7385	167.1247	108.5133	680285.8938	-8.3548
-8.3578				
[34180]ENERGY: 8840000	3394.8299	5434.1545	5687.6720	
317.8312	-14231.4519	-1866.4303	0.0000	0.0000
8045.3547	6781.9603	306.7823	-1263.3945	6848.6972
307.8376	-10.0418	-70.1993	680285.8938	-9.1393
-9.1362				
[34230]ENERGY: 8850000	3366.1766	5485.1388	5673.8079	
335.2938	-14253.3294	-1883.0076	0.0000	0.0000
8056.3488	6780.4288	307.2016	-1275.9199	6847.5184
307.9302	-181.3306	-82.9441	680285.8938	-6.9603
-6.9660				
[34266]ENERGY: 8860000	3389.3836	5482.1308	5722.3538	
325.5253	-14374.1671	-1804.7099	0.0000	0.0000
8041.3039	6781.8204	306.6279	-1259.4835	6847.6653
308.0511	-68.2871	-32.5162	680285.8938	-5.4148
-5.4141				
[34316]ENERGY: 8870000	3356.3402	5438.0338	5729.8189	
342.9763	-14332.4956	-1787.1958	0.0000	0.0000
8036.9094	6784.3872	306.4603	-1252.5222	6847.3625
307.9639	-104.5334	-158.4269	680285.8938	-7.7848
-7.8018				
[34352]ENERGY: 8880000	3345.0235	5454.8933	5691.2017	
332.1017	-14207.2015	-1802.1044	0.0000	0.0000
7971.8185	6785.7328	303.9783	-1186.0857	6848.5895
307.9104	94.8144	41.8549	680285.8938	-4.6939
-4.6762				
[34402]ENERGY: 8890000	3302.5427	5520.5942	5691.1081	
350.8377	-14275.6644	-1842.1094	0.0000	0.0000
8038.1645	6785.4733	306.5082	-1252.6911	6849.5471
308.0345	-8.5459	-40.9391	680285.8938	-6.1016
-6.1156				
[34441]ENERGY: 8900000	3367.6457	5432.2863	5681.5870	
326.7770	-14295.1553	-1811.2596	0.0000	0.0000
8082.4568	6784.3379	308.1971	-1298.1189	6850.5417
307.8066	-70.7446	-107.0244	680285.8938	-9.8227
-9.8065				
[34491]ENERGY: 8910000	3251.9710	5451.1941	5713.8866	
339.4117	-14346.2692	-1834.9410	0.0000	0.0000

Supplementary Text 6

8206.8120	6782.0652	312.9390	-1424.7468	6850.4681
307.7450	61.0898	25.8372	680285.8938	-12.5008
-12.4970				
[34527]ENERGY: 8920000	3304.7656	5558.7729	5663.2641	
337.6843	-14401.2910	-1732.4288	0.0000	0.0000
8055.3433	6786.1103	307.1632	-1269.2329	6849.9301
307.8740	92.9785	80.9558	680285.8938	-9.9922
-9.9938				
[34577]ENERGY: 8930000	3350.5731	5469.3965	5707.4996	
309.5467	-14272.3569	-1846.2442	0.0000	0.0000
8067.3223	6785.7372	307.6200	-1281.5852	6850.2884
307.9834	-65.7548	-33.1091	680285.8938	-10.9510
-10.9529				
[34613]ENERGY: 8940000	3241.5553	5543.1839	5703.0323	
347.6691	-14306.8426	-1763.4907	0.0000	0.0000
8021.2918	6786.3992	305.8648	-1234.8926	6850.7739
308.0537	82.5683	125.8667	680285.8938	-10.2979
-10.3135				
[34663]ENERGY: 8950000	3332.4937	5458.9200	5676.0075	
347.4773	-14314.2146	-1816.4827	0.0000	0.0000
8097.7359	6781.9372	308.7797	-1315.7987	6849.5843
307.9440	40.8311	52.6018	680285.8938	-9.1039
-9.0777				
[34699]ENERGY: 8960000	3371.9228	5443.2325	5701.0885	
335.2097	-14355.9258	-1787.9307	0.0000	0.0000
8079.0032	6786.6002	308.0654	-1292.4031	6848.9186
307.9530	-49.4100	-33.1497	680285.8938	-11.8591
-11.8696				
[34749]ENERGY: 8970000	3297.1894	5476.7268	5693.4089	
350.1268	-14228.7286	-1934.5619	0.0000	0.0000
8131.1433	6785.3048	310.0536	-1345.8385	6851.0317
307.9894	89.8605	48.6949	680285.8938	-12.4096
-12.4104				
[34785]ENERGY: 8980000	3353.6349	5490.2446	5744.7957	
330.2773	-14311.2630	-1801.0807	0.0000	0.0000
7979.7674	6786.3763	304.2814	-1193.3912	6850.6858
307.8716	-163.6494	-96.8211	680285.8938	-12.0305
-12.0173				
[34835]ENERGY: 8990000	3279.7027	5402.4080	5795.7413	
344.7934	-14281.4237	-1771.4487	0.0000	0.0000
8013.9259	6783.6989	305.5839	-1230.2270	6849.8737
307.7120	-28.9712	-38.4141	680285.8938	-10.3350
-10.3534				
[34874]ENERGY: 9000000	3372.5597	5438.4235	5787.5858	
329.9529	-14328.3413	-1879.5728	0.0000	0.0000
8066.7754	6787.3831	307.5992	-1279.3923	6851.3584
307.9794	81.5908	45.2720	680285.8938	-14.5684
-14.5746				
[34924]ENERGY: 9010000	3284.9649	5594.8038	5684.4551	
354.6334	-14468.2313	-1713.2467	0.0000	0.0000
8045.6995	6783.0787	306.7955	-1262.6208	6849.9341
307.9844	155.7862	27.1648	680285.8938	-9.2602
-9.2633				
[34960]ENERGY: 9020000	3294.9608	5572.7717	5704.8763	

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341.4219	-14347.8206	-1808.3663	0.0000	0.0000
8029.1162	6786.9600	306.1631	-1242.1562	6850.8048
307.9569	23.7316	56.0065	680285.8938	-10.6731
-10.6719				
[35010]ENERGY: 9030000	3377.5831	5399.4306	5767.4109	
373.7037	-14343.8250	-1818.1685	0.0000	0.0000
8029.8093	6785.9441	306.1896	-1243.8652	6850.1102
307.9048	-74.2013	-149.3545	680285.8938	-9.7635
-9.7674				
[35046]ENERGY: 9040000	3373.8383	5414.8822	5694.0908	
353.9161	-14305.2977	-1784.9776	0.0000	0.0000
8039.5572	6786.0092	306.5613	-1253.5479	6848.8218
307.8533	-44.5750	-63.6302	680285.8938	-8.1117
-8.0989				
[35096]ENERGY: 9050000	3322.5969	5458.8757	5722.6624	
344.5893	-14315.5063	-1839.2919	0.0000	0.0000
8089.4701	6783.3961	308.4645	-1306.0739	6850.9744
307.7499	36.4771	-3.6826	680285.8938	-12.2873
-12.2640				
[35132]ENERGY: 9060000	3286.8750	5437.9527	5781.6597	
358.9987	-14269.7340	-1833.3805	0.0000	0.0000
8018.2037	6780.5754	305.7470	-1237.6284	6850.9910
307.6902	-16.2488	-76.8120	680285.8938	-11.1213
-11.1344				
[35182]ENERGY: 9070000	3273.2750	5455.2053	5734.0069	
320.3666	-14309.6206	-1774.3998	0.0000	0.0000
8086.9775	6785.8107	308.3695	-1301.1667	6850.3384
308.0439	122.3519	15.0679	680285.8938	-13.1481
-13.1436				
[35218]ENERGY: 9080000	3358.7851	5528.8056	5677.5549	
333.2576	-14377.3161	-1817.4063	0.0000	0.0000
8080.4723	6784.1531	308.1214	-1296.3192	6850.5057
308.0771	-19.6879	29.8310	680285.8938	-9.3046
-9.3209				
[35268]ENERGY: 9090000	3328.5740	5514.0036	5722.3552	
347.3293	-14300.7202	-1869.2289	0.0000	0.0000
8041.1703	6783.4833	306.6228	-1257.6870	6850.1159
308.0111	-250.4952	-211.8951	680285.8938	-9.9532
-9.9595				
[35307]ENERGY: 9100000	3275.7127	5374.8684	5745.0949	
361.4087	-14284.9069	-1782.3879	0.0000	0.0000
8092.5893	6782.3792	308.5835	-1310.2101	6850.1430
308.1078	135.9988	114.7621	680285.8938	-10.6902
-10.6870				
[35357]ENERGY: 9110000	3310.7326	5540.7443	5744.9113	
339.8838	-14412.8606	-1820.7401	0.0000	0.0000
8081.5516	6784.2229	308.1626	-1297.3287	6851.2648
308.1468	12.2298	9.2322	680285.8938	-12.8639
-12.8667				
[35393]ENERGY: 9120000	3322.8528	5355.6353	5717.1663	
326.1751	-14276.6783	-1787.5847	0.0000	0.0000
8125.9694	6783.5360	309.8563	-1342.4335	6850.8472
308.0917	125.5499	108.5509	680285.8938	-12.4990
-12.4812				

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[35443]ENERGY: 9130000	3306.0317	5597.5490	5710.0461	
338.1879	-14356.2400	-1829.9602	0.0000	0.0000
8016.6549	6782.2693	305.6880	-1234.3856	6851.0739
308.2409	61.5526	33.5216	680285.8938	-11.9488
-11.9455				
[35479]ENERGY: 9140000	3318.1100	5516.0125	5755.4409	
339.6506	-14359.8294	-1816.3966	0.0000	0.0000
8035.6144	6788.6024	306.4109	-1247.0120	6850.7099
308.2814	53.1380	-49.5167	680285.8938	-11.9449
-11.9545				
[35529]ENERGY: 9150000	3302.4025	5448.6952	5781.8661	
328.3865	-14353.3853	-1817.3159	0.0000	0.0000
8094.8373	6785.4863	308.6692	-1309.3510	6850.3264
308.3415	26.3110	-60.5046	680285.8938	-12.3844
-12.3742				
[35565]ENERGY: 9160000	3324.1178	5521.0018	5692.5314	
341.5990	-14323.5550	-1836.2299	0.0000	0.0000
8065.2896	6784.7548	307.5425	-1280.5348	6850.8801
308.4380	-24.8730	-4.8809	680285.8938	-16.1642
-16.1845				
[35615]ENERGY: 9170000	3285.1701	5473.8518	5762.6878	
330.2733	-14378.7369	-1769.3733	0.0000	0.0000
8080.0179	6783.8908	308.1041	-1296.1271	6850.8991
308.2077	105.1129	42.6585	680285.8938	-16.6986
-16.6882				
[35651]ENERGY: 9180000	3322.9884	5479.1649	5702.2676	
335.6748	-14356.2715	-1843.6659	0.0000	0.0000
8145.4234	6785.5816	310.5981	-1359.8417	6850.5883
308.2060	55.5572	91.6599	680285.8938	-17.8390
-17.8409				
[35701]ENERGY: 9190000	3334.5677	5446.6598	5688.5268	
331.7799	-14269.2188	-1859.7096	0.0000	0.0000
8112.8352	6785.4410	309.3555	-1327.3941	6850.9862
308.3437	60.7423	107.6596	680285.8938	-13.2596
-13.2579				
[35740]ENERGY: 9200000	3356.5970	5565.7523	5681.8191	
338.7915	-14347.0676	-1844.4452	0.0000	0.0000
8037.9076	6789.3546	306.4984	-1248.5529	6852.4586
308.3065	17.3756	-60.9653	680285.8938	-13.8293
-13.8361				
[35790]ENERGY: 9210000	3344.4748	5462.0930	5729.7987	
368.1211	-14418.4778	-1800.4862	0.0000	0.0000
8099.7899	6785.3137	308.8581	-1314.4762	6850.5947
308.5417	-30.6495	1.4785	680285.8938	-12.0616
-12.0524				
[35826]ENERGY: 9220000	3357.2340	5528.1178	5725.9653	
348.3547	-14349.2502	-1857.2305	0.0000	0.0000
8035.4038	6788.5949	306.4029	-1246.8089	6853.0603
308.3798	-77.4910	-145.2502	680285.8938	-14.1815
-14.1926				
[35876]ENERGY: 9230000	3369.6288	5517.0715	5696.9092	
347.5937	-14387.3923	-1762.0089	0.0000	0.0000
8009.0751	6790.8771	305.3989	-1218.1980	6854.1373
308.4838	144.0914	78.1043	680285.8938	-17.5726

Supplementary Text 6

-17.5661
 [35912]ENERGY: 9240000 3299.4350 5437.9513 5753.8109
 312.7214 -14309.8684 -1829.4877 0.0000 0.0000
 8124.4818 6789.0442 309.7996 -1335.4376 6854.0507
 308.3938 -100.8505 -122.0954 680285.8938 -10.1439
 -10.1593
 [35962]ENERGY: 9250000 3362.7376 5410.1772 5710.4435
 343.7786 -14300.6279 -1830.9833 0.0000 0.0000
 8091.2844 6786.8101 308.5337 -1304.4743 6852.7104
 308.3718 -74.1168 -97.5587 680285.8938 -14.0552
 -14.0398
 [35998]ENERGY: 9260000 3316.1925 5418.1915 5760.8055
 352.7598 -14362.2002 -1830.9849 0.0000 0.0000
 8129.4315 6784.1956 309.9883 -1345.2360 6854.3719
 308.3665 88.8646 -4.6356 680285.8938 -15.1326
 -15.1208
 [36048]ENERGY: 9270000 3269.0369 5524.9169 5745.5957
 338.8275 -14278.3488 -1828.8484 0.0000 0.0000
 8016.9905 6788.1703 305.7008 -1228.8203 6852.4329
 308.5525 35.4274 46.1929 680285.8938 -10.9027
 -10.9071
 [36084]ENERGY: 9280000 3386.9377 5508.0050 5718.7591
 309.6522 -14407.3401 -1828.4543 0.0000 0.0000
 8095.6961 6783.2557 308.7019 -1312.4404 6852.0713
 308.3329 -108.5975 -79.7890 680285.8938 -11.2446
 -11.2508
 [36134]ENERGY: 9290000 3361.1452 5461.9327 5785.7330
 333.4891 -14424.4888 -1832.8624 0.0000 0.0000
 8105.7606 6790.7093 309.0857 -1315.0513 6852.9003
 308.5168 -17.2085 -21.2863 680285.8938 -11.9468
 -11.9540
 [36173]ENERGY: 9300000 3347.4443 5461.4751 5712.7198
 321.3632 -14350.3391 -1806.0214 0.0000 0.0000
 8102.1714 6788.8133 308.9489 -1313.3581 6853.3765
 308.4458 -13.3741 -4.7799 680285.8938 -14.1494
 -14.1475
 [36223]ENERGY: 9310000 3381.4467 5451.2980 5758.3317
 372.8398 -14311.9357 -1853.5584 0.0000 0.0000
 7992.8144 6791.2364 304.7789 -1201.5780 6854.1847
 308.5400 69.9942 -12.7506 680285.8938 -10.7348
 -10.7139
 [36259]ENERGY: 9320000 3290.1529 5470.6771 5747.1172
 310.0610 -14349.9445 -1837.2174 0.0000 0.0000
 8154.0177 6784.8640 310.9258 -1369.1537 6853.4396
 308.5357 150.2102 129.4957 680285.8938 -13.4464
 -13.4769
 [36309]ENERGY: 9330000 3319.9142 5565.7001 5735.3589
 339.3507 -14427.7884 -1794.4347 0.0000 0.0000
 8049.4560 6787.5567 306.9387 -1261.8993 6853.3734
 308.6216 -57.7348 -87.6053 680285.8938 -15.6930
 -15.6936
 [36345]ENERGY: 9340000 3338.7574 5484.6149 5697.6197
 339.3610 -14341.1502 -1789.7516 0.0000 0.0000
 8060.6364 6790.0876 307.3651 -1270.5488 6853.8067

Supplementary Text 6

308.4882	-31.9707	-11.5335	680285.8938	-13.9876
-13.9727				
[36395]ENERGY: 9350000	3362.8567	5426.7904	5753.9086	
355.7012	-14310.1336	-1867.5978	0.0000	0.0000
8069.2544	6790.7798	307.6937	-1278.4746	6854.3827
308.4738	-79.5634	-67.1527	680285.8938	-17.5000
-17.4900				
[36431]ENERGY: 9360000	3295.2569	5448.9878	5738.4335	
329.3368	-14355.8083	-1764.4682	0.0000	0.0000
8097.3669	6789.1053	308.7657	-1308.2616	6853.6564
308.4332	26.5592	22.7638	680285.8938	-18.2546
-18.2659				
[36481]ENERGY: 9370000	3323.4108	5345.2653	5681.7963	
348.6283	-14291.8492	-1758.4695	0.0000	0.0000
8141.6088	6790.3909	310.4527	-1351.2179	6852.6400
308.4721	125.1614	94.7765	680285.8938	-17.5597
-17.5618				
[36517]ENERGY: 9380000	3257.1025	5551.7922	5740.0870	
339.6651	-14421.4842	-1807.8050	0.0000	0.0000
8124.2620	6783.6197	309.7912	-1340.6423	6852.3580
308.4653	83.0569	95.8601	680285.8938	-11.3403
-11.3296				
[36567]ENERGY: 9390000	3297.9992	5461.0322	5719.2157	
363.7541	-14255.9036	-1876.3646	0.0000	0.0000
8081.0458	6790.7788	308.1433	-1290.2670	6854.3021
308.2568	-150.5969	-73.0836	680285.8938	-19.3477
-19.3364				
[36606]ENERGY: 9400000	3362.9607	5435.1422	5729.8416	
347.4834	-14311.0890	-1853.4629	0.0000	0.0000
8077.4928	6788.3687	308.0078	-1289.1241	6853.8858
308.3363	-37.9699	-101.0738	680285.8938	-16.3267
-16.3454				
[36656]ENERGY: 9410000	3237.2656	5470.2910	5752.0196	
331.7002	-14311.4104	-1808.7877	0.0000	0.0000
8113.9090	6784.9873	309.3964	-1328.9217	6853.1955
308.4925	91.9036	84.9852	680285.8938	-17.7187
-17.7004				
[36692]ENERGY: 9420000	3420.3992	5388.6517	5740.2687	
353.0107	-14347.4982	-1774.8197	0.0000	0.0000
8009.4224	6789.4348	305.4122	-1219.9876	6853.2795
308.3784	72.3663	-20.3369	680285.8938	-18.0548
-18.0617				
[36742]ENERGY: 9430000	3232.4958	5482.5994	5761.6723	
374.9713	-14334.6745	-1802.6225	0.0000	0.0000
8073.9019	6788.3438	307.8709	-1285.5581	6855.1296
308.4145	197.4069	147.6214	680285.8938	-14.2303
-14.2399				
[36778]ENERGY: 9440000	3286.6605	5497.1970	5775.1016	
331.3879	-14333.5392	-1801.1853	0.0000	0.0000
8039.3465	6794.9690	306.5532	-1244.3775	6854.9632
308.3952	129.5823	129.9832	680285.8938	-18.3150
-18.3297				
[36828]ENERGY: 9450000	3343.0981	5379.6164	5754.4010	
356.9473	-14288.3514	-1810.4146	0.0000	0.0000

Supplementary Text 6

8054.1544	6789.4511	307.1179	-1264.7033	6855.3989
308.3625	-81.1717	-118.1860	680285.8938	-17.3298
-17.3129				
[36864]ENERGY: 9460000	3273.5679	5444.9122	5724.4876	
325.3728	-14321.6243	-1827.4133	0.0000	0.0000
8169.0514	6788.3542	311.4991	-1380.6972	6855.8254
308.4994	152.2092	78.6101	680285.8938	-16.5170
-16.5363				
[36914]ENERGY: 9470000	3295.1011	5437.1537	5679.1498	
356.0173	-14336.4723	-1767.2285	0.0000	0.0000
8127.2402	6790.9612	309.9048	-1336.2789	6856.4448
308.5182	-26.1263	-22.8335	680285.8938	-15.7879
-15.7576				
[36950]ENERGY: 9480000	3340.9777	5494.5879	5681.5081	
341.3276	-14322.0705	-1836.8382	0.0000	0.0000
8095.4243	6794.9169	308.6916	-1300.5074	6856.4016
308.5174	109.8081	-67.9174	680285.8938	-19.3899
-19.4059				
[37000]ENERGY: 9490000	3333.2454	5415.2431	5818.0299	
336.5662	-14226.5512	-1879.9684	0.0000	0.0000
7997.9525	6794.5175	304.9748	-1203.4350	6858.2403
308.4052	-116.1246	-91.6073	680285.8938	-15.5859
-15.5744				
[37039]ENERGY: 9500000	3301.8234	5433.6776	5751.6182	
321.9571	-14255.1556	-1845.6472	0.0000	0.0000
8088.1862	6796.4595	308.4156	-1291.7266	6859.5654
308.4166	59.1551	-22.1143	680285.8938	-13.8951
-13.9133				
[37089]ENERGY: 9510000	3297.9387	5403.8502	5720.3746	
345.3547	-14231.7205	-1899.6717	0.0000	0.0000
8158.2971	6794.4231	311.0890	-1363.8740	6858.0057
308.4058	-8.1800	-1.1771	680285.8938	-15.8380
-15.8331				
[37125]ENERGY: 9520000	3343.7514	5501.3971	5701.8093	
327.0387	-14384.1913	-1777.5298	0.0000	0.0000
8083.1056	6795.3809	308.2219	-1287.7247	6859.5211
308.5660	43.5518	15.2489	680285.8938	-15.1723
-15.1860				
[37175]ENERGY: 9530000	3450.5599	5473.5763	5717.0070	
341.7327	-14277.6465	-1922.2512	0.0000	0.0000
8014.5369	6797.5151	305.6072	-1217.0219	6861.2238
308.4852	-139.9662	-140.6414	680285.8938	-12.3921
-12.3797				
[37211]ENERGY: 9540000	3400.0112	5473.7381	5730.5901	
332.0254	-14261.2068	-1930.1157	0.0000	0.0000
8053.4344	6798.4767	307.0904	-1254.9577	6862.4081
308.4138	-147.1516	-234.3431	680285.8938	-11.5807
-11.5722				
[37261]ENERGY: 9550000	3288.5726	5456.8928	5765.9873	
363.6179	-14360.5832	-1778.4686	0.0000	0.0000
8060.6859	6796.7048	307.3670	-1263.9812	6862.0371
308.1667	53.7410	41.5922	680285.8938	-15.9412
-15.9497				
[37297]ENERGY: 9560000	3318.4926	5439.9278	5737.5611	

Supplementary Text 6

342.2583	-14331.0039	-1765.0001	0.0000	0.0000
8053.8020	6796.0377	307.1045	-1257.7642	6862.1803
308.2727	86.4378	66.0284	680285.8938	-11.6913
-11.6849				
[37347]ENERGY: 9570000	3338.0504	5426.8108	5685.6261	
304.3908	-14272.7480	-1808.6731	0.0000	0.0000
8123.6528	6797.1098	309.7680	-1326.5430	6862.7018
308.2810	66.5400	-2.4217	680285.8938	-13.3215
-13.3041				
[37383]ENERGY: 9580000	3320.5711	5502.6269	5699.4257	
325.1760	-14376.5573	-1776.9654	0.0000	0.0000
8103.6884	6797.9654	309.0067	-1305.7230	6861.9666
308.1709	-10.3290	-51.4570	680285.8938	-13.8902
-13.9068				
[37433]ENERGY: 9590000	3385.5873	5510.2259	5778.3632	
366.6873	-14368.7281	-1847.7663	0.0000	0.0000
7972.6408	6797.0100	304.0096	-1175.6308	6861.9955
308.3220	-83.5518	-114.9420	680285.8938	-12.8629
-12.8591				
[37472]ENERGY: 9600000	3353.2396	5565.3359	5807.6837	
357.1848	-14416.4627	-1866.9542	0.0000	0.0000
7997.4119	6797.4389	304.9542	-1199.9730	6861.9471
308.3538	-52.3734	-83.1600	680285.8938	-14.0261
-14.0240				
[37522]ENERGY: 9610000	3297.4204	5527.3775	5757.8450	
320.1178	-14342.9634	-1810.5881	0.0000	0.0000
8051.6067	6800.8158	307.0207	-1250.7908	6862.6160
308.2063	6.4408	-105.6927	680285.8938	-11.8476
-11.8657				
[37558]ENERGY: 9620000	3306.3199	5433.7075	5676.4131	
345.0708	-14259.6560	-1778.7917	0.0000	0.0000
8075.9000	6798.9636	307.9471	-1276.9364	6862.3403
308.3163	60.2153	18.7910	680285.8938	-15.2484
-15.2432				
[37608]ENERGY: 9630000	3318.5313	5441.1120	5703.5031	
343.0404	-14283.4217	-1821.7467	0.0000	0.0000
8095.3829	6796.4013	308.6900	-1298.9816	6862.1996
308.4753	90.1660	51.0424	680285.8938	-12.9012
-12.8918				
[37644]ENERGY: 9640000	3302.1592	5428.8516	5730.5233	
345.1130	-14243.1708	-1821.0352	0.0000	0.0000
8052.8019	6795.2430	307.0663	-1257.5588	6861.2881
308.5976	-94.8983	-83.7014	680285.8938	-14.7827
-14.7602				
[37694]ENERGY: 9650000	3279.0192	5540.6662	5707.6218	
329.0336	-14281.8585	-1801.0562	0.0000	0.0000
8024.5382	6797.9643	305.9886	-1226.5739	6862.0810
308.4405	94.8673	89.2308	680285.8938	-16.8563
-16.8954				
[37730]ENERGY: 9660000	3278.9233	5459.2646	5693.0619	
335.1074	-14414.3485	-1762.3645	0.0000	0.0000
8204.3271	6793.9714	312.8442	-1410.3557	6861.8235
308.5870	11.5602	-14.4099	680285.8938	-11.4503
-11.4298				

Supplementary Text 6

[37780]ENERGY: 9670000	3328.2707	5436.6794	5736.6798	
343.7993	-14293.1101	-1852.8119	0.0000	0.0000
8098.1816	6797.6889	308.7967	-1300.4928	6863.1469
308.4162	28.4794	6.6389	680285.8938	-12.6228
-12.6350				
[37816]ENERGY: 9680000	3326.9904	5408.5906	5713.5176	
339.6730	-14345.0909	-1785.9715	0.0000	0.0000
8142.3757	6800.0850	310.4819	-1342.2907	6863.8148
308.5827	-144.6142	-168.8772	680285.8938	-15.1926
-15.1762				
[37866]ENERGY: 9690000	3311.2599	5449.5328	5709.8525	
326.7525	-14384.9767	-1767.7079	0.0000	0.0000
8149.7338	6794.4469	310.7625	-1355.2869	6862.6245
308.4825	27.8076	30.2978	680285.8938	-15.8926
-15.9000				
[37905]ENERGY: 9700000	3276.8324	5527.8256	5742.6615	
351.0411	-14266.0531	-1897.5113	0.0000	0.0000
8065.5058	6800.3021	307.5507	-1265.2037	6864.4503
308.4561	-39.4979	-77.4749	680285.8938	-13.3094
-13.3098				
[37955]ENERGY: 9710000	3322.9988	5522.0052	5692.1146	
356.5762	-14303.7501	-1870.4395	0.0000	0.0000
8078.0730	6797.5781	308.0299	-1280.4949	6864.0328
308.3022	-33.6506	-117.3635	680285.8938	-12.3660
-12.3637				
[37991]ENERGY: 9720000	3384.9030	5457.5163	5729.4892	
362.6840	-14297.1470	-1843.8952	0.0000	0.0000
8008.3851	6801.9355	305.3726	-1206.4497	6863.8421
308.5553	17.4012	-3.6270	680285.8938	-12.1768
-12.1894				
[38041]ENERGY: 9730000	3289.7036	5450.8256	5685.2614	
349.1122	-14302.9805	-1779.2234	0.0000	0.0000
8105.4123	6798.1111	309.0724	-1307.3012	6863.1206
308.5421	-32.6301	-33.9135	680285.8938	-13.9874
-13.9855				
[38077]ENERGY: 9740000	3315.7820	5539.5482	5690.0995	
357.5171	-14400.7918	-1781.0646	0.0000	0.0000
8078.4743	6799.5647	308.0453	-1278.9096	6865.7871
308.4905	2.7561	-57.4236	680285.8938	-19.3549
-19.3518				
[38127]ENERGY: 9750000	3300.1555	5440.3330	5756.9217	
348.7431	-14364.2003	-1755.4337	0.0000	0.0000
8074.0603	6800.5795	307.8769	-1273.4807	6865.5755
308.6114	80.3770	48.2783	680285.8938	-10.4256
-10.4346				
[38163]ENERGY: 9760000	3311.0114	5566.9600	5746.7835	
325.9262	-14409.7836	-1722.0160	0.0000	0.0000
7984.1073	6802.9888	304.4469	-1181.1185	6865.0551
308.6553	28.9490	67.5209	680285.8938	-13.3293
-13.3044				
[38213]ENERGY: 9770000	3325.5009	5467.4081	5749.4053	
354.8283	-14369.1941	-1779.5095	0.0000	0.0000
8050.8936	6799.3326	306.9936	-1251.5610	6864.3256
308.5264	-7.2504	-19.2027	680285.8938	-16.9662

Supplementary Text 6

-16.9988
 [38249]ENERGY: 9780000 3300.2168 5473.9785 5750.9505
 341.6332 -14319.1485 -1790.1437 0.0000 0.0000
 8041.7250 6799.2118 306.6439 -1242.5132 6864.7634
 308.3866 65.3055 -37.6118 680285.8938 -16.3863
 -16.3864
 [38299]ENERGY: 9790000 3341.9058 5467.3108 5717.4442
 315.0340 -14293.2194 -1749.3521 0.0000 0.0000
 8002.3779 6801.5013 305.1436 -1200.8766 6864.2458
 308.3494 -4.8869 -7.3263 680285.8938 -15.7517
 -15.7425
 [38338]ENERGY: 9800000 3223.1031 5504.0057 5757.4958
 340.8532 -14362.9914 -1795.7812 0.0000 0.0000
 8131.7160 6798.4012 310.0754 -1333.3148 6865.3087
 308.2843 24.1502 21.9741 680285.8938 -17.2993
 -17.2884
 [38388]ENERGY: 9810000 3340.2879 5484.5948 5718.6066
 378.3383 -14376.8663 -1766.0191 0.0000 0.0000
 8022.4751 6801.4174 305.9099 -1221.0577 6864.2395
 308.3789 -62.9728 17.3093 680285.8938 -14.0343
 -14.0303
 [38424]ENERGY: 9820000 3293.6865 5474.5176 5754.8956
 360.9223 -14359.7271 -1861.4019 0.0000 0.0000
 8134.7619 6797.6549 310.1916 -1337.1071 6866.4156
 308.4837 20.0057 -48.0335 680285.8938 -12.7413
 -12.7517
 [38474]ENERGY: 9830000 3365.2819 5401.1495 5731.2454
 322.4388 -14306.6490 -1830.1728 0.0000 0.0000
 8117.8523 6801.1462 309.5468 -1316.7062 6864.5418
 308.6337 -21.9394 -46.6519 680285.8938 -11.9993
 -11.9779
 [38510]ENERGY: 9840000 3318.2868 5393.6281 5796.4934
 345.9298 -14280.8399 -1805.2787 0.0000 0.0000
 8031.5481 6799.7676 306.2559 -1231.7806 6865.2784
 308.3495 58.9826 32.4561 680285.8938 -9.4740
 -9.4765
 [38560]ENERGY: 9850000 3351.2193 5406.3351 5747.2068
 361.2644 -14314.0037 -1748.9400 0.0000 0.0000
 7997.3949 6800.4769 304.9536 -1196.9180 6865.7155
 308.4521 -111.1149 -51.2141 680285.8938 -16.2520
 -16.2528
 [38596]ENERGY: 9860000 3303.4348 5466.9668 5737.4138
 328.7727 -14396.9006 -1728.5385 0.0000 0.0000
 8089.9415 6801.0905 308.4825 -1288.8510 6865.6174
 308.5317 160.8240 162.0398 680285.8938 -11.8595
 -11.8684
 [38646]ENERGY: 9870000 3323.3675 5413.1981 5731.7033
 343.8337 -14236.0457 -1857.5628 0.0000 0.0000
 8081.1318 6799.6259 308.1466 -1281.5060 6866.1278
 308.5891 -101.7726 -101.8635 680285.8938 -13.5349
 -13.5429
 [38682]ENERGY: 9880000 3429.9239 5432.0785 5739.6868
 344.1802 -14401.7027 -1780.7522 0.0000 0.0000
 8037.3458 6800.7603 306.4770 -1236.5855 6866.3022

Supplementary Text 6

308.5551	-105.4965	-135.4083	680285.8938	-13.6322
-13.6227				
[38732]ENERGY: 9890000	3402.3077	5446.4024	5727.0035	
347.4098	-14413.2160	-1757.4744	0.0000	0.0000
8048.6973	6801.1303	306.9098	-1247.5670	6864.9162
308.7688	-105.4983	-32.1514	680285.8938	-15.6251
-15.6247				
[38771]ENERGY: 9900000	3150.1823	5502.9721	5766.0834	
328.8663	-14231.7846	-1841.3220	0.0000	0.0000
8123.3816	6798.3792	309.7576	-1325.0024	6866.1794
308.6942	52.5420	13.1666	680285.8938	-9.8900
-9.8929				
[38821]ENERGY: 9910000	3310.2704	5467.3263	5707.7195	
348.0657	-14368.9521	-1780.7348	0.0000	0.0000
8118.1713	6801.8663	309.5590	-1316.3050	6867.9559
308.7196	-89.6619	-111.1533	680285.8938	-12.2593
-12.2646				
[38857]ENERGY: 9920000	3340.6351	5471.6848	5712.5705	
329.0140	-14314.1819	-1863.9118	0.0000	0.0000
8124.8381	6800.6489	309.8132	-1324.1892	6868.6224
308.4945	-146.5383	-97.3907	680285.8938	-14.8699
-14.8654				
[38907]ENERGY: 9930000	3340.1544	5507.7426	5720.1466	
342.3173	-14257.3180	-1884.0680	0.0000	0.0000
8037.3559	6806.3307	306.4773	-1231.0252	6869.1258
308.7849	-74.7021	-32.9900	680285.8938	-11.4410
-11.4466				
[38943]ENERGY: 9940000	3376.6802	5461.8969	5689.5827	
342.5006	-14342.6086	-1794.2201	0.0000	0.0000
8070.7699	6804.6017	307.7515	-1266.1683	6869.9038
308.6141	-5.6179	33.0316	680285.8938	-14.1894
-14.2031				
[38993]ENERGY: 9950000	3298.4076	5465.3237	5697.5949	
378.0301	-14382.7863	-1689.3181	0.0000	0.0000
8034.4888	6801.7406	306.3680	-1232.7482	6867.4955
308.8025	122.8048	158.8356	680285.8938	-12.1151
-12.1083				
[39029]ENERGY: 9960000	3368.3519	5420.5969	5697.5340	
328.8480	-14259.7543	-1789.9124	0.0000	0.0000
8037.5959	6803.2600	306.4865	-1234.3358	6868.1536
308.7114	82.6521	7.8605	680285.8938	-15.0437
-15.0300				
[39079]ENERGY: 9970000	3270.4374	5425.6341	5713.9680	
337.6001	-14312.3302	-1714.1792	0.0000	0.0000
8084.6599	6805.7901	308.2811	-1278.8698	6868.0747
308.4952	201.2725	170.1501	680285.8938	-11.3694
-11.3798				
[39115]ENERGY: 9980000	3368.0916	5419.3865	5713.1120	
323.3945	-14333.7016	-1770.7190	0.0000	0.0000
8084.8265	6804.3906	308.2875	-1280.4360	6868.3259
308.3718	104.1722	-3.6155	680285.8938	-11.6848
-11.6986				
[39165]ENERGY: 9990000	3306.2693	5495.0828	5693.2613	
316.5293	-14264.4038	-1849.3964	0.0000	0.0000

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8105.6350	6802.9774	309.0809	-1302.6576	6868.5061
308.3943	113.4287	46.0478	680285.8938	-14.6481
-14.6404				
[39204]ENERGY: 10000000	3371.6592	5439.8667	5672.2979	
359.8772	-14296.1487	-1794.6216	0.0000	0.0000
8049.0025	6801.9331	306.9214	-1247.0694	6868.5464
308.5440	18.7403	13.0819	680285.8938	-13.5504
-13.5435				
[39254]ENERGY: 10010000	3316.4079	5337.4063	5665.4768	
317.3690	-14187.7469	-1780.0205	0.0000	0.0000
8133.3103	6802.2030	310.1362	-1331.1073	6868.8953
308.5224	105.3684	33.7249	680285.8938	-8.9128
-8.9028				
[39290]ENERGY: 10020000	3281.0820	5407.4619	5699.7502	
318.3877	-14277.0929	-1749.0829	0.0000	0.0000
8122.0711	6802.5770	309.7077	-1319.4941	6868.5926
308.2977	1.6533	2.6745	680285.8938	-11.6898
-11.6894				
[39340]ENERGY: 10030000	3431.5729	5497.0834	5680.7241	
337.7855	-14312.8946	-1818.2349	0.0000	0.0000
7993.3965	6809.4330	304.8011	-1183.9635	6869.2510
308.3598	-52.0155	-57.5377	680285.8938	-13.2754
-13.2769				
[39376]ENERGY: 10040000	3419.8946	5520.7793	5717.8260	
334.8019	-14389.4276	-1762.2878	0.0000	0.0000
7964.6749	6806.2613	303.7059	-1158.4136	6869.3294
308.4269	105.8191	10.3358	680285.8938	-10.3329
-10.3341				
[39426]ENERGY: 10050000	3289.5607	5415.3125	5695.9802	
346.1690	-14286.5479	-1768.1368	0.0000	0.0000
8111.3103	6803.6479	309.2973	-1307.6623	6869.5650
308.4798	118.5437	71.5189	680285.8938	-14.5864
-14.5786				
[39462]ENERGY: 10060000	3391.9800	5527.3491	5644.7148	
330.6721	-14263.8656	-1906.3369	0.0000	0.0000
8078.8086	6803.3221	308.0580	-1275.4865	6870.1604
308.3676	-205.2341	-108.2323	680285.8938	-12.7220
-12.7301				
[39512]ENERGY: 10070000	3375.6019	5441.5543	5691.1110	
342.1090	-14298.6693	-1815.6436	0.0000	0.0000
8070.9751	6807.0384	307.7593	-1263.9366	6871.0633
308.3079	-116.9029	-105.3794	680285.8938	-14.6373
-14.6535				
[39548]ENERGY: 10080000	3254.4615	5437.7498	5688.1474	
359.5229	-14227.8885	-1798.0902	0.0000	0.0000
8088.4935	6802.3964	308.4273	-1286.0970	6869.9438
308.2506	93.6827	0.8915	680285.8938	-13.2197
-13.2028				
[39598]ENERGY: 10090000	3302.2963	5576.6996	5727.5192	
332.5799	-14292.9225	-1840.2251	0.0000	0.0000
8002.5421	6808.4895	305.1498	-1194.0526	6871.4070
308.5097	-7.7705	37.6720	680285.8938	-15.1495
-15.1600				
[39637]ENERGY: 10100000	3345.9153	5457.1267	5715.0023	

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350.8648	-14298.0947	-1826.3998	0.0000	0.0000
8060.8797	6805.2944	307.3743	-1255.5853	6872.9731
308.4805	-116.4856	-138.0096	680285.8938	-13.8198
-13.8140				
[39687]ENERGY: 10110000	3369.0874	5417.7830	5649.1022	
344.0671	-14273.1462	-1744.5309	0.0000	0.0000
8044.2306	6806.5933	306.7395	-1237.6373	6872.3277
308.3742	-13.5531	-4.7700	680285.8938	-14.8683
-14.8611				
[39723]ENERGY: 10120000	3303.1965	5493.2888	5752.7922	
368.2926	-14249.0825	-1878.4359	0.0000	0.0000
8020.3864	6810.4382	305.8303	-1209.9482	6871.8381
308.4978	-90.9411	-29.8954	680285.8938	-11.6999
-11.7153				
[39773]ENERGY: 10130000	3355.1873	5411.4311	5677.6940	
354.1883	-14196.2603	-1830.5108	0.0000	0.0000
8035.6526	6807.3821	306.4124	-1228.2705	6872.6268
308.4214	-9.5030	-43.4800	680285.8938	-15.9378
-15.9260				
[39809]ENERGY: 10140000	3314.6930	5385.9309	5704.1193	
352.6287	-14307.4836	-1786.1552	0.0000	0.0000
8143.1594	6806.8924	310.5118	-1336.2671	6872.5281
308.5046	217.0865	103.0741	680285.8938	-12.9847
-12.9944				
[39859]ENERGY: 10150000	3384.1129	5441.1482	5735.1342	
331.1544	-14291.7192	-1836.5173	0.0000	0.0000
8046.5912	6809.9044	306.8295	-1236.6868	6872.7040
308.6245	-79.9213	-40.3348	680285.8938	-12.7253
-12.7172				
[39895]ENERGY: 10160000	3389.2402	5372.5445	5714.8279	
342.5183	-14309.9551	-1772.5745	0.0000	0.0000
8074.3121	6810.9136	307.8865	-1263.3986	6872.6537
308.6852	-91.6693	-113.1437	680285.8938	-16.0542
-16.0613				
[39945]ENERGY: 10170000	3288.8448	5417.9910	5745.2072	
344.7782	-14301.4385	-1768.8894	0.0000	0.0000
8079.6719	6806.1653	308.0909	-1273.5067	6872.2238
308.5950	-79.6739	-63.2322	680285.8938	-14.2421
-14.2243				
[39981]ENERGY: 10180000	3368.1951	5525.4784	5750.9278	
330.8862	-14356.6125	-1812.8100	0.0000	0.0000
8003.8112	6809.8763	305.1982	-1193.9349	6874.0992
308.3782	-25.9413	-0.3151	680285.8938	-15.3845
-15.3850				
[40031]ENERGY: 10190000	3314.0664	5443.8782	5783.1792	
336.7961	-14348.3302	-1795.5071	0.0000	0.0000
8075.6431	6809.7256	307.9373	-1265.9175	6872.6618
308.3669	24.7265	13.4740	680285.8938	-15.5928
-15.5979				
[40070]ENERGY: 10200000	3375.5860	5374.2239	5753.5527	
361.2829	-14363.8629	-1806.9185	0.0000	0.0000
8115.2815	6809.1457	309.4488	-1306.1358	6873.3470
308.5909	-49.5955	-77.0149	680285.8938	-10.6795
-10.6816				

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[40120]ENERGY: 10210000	3327.4167	5494.6947	5731.4989
359.2151	-14395.5474	-1794.8375	0.0000
8084.1773	6806.6179	308.2627	-1277.5594
308.6779	123.4524	1.6099	680285.8938
-9.5166			-9.4965
[40156]ENERGY: 10220000	3244.1555	5445.0141	5744.1295
351.3253	-14352.0245	-1791.7201	0.0000
8164.8314	6805.7112	311.3382	-1359.1202
308.6385	1.1329	22.0338	680285.8938
-13.5099			-13.5179
[40206]ENERGY: 10230000	3294.3243	5538.6452	5690.9198
344.6708	-14321.2863	-1852.6481	0.0000
8112.8583	6807.4840	309.3564	-1305.3743
308.7086	120.3737	110.4737	680285.8938
-11.6629			-11.6687
[40242]ENERGY: 10240000	3352.9090	5405.5127	5734.1934
342.9218	-14283.8152	-1846.8590	0.0000
8104.4283	6809.2909	309.0349	-1295.1374
308.7735	-73.9996	-68.0256	680285.8938
-9.2796			-9.2784
[40292]ENERGY: 10250000	3221.0226	5450.3803	5773.9835
317.4961	-14299.2129	-1821.3512	0.0000
8164.8331	6807.1516	311.3383	-1357.6815
308.6972	28.7081	-5.6059	680285.8938
-11.0839			-11.0912
[40328]ENERGY: 10260000	3321.6017	5402.8704	5770.5773
328.9400	-14291.0220	-1843.6995	0.0000
8117.9473	6807.2154	309.5504	-1310.7319
308.5199	-95.1878	-78.3910	680285.8938
-5.2628			-5.2565
[40378]ENERGY: 10270000	3402.3293	5395.8277	5736.6333
333.2192	-14360.3009	-1860.0124	0.0000
8159.4119	6807.1081	311.1315	-1352.3038
308.6509	14.1548	-13.7978	680285.8938
-9.3461			-9.3565
[40414]ENERGY: 10280000	3337.4869	5515.3834	5705.4838
319.3194	-14328.4631	-1805.4705	0.0000
8064.5528	6808.2926	307.5144	-1256.2602
308.6980	-101.6666	-80.1110	680285.8938
-13.6454			-13.6255
[40464]ENERGY: 10290000	3331.2596	5495.8729	5747.1376
346.3026	-14407.5216	-1744.3620	0.0000
8041.3748	6810.0638	306.6306	-1231.3110
308.9381	102.4224	88.4447	680285.8938
-10.6793			-10.6882
[40503]ENERGY: 10300000	3348.5971	5470.3950	5757.4330
331.3743	-14275.6768	-1851.5182	0.0000
8029.1668	6809.7713	306.1651	-1219.3955
308.8292	-10.7183	-85.4411	680285.8938
-12.7624			-12.7632
[40553]ENERGY: 10310000	3365.7650	5386.5130	5695.6276
368.2860	-14301.4468	-1769.4366	0.0000
8065.7616	6811.0698	307.5605	-1254.6918
308.6835	127.2941	41.5101	680285.8938
			-15.9324

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-15.9257
 [40589]ENERGY: 10320000 3304.8832 5426.0972 5756.3580
 335.6095 -14312.9565 -1804.6954 0.0000 0.0000
 8103.8162 6809.1122 309.0116 -1294.7040 6873.5195
 308.5575 171.7943 113.2790 680285.8938 -11.2813
 -11.2832
 [40639]ENERGY: 10330000 3356.6484 5380.7453 5755.4249
 323.5051 -14315.7010 -1774.1002 0.0000 0.0000
 8082.1777 6808.7002 308.1865 -1273.4775 6874.6636
 308.6066 148.3407 34.6537 680285.8938 -10.8582
 -10.8766
 [40675]ENERGY: 10340000 3258.8216 5410.9567 5799.2692
 325.3137 -14262.3707 -1860.8286 0.0000 0.0000
 8138.4279 6809.5899 310.3314 -1328.8380 6875.2259
 308.7050 10.7415 -92.3650 680285.8938 -12.4707
 -12.4598
 [40725]ENERGY: 10350000 3325.2269 5464.5527 5775.9325
 345.3314 -14406.5847 -1769.4139 0.0000 0.0000
 8070.4390 6805.4840 307.7389 -1264.9550 6873.7767
 308.7517 -39.9760 -58.2610 680285.8938 -12.8168
 -12.8166
 [40761]ENERGY: 10360000 3311.5115 5509.5703 5757.7137
 342.5771 -14353.6682 -1837.8005 0.0000 0.0000
 8080.8088 6810.7127 308.1343 -1270.0962 6874.3265
 308.7605 58.8710 13.7527 680285.8938 -11.6713
 -11.6732
 [40811]ENERGY: 10370000 3308.0772 5440.7478 5778.0765
 337.5001 -14293.4177 -1876.7303 0.0000 0.0000
 8117.6278 6811.8814 309.5382 -1305.7464 6874.3711
 308.5879 -74.8114 -44.3108 680285.8938 -15.2553
 -15.2537
 [40847]ENERGY: 10380000 3293.9297 5423.3512 5765.5949
 354.5017 -14308.7740 -1802.5801 0.0000 0.0000
 8083.0183 6809.0417 308.2185 -1273.9766 6873.3071
 308.6845 -8.6104 -17.7419 680285.8938 -12.8772
 -12.8655
 [40897]ENERGY: 10390000 3312.1094 5389.0128 5713.7393
 322.6062 -14319.2401 -1794.2250 0.0000 0.0000
 8181.5676 6805.5703 311.9764 -1375.9973 6874.5462
 308.5888 -64.0304 -26.0714 680285.8938 -16.9566
 -16.9511
 [40936]ENERGY: 10400000 3311.5161 5443.5601 5724.2081
 314.9542 -14321.1627 -1748.6248 0.0000 0.0000
 8087.3227 6811.7737 308.3827 -1275.5489 6873.4624
 308.8115 17.2645 50.7718 680285.8938 -11.4488
 -11.4776
 [40986]ENERGY: 10410000 3267.7313 5558.9364 5710.0571
 328.6154 -14340.7954 -1804.8812 0.0000 0.0000
 8085.7819 6805.4455 308.3239 -1280.3363 6874.4323
 308.7053 -84.0171 -32.8472 680285.8938 -17.0901
 -17.0762
 [41022]ENERGY: 10420000 3264.9287 5461.5286 5678.0086
 359.9040 -14255.0682 -1828.9800 0.0000 0.0000
 8129.6125 6809.9343 309.9952 -1319.6782 6876.1609

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308.6816	-41.4377	-41.5723	680285.8938	-13.4345
-13.4404				
[41072]ENERGY: 10430000	3337.1171	5408.7819	5723.5844	
334.8586	-14293.7827	-1835.2922	0.0000	0.0000
8133.3984	6808.6654	310.1396	-1324.7330	6876.2473
308.7441	-18.1774	-72.3847	680285.8938	-13.1112
-13.1105				
[41108]ENERGY: 10440000	3293.8327	5504.6311	5730.8418	
330.7826	-14305.9866	-1798.4551	0.0000	0.0000
8056.6155	6812.2620	307.2117	-1244.3535	6876.8969
308.8691	-1.4136	-43.8053	680285.8938	-11.4957
-11.5016				
[41158]ENERGY: 10450000	3317.0918	5512.7915	5706.5891	
332.4532	-14380.6820	-1830.2250	0.0000	0.0000
8151.0892	6809.1079	310.8142	-1341.9813	6876.1972
308.7256	18.3053	-8.3193	680285.8938	-14.3430
-14.3282				
[41194]ENERGY: 10460000	3343.2479	5464.8790	5695.1076	
325.5884	-14312.9583	-1761.8239	0.0000	0.0000
8057.1914	6811.2322	307.2337	-1245.9592	6876.2843
308.7297	154.8103	17.4032	680285.8938	-11.6891
-11.6979				
[41244]ENERGY: 10470000	3396.9201	5404.4493	5724.8389	
338.8982	-14372.2659	-1769.0879	0.0000	0.0000
8089.3204	6813.0730	308.4588	-1276.2473	6877.1424
308.7192	-40.0118	-52.9259	680285.8938	-12.6149
-12.6124				
[41280]ENERGY: 10480000	3288.9967	5472.5812	5733.3599	
361.8425	-14334.9027	-1783.2392	0.0000	0.0000
8074.2984	6812.9368	307.8860	-1261.3616	6877.5887
308.8339	58.3381	106.5279	680285.8938	-13.0169
-12.9972				
[41330]ENERGY: 10490000	3293.9321	5419.3336	5722.4320	
343.2685	-14286.4525	-1815.4254	0.0000	0.0000
8134.6213	6811.7097	310.1862	-1322.9116	6878.4099
308.8320	48.6472	-18.4329	680285.8938	-11.7805
-11.7923				
[41369]ENERGY: 10500000	3372.4426	5471.7899	5688.8358	
341.3369	-14337.7395	-1794.5584	0.0000	0.0000
8071.9737	6814.0810	307.7974	-1257.8928	6878.2406
308.6515	33.1584	-43.2977	680285.8938	-16.3030
-16.3040				
[41419]ENERGY: 10510000	3314.7141	5530.5216	5776.7798	
343.2896	-14370.5534	-1852.4283	0.0000	0.0000
8069.3961	6811.7193	307.6991	-1257.6768	6878.9469
308.8351	-140.1342	-194.0855	680285.8938	-16.1774
-16.1748				
[41455]ENERGY: 10520000	3378.6492	5380.8891	5704.7430	
343.0373	-14323.3403	-1814.3614	0.0000	0.0000
8140.1934	6809.8103	310.3987	-1330.3831	6876.5215
308.8385	-89.1465	-73.0222	680285.8938	-16.2564
-16.2590				
[41505]ENERGY: 10530000	3320.8733	5391.1260	5697.0540	
347.9723	-14339.8480	-1776.4080	0.0000	0.0000

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8167.4892	6808.2589	311.4395	-1359.2304	6878.0749
308.8208	-57.8266	-125.7428	680285.8938	-12.3868
-12.3901				
[41541]ENERGY: 10540000	3374.7484	5465.6631	5701.0005	
349.7573	-14335.0493	-1814.6037	0.0000	0.0000
8069.8738	6811.3900	307.7173	-1258.4837	6878.6885
308.7137	90.5227	40.4200	680285.8938	-12.1258
-12.1236				
[41591]ENERGY: 10550000	3244.7889	5530.7712	5694.4203	
310.8649	-14315.3730	-1782.4844	0.0000	0.0000
8128.7346	6811.7226	309.9618	-1317.0120	6879.3519
308.8160	132.6875	103.1718	680285.8938	-12.9539
-12.9538				
[41627]ENERGY: 10560000	3316.8537	5458.1779	5761.3826	
356.5622	-14334.4245	-1824.4152	0.0000	0.0000
8078.7152	6812.8519	308.0544	-1265.8633	6878.4151
308.8318	-87.9289	-14.8680	680285.8938	-13.0526
-13.0613				
[41677]ENERGY: 10570000	3361.3141	5424.1160	5715.9126	
376.3811	-14297.8263	-1820.2103	0.0000	0.0000
8056.1097	6815.7969	307.1925	-1240.3128	6879.8177
308.6694	34.0468	13.1009	680285.8938	-14.1632
-14.1492				
[41713]ENERGY: 10580000	3299.7174	5430.1437	5726.4653	
312.1373	-14278.4256	-1769.4088	0.0000	0.0000
8094.0225	6814.6520	308.6381	-1279.3706	6880.4206
308.6784	-32.4319	-21.7650	680285.8938	-14.5655
-14.5614				
[41763]ENERGY: 10590000	3332.7449	5522.3971	5735.3398	
340.9414	-14298.1060	-1854.7318	0.0000	0.0000
8038.6556	6817.2412	306.5269	-1221.4144	6881.4802
308.7535	20.5130	45.1508	680285.8938	-14.0117
-14.0040				
[41802]ENERGY: 10600000	3308.1271	5342.3886	5724.4618	
341.3873	-14293.9765	-1685.6099	0.0000	0.0000
8084.0864	6820.8648	308.2593	-1263.2216	6880.8600
308.7292	73.7746	84.9664	680285.8938	-15.7041
-15.7315				
[41852]ENERGY: 10610000	3377.4872	5412.2274	5722.1604	
341.4816	-14366.0203	-1744.9511	0.0000	0.0000
8072.5982	6814.9834	307.8212	-1257.6148	6880.6343
308.5193	-7.6933	99.2621	680285.8938	-12.6975
-12.6818				
[41888]ENERGY: 10620000	3348.4207	5391.6635	5751.2940	
344.6399	-14367.0182	-1724.8598	0.0000	0.0000
8068.0631	6812.2032	307.6483	-1255.8599	6880.4574
308.6282	-55.1104	-63.2305	680285.8938	-9.5805
-9.5794				
[41938]ENERGY: 10630000	3271.9498	5346.0474	5694.8576	
344.6064	-14244.9198	-1742.7272	0.0000	0.0000
8145.3192	6815.1334	310.5942	-1330.1858	6880.7793
308.6220	51.9611	9.1311	680285.8938	-9.8934
-9.9053				
[41974]ENERGY: 10640000	3251.7926	5406.5608	5711.7739	

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332.3586	-14179.8642	-1795.8591	0.0000	0.0000
8088.6992	6815.4618	308.4351	-1273.2374	6881.4963
308.4804	-42.7926	-21.8835	680285.8938	-11.3897
-11.3916				
[42024]ENERGY: 10650000	3187.1467	5360.8218	5756.2110	
350.3083	-14238.2380	-1795.4150	0.0000	0.0000
8196.1407	6816.9756	312.5321	-1379.1651	6881.0155
308.5252	53.1048	43.5228	680285.8938	-9.6827
-9.6753				
[42060]ENERGY: 10660000	3376.9204	5458.4465	5724.4563	
328.9953	-14342.5615	-1791.5859	0.0000	0.0000
8063.1449	6817.8160	307.4607	-1245.3289	6881.7377
308.7314	13.6694	36.2576	680285.8938	-9.3829
-9.3790				
[42110]ENERGY: 10670000	3346.9934	5389.9527	5671.0807	
332.6317	-14199.1520	-1825.1486	0.0000	0.0000
8101.1663	6817.5242	308.9105	-1283.6421	6881.7194
308.7021	52.5950	-37.8609	680285.8938	-10.2179
-10.2138				
[42146]ENERGY: 10680000	3380.9795	5330.8423	5758.1322	
311.6288	-14170.6114	-1877.6774	0.0000	0.0000
8083.2762	6816.5701	308.2284	-1266.7061	6883.2039
308.7954	-81.2759	-128.6364	680285.8938	-11.5868
-11.5859				
[42196]ENERGY: 10690000	3301.1788	5314.7782	5744.3664	
350.5147	-14257.8463	-1828.8652	0.0000	0.0000
8192.6056	6816.7321	312.3973	-1375.8735	6884.0394
308.8714	9.8196	-0.1095	680285.8938	-10.1057
-10.1042				
[42235]ENERGY: 10700000	3325.6894	5380.5795	5760.6722	
334.7319	-14294.7304	-1790.3254	0.0000	0.0000
8102.5528	6819.1700	308.9634	-1283.3827	6882.5738
308.9795	45.6137	45.5750	680285.8938	-11.6596
-11.6661				
[42285]ENERGY: 10710000	3330.0936	5447.6233	5787.5619	
367.8801	-14354.6915	-1857.3466	0.0000	0.0000
8094.8865	6816.0073	308.6711	-1278.8791	6883.7824
308.9232	-149.2367	-131.1838	680285.8938	-12.2893
-12.3002				
[42321]ENERGY: 10720000	3228.0926	5451.0008	5736.9245	
345.7889	-14263.3559	-1857.1046	0.0000	0.0000
8172.8450	6814.1912	311.6438	-1358.6538	6883.6228
308.9142	-18.8187	11.2268	680285.8938	-8.5889
-8.5751				
[42371]ENERGY: 10730000	3416.0325	5367.6904	5775.7612	
339.3018	-14327.5339	-1779.4617	0.0000	0.0000
8032.6515	6824.4419	306.2980	-1208.2096	6884.2664
308.8555	11.6773	-53.1491	680285.8938	-10.9070
-10.9041				
[42407]ENERGY: 10740000	3483.6586	5452.2467	5710.4849	
359.6505	-14441.9186	-1755.7373	0.0000	0.0000
8011.1341	6819.5189	305.4775	-1191.6152	6883.7146
308.8741	-91.7014	0.1446	680285.8938	-13.1386
-13.1506				

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[42457]ENERGY: 10750000	3315.6845	5479.6398	5736.6528
333.9087	-14298.7652	-1795.3756	0.0000
8047.8938	6819.6388	306.8792	-1228.2550
308.6531	5.4050	-27.8181	680285.8938
-13.2162			-13.2178
[42493]ENERGY: 10760000	3311.8514	5481.2081	5709.4698
346.6325	-14347.3270	-1759.7597	0.0000
8078.3242	6820.3993	308.0395	-1257.9249
309.0125	16.5591	85.9098	680285.8938
-10.3214			-10.3232
[42543]ENERGY: 10770000	3247.9927	5567.8444	5736.2362
340.1693	-14323.3706	-1843.1621	0.0000
8093.7550	6819.4649	308.6279	-1274.2901
308.9895	-39.2145	-37.2054	680285.8938
-11.8727			-11.8868
[42579]ENERGY: 10780000	3355.7496	5362.4983	5714.9011
336.0381	-14276.5400	-1768.3471	0.0000
8094.0624	6818.3624	308.6396	-1275.6999
308.6666	-166.9246	-183.5063	680285.8938
-15.8633			-15.8446
[42629]ENERGY: 10790000	3373.4578	5423.8512	5729.5247
360.6471	-14325.4223	-1806.1224	0.0000
8060.0911	6816.0273	307.3443	-1244.0639
308.6887	-239.3582	-223.4032	680285.8938
-14.6949			-14.6982
[42668]ENERGY: 10800000	3327.3985	5448.3803	5710.0061
335.6572	-14335.4930	-1800.0554	0.0000
8131.0359	6816.9296	310.0495	-1314.1063
308.7971	44.9054	-28.7769	680285.8938
-16.9500			-16.9532
[42718]ENERGY: 10810000	3320.0289	5486.1470	5705.2587
346.4643	-14329.6984	-1772.9834	0.0000
8060.0224	6815.2395	307.3417	-1244.7829
308.7461	141.7130	110.9269	680285.8938
-17.7699			-17.7717
[42754]ENERGY: 10820000	3330.5209	5457.1561	5731.6452
325.5769	-14331.4998	-1803.5432	0.0000
8106.7973	6816.6534	309.1253	-1290.1440
308.8906	17.3547	-59.7580	680285.8938
-19.4228			-19.4193
[42804]ENERGY: 10830000	3326.0893	5478.1145	5707.2873
330.0903	-14288.2253	-1762.2468	0.0000
8029.2494	6820.3587	306.1682	-1208.8907
308.6612	-19.7002	0.7949	680285.8938
-15.2404			-15.2384
[42840]ENERGY: 10840000	3376.5694	5462.5563	5736.4280
347.4620	-14297.5858	-1870.0570	0.0000
8064.5967	6819.9696	307.5161	-1244.6271
308.8356	-48.8493	-90.1180	680285.8938
-13.7284			-13.7297
[42890]ENERGY: 10850000	3329.7885	5455.5602	5737.8602
347.1715	-14336.5675	-1748.6968	0.0000
8036.0665	6821.1825	306.4282	-1214.8840
308.9357	75.5230	87.3285	680285.8938
			-17.0095

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-16.9992
 [42926]ENERGY: 10860000 3262.2420 5450.2477 5648.0730
 350.4858 -14194.7974 -1804.2559 0.0000 0.0000
 8105.0343 6817.0295 309.0580 -1288.0048 6883.2521
 308.6971 105.4039 81.9242 680285.8938 -19.7987
 -19.8218
 [42976]ENERGY: 10870000 3367.0507 5474.2677 5754.8818
 335.6898 -14360.4620 -1796.9903 0.0000 0.0000
 8044.4529 6818.8906 306.7480 -1225.5622 6884.4972
 308.6762 -127.6109 -138.9860 680285.8938 -17.1858
 -17.1518
 [43012]ENERGY: 10880000 3340.0673 5478.3042 5716.5458
 338.4465 -14333.4048 -1788.4191 0.0000 0.0000
 8067.8998 6819.4397 307.6420 -1248.4601 6883.1965
 308.7172 117.5682 41.2024 680285.8938 -13.9447
 -13.9690
 [43062]ENERGY: 10890000 3298.0321 5449.7920 5726.9949
 322.8690 -14362.9095 -1703.5197 0.0000 0.0000
 8089.3120 6820.5709 308.4585 -1268.7410 6882.8568
 308.6372 100.2382 102.6090 680285.8938 -16.1194
 -16.1171
 [43101]ENERGY: 10900000 3317.5512 5436.2969 5682.0487
 369.4056 -14317.3261 -1856.4859 0.0000 0.0000
 8183.3135 6814.8039 312.0429 -1368.5096 6884.6232
 308.7906 -23.0740 -28.2252 680285.8938 -10.0898
 -10.0935
 [43151]ENERGY: 10910000 3375.6814 5419.6241 5707.9331
 332.3632 -14298.5659 -1782.2634 0.0000 0.0000
 8064.9612 6819.7337 307.5300 -1245.2275 6884.3191
 308.8820 18.6947 -30.9554 680285.8938 -13.8078
 -13.8070
 [43187]ENERGY: 10920000 3277.1204 5384.6789 5723.5237
 315.1305 -14258.9039 -1753.3288 0.0000 0.0000
 8126.8297 6815.0505 309.8891 -1311.7792 6882.9883
 308.8314 64.2098 71.0942 680285.8938 -14.8597
 -14.8422
 [43237]ENERGY: 10930000 3321.6192 5494.2187 5721.5200
 344.4184 -14332.5148 -1844.3271 0.0000 0.0000
 8111.2579 6816.1922 309.2953 -1295.0657 6882.6056
 308.6069 -176.4113 -75.0655 680285.8938 -20.8190
 -20.8443
 [43273]ENERGY: 10940000 3333.0772 5494.3331 5770.6004
 354.9219 -14379.3479 -1791.4446 0.0000 0.0000
 8037.4696 6819.6098 306.4817 -1217.8598 6883.6104
 308.8553 10.0517 -73.3409 680285.8938 -15.7141
 -15.7141
 [43323]ENERGY: 10950000 3243.8957 5465.8466 5762.0209
 369.5008 -14341.2295 -1777.9283 0.0000 0.0000
 8095.7124 6817.8185 308.7026 -1277.8939 6882.7826
 308.7622 -56.4048 -115.9830 680285.8938 -16.5140
 -16.4986
 [43359]ENERGY: 10960000 3357.0811 5452.9489 5715.0933
 347.3939 -14429.6685 -1731.1720 0.0000 0.0000
 8106.1974 6817.8741 309.1024 -1288.3233 6883.6366

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308.9043	200.1176	45.5874	680285.8938	-15.4225
-15.4265				
[43409]ENERGY: 10970000	3370.6640	5489.1944	5720.1392	
327.6487	-14425.5467	-1777.8762	0.0000	0.0000
8113.2947	6817.5181	309.3730	-1295.7766	6885.1100
308.9692	-100.0975	-50.7046	680285.8938	-11.2091
-11.2008				
[43445]ENERGY: 10980000	3351.5819	5416.2243	5723.1060	
360.2832	-14303.8492	-1799.5788	0.0000	0.0000
8070.9066	6818.6741	307.7567	-1252.2325	6883.8049
308.7577	-47.5294	-95.3763	680285.8938	-9.9867
-10.0086				
[43495]ENERGY: 10990000	3381.1509	5454.8131	5786.6725	
324.0349	-14388.0644	-1756.0958	0.0000	0.0000
8017.3756	6819.8867	305.7155	-1197.4889	6885.6524
308.9278	-19.9059	-55.1728	680285.8938	-13.3563
-13.3456				
[43534]ENERGY: 11000000	3294.6098	5452.3133	5711.3377	
365.6265	-14311.0760	-1799.6283	0.0000	0.0000
8105.4169	6818.5999	309.0726	-1286.8170	6885.1089
308.6374	86.0328	65.6667	680285.8938	-18.9896
-18.9948				
[268]ENERGY: 11010000	3320.5106	5448.1170	5734.4918	
318.0675	-14357.9019	-1751.0344	0.0000	0.0000
8106.2321	6818.4827	309.1037	-1287.7494	6884.8622
308.8820	39.5606	3.4171	680285.8938	-15.6539
-15.6620				
[307]ENERGY: 11020000	3376.4314	5374.6354	5725.5252	
315.3077	-14249.1423	-1838.1849	0.0000	0.0000
8114.5583	6819.1309	309.4212	-1295.4274	6885.5044
308.7539	-14.4047	-44.0385	680285.8938	-13.5385
-13.5099				
[359]ENERGY: 11030000	3337.3965	5418.2168	5706.7587	
334.7096	-14329.4808	-1727.1089	0.0000	0.0000
8080.7815	6821.2735	308.1332	-1259.5079	6884.8608
308.8359	83.9647	16.6910	680285.8938	-15.4840
-15.5043				
[397]ENERGY: 11040000	3323.3114	5455.7089	5760.1204	
326.5673	-14325.4030	-1834.7451	0.0000	0.0000
8116.4789	6822.0388	309.4944	-1294.4401	6886.2816
308.7298	21.6582	17.9814	680285.8938	-17.2724
-17.2578				
[449]ENERGY: 11050000	3277.3529	5548.7865	5695.6170	
344.7476	-14382.3101	-1726.0660	0.0000	0.0000
8062.7498	6820.8779	307.4457	-1241.8720	6885.4460
308.8321	91.0200	85.5271	680285.8938	-14.0331
-14.0240				
[487]ENERGY: 11060000	3334.3216	5436.9391	5685.3184	
323.4914	-14357.3725	-1820.2321	0.0000	0.0000
8215.3174	6817.7832	313.2633	-1397.5342	6886.8068
308.9768	100.2241	0.6784	680285.8938	-13.7824
-13.7989				
[538]ENERGY: 11070000	3274.8645	5409.0722	5723.9850	
351.2697	-14337.2258	-1732.3077	0.0000	0.0000

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8130.6112	6820.2690	310.0333	-1310.3422	6886.3964
308.9379	147.0256	105.1415	680285.8938	-13.6866
-13.6857				
[575]ENERGY: 11080000	3358.0929	5493.8629	5736.4514	
333.3438	-14369.3537	-1762.8152	0.0000	0.0000
8031.8025	6821.3846	306.2656	-1210.4179	6886.2620
308.9402	28.6117	13.9070	680285.8938	-17.0268
-17.0429				
[626]ENERGY: 11090000	3379.7842	5434.8489	5699.4440	
357.4433	-14404.3072	-1772.5292	0.0000	0.0000
8123.3315	6818.0155	309.7557	-1305.3160	6886.0463
308.9764	-86.2667	-60.1166	680285.8938	-13.0833
-13.0618				
[666]ENERGY: 11100000	3360.4135	5476.1985	5703.4595	
339.8463	-14354.4994	-1764.2910	0.0000	0.0000
8060.0269	6821.1543	307.3418	-1238.8726	6886.7739
308.9744	66.3717	40.2309	680285.8938	-16.6000
-16.5936				
[717]ENERGY: 11110000	3355.9813	5487.2725	5647.6169	
307.1635	-14264.1226	-1741.6846	0.0000	0.0000
8032.1315	6824.3585	306.2781	-1207.7730	6887.4236
308.9927	55.4396	142.8623	680285.8938	-19.4265
-19.4257				
[753]ENERGY: 11120000	3335.7624	5390.6248	5742.1022	
336.3099	-14323.7308	-1785.6438	0.0000	0.0000
8125.3549	6820.7796	309.8329	-1304.5753	6887.4811
309.0184	-57.6947	-8.4970	680285.8938	-13.0353
-13.0442				
[803]ENERGY: 11130000	3260.9402	5458.7310	5701.9091	
358.0477	-14243.6010	-1783.5362	0.0000	0.0000
8072.1147	6824.6054	307.8027	-1247.5093	6889.4148
308.9963	255.2630	124.9644	680285.8938	-11.9903
-12.0131				
[839]ENERGY: 11140000	3293.8430	5376.7203	5704.8375	
342.4486	-14261.8720	-1805.0907	0.0000	0.0000
8169.8449	6820.7316	311.5294	-1349.1133	6888.4634
308.9231	-46.8553	-82.1899	680285.8938	-14.2410
-14.2249				
[889]ENERGY: 11150000	3371.0907	5411.3810	5677.6493	
382.8085	-14309.6243	-1793.0323	0.0000	0.0000
8084.1997	6824.4726	308.2636	-1259.7271	6887.5590
309.1649	-24.5869	-20.8170	680285.8938	-13.6282
-13.6191				
[925]ENERGY: 11160000	3318.4602	5543.2539	5664.1906	
345.3077	-14399.4558	-1713.2451	0.0000	0.0000
8064.9002	6823.4118	307.5277	-1241.4885	6888.1995
309.3124	174.5437	27.7365	680285.8938	-12.4526
-12.4749				
[975]ENERGY: 11170000	3363.5110	5449.7006	5698.5956	
342.6959	-14348.8200	-1784.1662	0.0000	0.0000
8098.8117	6820.3286	308.8207	-1278.4830	6888.2686
309.2294	-98.4571	-52.5776	680285.8938	-14.5666
-14.5527				
[1011]ENERGY: 11180000	3356.8657	5382.1545	5658.1571	

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336.2644	-14272.5680	-1770.0032	0.0000	0.0000
8133.8779	6824.7484	310.1579	-1309.1295	6888.8764
309.2166	-42.0239	-126.0820	680285.8938	-14.3005
-14.3002				
[1061]ENERGY: 11190000	3372.3172	5412.3043	5752.9723	
339.6431	-14271.8614	-1840.1794	0.0000	0.0000
8059.9496	6825.1458	307.3389	-1234.8039	6888.9834
309.1519	-71.3452	-38.4655	680285.8938	-16.2491
-16.2508				
[1100]ENERGY: 11200000	3367.2437	5501.9656	5716.2143	
350.0024	-14400.9916	-1787.5515	0.0000	0.0000
8076.0869	6822.9698	307.9542	-1253.1171	6889.2812
309.1204	-50.3838	-81.4713	680285.8938	-10.8427
-10.8419				
[1150]ENERGY: 11210000	3371.8629	5464.7823	5698.6384	
355.7156	-14313.5425	-1804.8353	0.0000	0.0000
8052.2958	6824.9172	307.0470	-1227.3786	6889.5222
309.0959	-30.9775	32.1563	680285.8938	-14.7836
-14.7888				
[1186]ENERGY: 11220000	3307.1087	5445.7753	5702.6225	
354.8591	-14386.4044	-1749.1074	0.0000	0.0000
8147.6980	6822.5519	310.6849	-1325.1461	6889.2029
309.1424	209.8605	133.2372	680285.8938	-15.5606
-15.5501				
[1236]ENERGY: 11230000	3348.2180	5428.1347	5769.9362	
337.8298	-14299.0493	-1862.7991	0.0000	0.0000
8100.3501	6822.6203	308.8794	-1277.7298	6888.6466
309.1161	77.9794	-3.0004	680285.8938	-14.1424
-14.1569				
[1272]ENERGY: 11240000	3299.3712	5397.8126	5764.8693	
341.1973	-14217.1111	-1834.9876	0.0000	0.0000
8074.3988	6825.5506	307.8898	-1248.8483	6889.5071
308.9335	-58.5082	-108.3714	680285.8938	-12.5328
-12.5089				
[1322]ENERGY: 11250000	3362.2721	5429.6244	5685.0068	
347.3377	-14359.4407	-1765.5744	0.0000	0.0000
8124.0415	6823.2674	309.7828	-1300.7741	6888.5573
308.9721	-58.6499	-2.7699	680285.8938	-15.9495
-15.9827				
[1358]ENERGY: 11260000	3263.5615	5459.0587	5779.1286	
345.7573	-14317.4858	-1802.3494	0.0000	0.0000
8095.7812	6823.4520	308.7052	-1272.3291	6888.5923
309.2891	-53.6925	19.9559	680285.8938	-14.5430
-14.5345				
[1408]ENERGY: 11270000	3346.8551	5496.4809	5717.6892	
328.6975	-14333.4734	-1799.9529	0.0000	0.0000
8070.7780	6827.0743	307.7518	-1243.7036	6889.4259
309.2913	-38.2132	-32.5251	680285.8938	-15.3473
-15.3349				
[1444]ENERGY: 11280000	3332.6452	5439.2362	5748.0883	
333.5117	-14395.5930	-1731.9701	0.0000	0.0000
8097.3611	6823.2793	308.7654	-1274.0818	6890.5527
308.9542	5.1083	49.8542	680285.8938	-15.1198
-15.1303				

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[1494]ENERGY: 11290000	3403.5252	5513.4426	5725.9765	
344.1493	-14268.9026	-1836.9910	0.0000	0.0000
7954.0182	6835.2183	303.2995	-1118.8000	6891.2018
309.0524	32.2326	12.6999	680285.8938	-18.2816
-18.2703				
[1533]ENERGY: 11300000	3350.0079	5400.4149	5692.3261	
324.0131	-14339.7698	-1724.7572	0.0000	0.0000
8123.9521	6826.1871	309.7794	-1297.7650	6890.4550
309.0843	51.3861	-28.9720	680285.8938	-15.3425
-15.3443				
[1583]ENERGY: 11310000	3331.6617	5436.1057	5740.6444	
350.6043	-14220.7621	-1887.4963	0.0000	0.0000
8073.2439	6824.0015	307.8458	-1249.2424	6890.5480
309.1214	-161.2366	-231.6127	680285.8938	-16.0427
-16.0331				
[1619]ENERGY: 11320000	3239.0338	5480.1042	5762.9946	
346.6042	-14349.9933	-1784.7414	0.0000	0.0000
8131.5550	6825.5573	310.0693	-1305.9978	6891.3957
309.1896	66.9972	-13.6478	680285.8938	-15.4583
-15.4704				
[1669]ENERGY: 11330000	3256.0731	5513.6156	5744.4285	
339.8170	-14321.1622	-1760.3802	0.0000	0.0000
8058.4348	6830.8266	307.2811	-1227.6082	6892.4694
309.0845	91.9885	37.5111	680285.8938	-18.4857
-18.4732				
[1705]ENERGY: 11340000	3292.3750	5502.7186	5774.3874	
341.3405	-14338.8887	-1770.9899	0.0000	0.0000
8028.2042	6829.1471	306.1284	-1199.0571	6892.1045
309.0666	27.6404	-38.2034	680285.8938	-16.2819
-16.2898				
[1755]ENERGY: 11350000	3335.3195	5510.3221	5699.3296	
347.1702	-14327.2677	-1855.0815	0.0000	0.0000
8118.8062	6828.5985	309.5832	-1290.2077	6892.7528
309.1197	8.5354	36.4117	680285.8938	-18.2743
-18.2604				
[1791]ENERGY: 11360000	3389.2153	5496.9926	5734.0224	
340.5613	-14409.2546	-1790.6077	0.0000	0.0000
8068.8661	6829.7955	307.6789	-1239.0707	6892.1181
308.9758	145.7549	68.4302	680285.8938	-15.0480
-15.0727				
[1841]ENERGY: 11370000	3359.4653	5467.4122	5729.5101	
352.8801	-14317.2102	-1807.5754	0.0000	0.0000
8045.0264	6829.5084	306.7698	-1215.5180	6893.2422
308.9870	121.8283	83.9783	680285.8938	-15.7399
-15.7446				
[1877]ENERGY: 11380000	3302.8918	5477.6200	5723.1230	
335.8811	-14369.9971	-1789.1615	0.0000	0.0000
8146.5219	6826.8792	310.6400	-1319.6428	6893.9381
308.9460	-105.1648	-47.3744	680285.8938	-16.0505
-16.0349				
[1927]ENERGY: 11390000	3316.0643	5513.5584	5740.5491	
387.7312	-14407.8127	-1776.6642	0.0000	0.0000
8056.5446	6829.9707	307.2090	-1226.5739	6894.4164
309.0770	58.1178	75.0092	680285.8938	-14.5471

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-14.5482
 [1966]ENERGY: 11400000 3284.6674 5545.2573 5747.0819
 334.4272 -14353.9003 -1801.8449 0.0000 0.0000
 8072.9263 6828.6150 307.8337 -1244.3113 6893.6091
 309.0683 -7.3972 -32.6845 680285.8938 -16.3164
 -16.3235
 [2016]ENERGY: 11410000 3286.8431 5425.2238 5736.4709
 358.6401 -14340.5282 -1765.0344 0.0000 0.0000
 8123.2651 6824.8804 309.7532 -1298.3847 6893.4588
 309.1424 114.0045 106.4729 680285.8938 -13.9474
 -13.9340
 [2052]ENERGY: 11420000 3336.3782 5501.1617 5744.8401
 345.5804 -14308.8510 -1814.4829 0.0000 0.0000
 8027.1347 6831.7612 306.0876 -1195.3735 6894.8009
 308.8179 111.9488 27.6507 680285.8938 -21.3645
 -21.3932
 [2102]ENERGY: 11430000 3385.3710 5524.4898 5711.3220
 338.4479 -14430.0229 -1769.1636 0.0000 0.0000
 8067.9042 6828.3485 307.6422 -1239.5558 6893.0792
 308.9476 -55.3445 -13.2561 680285.8938 -19.6273
 -19.5957
 [2138]ENERGY: 11440000 3263.0888 5373.4922 5760.7308
 354.7981 -14307.7850 -1840.4404 0.0000 0.0000
 8220.1585 6824.0430 313.4479 -1396.1156 6894.1859
 309.1762 -43.7150 -138.4314 680285.8938 -19.6277
 -19.6448
 [2188]ENERGY: 11450000 3365.8251 5408.8587 5681.9161
 359.6182 -14357.8211 -1702.1864 0.0000 0.0000
 8076.0821 6832.2927 307.9540 -1243.7894 6894.7104
 309.1266 29.9713 8.6379 680285.8938 -17.8480
 -17.8425
 [2224]ENERGY: 11460000 3317.8626 5383.0856 5708.8931
 342.2130 -14238.7805 -1782.1213 0.0000 0.0000
 8100.3552 6831.5077 308.8796 -1268.8475 6895.1054
 308.9543 95.4078 48.0380 680285.8938 -18.1246
 -18.1232
 [2274]ENERGY: 11470000 3302.3602 5478.7386 5722.7073
 325.8737 -14251.9342 -1814.7945 0.0000 0.0000
 8066.8834 6829.8345 307.6033 -1237.0490 6896.2526
 309.0343 118.9317 14.8704 680285.8938 -14.3935
 -14.3864
 [2310]ENERGY: 11480000 3338.1582 5519.1908 5696.7992
 340.8877 -14283.4440 -1808.7018 0.0000 0.0000
 8026.0356 6828.9258 306.0457 -1197.1098 6895.7066
 308.9784 -78.2287 -42.6187 680285.8938 -13.9948
 -13.9951
 [2360]ENERGY: 11490000 3373.4736 5480.2643 5707.2402
 355.1781 -14402.9889 -1759.3402 0.0000 0.0000
 8074.8311 6828.6582 307.9063 -1246.1729 6895.2823
 309.0925 25.8183 -74.2250 680285.8938 -15.0605
 -15.0669
 [2399]ENERGY: 11500000 3319.9022 5354.1049 5754.9140
 322.9389 -14376.5047 -1752.9402 0.0000 0.0000
 8204.2101 6826.6251 312.8398 -1377.5850 6896.2467

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309.1473	-16.2674	-37.1287	680285.8938	-15.2631
-15.2599				
[2449]ENERGY: 11510000	3279.0079	5465.5801	5658.4287	
327.7480	-14302.7129	-1754.9948	0.0000	0.0000
8155.0580	6828.1150	310.9655	-1326.9430	6894.9303
309.0994	-19.5643	-2.0163	680285.8938	-12.1624
-12.1811				
[2485]ENERGY: 11520000	3368.5586	5486.0568	5701.7340	
347.2333	-14341.9921	-1785.8508	0.0000	0.0000
8056.1861	6831.9259	307.1954	-1224.2602	6894.3791
308.9859	99.1359	58.1199	680285.8938	-10.4047
-10.3901				
[2535]ENERGY: 11530000	3330.3253	5461.0295	5709.6775	
334.6625	-14399.4786	-1703.7183	0.0000	0.0000
8098.7316	6831.2295	308.8177	-1267.5021	6896.1771
309.2160	97.6587	76.0194	680285.8938	-13.1817
-13.1815				
[2571]ENERGY: 11540000	3330.6799	5489.2498	5683.0810	
345.0574	-14341.7968	-1760.4607	0.0000	0.0000
8089.0316	6834.8422	308.4478	-1254.1894	6896.5789
309.0585	-25.2383	-21.2003	680285.8938	-13.7180
-13.7146				
[2621]ENERGY: 11550000	3300.3915	5559.5190	5676.3493	
344.4370	-14386.8837	-1699.0707	0.0000	0.0000
8037.8607	6832.6030	306.4966	-1205.2577	6897.3047
309.2766	-21.5454	-21.5853	680285.8938	-13.8918
-13.8943				
[2657]ENERGY: 11560000	3285.9307	5490.4423	5700.9185	
338.8975	-14329.3796	-1730.8425	0.0000	0.0000
8080.2685	6836.2353	308.1137	-1244.0332	6899.4595
309.1347	38.3783	-45.0559	680285.8938	-12.0632
-12.0608				
[2707]ENERGY: 11570000	3361.7349	5418.2195	5745.3799	
340.6612	-14347.7088	-1802.8442	0.0000	0.0000
8118.2241	6833.6666	309.5610	-1284.5575	6898.6769
309.2522	100.4932	13.6196	680285.8938	-16.3766
-16.3863				
[2743]ENERGY: 11580000	3382.8065	5411.1318	5665.5537	
355.9263	-14340.8682	-1789.8569	0.0000	0.0000
8149.3442	6834.0374	310.7476	-1315.3068	6899.0588
309.0773	-1.7555	-119.0495	680285.8938	-17.5806
-17.5655				
[2793]ENERGY: 11590000	3377.7194	5394.4692	5667.6796	
338.5903	-14300.1530	-1767.5288	0.0000	0.0000
8122.6897	6833.4665	309.7313	-1289.2233	6897.5696
309.1820	-53.2608	6.0698	680285.8938	-14.4338
-14.4117				
[2832]ENERGY: 11600000	3352.6613	5423.0101	5702.1745	
344.1536	-14350.0337	-1767.9989	0.0000	0.0000
8131.7867	6835.7537	310.0781	-1296.0330	6900.4854
309.2217	23.7982	42.5102	680285.8938	-15.6191
-15.6508				
[2882]ENERGY: 11610000	3343.8143	5496.1095	5703.3196	
329.8928	-14386.2708	-1779.2085	0.0000	0.0000

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8125.7574	6833.4143	309.8482	-1292.3431	6899.4088
309.0361	97.7388	22.8067	680285.8938	-12.3009
-12.3127				
[2918]ENERGY: 11620000	3335.2895	5505.4075	5711.2639	
326.2694	-14418.5005	-1735.0549	0.0000	0.0000
8105.6376	6830.3125	309.0810	-1275.3251	6899.3744
309.1023	22.0032	47.4431	680285.8938	-10.2725
-10.2616				
[2968]ENERGY: 11630000	3351.7471	5481.1961	5693.4362	
314.4345	-14324.6849	-1883.1800	0.0000	0.0000
8198.4790	6831.4279	312.6212	-1367.0511	6899.2613
309.2059	-173.2269	-101.3799	680285.8938	-14.7864
-14.7840				
[3004]ENERGY: 11640000	3268.2466	5478.2340	5693.0658	
358.2170	-14250.1073	-1825.8725	0.0000	0.0000
8112.2260	6834.0095	309.3323	-1278.2164	6901.2100
308.9999	5.0991	-30.9036	680285.8938	-15.1875
-15.1826				
[3054]ENERGY: 11650000	3414.5246	5528.6062	5731.5903	
341.5309	-14424.0453	-1761.0081	0.0000	0.0000
8008.2100	6839.4087	305.3660	-1168.8014	6901.8127
308.8775	17.4594	29.1422	680285.8938	-15.9255
-15.9277				
[3090]ENERGY: 11660000	3263.7084	5500.7642	5734.3973	
345.6518	-14328.3274	-1785.7131	0.0000	0.0000
8104.5120	6834.9931	309.0381	-1269.5189	6902.1945
309.0215	85.8495	30.4674	680285.8938	-13.8731
-13.8904				
[3140]ENERGY: 11670000	3309.8221	5340.3018	5701.8995	
341.6917	-14290.5406	-1751.9103	0.0000	0.0000
8182.4301	6833.6944	312.0093	-1348.7357	6901.4639
309.1137	117.0014	64.0455	680285.8938	-14.1165
-14.1000				
[3176]ENERGY: 11680000	3363.2946	5486.9095	5753.7808	
366.5492	-14413.7745	-1807.0289	0.0000	0.0000
8089.6350	6839.3657	308.4708	-1250.2693	6903.1343
309.0113	-37.1612	-77.8819	680285.8938	-15.6836
-15.6733				
[3226]ENERGY: 11690000	3280.0806	5446.4941	5760.9446	
334.1188	-14226.8447	-1845.6609	0.0000	0.0000
8090.6797	6839.8122	308.5107	-1250.8675	6903.8033
309.1020	153.0728	56.4418	680285.8938	-14.1957
-14.2253				
[3265]ENERGY: 11700000	3316.8645	5522.3058	5680.7473	
332.6634	-14159.8887	-1858.1517	0.0000	0.0000
8008.3238	6842.8642	305.3703	-1165.4595	6903.0145
309.1789	-86.4641	-86.7969	680285.8938	-13.4361
-13.4168				
[3315]ENERGY: 11710000	3322.9568	5348.7327	5775.1612	
325.5304	-14283.6567	-1842.3799	0.0000	0.0000
8189.5700	6835.9145	312.2815	-1353.6555	6902.3035
308.9140	-4.6967	-47.1018	680285.8938	-18.0681
-18.0672				
[3351]ENERGY: 11720000	3318.4892	5451.1597	5673.4163	

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321.9012	-14315.7748	-1777.4360	0.0000	0.0000
8166.5932	6838.3489	311.4054	-1328.2444	6902.8745
309.0104	-98.1401	-46.6930	680285.8938	-14.1375
-14.1415				
[3401]ENERGY: 11730000	3358.8546	5422.1488	5694.9437	
331.1809	-14388.4851	-1719.8203	0.0000	0.0000
8139.0752	6837.8978	310.3561	-1301.1774	6903.6734
309.1415	-87.8382	-19.2566	680285.8938	-14.3349
-14.3129				
[3437]ENERGY: 11740000	3297.6257	5542.1901	5684.7962	
334.3075	-14355.0725	-1735.2885	0.0000	0.0000
8071.3368	6839.8954	307.7731	-1231.4415	6902.8920
309.2917	15.6979	-40.7188	680285.8938	-14.6001
-14.6367				
[3487]ENERGY: 11750000	3366.7587	5391.8059	5750.2958	
317.4947	-14266.8581	-1805.4817	0.0000	0.0000
8083.1196	6837.1349	308.2224	-1245.9847	6902.8400
309.0994	-26.2906	-85.6148	680285.8938	-17.1737
-17.1615				
[3523]ENERGY: 11760000	3349.6478	5422.1140	5797.2616	
350.5034	-14375.1600	-1799.3130	0.0000	0.0000
8092.6799	6837.7338	308.5869	-1254.9461	6904.1727
309.1303	-7.0967	-65.2261	680285.8938	-13.9022
-13.9036				
[3573]ENERGY: 11770000	3353.5356	5405.8226	5717.8957	
335.7050	-14362.2689	-1723.3960	0.0000	0.0000
8111.6389	6838.9329	309.3099	-1272.7060	6903.4708
309.0199	-2.9744	-70.0344	680285.8938	-14.8461
-14.8312				
[3609]ENERGY: 11780000	3379.2284	5493.5316	5735.6027	
337.9179	-14383.4266	-1739.8439	0.0000	0.0000
8017.3775	6840.3875	305.7155	-1176.9900	6903.8314
309.0300	-42.5205	13.9992	680285.8938	-18.4936
-18.4875				
[3659]ENERGY: 11790000	3351.9302	5340.0380	5701.1695	
337.0987	-14258.9268	-1775.8693	0.0000	0.0000
8141.5735	6837.0139	310.4513	-1304.5596	6904.1114
309.0250	-33.7155	-20.4908	680285.8938	-17.5466
-17.5528				
[3698]ENERGY: 11800000	3411.7070	5473.0879	5714.1749	
323.5368	-14332.0283	-1783.5368	0.0000	0.0000
8034.3730	6841.3145	306.3636	-1193.0585	6905.0550
309.2111	-92.1991	-41.1388	680285.8938	-19.3576
-19.3588				
[3748]ENERGY: 11810000	3374.5113	5419.2321	5676.6063	
350.2531	-14339.2024	-1824.0293	0.0000	0.0000
8178.7819	6836.1530	311.8701	-1342.6289	6905.1241
309.3706	25.9860	-24.5022	680285.8938	-19.0853
-19.0895				
[3784]ENERGY: 11820000	3354.0367	5453.7420	5755.6581	
339.6244	-14292.6734	-1777.5686	0.0000	0.0000
8008.6615	6841.4807	305.3832	-1167.1808	6904.3698
309.3354	-24.3355	-4.0933	680285.8938	-16.4086
-16.4099				

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[3834]ENERGY: 11830000	3303.1011	5593.5444	5793.5313	
354.4581	-14448.3996	-1757.6221	0.0000	0.0000
8001.8865	6840.4997	305.1248	-1161.3868	6904.6185
309.3110	-98.2787	-86.5455	680285.8938	-21.2466
-21.2436				
[3870]ENERGY: 11840000	3362.6322	5354.5350	5716.4616	
319.5507	-14305.6826	-1793.8629	0.0000	0.0000
8181.9856	6835.6195	311.9923	-1346.3660	6904.7475
309.3243	144.2748	111.1070	680285.8938	-16.0850
-16.0934				
[3920]ENERGY: 11850000	3334.7700	5435.3310	5703.5035	
339.6956	-14370.4416	-1655.4046	0.0000	0.0000
8054.4868	6841.9407	307.1306	-1212.5461	6904.9732
309.3527	88.3176	70.5728	680285.8938	-13.9453
-13.9487				
[3956]ENERGY: 11860000	3405.7675	5525.8396	5675.3368	
353.8199	-14408.7728	-1748.9679	0.0000	0.0000
8041.5182	6844.5413	306.6361	-1196.9769	6907.5108
309.3976	-28.5128	1.6186	680285.8938	-20.4408
-20.4478				
[4006]ENERGY: 11870000	3370.9550	5500.3108	5729.7741	
337.2974	-14448.2199	-1805.8793	0.0000	0.0000
8157.7536	6841.9916	311.0683	-1315.7620	6907.7445
309.4043	77.7777	62.9413	680285.8938	-14.4257
-14.4038				
[4042]ENERGY: 11880000	3386.8073	5434.6625	5746.5453	
365.0217	-14259.1925	-1847.3952	0.0000	0.0000
8020.3769	6846.8260	305.8299	-1173.5509	6908.7722
309.3508	5.9343	-55.7346	680285.8938	-15.7053
-15.7039				
[4092]ENERGY: 11890000	3297.0491	5436.5617	5744.5426	
344.9426	-14291.4710	-1804.1979	0.0000	0.0000
8118.0105	6845.4376	309.5528	-1272.5729	6908.4712
309.4428	29.8691	95.3117	680285.8938	-15.3112
-15.3088				
[4131]ENERGY: 11900000	3361.2123	5417.8572	5675.4880	
334.4200	-14322.5939	-1750.2600	0.0000	0.0000
8129.1751	6845.2986	309.9786	-1283.8765	6908.7754
309.7161	120.2599	144.5519	680285.8938	-14.7821
-14.8031				
[4181]ENERGY: 11910000	3355.6982	5446.8918	5738.5125	
334.4240	-14262.8649	-1819.5463	0.0000	0.0000
8050.0088	6843.1242	306.9598	-1206.8847	6908.8497
309.4343	-28.8875	-53.0924	680285.8938	-17.6114
-17.6042				
[4217]ENERGY: 11920000	3301.4237	5477.3840	5772.5980	
372.5179	-14368.4877	-1804.5220	0.0000	0.0000
8095.5441	6846.4579	308.6961	-1249.0862	6910.2036
309.5388	177.0990	70.5829	680285.8938	-14.0219
-14.0194				
[4267]ENERGY: 11930000	3372.0528	5517.0385	5707.2740	
328.1649	-14371.7418	-1827.9579	0.0000	0.0000
8116.5628	6841.3933	309.4976	-1275.1695	6910.3282
309.6226	-16.8542	2.8786	680285.8938	-15.9396

Supplementary Text 6

-15.9373
 [4303]ENERGY: 11940000 3400.5542 5473.6944 5695.1403
 345.4467 -14347.9981 -1748.5758 0.0000 0.0000
 8025.8395 6844.1011 306.0382 -1181.7384 6908.7135
 309.4819 -85.3696 -105.3194 680285.8938 -16.3208
 -16.3229
 [4353]ENERGY: 11950000 3297.1498 5419.7762 5744.7912
 323.5402 -14239.4150 -1820.7773 0.0000 0.0000
 8120.7350 6845.8001 309.6567 -1274.9349 6909.9061
 309.6078 -23.2271 -75.6071 680285.8938 -18.5601
 -18.5659
 [4389]ENERGY: 11960000 3349.9474 5373.1703 5737.8897
 336.9590 -14409.0686 -1672.6157 0.0000 0.0000
 8126.2386 6842.5207 309.8666 -1283.7180 6908.1404
 309.3885 28.8626 51.8206 680285.8938 -17.4524
 -17.4373
 [4439]ENERGY: 11970000 3304.5959 5489.6815 5724.7753
 354.2372 -14293.3307 -1786.4196 0.0000 0.0000
 8051.2445 6844.7842 307.0069 -1206.4603 6909.4245
 309.3876 73.1521 63.0781 680285.8938 -14.4326
 -14.4630
 [4475]ENERGY: 11980000 3334.7327 5571.6895 5712.1921
 334.9189 -14413.1839 -1792.3640 0.0000 0.0000
 8094.5426 6842.5278 308.6580 -1252.0147 6909.9594
 309.5215 53.8105 42.9784 680285.8938 -18.9611
 -18.9404
 [4525]ENERGY: 11990000 3341.8564 5486.5930 5685.4665
 332.1888 -14339.8614 -1797.6855 0.0000 0.0000
 8135.4568 6844.0146 310.2181 -1291.4422 6909.4457
 309.5158 -163.6281 -99.5159 680285.8938 -19.3488
 -19.3500
 [4564]ENERGY: 12000000 3318.0706 5514.4437 5708.1136
 359.9336 -14393.2433 -1831.3339 0.0000 0.0000
 8167.2869 6843.2713 311.4318 -1324.0156 6910.5170
 309.4817 123.6842 69.7441 680285.8938 -16.8423
 -16.8381
 [4614]ENERGY: 12010000 3326.8808 5503.3667 5718.8047
 330.3234 -14328.9048 -1773.6969 0.0000 0.0000
 8068.1959 6844.9698 307.6533 -1223.2260 6910.2338
 309.4493 -86.1640 -114.3784 680285.8938 -20.2613
 -20.2586
 [4650]ENERGY: 12020000 3305.2793 5378.9032 5735.4983
 329.0357 -14322.4212 -1763.6818 0.0000 0.0000
 8180.5137 6843.1273 311.9362 -1337.3864 6909.2318
 309.3564 202.1434 216.6141 680285.8938 -15.0011
 -15.0165
 [4700]ENERGY: 12030000 3381.6890 5525.0166 5672.9865
 334.7290 -14364.3543 -1832.5287 0.0000 0.0000
 8127.6437 6845.1819 309.9202 -1282.4618 6909.3656
 309.3475 -58.2674 -52.3449 680285.8938 -18.9090
 -18.8908
 [4736]ENERGY: 12040000 3309.9076 5457.7060 5733.0324
 327.5636 -14390.5827 -1748.1073 0.0000 0.0000
 8151.2327 6840.7524 310.8196 -1310.4804 6909.3542

Supplementary Text 6

309.4675	158.8914	96.6384	680285.8938	-17.2092
-17.2160				
[4786]ENERGY: 12050000	3221.1939	5431.1906	5753.0276	
351.6786	-14288.0266	-1746.2805	0.0000	0.0000
8120.4780	6843.2617	309.6469	-1277.2163	6908.5237
309.5003	90.4242	5.2994	680285.8938	-15.4619
-15.4720				
[4822]ENERGY: 12060000	3262.5165	5454.8677	5708.5025	
337.9167	-14253.9116	-1775.7187	0.0000	0.0000
8110.0542	6844.2273	309.2494	-1265.8269	6909.6465
309.4860	-24.0462	-22.2526	680285.8938	-17.7365
-17.7174				
[4872]ENERGY: 12070000	3342.0318	5422.8498	5702.7797	
347.6042	-14343.0436	-1773.3794	0.0000	0.0000
8143.4428	6842.2853	310.5226	-1301.1575	6908.0334
309.4276	119.9590	44.9735	680285.8938	-20.6249
-20.6311				
[4908]ENERGY: 12080000	3219.7874	5403.4827	5752.3472	
348.9074	-14253.9958	-1824.6121	0.0000	0.0000
8199.4198	6845.3367	312.6571	-1354.0831	6910.5604
309.6186	53.5005	-14.2510	680285.8938	-20.2604
-20.2831				
[4958]ENERGY: 12090000	3248.1054	5374.5677	5738.8187	
360.0069	-14329.4221	-1723.3960	0.0000	0.0000
8177.6626	6846.3432	311.8275	-1331.3194	6910.8869
309.5391	129.9173	26.8464	680285.8938	-21.6461
-21.6401				
[4997]ENERGY: 12100000	3294.7826	5432.1879	5726.6140	
347.1189	-14316.4178	-1771.7762	0.0000	0.0000
8129.1379	6841.6473	309.9771	-1287.4906	6909.5567
309.5839	82.6477	75.9789	680285.8938	-13.6471
-13.6519				
[5047]ENERGY: 12110000	3300.2389	5496.2324	5688.2529	
342.6830	-14360.7318	-1766.0333	0.0000	0.0000
8145.0642	6845.7063	310.5844	-1299.3579	6909.3375
309.4537	32.1457	-43.9921	680285.8938	-16.6268
-16.6172				
[5083]ENERGY: 12120000	3335.6681	5393.2014	5735.2074	
334.0708	-14294.4836	-1841.0808	0.0000	0.0000
8181.3443	6843.9276	311.9678	-1337.4166	6909.6479
309.5130	-52.8807	-44.1807	680285.8938	-16.4415
-16.4454				
[5133]ENERGY: 12130000	3309.8809	5392.6134	5734.8250	
333.7259	-14253.7857	-1823.8941	0.0000	0.0000
8149.7902	6843.1557	310.7646	-1306.6345	6908.4285
309.4526	-43.0068	-54.5777	680285.8938	-18.8315
-18.8150				
[5169]ENERGY: 12140000	3237.7724	5406.7948	5696.7940	
329.4611	-14229.2013	-1775.0029	0.0000	0.0000
8171.2330	6837.8510	311.5823	-1333.3820	6907.5029
309.3073	53.4209	42.6270	680285.8938	-20.0897
-20.1118				
[5219]ENERGY: 12150000	3382.4268	5401.6015	5720.0051	
354.4503	-14349.5025	-1806.1779	0.0000	0.0000

Supplementary Text 6

8141.0016	6843.8049	310.4295	-1297.1968	6907.4268
309.2508	-211.7923	-183.8701	680285.8938	-16.0612
-16.0244				
[5255]ENERGY: 12160000	3317.8082	5479.2670	5806.5812	
334.7270	-14330.6817	-1881.6948	0.0000	0.0000
8115.6882	6841.6951	309.4643	-1273.9931	6908.1771
309.2739	40.8301	-27.1826	680285.8938	-16.2503
-16.2847				
[5305]ENERGY: 12170000	3323.5728	5491.2014	5660.3002	
332.1144	-14292.7825	-1718.5357	0.0000	0.0000
8049.3390	6845.2097	306.9343	-1204.1293	6908.0199
309.2971	20.6419	28.4115	680285.8938	-15.7292
-15.7050				
[5341]ENERGY: 12180000	3299.1266	5537.1396	5684.2399	
326.5353	-14230.6025	-1853.3712	0.0000	0.0000
8081.0485	6844.1163	308.1434	-1236.9322	6910.0923
309.2923	108.8915	-22.6281	680285.8938	-13.6336
-13.6523				
[5391]ENERGY: 12190000	3324.1521	5440.3501	5741.7621	
331.7611	-14330.3999	-1841.7638	0.0000	0.0000
8176.9257	6842.7874	311.7994	-1334.1383	6908.5165
309.4928	-51.4788	-38.7426	680285.8938	-17.7166
-17.6993				
[5430]ENERGY: 12200000	3347.5275	5452.3682	5716.6100	
329.1491	-14392.4058	-1753.0878	0.0000	0.0000
8142.5371	6842.6981	310.4881	-1299.8389	6908.8673
309.4048	-46.6682	-28.2485	680285.8938	-22.2188
-22.2119				
[5480]ENERGY: 12210000	3343.1742	5465.5616	5740.3636	
332.4863	-14305.3378	-1787.8709	0.0000	0.0000
8058.7248	6847.1019	307.2922	-1211.6229	6909.6431
309.3748	54.0580	7.1912	680285.8938	-16.9600
-16.9684				
[5516]ENERGY: 12220000	3300.0764	5513.1925	5698.1600	
339.2294	-14295.9496	-1830.9759	0.0000	0.0000
8118.1141	6841.8469	309.5568	-1276.2673	6907.8423
309.4596	-158.6481	-69.7525	680285.8938	-14.4860
-14.4984				
[5566]ENERGY: 12230000	3309.7631	5398.2353	5713.2130	
347.1923	-14272.7632	-1840.1231	0.0000	0.0000
8188.1653	6843.6828	312.2279	-1344.4825	6909.1530
309.4132	-19.3962	21.0394	680285.8938	-20.2021
-20.2016				
[5602]ENERGY: 12240000	3383.8213	5505.7614	5681.9785	
344.7137	-14272.6906	-1840.1894	0.0000	0.0000
8043.8002	6847.1951	306.7231	-1196.6051	6910.6845
309.5914	-108.7211	-14.5259	680285.8938	-17.1084
-17.1108				
[5652]ENERGY: 12250000	3390.6182	5356.8570	5692.2061	
368.1559	-14244.9147	-1836.7617	0.0000	0.0000
8116.7457	6842.9065	309.5046	-1273.8392	6908.9135
309.7540	-143.8090	-42.4444	680285.8938	-16.4879
-16.4682				
[5688]ENERGY: 12260000	3342.2794	5478.7411	5702.7369	

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369.0840	-14310.8524	-1847.8090	0.0000	0.0000
8108.0660	6842.2461	309.1736	-1265.8200	6910.6933
309.6129	-3.7048	-63.5042	680285.8938	-15.2817
-15.3090				
[5738]ENERGY: 12270000	3347.9813	5385.3136	5694.0980	
365.1945	-14282.4539	-1812.3544	0.0000	0.0000
8143.9739	6841.7529	310.5429	-1302.2209	6910.1061
309.6163	30.2488	68.9242	680285.8938	-19.7128
-19.6962				
[5774]ENERGY: 12280000	3274.0083	5468.2323	5758.6916	
365.1315	-14389.8587	-1755.9286	0.0000	0.0000
8125.5637	6845.8401	309.8408	-1279.7236	6910.6846
309.7444	183.7725	177.7394	680285.8938	-11.1672
-11.1674				
[5824]ENERGY: 12290000	3272.7075	5480.3145	5709.5642	
328.1855	-14417.4818	-1695.4570	0.0000	0.0000
8164.3001	6842.1329	311.3179	-1322.1672	6909.4777
309.5005	106.9175	36.5098	680285.8938	-15.4596
-15.4495				
[5863]ENERGY: 12300000	3337.3220	5497.1610	5694.5628	
335.6946	-14339.0059	-1800.0297	0.0000	0.0000
8117.1013	6842.8060	309.5182	-1274.2953	6910.8498
309.4721	-91.6045	-167.7141	680285.8938	-16.9343
-16.9407				
[5913]ENERGY: 12310000	3353.9344	5429.8048	5712.9498	
347.3253	-14326.4653	-1759.0397	0.0000	0.0000
8085.1215	6843.6307	308.2987	-1241.4908	6909.6337
309.4507	-45.9523	6.4571	680285.8938	-15.8529
-15.8507				
[5949]ENERGY: 12320000	3291.2245	5597.7152	5727.2830	
362.5486	-14336.2349	-1841.0841	0.0000	0.0000
8045.4227	6846.8750	306.7849	-1198.5477	6911.1128
309.5591	88.5593	45.1876	680285.8938	-12.7549
-12.7646				
[5999]ENERGY: 12330000	3349.9009	5443.0560	5655.6720	
344.1989	-14341.0497	-1769.2432	0.0000	0.0000
8159.4751	6842.0100	311.1339	-1317.4652	6910.2345
309.5589	23.5861	-12.9257	680285.8938	-21.7384
-21.7514				
[6035]ENERGY: 12340000	3253.8620	5392.3367	5723.1086	
322.1370	-14320.7592	-1719.8000	0.0000	0.0000
8194.2851	6845.1701	312.4613	-1349.1150	6911.9930
309.6057	89.7908	94.9753	680285.8938	-14.4626
-14.4499				
[6085]ENERGY: 12350000	3423.6437	5480.8751	5715.1713	
330.8764	-14268.1907	-1857.2678	0.0000	0.0000
8023.2305	6848.3384	305.9387	-1174.8921	6910.8205
309.5910	-94.6875	-136.2224	680285.8938	-20.0178
-20.0243				
[6121]ENERGY: 12360000	3357.2329	5495.1117	5719.2316	
335.7279	-14342.3834	-1738.5825	0.0000	0.0000
8021.0818	6847.4200	305.8568	-1173.6618	6910.9039
309.6486	-98.7172	-43.0170	680285.8938	-17.5229
-17.5134				

Supplementary Text 6

[6171]ENERGY: 12370000	3261.9700	5545.7114	5717.7494	
314.1256	-14255.5171	-1798.9640	0.0000	0.0000
8061.1358	6846.2111	307.3841	-1214.9247	6910.0710
309.5629	-52.9900	2.5240	680285.8938	-19.2198
-19.2160				
[6207]ENERGY: 12380000	3418.4596	5485.3822	5762.5513	
334.5191	-14406.7982	-1786.2188	0.0000	0.0000
8039.8585	6847.7536	306.5728	-1192.1049	6911.2446
309.6604	143.2966	52.5452	680285.8938	-17.5265
-17.5337				
[6257]ENERGY: 12390000	3376.5454	5566.4032	5714.1743	
317.1384	-14324.9017	-1873.2445	0.0000	0.0000
8069.0213	6845.1364	307.6848	-1223.8849	6910.8437
309.4713	-116.5938	-111.8520	680285.8938	-20.1780
-20.1659				
[6296]ENERGY: 12400000	3431.5477	5420.7429	5694.8199	
349.0892	-14391.2467	-1733.4933	0.0000	0.0000
8078.5776	6850.0374	308.0492	-1228.5403	6910.9678
309.6661	-66.7798	-87.9362	680285.8938	-14.7619
-14.7870				
[6346]ENERGY: 12410000	3398.6076	5418.2508	5711.8239	
351.4480	-14352.7497	-1800.6706	0.0000	0.0000
8118.8384	6845.5484	309.5844	-1273.2900	6912.0718
309.6211	-54.6007	-35.1520	680285.8938	-14.7760
-14.7525				
[6382]ENERGY: 12420000	3327.8817	5428.9785	5746.8382	
350.8030	-14238.1150	-1846.7734	0.0000	0.0000
8079.4201	6849.0331	308.0813	-1230.3870	6911.4322
309.7005	58.0485	-9.8094	680285.8938	-20.8034
-20.8027				
[6432]ENERGY: 12430000	3311.6184	5434.7617	5706.3025	
331.6743	-14317.0554	-1759.8212	0.0000	0.0000
8141.3460	6848.8262	310.4427	-1292.5198	6911.2209
309.6818	61.2421	89.8780	680285.8938	-16.6037
-16.5906				
[6468]ENERGY: 12440000	3354.4174	5419.1709	5687.2252	
334.3080	-14239.3227	-1838.0175	0.0000	0.0000
8129.1186	6846.8999	309.9764	-1282.2187	6911.9390
309.5137	60.2495	-25.5423	680285.8938	-18.2095
-18.2378				
[6518]ENERGY: 12450000	3348.5629	5384.5383	5676.6055	
339.2421	-14278.5926	-1836.6679	0.0000	0.0000
8208.1604	6841.8487	312.9904	-1366.3117	6911.0109
309.4181	-106.1513	-18.7005	680285.8938	-19.2875
-19.2844				
[6554]ENERGY: 12460000	3353.3217	5539.7289	5642.6667	
339.8894	-14263.3678	-1813.3259	0.0000	0.0000
8049.6505	6848.5634	306.9462	-1201.0870	6911.2008
309.4532	-220.4924	-189.5793	680285.8938	-18.9749
-18.9803				
[6604]ENERGY: 12470000	3292.4204	5568.7590	5721.3690	
338.0451	-14259.9085	-1883.6193	0.0000	0.0000
8068.1546	6845.2203	307.6517	-1222.9343	6910.8073
309.3949	-150.9841	-48.7131	680285.8938	-17.5793

Supplementary Text 6

-17.5516
[6640]ENERGY: 12480000 3343.1934 5482.4005 5715.9175
340.0963 -14320.1317 -1798.9484 0.0000 0.0000
8081.6806 6844.2083 308.1675 -1237.4724 6911.8479
309.5562 -36.6729 -92.8908 680285.8938 -18.5335
-18.5516
[6690]ENERGY: 12490000 3307.2788 5467.7445 5733.7247
356.2859 -14292.3705 -1854.6699 0.0000 0.0000
8126.3563 6844.3498 309.8711 -1282.0065 6911.1645
309.4795 -2.3085 9.4116 680285.8938 -18.4321
-18.4363
[6729]ENERGY: 12500000 3244.6607 5518.6724 5661.5073
333.0359 -14281.8036 -1767.6509 0.0000 0.0000
8136.2387 6844.6605 310.2479 -1291.5783 6911.2034
309.4909 101.3767 69.0288 680285.8938 -19.7847
-19.7789
[6779]ENERGY: 12510000 3359.2817 5433.6191 5714.2362
332.1984 -14336.8680 -1804.1898 0.0000 0.0000
8149.2860 6847.5637 310.7454 -1301.7223 6911.5839
309.5034 8.1635 -42.1050 680285.8938 -17.1606
-17.1680
[6815]ENERGY: 12520000 3380.9030 5368.8811 5741.0866
340.4657 -14211.8948 -1844.4217 0.0000 0.0000
8075.4292 6850.4491 307.9291 -1224.9801 6912.9793
309.4338 -4.7460 -1.6593 680285.8938 -21.0627
-21.0431
[6865]ENERGY: 12530000 3286.6096 5483.4178 5710.0819
343.3968 -14360.2706 -1766.0638 0.0000 0.0000
8148.2441 6845.4157 310.7057 -1302.8283 6912.3412
309.4927 -60.3203 -121.8089 680285.8938 -15.4919
-15.5003
[6901]ENERGY: 12540000 3433.5425 5515.2927 5710.0850
353.2384 -14393.7490 -1818.7265 0.0000 0.0000
8048.0345 6847.7178 306.8845 -1200.3167 6914.7486
309.5080 -78.6810 -174.1033 680285.8938 -21.0458
-21.0486
[6951]ENERGY: 12550000 3332.2650 5562.5976 5684.8358
321.1572 -14215.5615 -1820.5537 0.0000 0.0000
7986.1171 6850.8574 304.5235 -1135.2597 6914.5723
309.3329 -3.5124 -25.3954 680285.8938 -17.3205
-17.3178
[6987]ENERGY: 12560000 3312.7648 5426.5686 5708.0018
309.5769 -14326.1182 -1804.6071 0.0000 0.0000
8220.5763 6846.7632 313.4638 -1373.8131 6913.3653
309.5758 26.3406 -0.6180 680285.8938 -21.0449
-21.0349
[7037]ENERGY: 12570000 3396.7192 5418.5318 5737.1389
368.4480 -14335.7642 -1829.0341 0.0000 0.0000
8092.3030 6848.3426 308.5726 -1243.9604 6914.7419
309.3770 -46.2182 13.2556 680285.8938 -14.8676
-14.8806
[7073]ENERGY: 12580000 3289.1544 5586.8885 5674.7583
358.0998 -14333.1868 -1858.8712 0.0000 0.0000
8132.6938 6849.5367 310.1127 -1283.1571 6914.8245

Supplementary Text 6

309.4278	-12.2351	-53.7428	680285.8938	-13.5991
-13.6073				
[7123]ENERGY: 12590000	3285.0015	5595.0899	5701.9522	
340.7627	-14379.6716	-1764.3447	0.0000	0.0000
8069.7932	6848.5831	307.7142	-1221.2101	6915.3037
309.4220	-4.1409	-50.6076	680285.8938	-17.6189
-17.6228				
[7162]ENERGY: 12600000	3273.8934	5506.9534	5677.4099	
335.4559	-14256.4037	-1811.9509	0.0000	0.0000
8121.2227	6846.5806	309.6753	-1274.6421	6913.5212
309.4665	-15.4725	3.7335	680285.8938	-16.0465
-16.0312				
[7212]ENERGY: 12610000	3330.7851	5347.7671	5757.4588	
332.1967	-14255.8527	-1808.5058	0.0000	0.0000
8143.5824	6847.4316	310.5279	-1296.1508	6913.0963
309.3027	-100.2354	-70.5307	680285.8938	-13.9561
-13.9682				
[7248]ENERGY: 12620000	3346.3110	5499.5174	5694.9090	
327.5015	-14268.2300	-1857.1698	0.0000	0.0000
8106.4757	6849.3148	309.1130	-1257.1609	6914.6809
309.6658	-19.0844	-47.1029	680285.8938	-16.6949
-16.6833				
[7298]ENERGY: 12630000	3416.5534	5409.2576	5710.9031	
346.6051	-14377.4379	-1757.0877	0.0000	0.0000
8099.8197	6848.6133	308.8592	-1251.2064	6915.1556
309.7308	111.5001	125.4453	680285.8938	-18.2098
-18.2082				
[7334]ENERGY: 12640000	3276.3454	5548.2570	5687.0917	
369.2717	-14299.3746	-1697.6214	0.0000	0.0000
7967.7520	6851.7217	303.8232	-1116.0303	6916.1372
309.5322	75.3710	102.9224	680285.8938	-19.1219
-19.1244				
[7384]ENERGY: 12650000	3373.2905	5493.6495	5696.8048	
323.1169	-14340.0175	-1798.9124	0.0000	0.0000
8101.9657	6849.8975	308.9410	-1252.0682	6916.3231
309.4630	-44.4082	-4.4544	680285.8938	-17.0595
-17.0743				
[7420]ENERGY: 12660000	3315.4048	5515.2407	5648.6379	
351.8519	-14259.1999	-1825.2563	0.0000	0.0000
8105.2400	6851.9189	309.0659	-1253.3211	6916.1650
309.4623	118.6814	52.5944	680285.8938	-21.3098
-21.3060				
[7470]ENERGY: 12670000	3316.6775	5500.5762	5701.8545	
316.4298	-14320.8228	-1795.9483	0.0000	0.0000
8132.8607	6851.6275	310.1191	-1281.2332	6916.4082
309.4779	102.2178	91.2459	680285.8938	-14.4583
-14.4593				
[7506]ENERGY: 12680000	3320.3651	5496.5589	5626.0986	
353.8598	-14380.9562	-1788.0715	0.0000	0.0000
8219.9963	6847.8508	313.4417	-1372.1454	6916.2195
309.5326	27.9310	-11.3251	680285.8938	-16.9412
-16.9394				
[7556]ENERGY: 12690000	3356.6031	5460.5744	5725.0631	
341.6059	-14281.4142	-1849.3219	0.0000	0.0000

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8099.7733	6852.8838	308.8574	-1246.8895	6916.4950
309.6696	62.7093	7.5136	680285.8938	-19.1690
-19.1687				
[7595]ENERGY: 12700000	3274.2006	5463.9939	5713.6970	
362.5384	-14339.2171	-1798.2981	0.0000	0.0000
8172.2599	6849.1746	311.6214	-1323.0853	6916.6696
309.6274	-6.0130	-127.5006	680285.8938	-20.0951
-20.0952				
[7645]ENERGY: 12710000	3276.2429	5589.6078	5684.5423	
364.0823	-14311.7289	-1798.6280	0.0000	0.0000
8048.2414	6852.3597	306.8924	-1195.8817	6918.1210
309.7687	50.2548	81.4010	680285.8938	-15.3092
-15.3101				
[7681]ENERGY: 12720000	3353.5888	5384.4876	5722.1976	
353.7120	-14336.6618	-1778.8723	0.0000	0.0000
8153.9830	6852.4350	310.9245	-1301.5480	6917.6965
309.8909	62.9203	-3.4601	680285.8938	-19.3873
-19.3856				
[7731]ENERGY: 12730000	3381.6110	5391.6761	5685.9178	
329.4871	-14285.8594	-1825.1070	0.0000	0.0000
8174.6987	6852.4242	311.7144	-1322.2745	6916.9757
309.8706	-90.3556	-70.5621	680285.8938	-15.4455
-15.4367				
[7767]ENERGY: 12740000	3287.8157	5515.1602	5698.9728	
336.7719	-14299.4257	-1837.4815	0.0000	0.0000
8150.3351	6852.1486	310.7854	-1298.1865	6919.4419
309.8589	-21.2470	-39.2699	680285.8938	-16.4738
-16.4661				
[7817]ENERGY: 12750000	3347.2107	5530.5421	5681.5235	
336.7100	-14377.3063	-1816.4127	0.0000	0.0000
8148.6239	6850.8913	310.7202	-1297.7327	6919.3028
309.8068	204.6912	34.3314	680285.8938	-14.5352
-14.5681				
[7853]ENERGY: 12760000	3347.7621	5416.8437	5721.8488	
333.8972	-14319.4394	-1774.7237	0.0000	0.0000
8128.4112	6854.5999	309.9494	-1273.8113	6919.3208
309.8634	90.4874	-1.8183	680285.8938	-17.3562
-17.3588				
[7903]ENERGY: 12770000	3293.5277	5465.0064	5711.0655	
353.5193	-14361.0225	-1769.3061	0.0000	0.0000
8159.4096	6852.1998	311.1314	-1307.2098	6918.4829
309.9727	123.3817	75.4089	680285.8938	-20.6748
-20.6508				
[7939]ENERGY: 12780000	3434.5977	5497.2519	5718.5663	
325.8435	-14335.4238	-1865.2192	0.0000	0.0000
8079.4633	6855.0796	308.0830	-1224.3837	6919.1139
310.1007	-53.9964	-82.1328	680285.8938	-16.1368
-16.1359				
[7989]ENERGY: 12790000	3416.3817	5467.6380	5683.6319	
352.1500	-14355.0809	-1831.4517	0.0000	0.0000
8116.9797	6850.2487	309.5135	-1266.7309	6918.7453
309.9689	-169.5930	-188.0869	680285.8938	-19.0247
-19.0140				
[8028]ENERGY: 12800000	3294.0776	5560.7422	5703.6214	

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354.9795	-14300.4533	-1864.2596	0.0000	0.0000
8108.4450	6857.1528	309.1881	-1251.2923	6919.7544
310.1844	60.8601	10.4339	680285.8938	-20.0510
-20.0655				
[8078]ENERGY: 12810000	3276.9422	5501.7922	5717.2807	
335.1017	-14353.6938	-1749.5161	0.0000	0.0000
8125.4494	6853.3562	309.8365	-1272.0932	6919.4909
309.9096	84.5927	60.1220	680285.8938	-15.5915
-15.5863				
[8114]ENERGY: 12820000	3370.3200	5533.8519	5691.8114	
348.6530	-14372.2042	-1774.4866	0.0000	0.0000
8058.5056	6856.4510	307.2838	-1202.0546	6920.3674
309.8332	-60.6265	-69.1000	680285.8938	-20.3181
-20.3316				
[8164]ENERGY: 12830000	3430.5312	5443.9464	5665.6160	
331.2254	-14310.7442	-1855.1034	0.0000	0.0000
8150.1401	6855.6114	310.7780	-1294.5286	6920.3169
310.1081	-146.2613	-113.7324	680285.8938	-18.9587
-18.9454				
[8200]ENERGY: 12840000	3361.4448	5546.1247	5721.4025	
360.5314	-14329.0686	-1812.5663	0.0000	0.0000
8012.4795	6860.3480	305.5288	-1152.1316	6921.7897
310.1002	-133.6447	-78.0358	680285.8938	-15.2218
-15.2364				
[8250]ENERGY: 12850000	3334.4465	5430.2541	5723.3927	
337.9390	-14320.4176	-1738.8687	0.0000	0.0000
8087.8812	6854.6273	308.4040	-1233.2539	6920.6878
310.0314	131.9889	117.3725	680285.8938	-22.3862
-22.3676				
[8286]ENERGY: 12860000	3306.2620	5472.9597	5726.5089	
367.7048	-14285.1696	-1829.9490	0.0000	0.0000
8098.0345	6856.3512	308.7911	-1241.6833	6921.9931
310.0687	1.8318	-127.6849	680285.8938	-19.0991
-19.1268				
[8336]ENERGY: 12870000	3266.1100	5636.8378	5704.2279	
365.7937	-14323.6057	-1789.9060	0.0000	0.0000
8000.1979	6859.6555	305.0604	-1140.5424	6921.8411
310.0536	70.9512	38.6460	680285.8938	-21.3306
-21.3019				
[8372]ENERGY: 12880000	3202.5256	5558.0782	5758.3482	
344.1636	-14283.1338	-1851.8825	0.0000	0.0000
8130.6857	6858.7850	310.0362	-1271.9007	6923.6803
309.9635	144.4548	48.0625	680285.8938	-20.7731
-20.7838				
[8422]ENERGY: 12890000	3361.7304	5495.6794	5733.2882	
323.8947	-14302.0202	-1845.2822	0.0000	0.0000
8089.9682	6857.2586	308.4835	-1232.7096	6923.4911
310.1339	22.9055	-44.3185	680285.8938	-19.2504
-19.2494				
[8461]ENERGY: 12900000	3370.7625	5454.2445	5694.2938	
350.6976	-14348.6393	-1787.1400	0.0000	0.0000
8123.4847	6857.7037	309.7616	-1265.7810	6923.2685
310.1414	-77.1004	-83.5619	680285.8938	-19.2203
-19.2260				

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[8511]ENERGY: 12910000	3376.6538	5491.2006	5729.9953	
324.1446	-14290.7816	-1798.6819	0.0000	0.0000
8030.1750	6862.7057	306.2035	-1167.4693	6924.0563
310.0169	47.1510	2.5273	680285.8938	-17.5132
-17.5223				
[8547]ENERGY: 12920000	3385.8416	5405.6462	5666.0007	
313.8804	-14317.4373	-1811.5124	0.0000	0.0000
8213.8467	6856.2661	313.2072	-1357.5806	6923.2254
310.0173	49.6904	13.5407	680285.8938	-15.4432
-15.4525				
[8597]ENERGY: 12930000	3366.9783	5416.3754	5679.0619	
346.1893	-14282.0407	-1815.7606	0.0000	0.0000
8149.4717	6860.2753	310.7525	-1289.1964	6925.0774
310.0458	101.6246	103.6158	680285.8938	-17.0555
-17.0379				
[8633]ENERGY: 12940000	3315.7702	5567.1243	5647.4502	
333.3178	-14345.4712	-1813.8342	0.0000	0.0000
8153.3071	6857.6640	310.8987	-1295.6431	6924.0214
310.0910	28.2444	91.6070	680285.8938	-14.2713
-14.2627				
[8683]ENERGY: 12950000	3328.6752	5507.6181	5676.4970	
339.8804	-14286.0806	-1764.3376	0.0000	0.0000
8056.5147	6858.7673	307.2079	-1197.7474	6924.2565
310.0820	-188.5147	-180.5039	680285.8938	-11.7127
-11.7024				
[8719]ENERGY: 12960000	3311.6000	5541.2028	5698.1247	
319.5797	-14414.8606	-1756.8389	0.0000	0.0000
8154.1846	6852.9923	310.9322	-1301.1923	6922.9702
310.1734	-179.8656	-123.9211	680285.8938	-10.2980
-10.2994				
[8769]ENERGY: 12970000	3389.6574	5487.8077	5667.9549	
338.6162	-14338.4548	-1766.9042	0.0000	0.0000
8077.2434	6855.9206	307.9983	-1221.3228	6924.2502
310.1206	28.2391	-12.4039	680285.8938	-16.7453
-16.7626				
[8805]ENERGY: 12980000	3387.4862	5434.0367	5709.0546	
343.2907	-14344.7849	-1766.4372	0.0000	0.0000
8096.4650	6859.1112	308.7313	-1237.3538	6923.4245
309.8541	-21.6668	25.1830	680285.8938	-14.0955
-14.0954				
[8855]ENERGY: 12990000	3365.1708	5430.7153	5671.0324	
337.3033	-14332.8648	-1774.1168	0.0000	0.0000
8162.4033	6859.6434	311.2456	-1302.7598	6924.5751
310.0155	45.1158	-27.8502	680285.8938	-10.3557
-10.3556				
[8894]ENERGY: 13000000	3339.0907	5458.6074	5748.2811	
329.7228	-14379.2663	-1782.5141	0.0000	0.0000
8148.0993	6862.0208	310.7002	-1286.0785	6925.3117
310.0139	12.4891	-15.8235	680285.8938	-20.3678
-20.3561				
[8944]ENERGY: 13010000	3425.6382	5518.7782	5683.3503	
324.7700	-14227.6313	-1835.4109	0.0000	0.0000
7976.8278	6866.3223	304.1693	-1110.5055	6925.9010
309.9978	-143.8715	-114.1106	680285.8938	-16.7221

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-16.7335
 [8980]ENERGY: 13020000 3326.4904 5467.5205 5765.2286
 345.1743 -14365.3475 -1814.0067 0.0000 0.0000
 8133.7145 6858.7742 310.1516 -1274.9403 6925.1186
 310.0883 -8.8293 -73.6782 680285.8938 -15.0511
 -15.0535
 [9030]ENERGY: 13030000 3361.8465 5408.5216 5666.4728
 333.1853 -14300.5786 -1796.6023 0.0000 0.0000
 8184.5476 6857.3929 312.0900 -1327.1546 6924.9649
 310.1456 104.5796 38.8327 680285.8938 -16.0880
 -16.0722
 [9066]ENERGY: 13040000 3404.8015 5417.7977 5701.6049
 334.0657 -14388.1514 -1771.5899 0.0000 0.0000
 8159.9652 6858.4937 311.1526 -1301.4715 6924.6846
 310.1698 83.4985 75.3328 680285.8938 -16.6963
 -16.7044
 [9116]ENERGY: 13050000 3375.0261 5482.6088 5739.0739
 315.4423 -14325.1898 -1813.0310 0.0000 0.0000
 8084.4529 6858.3832 308.2732 -1226.0696 6925.8516
 310.0248 35.7812 -38.2384 680285.8938 -16.5050
 -16.5192
 [9152]ENERGY: 13060000 3365.2642 5423.6736 5725.3935
 339.6509 -14348.6338 -1737.0521 0.0000 0.0000
 8094.9024 6863.1987 308.6717 -1231.7037 6924.9571
 310.0981 -74.4357 -134.2371 680285.8938 -15.1701
 -15.1432
 [9202]ENERGY: 13070000 3340.0012 5449.5627 5713.8732
 376.4525 -14337.2259 -1834.6003 0.0000 0.0000
 8152.7396 6860.8029 310.8771 -1291.9367 6926.4677
 310.2514 -91.7617 -107.1898 680285.8938 -11.9569
 -11.9493
 [9238]ENERGY: 13080000 3355.1488 5495.2343 5742.2304
 361.2098 -14313.7531 -1855.2840 0.0000 0.0000
 8079.0561 6863.8423 308.0674 -1215.2138 6927.9095
 310.1402 4.8998 22.0093 680285.8938 -12.5525
 -12.5714
 [9288]ENERGY: 13090000 3353.0949 5414.7554 5709.6357
 333.8366 -14303.9403 -1791.4739 0.0000 0.0000
 8144.2358 6860.1442 310.5528 -1284.0916 6927.8730
 310.2079 -86.5841 -139.2750 680285.8938 -14.2283
 -14.2388
 [9327]ENERGY: 13100000 3339.9648 5508.7223 5753.5180
 354.6171 -14351.0381 -1864.7556 0.0000 0.0000
 8121.6190 6862.6476 309.6904 -1258.9715 6928.1422
 310.1140 66.7293 39.2625 680285.8938 -16.9904
 -16.9750
 [9377]ENERGY: 13110000 3335.3834 5434.4087 5721.0681
 344.4220 -14375.3194 -1735.5237 0.0000 0.0000
 8139.4662 6863.9053 310.3710 -1275.5608 6926.9973
 310.1274 48.8334 43.2633 680285.8938 -16.1628
 -16.1602
 [9413]ENERGY: 13120000 3378.2809 5480.4271 5668.6333
 341.8595 -14306.5330 -1769.1042 0.0000 0.0000
 8073.5973 6867.1609 307.8593 -1206.4364 6929.2080

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310.0953	-198.2479	-135.8236	680285.8938	-15.5451
-15.5549				
[9463]ENERGY: 13130000	3269.4741	5480.7427	5708.3487	
337.1175	-14295.5637	-1812.9299	0.0000	0.0000
8174.2159	6861.4054	311.6960	-1312.8105	6929.6937
310.1502	40.6577	27.3023	680285.8938	-14.0331
-14.0418				
[9499]ENERGY: 13140000	3260.5085	5444.5636	5705.6418	
344.4345	-14266.4649	-1794.8040	0.0000	0.0000
8168.3721	6862.2515	311.4732	-1306.1206	6929.3879
310.0571	26.4647	-17.4677	680285.8938	-12.8945
-12.8948				
[9549]ENERGY: 13150000	3365.6965	5466.1452	5665.2129	
331.3587	-14335.3932	-1747.6656	0.0000	0.0000
8114.8699	6860.2244	309.4331	-1254.6455	6929.3239
310.1648	-125.4065	-77.1345	680285.8938	-14.4299
-14.4023				
[9585]ENERGY: 13160000	3353.2225	5395.3269	5679.3905	
334.9875	-14211.7577	-1831.3023	0.0000	0.0000
8146.6048	6866.4722	310.6432	-1280.1326	6930.6543
310.0785	7.0974	-60.3329	680285.8938	-14.2847
-14.2980				
[9635]ENERGY: 13170000	3353.1018	5498.0952	5714.4984	
317.9706	-14264.8227	-1794.6812	0.0000	0.0000
8040.6772	6864.8394	306.6040	-1175.8378	6930.8491
309.9509	47.9373	22.6641	680285.8938	-10.2066
-10.2099				
[9671]ENERGY: 13180000	3430.8298	5419.0925	5648.7721	
316.7849	-14218.0612	-1832.8363	0.0000	0.0000
8104.3341	6868.9160	309.0313	-1235.4181	6932.1079
310.1555	-12.4284	-21.1363	680285.8938	-18.9645
-18.9611				
[9721]ENERGY: 13190000	3369.0851	5404.9566	5663.9242	
355.9788	-14259.2863	-1857.7035	0.0000	0.0000
8188.0490	6865.0039	312.2235	-1323.0451	6931.3528
310.1910	18.5339	4.5723	680285.8938	-22.7265
-22.7298				
[9760]ENERGY: 13200000	3292.9907	5516.0534	5744.0011	
334.0066	-14264.7319	-1893.4706	0.0000	0.0000
8136.6364	6865.4857	310.2631	-1271.1507	6932.4374
310.3379	-60.1231	-36.6985	680285.8938	-21.4712
-21.4677				
[9810]ENERGY: 13210000	3286.7999	5440.6824	5721.1795	
340.8584	-14321.2044	-1815.6126	0.0000	0.0000
8214.9440	6867.6472	313.2491	-1347.2968	6931.5122
310.3427	-7.9332	28.0995	680285.8938	-14.1462
-14.1459				
[9846]ENERGY: 13220000	3337.1047	5474.0665	5719.0180	
330.9063	-14330.0923	-1834.0423	0.0000	0.0000
8166.3162	6863.2771	311.3948	-1303.0391	6931.6901
310.0584	114.2646	45.6484	680285.8938	-18.6235
-18.6455				
[9896]ENERGY: 13230000	3380.1939	5558.9167	5664.7958	
322.7035	-14419.9555	-1753.9557	0.0000	0.0000

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8113.1101	6865.8088	309.3660	-1247.3013	6932.0429
309.9249	-83.6131	-47.3570	680285.8938	-12.8624
-12.8559				
[9932]ENERGY: 13240000	3357.9161	5498.1426	5719.9155	
349.8257	-14383.8080	-1810.4413	0.0000	0.0000
8135.6337	6867.1842	310.2248	-1268.4494	6933.1869
310.3007	-98.2934	-52.0825	680285.8938	-12.0865
-12.0683				
[9982]ENERGY: 13250000	3369.4975	5442.9739	5676.4610	
309.0515	-14282.1273	-1779.5166	0.0000	0.0000
8132.0798	6868.4197	310.0893	-1263.6601	6933.2628
310.4036	58.0018	-77.0101	680285.8938	-16.6181
-16.6265				
[10018]ENERGY: 13260000	3260.9361	5483.2933	5753.2725	
337.9843	-14284.2623	-1846.9192	0.0000	0.0000
8161.6524	6865.9570	311.2170	-1295.6954	6933.5054
310.2227	31.4777	1.7251	680285.8938	-14.3411
-14.3285				
[10068]ENERGY: 13270000	3304.6758	5518.8559	5704.6784	
339.3982	-14295.0657	-1815.0403	0.0000	0.0000
8111.4631	6868.9655	309.3032	-1242.4976	6933.4620
310.2816	-2.6076	-22.7471	680285.8938	-17.0903
-17.1137				
[10104]ENERGY: 13280000	3347.3447	5404.6562	5712.7274	
336.6229	-14297.7742	-1808.2348	0.0000	0.0000
8173.6613	6869.0034	311.6749	-1304.6579	6933.4476
310.3401	78.5821	34.5716	680285.8938	-14.3687
-14.3501				
[10154]ENERGY: 13290000	3316.3053	5481.7806	5638.9757	
323.7936	-14292.5916	-1860.7523	0.0000	0.0000
8259.0443	6866.5557	314.9307	-1392.4886	6934.5019
310.3691	177.0614	18.1161	680285.8938	-16.5992
-16.6037				
[10193]ENERGY: 13300000	3309.9587	5443.8077	5710.7184	
343.2333	-14239.6246	-1888.2772	0.0000	0.0000
8189.8445	6869.6608	312.2920	-1320.1837	6934.5561
310.3722	-116.1375	-94.7813	680285.8938	-18.1486
-18.1568				
[10243]ENERGY: 13310000	3303.0000	5496.1874	5717.9472	
355.7194	-14346.2351	-1743.4342	0.0000	0.0000
8086.5218	6869.7065	308.3521	-1216.8154	6933.2543
310.3326	31.5492	63.7482	680285.8938	-17.9262
-17.9169				
[10279]ENERGY: 13320000	3290.7523	5368.4571	5745.3556	
352.1304	-14251.9869	-1821.6996	0.0000	0.0000
8186.3918	6869.4008	312.1603	-1316.9910	6933.8178
310.4070	61.6384	18.0158	680285.8938	-16.8361
-16.8322				
[10329]ENERGY: 13330000	3274.2678	5530.2161	5685.3007	
315.8192	-14297.7063	-1821.9887	0.0000	0.0000
8181.9567	6867.8655	311.9912	-1314.0913	6934.5674
310.3821	20.4677	-48.0283	680285.8938	-16.6352
-16.6599				
[10365]ENERGY: 13340000	3385.3022	5542.3481	5695.9549	

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327.4107	-14362.3919	-1827.2629	0.0000	0.0000
8108.3994	6869.7606	309.1863	-1238.6388	6934.1814
310.3855	17.2278	-90.2816	680285.8938	-16.3400
-16.3238				
[10415]ENERGY: 13350000	3332.3766	5453.3174	5709.0677	
347.5588	-14203.3307	-1823.3868	0.0000	0.0000
8054.9684	6870.5714	307.1489	-1184.3970	6934.8236
310.4330	-51.2567	-71.6479	680285.8938	-20.4296
-20.4345				
[10451]ENERGY: 13360000	3403.9711	5511.4957	5710.5678	
332.7319	-14397.0147	-1771.5083	0.0000	0.0000
8082.3843	6872.6279	308.1943	-1209.7564	6934.6901
310.2563	-22.2185	20.8266	680285.8938	-15.9046
-15.9054				
[10501]ENERGY: 13370000	3329.0040	5492.7730	5736.4415	
333.4378	-14297.3781	-1797.9959	0.0000	0.0000
8072.5328	6868.8150	307.8187	-1203.7178	6935.4259
310.2035	32.7475	-123.3595	680285.8938	-17.5043
-17.5244				
[10537]ENERGY: 13380000	3305.4130	5528.3091	5606.5673	
350.1741	-14282.7846	-1718.8984	0.0000	0.0000
8082.9686	6871.7492	308.2166	-1211.2194	6934.4625
310.2775	-2.1152	-61.6797	680285.8938	-21.8228
-21.8040				
[10587]ENERGY: 13390000	3333.6088	5489.0666	5680.2913	
326.0432	-14245.2077	-1806.5618	0.0000	0.0000
8094.6857	6871.9260	308.6634	-1222.7597	6933.6294
310.1808	-31.9258	-48.9203	680285.8938	-19.7795
-19.7546				
[10626]ENERGY: 13400000	3358.5465	5489.4732	5707.2245	
354.3665	-14323.3400	-1851.6764	0.0000	0.0000
8132.4056	6867.0000	310.1017	-1265.4056	6935.4537
310.2097	25.3662	-109.7359	680285.8938	-22.8844
-22.9003				
[10676]ENERGY: 13410000	3303.2949	5503.6625	5679.6332	
325.4512	-14243.1808	-1809.8518	0.0000	0.0000
8109.0382	6868.0474	309.2107	-1240.9907	6934.1892
310.2313	106.0500	94.2436	680285.8938	-19.6549
-19.6525				
[10712]ENERGY: 13420000	3375.2068	5469.0094	5713.9580	
340.3722	-14398.2965	-1797.4272	0.0000	0.0000
8165.5145	6868.3371	311.3642	-1297.1773	6935.0495
310.2201	-88.1364	-30.0543	680285.8938	-19.0820
-19.0648				
[10762]ENERGY: 13430000	3342.5543	5525.6038	5678.0544	
340.6803	-14362.5645	-1782.9364	0.0000	0.0000
8129.2808	6870.6729	309.9826	-1258.6079	6934.9984
310.0118	-8.1295	-15.4193	680285.8938	-23.0050
-23.0380				
[10798]ENERGY: 13440000	3354.8463	5406.1780	5704.1608	
329.0265	-14356.9455	-1752.3212	0.0000	0.0000
8183.5421	6868.4872	312.0517	-1315.0549	6935.2602
310.0150	-18.5718	-132.4182	680285.8938	-21.0353
-21.0347				

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[10848]ENERGY: 13450000	3422.4454	5477.8110	5681.1978
330.0824	-14331.1511	-1787.8578	0.0000
8078.2850	6870.8127	308.0380	-1207.4723
310.1066	-68.9384	-90.0620	680285.8938
-20.6325			-20.6511
[10884]ENERGY: 13460000	3295.0825	5522.0052	5715.5158
345.5758	-14319.3976	-1773.9451	0.0000
8085.5936	6870.4302	308.3167	-1215.1634
310.0603	51.7354	4.5104	680285.8938
-19.4832			-19.4800
[10934]ENERGY: 13470000	3403.7335	5541.7604	5661.7658
328.0484	-14305.4045	-1801.7788	0.0000
8044.2540	6872.3789	306.7404	-1171.8751
310.1830	-58.6570	-78.3026	680285.8938
-10.2563			-10.2540
[10970]ENERGY: 13480000	3267.3390	5552.0164	5675.5937
352.2906	-14219.4356	-1812.3118	0.0000
8055.5787	6871.0710	307.1722	-1184.5077
310.0060	137.6075	124.0081	680285.8938
-17.7428			-17.7364
[11020]ENERGY: 13490000	3275.0641	5508.1501	5714.7817
367.1097	-14272.4440	-1843.1474	0.0000
8123.4351	6872.9494	309.7597	-1250.4857
310.2440	76.4517	74.8613	680285.8938
-18.5524			-18.5705
[11059]ENERGY: 13500000	3346.8297	5413.9414	5752.9571
351.8320	-14288.8931	-1815.1492	0.0000
8110.6722	6872.1901	309.2730	-1238.4821
310.3768	27.0908	1.1430	680285.8938
-16.0446			-16.0293
[11109]ENERGY: 13510000	3306.7178	5440.1924	5705.7285
323.5755	-14213.5658	-1827.6557	0.0000
8136.4183	6871.4111	310.2548	-1265.0073
310.1892	-9.7069	23.4920	680285.8938
-20.5114			-20.5136
[11145]ENERGY: 13520000	3390.6384	5479.4693	5699.3709
324.5278	-14318.6754	-1792.2175	0.0000
8087.0547	6870.1682	308.3724	-1216.8864
310.2086	6.0267	15.2675	680285.8938
-15.6505			-15.6551
[11195]ENERGY: 13530000	3326.5853	5486.2152	5711.6272
351.6923	-14241.0515	-1805.7465	0.0000
8040.9710	6870.2930	306.6152	-1170.6780
310.2082	-76.0505	-75.8263	680285.8938
-19.2991			-19.2964
[11231]ENERGY: 13540000	3293.7386	5535.8579	5731.2449
324.6612	-14291.7422	-1810.7136	0.0000
8083.4975	6866.5444	308.2368	-1216.9531
310.1881	119.8424	27.5431	680285.8938
-18.8033			-18.8112
[11281]ENERGY: 13550000	3346.2480	5403.3562	5685.3951
348.1182	-14313.7564	-1756.8228	0.0000
8156.6532	6869.1915	311.0263	-1287.4617
310.1919	39.2875	-57.9504	680285.8938
			-23.1991

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-23.2305
 [11317]ENERGY: 13560000 3280.6641 5389.8622 5758.6915
 341.3200 -14309.9788 -1800.2636 0.0000 0.0000
 8207.1299 6867.4252 312.9511 -1339.7047 6935.0601
 310.1767 -134.6117 -117.7806 680285.8938 -18.1629
 -18.1327
 [11367]ENERGY: 13570000 3347.6515 5545.7831 5742.6941
 335.0949 -14298.4326 -1837.0218 0.0000 0.0000
 8033.3754 6869.1446 306.3256 -1164.2308 6936.6601
 310.2659 -15.7765 -113.9256 680285.8938 -18.8875
 -18.9038
 [11403]ENERGY: 13580000 3307.9971 5332.9445 5757.1354
 341.8663 -14253.5390 -1826.1453 0.0000 0.0000
 8211.5402 6871.7993 313.1193 -1339.7409 6936.7133
 310.2829 46.2363 -91.0735 680285.8938 -20.4020
 -20.3967
 [11453]ENERGY: 13590000 3318.8391 5517.3055 5665.9931
 334.5989 -14322.0482 -1815.9324 0.0000 0.0000
 8169.7196 6868.4756 311.5246 -1301.2440 6934.6420
 310.3534 112.0615 81.8421 680285.8938 -20.1499
 -20.1362
 [11492]ENERGY: 13600000 3368.2864 5463.9185 5673.2291
 354.6319 -14291.4150 -1854.3658 0.0000 0.0000
 8153.8903 6868.1754 310.9210 -1285.7149 6934.8793
 310.3509 -58.8134 -32.6259 680285.8938 -18.5732
 -18.5828
 [11542]ENERGY: 13610000 3291.4319 5532.6451 5710.1926
 353.8989 -14263.7950 -1816.4448 0.0000 0.0000
 8065.0271 6872.9559 307.5325 -1192.0712 6935.7696
 310.2546 59.2154 34.5622 680285.8938 -16.7620
 -16.7690
 [11578]ENERGY: 13620000 3380.0213 5470.2604 5712.1157
 358.2146 -14304.7934 -1794.9168 0.0000 0.0000
 8052.5804 6873.4821 307.0579 -1179.0983 6937.0291
 310.1371 -122.7368 -137.3571 680285.8938 -20.8863
 -20.8811
 [11628]ENERGY: 13630000 3295.3516 5380.4733 5682.8511
 331.2955 -14245.9419 -1771.9793 0.0000 0.0000
 8199.9497 6872.0001 312.6773 -1327.9496 6937.6593
 310.2037 43.4892 23.3827 680285.8938 -19.1783
 -19.1942
 [11664]ENERGY: 13640000 3376.1605 5472.4734 5698.6731
 315.7026 -14283.2435 -1809.7961 0.0000 0.0000
 8106.9410 6876.9111 309.1307 -1230.0299 6938.4503
 310.1904 -128.5571 -132.5238 680285.8938 -23.5874
 -23.5649
 [11714]ENERGY: 13650000 3338.5629 5452.9112 5718.3178
 344.8124 -14327.1169 -1804.9373 0.0000 0.0000
 8148.4821 6871.0322 310.7148 -1277.4499 6937.4700
 310.2096 51.8864 18.6618 680285.8938 -26.4115
 -26.4203
 [11750]ENERGY: 13660000 3365.2716 5449.7872 5685.6859
 356.3992 -14422.9292 -1745.1781 0.0000 0.0000
 8184.1908 6873.2274 312.0764 -1310.9634 6938.2161

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310.1216	51.5060	15.7508	680285.8938	-23.2542
-23.2530				
[11800]ENERGY: 13670000	3284.8025	5476.7710	5714.0351	
361.8732	-14365.9714	-1757.5388	0.0000	0.0000
8155.2309	6869.2025	310.9721	-1286.0284	6938.2777
310.3687	128.4004	75.6210	680285.8938	-15.3240
-15.3240				
[11836]ENERGY: 13680000	3325.8835	5505.2567	5692.5306	
343.8897	-14261.8930	-1890.9391	0.0000	0.0000
8159.6135	6874.3418	311.1392	-1285.2717	6938.3670
309.9703	-110.6732	-53.5251	680285.8938	-17.9634
-17.9658				
[11886]ENERGY: 13690000	3330.1127	5533.1079	5721.2240	
319.2616	-14333.4002	-1848.4184	0.0000	0.0000
8151.7519	6873.6395	310.8394	-1278.1124	6939.3419
310.0486	2.8652	-6.0639	680285.8938	-19.4273
-19.4217				
[11925]ENERGY: 13700000	3256.1626	5561.7183	5735.9503	
355.7004	-14335.3786	-1745.0407	0.0000	0.0000
8044.9251	6874.0374	306.7660	-1170.8877	6939.8675
310.0473	214.0255	139.4862	680285.8938	-18.5016
-18.4972				
[11975]ENERGY: 13710000	3376.4038	5475.7598	5726.8562	
344.3578	-14407.0913	-1736.0604	0.0000	0.0000
8092.8821	6873.1080	308.5946	-1219.7741	6937.7237
310.1805	-80.2165	5.2970	680285.8938	-21.7599
-21.7570				
[12011]ENERGY: 13720000	3284.0017	5478.4425	5739.2698	
346.3672	-14324.8983	-1708.8333	0.0000	0.0000
8060.5044	6874.8540	307.3600	-1185.6504	6939.8450
310.0404	147.6465	113.9127	680285.8938	-20.9118
-20.9245				
[12061]ENERGY: 13730000	3305.2963	5490.5853	5672.9582	
344.9515	-14204.1767	-1922.6213	0.0000	0.0000
8188.5245	6875.5177	312.2416	-1313.0068	6939.5789
310.2439	-81.9037	-165.8801	680285.8938	-18.9429
-18.9263				
[12097]ENERGY: 13740000	3400.8534	5559.4036	5722.3726	
303.3186	-14415.0749	-1795.8306	0.0000	0.0000
8103.5531	6878.5960	309.0015	-1224.9572	6940.8013
310.2906	-35.1552	-85.5532	680285.8938	-17.5307
-17.5456				
[12147]ENERGY: 13750000	3318.0440	5440.4926	5742.6575	
325.9140	-14291.9121	-1788.4857	0.0000	0.0000
8124.0595	6870.7698	309.7835	-1253.2896	6940.3799
310.0687	110.5453	29.3427	680285.8938	-15.0261
-15.0064				
[12183]ENERGY: 13760000	3418.4794	5504.6315	5736.5046	
317.0979	-14341.4211	-1865.4343	0.0000	0.0000
8105.2247	6875.0827	309.0653	-1230.1420	6938.9116
310.1905	-82.2675	-109.5037	680285.8938	-17.0768
-17.0934				
[12233]ENERGY: 13770000	3423.5006	5487.5985	5703.5625	
336.9154	-14302.6434	-1826.9030	0.0000	0.0000

Supplementary Text 6

8054.9309	6876.9616	307.1475	-1177.9693	6938.7722
310.3938	-150.8548	-86.0037	680285.8938	-16.8264
-16.8156				
[12269]ENERGY: 13780000	3348.9925	5446.9251	5653.2714	
329.7089	-14285.2287	-1815.7240	0.0000	0.0000
8195.4074	6873.3526	312.5041	-1322.0548	6940.2926
310.3260	14.8810	-13.4085	680285.8938	-14.2079
-14.2376				
[12319]ENERGY: 13790000	3338.4300	5490.7076	5711.3835	
342.4720	-14335.6640	-1833.1252	0.0000	0.0000
8158.0050	6872.2088	311.0779	-1285.7961	6942.0082
310.3181	23.9263	73.1920	680285.8938	-14.5563
-14.5399				
[12358]ENERGY: 13800000	3350.4743	5487.1824	5720.0231	
348.7932	-14328.9638	-1826.8504	0.0000	0.0000
8125.9168	6876.5756	309.8543	-1249.3412	6940.7641
310.3713	-70.9010	-132.5315	680285.8938	-18.3156
-18.3231				
[12408]ENERGY: 13810000	3399.3485	5562.9295	5646.5841	
358.8868	-14417.9010	-1845.8728	0.0000	0.0000
8169.2430	6873.2182	311.5064	-1296.0248	6941.4702
310.3864	-40.7696	-76.3614	680285.8938	-18.4762
-18.4735				
[12444]ENERGY: 13820000	3335.6391	5358.0488	5720.7801	
357.4185	-14277.6701	-1880.1053	0.0000	0.0000
8257.4931	6871.6043	314.8715	-1385.8889	6941.8931
310.5351	49.9168	18.5971	680285.8938	-15.9676
-15.9629				
[12494]ENERGY: 13830000	3406.5812	5541.7939	5711.3675	
346.2285	-14352.2272	-1804.6497	0.0000	0.0000
8031.8049	6880.8991	306.2657	-1150.9058	6944.0200
310.3671	70.8983	24.5963	680285.8938	-20.0321
-20.0366				
[12530]ENERGY: 13840000	3369.9602	5485.3039	5722.2629	
367.1169	-14416.9490	-1833.2321	0.0000	0.0000
8179.8337	6874.2964	311.9102	-1305.5372	6942.9712
310.5000	-136.2542	-125.1199	680285.8938	-16.9265
-16.9211				
[12580]ENERGY: 13850000	3323.8831	5518.0176	5684.5076	
341.5266	-14332.9896	-1861.7076	0.0000	0.0000
8205.9865	6879.2242	312.9075	-1326.7623	6944.8104
310.5856	-59.6812	-134.1345	680285.8938	-17.5174
-17.5151				
[12616]ENERGY: 13860000	3374.9806	5591.2939	5666.9142	
354.1237	-14430.7091	-1817.2801	0.0000	0.0000
8138.1024	6877.4256	310.3190	-1260.6768	6944.0591
310.6432	-41.7216	-23.9388	680285.8938	-19.1780
-19.1784				
[12666]ENERGY: 13870000	3389.0640	5416.1553	5685.2472	
339.5240	-14273.5090	-1862.8050	0.0000	0.0000
8185.4799	6879.1564	312.1255	-1306.3236	6944.0218
310.6120	-210.2818	-196.5565	680285.8938	-18.7328
-18.7468				
[12702]ENERGY: 13880000	3279.9304	5613.8975	5718.0654	

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334.0522	-14342.6350	-1858.1593	0.0000	0.0000
8133.9472	6879.0984	310.1605	-1254.8488	6944.8817
310.5864	20.1758	14.1938	680285.8938	-20.8196
-20.8138				
[12752]ENERGY: 13890000	3416.4841	5485.9108	5683.5854	
353.6215	-14305.7250	-1819.8879	0.0000	0.0000
8068.5661	6882.5550	307.6674	-1186.0111	6944.8970
310.4368	-110.4598	-103.9595	680285.8938	-19.4778
-19.4660				
[12791]ENERGY: 13900000	3321.6736	5492.7372	5701.1855	
340.9759	-14303.8480	-1795.5493	0.0000	0.0000
8118.5349	6875.7098	309.5728	-1242.8251	6943.4238
310.6697	5.8468	10.6488	680285.8938	-19.1027
-19.0990				
[12841]ENERGY: 13910000	3341.9092	5604.8973	5728.1279	
340.5566	-14370.5135	-1837.7136	0.0000	0.0000
8072.3756	6879.6394	307.8127	-1192.7362	6943.3432
310.6626	4.7313	26.8309	680285.8938	-17.3187
-17.3274				
[12877]ENERGY: 13920000	3428.8786	5433.0282	5760.4312	
337.2390	-14342.6057	-1874.9177	0.0000	0.0000
8137.9279	6879.9815	310.3123	-1257.9463	6944.3372
310.7372	-96.4835	-122.5466	680285.8938	-19.4124
-19.4188				
[12927]ENERGY: 13930000	3290.5919	5531.6901	5680.1031	
329.6292	-14353.2758	-1813.1701	0.0000	0.0000
8217.3459	6882.9142	313.3406	-1334.4317	6945.4589
310.5391	98.5469	75.8521	680285.8938	-16.8111
-16.7851				
[12963]ENERGY: 13940000	3294.4793	5520.9109	5732.3923	
359.4655	-14351.8249	-1829.0468	0.0000	0.0000
8155.9977	6882.3740	311.0013	-1273.6237	6945.7956
310.8094	-57.7422	-11.1813	680285.8938	-12.4309
-12.4476				
[13013]ENERGY: 13950000	3303.6410	5514.0970	5725.6002	
330.8228	-14317.7619	-1829.9897	0.0000	0.0000
8148.8727	6875.2822	310.7297	-1273.5905	6944.2334
310.7270	-73.9809	28.9250	680285.8938	-17.4085
-17.4047				
[13049]ENERGY: 13960000	3410.6594	5504.4009	5717.5475	
356.2201	-14316.2172	-1943.0758	0.0000	0.0000
8150.6697	6880.2046	310.7982	-1270.4651	6945.0022
310.6538	-126.7791	-116.4931	680285.8938	-16.0529
-16.0553				
[13099]ENERGY: 13970000	3312.7874	5450.6958	5730.4179	
346.0341	-14367.5737	-1795.4618	0.0000	0.0000
8199.6964	6876.5961	312.6676	-1323.1003	6945.7080
310.7783	-45.1930	-104.1934	680285.8938	-13.5213
-13.5137				
[13135]ENERGY: 13980000	3326.7885	5534.6813	5777.1046	
351.4124	-14361.5732	-1835.9681	0.0000	0.0000
8090.3773	6882.8229	308.4991	-1207.5544	6946.6570
310.7896	104.0715	-63.5203	680285.8938	-16.5975
-16.6176				

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[13185]ENERGY: 13990000	3331.2903	5531.8269	5737.5932
350.8388	-14360.7813	-1823.2210	0.0000
8114.8457	6882.3926	309.4322	-1232.4531
310.9796	-16.3508	-22.5678	680285.8938
-16.2446			-16.2540
[13224]ENERGY: 14000000	3360.3950	5536.6556	5694.7868
354.8604	-14436.2257	-1762.3072	0.0000
8133.9984	6882.1634	310.1625	-1251.8351
310.8752	100.1507	96.4822	680285.8938
-15.3405			-15.3363
[13274]ENERGY: 14010000	3387.2979	5536.2982	5694.8809
325.8803	-14348.4972	-1820.5710	0.0000
8107.5129	6882.8020	309.1525	-1224.7109
310.6566	-182.6748	-135.9689	680285.8938
-15.7011			-15.7155
[13310]ENERGY: 14020000	3324.3859	5547.0213	5694.2929
330.6372	-14321.8734	-1778.4769	0.0000
8086.3597	6882.3468	308.3459	-1204.0129
310.7966	93.2278	36.3513	680285.8938
-15.8345			-15.8140
[13360]ENERGY: 14030000	3333.6258	5439.2047	5773.1419
360.5313	-14330.4749	-1794.5967	0.0000
8104.7304	6886.1625	309.0464	-1218.5679
310.8802	46.4755	4.8915	680285.8938
-15.0825			-15.0847
[13396]ENERGY: 14040000	3345.4860	5488.1419	5701.2215
339.8240	-14312.3863	-1796.1742	0.0000
8113.4435	6879.5564	309.3787	-1233.8871
310.7962	-59.6869	-121.7208	680285.8938
-14.4643			-14.4702
[13446]ENERGY: 14050000	3319.9129	5445.8327	5731.3436
337.9693	-14319.6331	-1862.7608	0.0000
8228.7644	6881.4290	313.7761	-1347.3354
310.8717	-71.2617	-41.4461	680285.8938
-11.2630			-11.2547
[13482]ENERGY: 14060000	3412.0009	5472.4597	5704.1591
330.7106	-14366.2723	-1837.4303	0.0000
8168.2494	6883.8772	311.4685	-1284.3722
310.7761	-153.6822	-140.3089	680285.8938
-15.9728			-15.9820
[13532]ENERGY: 14070000	3265.7476	5578.5190	5783.5774
334.8591	-14386.6941	-1820.5746	0.0000
8129.4136	6884.8480	309.9876	-1244.5656
310.7811	129.4260	64.7491	680285.8938
-15.3575			-15.3702
[13568]ENERGY: 14080000	3257.7878	5542.8453	5771.0019
342.2113	-14341.2451	-1804.8035	0.0000
8118.0392	6885.8370	309.5539	-1232.2022
310.9061	160.2832	121.8781	680285.8938
-11.0380			-11.0363
[13618]ENERGY: 14090000	3374.4789	5432.2678	5667.0621
330.6753	-14345.8180	-1777.4002	0.0000
8204.3907	6885.6567	312.8466	-1318.7341
310.8884	112.7868	124.4092	680285.8938
			-16.1685

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-16.1687
[13657]ENERGY: 14100000 3371.7705 5472.8681 5723.5739
346.9867 -14340.9566 -1799.4236 0.0000 0.0000
8109.9054 6884.7242 309.2438 -1225.1812 6950.3577
310.9780 10.5093 -91.9389 680285.8938 -7.4474
-7.4464
[13707]ENERGY: 14110000 3385.7947 5479.8580 5654.0736
343.4475 -14304.7327 -1828.8370 0.0000 0.0000
8153.2223 6882.8264 310.8955 -1270.3959 6951.9990
311.0253 105.2039 62.6255 680285.8938 -13.9792
-13.9861
[13743]ENERGY: 14120000 3335.4170 5441.6103 5738.5377
339.7538 -14369.2557 -1752.1307 0.0000 0.0000
8152.3412 6886.2736 310.8619 -1266.0677 6950.0712
310.9156 -17.3769 23.4408 680285.8938 -8.6252
-8.6336
[13793]ENERGY: 14130000 3355.9954 5573.6317 5656.2891
334.1977 -14389.2052 -1768.5998 0.0000 0.0000
8125.3828 6887.6918 309.8340 -1237.6911 6950.6709
310.8864 -71.6453 -125.7896 680285.8938 -8.9261
-8.9364
[13829]ENERGY: 14140000 3340.5050 5512.3998 5734.6511
342.4271 -14365.3528 -1804.4093 0.0000 0.0000
8125.5817 6885.8026 309.8415 -1239.7791 6951.6565
311.0765 71.5406 5.0013 680285.8938 -11.0128
-11.0051
[13879]ENERGY: 14150000 3378.0225 5497.3060 5709.3187
363.8316 -14344.3195 -1811.3893 0.0000 0.0000
8093.6539 6886.4238 308.6241 -1207.2300 6952.0240
311.0091 -76.8016 -92.1680 680285.8938 -10.7872
-10.7739
[13915]ENERGY: 14160000 3329.6744 5516.0135 5713.4980
353.2201 -14305.4962 -1836.5626 0.0000 0.0000
8115.6157 6885.9629 309.4615 -1229.6528 6951.3087
310.9073 94.7888 80.9745 680285.8938 -15.4806
-15.4851
[13965]ENERGY: 14170000 3391.8026 5459.5563 5671.3204
331.1970 -14328.8686 -1796.3479 0.0000 0.0000
8158.5142 6887.1740 311.0973 -1271.3402 6951.2670
311.1042 -70.5608 -158.7315 680285.8938 -10.1227
-10.1363
[14001]ENERGY: 14180000 3292.9254 5516.8514 5712.7324
345.2413 -14341.0597 -1804.1772 0.0000 0.0000
8164.0719 6886.5855 311.3092 -1277.4864 6952.9962
310.9573 -66.4119 -65.0197 680285.8938 -11.0379
-11.0272
[14051]ENERGY: 14190000 3307.2406 5515.2570 5734.6780
339.0172 -14353.1827 -1829.0475 0.0000 0.0000
8171.3051 6885.2677 311.5850 -1286.0374 6952.1153
310.8316 86.0442 93.3167 680285.8938 -10.6201
-10.6250
[14090]ENERGY: 14200000 3334.8624 5509.3195 5715.8013
333.5881 -14333.5441 -1826.2022 0.0000 0.0000
8151.7525 6885.5776 310.8395 -1266.1749 6953.9753

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310.7801	-77.1673	-48.4250	680285.8938	-14.2539
-14.2424				
[14140]ENERGY: 14210000	3426.7779	5486.8924	5744.8063	
350.7964	-14331.1308	-1868.8530	0.0000	0.0000
8077.4733	6886.7625	308.0071	-1190.7108	6953.1197
310.7078	-164.2207	-204.1407	680285.8938	-10.9970
-11.0087				
[14176]ENERGY: 14220000	3305.0816	5505.5962	5724.7939	
341.4535	-14299.4161	-1820.9025	0.0000	0.0000
8129.6165	6886.2231	309.9954	-1243.3934	6953.3293
310.7017	-3.1773	-8.8393	680285.8938	-12.8485
-12.8519				
[14226]ENERGY: 14230000	3325.7966	5430.1242	5725.8830	
319.1834	-14362.0356	-1699.0548	0.0000	0.0000
8148.2208	6888.1175	310.7048	-1260.1032	6952.3990
310.7272	152.1004	129.0210	680285.8938	-13.2927
-13.2741				
[14262]ENERGY: 14240000	3399.7337	5487.5814	5711.9350	
348.0737	-14353.7870	-1773.9361	0.0000	0.0000
8071.6836	6891.2843	307.7863	-1180.3993	6953.2442
310.6170	-30.8397	-52.0856	680285.8938	-14.0336
-14.0433				
[14312]ENERGY: 14250000	3352.4798	5522.0497	5722.0780	
343.0601	-14381.8655	-1822.4303	0.0000	0.0000
8151.4666	6886.8384	310.8286	-1264.6282	6953.6384
310.7956	92.5913	65.3486	680285.8938	-14.5174
-14.5153				
[14348]ENERGY: 14260000	3417.4895	5552.2334	5679.5263	
328.8826	-14324.8496	-1860.3225	0.0000	0.0000
8097.0131	6889.9729	308.7522	-1207.0402	6953.9997
310.7915	-126.4832	-130.5449	680285.8938	-9.8203
-9.8188				
[14398]ENERGY: 14270000	3385.3732	5527.3028	5708.5044	
340.2496	-14379.6517	-1769.9269	0.0000	0.0000
8077.1983	6889.0496	307.9966	-1188.1487	6953.4916
311.0093	-32.7084	-45.7006	680285.8938	-14.3204
-14.3202				
[14434]ENERGY: 14280000	3435.3558	5450.7303	5679.5541	
362.2358	-14342.0793	-1779.6914	0.0000	0.0000
8084.7107	6890.8160	308.2831	-1193.8946	6953.2430
311.0501	-11.4686	-76.1496	680285.8938	-13.5556
-13.5666				
[14484]ENERGY: 14290000	3356.8652	5481.6435	5667.0344	
347.8158	-14372.6098	-1769.1217	0.0000	0.0000
8175.8999	6887.5273	311.7602	-1288.3726	6952.6834
311.0583	57.1816	8.9773	680285.8938	-13.1128
-13.1061				
[14523]ENERGY: 14300000	3348.1118	5518.3845	5713.8047	
343.3506	-14417.6316	-1787.2014	0.0000	0.0000
8169.6869	6888.5055	311.5233	-1281.1815	6955.4544
310.7097	69.5811	44.0205	680285.8938	-16.7868
-16.7855				
[14573]ENERGY: 14310000	3301.6841	5504.3654	5784.8622	
368.6437	-14353.5455	-1843.0360	0.0000	0.0000

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8125.1029	6888.0768	309.8233	-1237.0261	6954.6337
310.9676	-233.3687	-123.8697	680285.8938	-15.1378
-15.1484				
[14609]ENERGY: 14320000	3309.4976	5449.8030	5726.3746	
334.0192	-14333.7309	-1750.3567	0.0000	0.0000
8150.7537	6886.3605	310.8014	-1264.3932	6954.4050
311.0682	-41.1065	-45.4595	680285.8938	-11.2199
-11.2129				
[14659]ENERGY: 14330000	3394.8852	5427.4328	5766.2920	
340.4628	-14399.3731	-1802.0508	0.0000	0.0000
8160.9348	6888.5835	311.1896	-1272.3512	6953.5068
311.0537	-43.7370	15.0812	680285.8938	-17.6857
-17.6919				
[14695]ENERGY: 14340000	3300.9487	5429.0450	5767.1970	
363.6241	-14448.2169	-1703.6174	0.0000	0.0000
8174.8249	6883.8053	311.7193	-1291.0196	6953.3895
310.6635	44.6092	-2.4155	680285.8938	-19.2386
-19.2259				
[14745]ENERGY: 14350000	3334.5047	5537.9788	5715.5434	
355.6196	-14358.3880	-1751.0939	0.0000	0.0000
8056.5586	6890.7231	307.2096	-1165.8355	6954.8307
310.6830	67.8178	22.6108	680285.8938	-16.3429
-16.3444				
[14781]ENERGY: 14360000	3366.1976	5519.0643	5696.2228	
336.1533	-14363.0670	-1771.1593	0.0000	0.0000
8106.2207	6889.6325	309.1033	-1216.5883	6955.2702
310.8969	21.5964	11.1919	680285.8938	-16.7535
-16.7386				
[14831]ENERGY: 14370000	3410.6224	5432.8303	5689.5103	
357.1183	-14280.4660	-1860.9559	0.0000	0.0000
8139.0020	6887.6614	310.3533	-1251.3405	6956.4378
310.9621	34.2715	-89.0266	680285.8938	-14.7632
-14.7931				
[14867]ENERGY: 14380000	3337.3204	5470.1410	5704.4409	
340.8676	-14329.5910	-1812.5051	0.0000	0.0000
8177.9021	6888.5758	311.8366	-1289.3263	6955.3202
310.9301	-76.7763	-92.6348	680285.8938	-17.4277
-17.4114				
[14917]ENERGY: 14390000	3425.8159	5577.8789	5711.3855	
341.0304	-14424.3142	-1826.9020	0.0000	0.0000
8084.1211	6889.0156	308.2606	-1195.1055	6954.7049
310.9980	-26.7685	-140.0087	680285.8938	-15.0164
-15.0212				
[14956]ENERGY: 14400000	3363.1284	5503.1525	5676.3457	
343.9111	-14406.8825	-1782.8179	0.0000	0.0000
8193.2172	6890.0544	312.4206	-1303.1627	6953.6864
311.0704	72.6926	63.5053	680285.8938	-12.9863
-12.9899				
[15006]ENERGY: 14410000	3272.5042	5603.1048	5705.5888	
335.6835	-14355.7055	-1810.5880	0.0000	0.0000
8142.2460	6892.8338	310.4770	-1249.4122	6955.5164
310.8170	55.5170	-11.6734	680285.8938	-10.9228
-10.9008				
[15042]ENERGY: 14420000	3434.9040	5524.7520	5705.9540	

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362.2257	-14344.7203	-1857.4918	0.0000	0.0000
8063.8799	6889.5036	307.4887	-1174.3763	6955.2718
310.9076	-191.3986	-187.8507	680285.8938	-15.4508
-15.4668				
[15092]ENERGY: 14430000	3394.0941	5385.0773	5701.4763	
369.2895	-14350.6231	-1757.6677	0.0000	0.0000
8148.8193	6890.4657	310.7276	-1258.3536	6955.2292
310.8748	-80.4737	-82.8158	680285.8938	-14.5045
-14.5076				
[15128]ENERGY: 14440000	3402.5214	5467.8287	5705.3968	
354.1320	-14252.2871	-1901.1628	0.0000	0.0000
8112.3365	6888.7654	309.3365	-1223.5710	6955.6096
310.9200	-136.6062	-180.7085	680285.8938	-17.9365
-17.9404				
[15178]ENERGY: 14450000	3278.0507	5419.1365	5742.4224	
334.0442	-14298.8388	-1816.1085	0.0000	0.0000
8227.4266	6886.1332	313.7250	-1341.2935	6954.4487
310.7809	88.9553	90.8459	680285.8938	-14.1592
-14.1615				
[15214]ENERGY: 14460000	3354.5802	5534.9312	5735.3482	
342.5345	-14387.3644	-1811.1969	0.0000	0.0000
8120.2026	6889.0354	309.6364	-1231.1672	6954.8951
310.6752	80.7756	21.6557	680285.8938	-21.7312
-21.7213				
[15264]ENERGY: 14470000	3351.5758	5528.5521	5630.3002	
353.9597	-14340.9985	-1749.5811	0.0000	0.0000
8118.7816	6892.5897	309.5822	-1226.1919	6954.8191
310.8233	-104.5056	2.5600	680285.8938	-16.3602
-16.3496				
[15300]ENERGY: 14480000	3261.9500	5523.2356	5681.5312	
366.6831	-14338.8094	-1796.3245	0.0000	0.0000
8191.9413	6890.2072	312.3719	-1301.7341	6956.4138
311.0377	93.5891	37.9875	680285.8938	-13.7001
-13.7022				
[15350]ENERGY: 14490000	3339.1252	5432.0158	5697.8421	
367.4725	-14259.6440	-1837.8623	0.0000	0.0000
8153.2312	6892.1805	310.8959	-1261.0508	6956.0669
310.8999	-142.2408	-158.9261	680285.8938	-16.7653
-16.7760				
[15389]ENERGY: 14500000	3314.2398	5539.4211	5736.1516	
342.8189	-14329.9357	-1739.0359	0.0000	0.0000
8027.3340	6890.9939	306.0952	-1136.3401	6955.7722
310.8467	-107.1240	-57.1215	680285.8938	-14.8196
-14.8064				
[15439]ENERGY: 14510000	3390.9741	5378.5105	5680.7955	
349.5375	-14225.7091	-1793.1785	0.0000	0.0000
8113.8290	6894.7591	309.3934	-1219.0699	6956.0656
310.7689	34.7783	-44.6858	680285.8938	-21.2725
-21.2838				
[15475]ENERGY: 14520000	3388.4254	5543.8296	5716.3636	
343.6428	-14368.1056	-1815.3824	0.0000	0.0000
8084.0335	6892.8068	308.2572	-1191.2267	6955.2902
310.8355	-137.4724	-20.9902	680285.8938	-18.3949
-18.3996				

Supplementary Text 6

[15525]ENERGY: 14530000	3279.5994	5558.8249	5711.6579
327.2094	-14314.8947	-1809.7240	0.0000
8140.2592	6892.9322	310.4012	-1247.3271
310.9935	39.3175	-6.5170	680285.8938
-16.6424			-16.6325
[15561]ENERGY: 14540000	3306.5668	5599.6807	5643.2427
363.3235	-14409.8327	-1823.9618	0.0000
8209.9094	6888.9287	313.0571	-1320.9808
311.0292	-103.7366	-129.3607	680285.8938
-18.2760			-18.2938
[15611]ENERGY: 14550000	3307.7088	5521.3120	5755.9492
340.0942	-14401.0248	-1810.8608	0.0000
8176.9031	6890.0817	311.7985	-1286.8214
311.0977	-96.2460	-0.3622	680285.8938
-15.9872			-15.9968
[15647]ENERGY: 14560000	3250.2927	5536.3376	5678.8962
330.3540	-14256.8866	-1748.4125	0.0000
8103.3716	6893.9530	308.9946	-1209.4186
311.1265	187.4563	131.0429	680285.8938
-19.1084			-19.0789
[15697]ENERGY: 14570000	3307.9104	5522.8237	5670.0840
365.7589	-14289.1530	-1812.9335	0.0000
8128.3238	6892.8143	309.9461	-1235.5096
311.1926	40.5167	-53.4148	680285.8938
-17.9236			-17.9331
[15733]ENERGY: 14580000	3360.9055	5391.9902	5728.3895
340.3394	-14295.7429	-1790.1238	0.0000
8154.6453	6890.4032	310.9498	-1264.2421
311.0298	42.6098	-34.1086	680285.8938
-21.2377			-21.2270
[15783]ENERGY: 14590000	3327.2824	5504.9232	5681.3922
373.9671	-14242.1144	-1882.1941	0.0000
8129.6427	6892.8990	309.9964	-1236.7437
310.8555	52.9678	8.1116	680285.8938
-14.5550			-14.5729
[15822]ENERGY: 14600000	3273.9260	5528.5154	5690.0573
339.8233	-14337.9207	-1774.4438	0.0000
8173.7441	6893.7016	311.6780	-1280.0425
311.0009	131.3740	104.5935	680285.8938
-15.8711			-15.8714
[15872]ENERGY: 14610000	3345.0610	5494.9093	5707.0415
345.0634	-14335.6882	-1833.6944	0.0000
8166.2141	6888.9068	311.3909	-1277.3073
310.9500	67.9059	50.4016	680285.8938
-16.4126			-16.4051
[15908]ENERGY: 14620000	3383.3359	5493.1276	5615.4451
342.9862	-14378.5653	-1780.1564	0.0000
8216.5023	6892.6754	313.3085	-1323.8269
310.9411	66.3380	-63.8170	680285.8938
-17.8718			-17.8749
[15958]ENERGY: 14630000	3292.5808	5490.8112	5724.8184
355.8048	-14289.6615	-1765.7081	0.0000
8087.2306	6895.8762	308.3791	-1191.3544
311.0609	80.2274	3.3334	680285.8938
			-12.9302

Supplementary Text 6

-12.9405
 [15994]ENERGY: 14640000 3308.6342 5573.9774 5682.3817
 356.6540 -14329.0285 -1811.7361 0.0000 0.0000
 8117.0056 6897.8884 309.5145 -1219.1172 6958.6790
 311.0005 66.2482 66.8309 680285.8938 -16.1420
 -16.1109
 [16044]ENERGY: 14650000 3322.8512 5458.3707 5735.1478
 361.9018 -14335.0051 -1838.4664 0.0000 0.0000
 8186.7465 6891.5466 312.1738 -1295.1999 6958.3400
 311.1531 -51.2439 -84.5976 680285.8938 -18.1553
 -18.1931
 [16080]ENERGY: 14660000 3300.0017 5392.0296 5743.3999
 341.5813 -14301.8645 -1774.7471 0.0000 0.0000
 8192.3798 6892.7807 312.3887 -1299.5991 6957.4802
 310.9613 106.7037 88.0140 680285.8938 -18.4537
 -18.4300
 [16130]ENERGY: 14670000 3367.7252 5396.5477 5770.6866
 335.6524 -14433.2405 -1737.1676 0.0000 0.0000
 8195.2035 6895.4073 312.4963 -1299.7962 6957.2737
 310.9536 186.5532 93.0792 680285.8938 -16.9878
 -17.0058
 [16166]ENERGY: 14680000 3399.8440 5458.6024 5683.6476
 334.3034 -14318.1866 -1792.3294 0.0000 0.0000
 8128.0401 6893.9214 309.9353 -1234.1186 6958.7763
 311.0217 -58.8131 -62.7282 680285.8938 -16.7005
 -16.6764
 [16216]ENERGY: 14690000 3294.0271 5545.0576 5692.2604
 329.4483 -14416.7861 -1772.8482 0.0000 0.0000
 8217.6831 6888.8422 313.3535 -1328.8410 6958.4049
 311.0655 61.4396 -19.3123 680285.8938 -12.9560
 -12.9582
 [16255]ENERGY: 14700000 3274.1979 5533.9195 5733.0738
 345.9001 -14382.7605 -1726.1960 0.0000 0.0000
 8116.2194 6894.3543 309.4845 -1221.8651 6959.2636
 311.0096 164.5037 87.4829 680285.8938 -16.4328
 -16.4414
 [16305]ENERGY: 14710000 3347.1205 5448.7469 5731.4862
 359.7345 -14287.5869 -1859.2746 0.0000 0.0000
 8155.9387 6896.1654 310.9991 -1259.7734 6959.6124
 311.0596 -128.4416 -193.3489 680285.8938 -16.5331
 -16.5426
 [16341]ENERGY: 14720000 3302.6438 5474.2428 5741.4604
 332.5659 -14304.6609 -1795.9160 0.0000 0.0000
 8146.0682 6896.4042 310.6227 -1249.6641 6959.2549
 311.1625 -138.9990 -44.8907 680285.8938 -18.9638
 -18.9460
 [16391]ENERGY: 14730000 3333.0701 5537.4907 5774.3918
 343.5856 -14427.1510 -1815.3719 0.0000 0.0000
 8145.6014 6891.6167 310.6049 -1253.9847 6960.0009
 311.2559 -106.2842 -98.5848 680285.8938 -9.2537
 -9.2786
 [16427]ENERGY: 14740000 3317.7436 5444.2319 5719.6950
 346.5942 -14373.7742 -1721.5355 0.0000 0.0000
 8161.1171 6894.0722 311.1966 -1267.0449 6959.5513

Supplementary Text 6

310.9875	78.2470	32.5448	680285.8938	-13.0137
-13.0063				
[16477]ENERGY: 14750000	3339.3501	5505.2533	5704.6221	
354.4233	-14344.5222	-1875.8123	0.0000	0.0000
8212.7360	6896.0504	313.1649	-1316.6856	6960.7169
310.9103	37.5258	16.5088	680285.8938	-14.0284
-14.0395				
[16513]ENERGY: 14760000	3294.5018	5530.5921	5681.1211	
349.9426	-14276.6587	-1888.2231	0.0000	0.0000
8202.4787	6893.7546	312.7737	-1308.7241	6960.8796
310.8811	63.9521	35.9142	680285.8938	-13.6209
-13.6017				
[16563]ENERGY: 14770000	3430.5310	5519.1837	5721.5038	
314.8469	-14364.5909	-1794.0923	0.0000	0.0000
8070.6203	6898.0025	307.7458	-1172.6178	6960.4986
310.9883	-12.3079	-46.7572	680285.8938	-15.1636
-15.1732				
[16599]ENERGY: 14780000	3327.9438	5535.4689	5794.6668	
329.2756	-14368.7641	-1777.2482	0.0000	0.0000
8057.1875	6898.5304	307.2336	-1158.6572	6962.1732
310.8062	-4.8269	-61.8536	680285.8938	-16.0590
-16.0527				
[16649]ENERGY: 14790000	3350.1036	5556.9578	5701.5144	
341.7119	-14277.8595	-1830.0835	0.0000	0.0000
8057.3504	6899.6951	307.2398	-1157.6553	6962.0863
310.6741	-4.3496	-64.9356	680285.8938	-11.7638
-11.7610				
[16688]ENERGY: 14800000	3351.3642	5433.3961	5675.7979	
352.0926	-14276.1251	-1835.2112	0.0000	0.0000
8195.2511	6896.5657	312.4981	-1298.6855	6961.7521
310.8067	61.2250	25.8846	680285.8938	-13.6707
-13.6574				
[16738]ENERGY: 14810000	3328.1055	5532.8547	5678.3667	
339.0474	-14348.4889	-1751.9011	0.0000	0.0000
8120.8650	6898.8493	309.6617	-1222.0157	6962.5406
310.7180	43.6502	36.2376	680285.8938	-15.9540
-15.9473				
[16774]ENERGY: 14820000	3274.3949	5548.1372	5749.9422	
342.1550	-14372.1754	-1769.6611	0.0000	0.0000
8124.3338	6897.1266	309.7939	-1227.2072	6962.8915
310.8287	18.4366	0.3734	680285.8938	-13.7527
-13.7806				
[16824]ENERGY: 14830000	3323.0137	5519.8400	5727.2249	
328.7709	-14354.6846	-1809.7290	0.0000	0.0000
8162.1155	6896.5515	311.2346	-1265.5641	6962.2690
310.8290	97.3886	27.3664	680285.8938	-10.0330
-10.0478				
[16860]ENERGY: 14840000	3265.0636	5485.7973	5716.2594	
373.3371	-14280.8745	-1840.6392	0.0000	0.0000
8179.0548	6897.9985	311.8805	-1281.0563	6963.9486
311.1134	99.3952	-52.1266	680285.8938	-10.1597
-10.1272				
[16910]ENERGY: 14850000	3367.9824	5494.0749	5701.3340	
339.1194	-14433.1219	-1830.1013	0.0000	0.0000

Supplementary Text 6

8252.1275	6891.4149	314.6669	-1360.7126	6963.8710
311.0692	-16.7271	-89.8419	680285.8938	-15.5123
-15.5504				
[16946]ENERGY: 14860000	3332.3434	5507.7333	5707.9989	
359.8569	-14421.9958	-1784.1183	0.0000	0.0000
8198.3622	6900.1807	312.6168	-1298.1815	6964.5125
311.0809	-67.0825	-95.8110	680285.8938	-7.1460
-7.1048				
[16996]ENERGY: 14870000	3296.5501	5466.1617	5718.1845	
329.0585	-14297.5819	-1775.3841	0.0000	0.0000
8163.3231	6900.3121	311.2807	-1263.0111	6964.7833
310.9299	67.9354	101.6742	680285.8938	-12.4457
-12.4407				
[17032]ENERGY: 14880000	3330.0383	5489.4256	5729.1112	
345.6180	-14375.8567	-1791.3105	0.0000	0.0000
8173.8201	6900.8461	311.6809	-1272.9740	6965.7825
311.1807	150.1112	4.6083	680285.8938	-14.3917
-14.4177				
[17082]ENERGY: 14890000	3314.8595	5506.8896	5701.6345	
339.2367	-14338.1932	-1773.7259	0.0000	0.0000
8148.1412	6898.8422	310.7018	-1249.2989	6966.1490
311.0621	20.5063	-33.6073	680285.8938	-11.1593
-11.1380				
[17121]ENERGY: 14900000	3386.2903	5536.0710	5709.0624	
346.6833	-14420.0415	-1792.2785	0.0000	0.0000
8132.3518	6898.1388	310.0997	-1234.2130	6965.8531
311.2030	-176.1787	-122.6371	680285.8938	-13.7226
-13.7325				
[17171]ENERGY: 14910000	3353.5160	5536.2354	5724.6530	
329.4025	-14306.9858	-1794.1238	0.0000	0.0000
8060.1894	6902.8867	307.3480	-1157.3028	6966.4304
311.0699	91.1127	22.2376	680285.8938	-9.5739
-9.5773				
[17207]ENERGY: 14920000	3361.6311	5529.7444	5724.4373	
357.1146	-14375.2163	-1801.2443	0.0000	0.0000
8105.3922	6901.8590	309.0717	-1203.5332	6966.5911
311.0053	-68.7329	-97.3382	680285.8938	-11.7127
-11.7164				
[17257]ENERGY: 14930000	3364.5912	5481.1095	5702.5225	
338.4264	-14367.8281	-1784.9920	0.0000	0.0000
8166.6657	6900.4953	311.4081	-1266.1704	6967.3688
311.0887	29.8009	32.8535	680285.8938	-12.3413
-12.3288				
[17293]ENERGY: 14940000	3313.4069	5420.8875	5669.9693	
366.3772	-14336.2790	-1728.9923	0.0000	0.0000
8197.2631	6902.6327	312.5749	-1294.6304	6967.7818
311.1220	34.5840	49.6492	680285.8938	-10.1420
-10.1601				
[17343]ENERGY: 14950000	3323.4848	5549.4134	5668.5171	
354.0375	-14285.6838	-1867.1656	0.0000	0.0000
8160.1193	6902.7227	311.1585	-1257.3966	6969.0789
311.1269	-16.5909	-57.9641	680285.8938	-11.3479
-11.3462				
[17379]ENERGY: 14960000	3388.0347	5453.0262	5666.8216	

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347.0746	-14297.3353	-1816.8211	0.0000	0.0000
8162.2763	6903.0770	311.2408	-1259.1993	6969.1598
311.1725	106.2659	87.5587	680285.8938	-11.6984
-11.7074				
[17429]ENERGY: 14970000	3321.3679	5491.9509	5666.7264	
343.1393	-14262.7040	-1873.1254	0.0000	0.0000
8220.4161	6907.7713	313.4577	-1312.6448	6969.7168
311.2892	-76.0329	-97.9157	680285.8938	-11.1190
-11.0958				
[17465]ENERGY: 14980000	3321.2384	5584.0299	5714.4511	
356.7376	-14369.1157	-1841.1240	0.0000	0.0000
8136.3681	6902.5854	310.2528	-1233.7826	6969.2231
311.4300	-76.9367	-62.6620	680285.8938	-10.2715
-10.2844				
[17515]ENERGY: 14990000	3374.3861	5484.0830	5678.9407	
352.1496	-14349.3259	-1842.4330	0.0000	0.0000
8204.1398	6901.9403	312.8371	-1302.1995	6969.7176
311.2207	-103.2006	-80.8255	680285.8938	-13.7244
-13.7167				
[17554]ENERGY: 15000000	3360.9263	5506.2267	5670.4904	
361.7056	-14362.3494	-1816.1096	0.0000	0.0000
8183.5401	6904.4302	312.0516	-1279.1099	6970.2793
311.2416	-112.6731	-125.2698	680285.8938	-11.7115
-11.7102				
[17604]ENERGY: 15010000	3332.5659	5422.5633	5735.7666	
334.9071	-14301.7081	-1824.4681	0.0000	0.0000
8203.9027	6903.5294	312.8280	-1300.3733	6970.9410
311.2514	51.1747	4.9681	680285.8938	-10.6155
-10.6133				
[17640]ENERGY: 15020000	3321.4393	5410.6881	5693.2325	
360.7518	-14238.2462	-1792.6380	0.0000	0.0000
8148.7277	6903.9551	310.7241	-1244.7726	6971.4638
311.3114	27.1645	64.8671	680285.8938	-14.3919
-14.3995				
[17690]ENERGY: 15030000	3367.2743	5539.2714	5690.0858	
324.5299	-14362.0824	-1796.2337	0.0000	0.0000
8140.9572	6903.8025	310.4278	-1237.1547	6969.6416
311.2347	-11.3313	74.0844	680285.8938	-16.7654
-16.7599				
[17726]ENERGY: 15040000	3282.6273	5532.9628	5695.7759	
350.9917	-14304.4963	-1814.0464	0.0000	0.0000
8160.3210	6904.1360	311.1662	-1256.1849	6969.8110
311.1001	105.8152	69.0633	680285.8938	-17.1520
-17.1684				
[17776]ENERGY: 15050000	3298.0400	5450.4485	5686.0101	
339.4018	-14244.0846	-1814.6461	0.0000	0.0000
8189.3473	6904.5170	312.2730	-1284.8303	6969.9351
311.1245	127.6985	120.9014	680285.8938	-13.0401
-13.0182				
[17812]ENERGY: 15060000	3371.6095	5576.8196	5690.2322	
345.6912	-14387.2325	-1794.3439	0.0000	0.0000
8102.5112	6905.2874	308.9618	-1197.2239	6970.1548
311.0832	-4.8221	38.7750	680285.8938	-18.7777
-18.7779				

Supplementary Text 6

[17862]ENERGY: 15070000	3268.2581	5572.2287	5667.5083
344.4573	-14316.1076	-1821.3430	0.0000
8187.2305	6902.2323	312.1923	-1284.9982
311.0452	18.7048	-19.5758	680285.8938
-14.6839			-14.6686
[17898]ENERGY: 15080000	3348.0980	5504.6814	5666.3309
341.2105	-14306.5932	-1793.1758	0.0000
8143.2074	6903.7591	310.5136	-1239.4483
311.3302	145.2675	84.9785	680285.8938
-15.3663			-15.3561
[17948]ENERGY: 15090000	3308.4912	5504.2974	5698.5164
343.4973	-14261.8407	-1850.1423	0.0000
8162.2838	6905.1030	311.2410	-1257.1808
311.1763	-81.7453	-118.3345	680285.8938
-13.2882			-13.3028
[17987]ENERGY: 15100000	3327.9420	5465.2894	5670.4944
343.4007	-14299.5117	-1819.2221	0.0000
8217.6917	6906.0843	313.3538	-1311.6074
311.2410	155.3247	30.2293	680285.8938
-9.8753			-9.8755
[18037]ENERGY: 15110000	3242.7533	5465.1888	5673.1212
335.1441	-14293.4723	-1783.9102	0.0000
8262.4791	6901.3039	315.0616	-1361.1751
311.2572	-55.4436	-34.4006	680285.8938
-14.8987			-14.9044
[18073]ENERGY: 15120000	3403.0030	5532.7095	5712.8912
352.6075	-14368.0937	-1837.8211	0.0000
8113.5410	6908.8372	309.3824	-1204.7037
311.1491	-82.3137	-82.8138	680285.8938
-11.0904			-11.0868
[18123]ENERGY: 15130000	3356.0054	5519.0547	5741.0368
352.3159	-14428.4073	-1783.7582	0.0000
8148.1807	6904.4280	310.7033	-1243.7527
311.3064	-18.8149	28.6187	680285.8938
-12.5616			-12.5801
[18159]ENERGY: 15140000	3313.5548	5548.1030	5708.0158
327.4465	-14308.8437	-1802.9989	0.0000
8117.8882	6903.1657	309.5482	-1214.7225
311.3429	112.4427	158.1238	680285.8938
-8.7591			-8.7525
[18209]ENERGY: 15150000	3275.3545	5400.7788	5745.6343
326.5157	-14263.9059	-1814.4779	0.0000
8235.2267	6905.1261	314.0225	-1330.1006
311.2934	81.9636	57.4514	680285.8938
-10.9666			-10.9520
[18245]ENERGY: 15160000	3328.1870	5482.9453	5709.6467
350.7966	-14384.5949	-1768.9061	0.0000
8187.6893	6905.7639	312.2098	-1281.9254
311.3757	-64.7669	-23.8697	680285.8938
-13.1750			-13.1890
[18295]ENERGY: 15170000	3354.2156	5479.1975	5677.8062
328.7103	-14464.5083	-1704.6104	0.0000
8236.5549	6907.3658	314.0731	-1329.1891
311.5049	-27.6299	-12.9902	680285.8938
			-8.8954

Supplementary Text 6

-8.8825

[18331]ENERGY: 15180000	3416.4547	5537.7346	5695.4336
320.0222	-14339.3542	-1829.1396	0.0000
8111.4230	6912.5742	309.3016	-1198.8488
311.3311	-146.6626	-92.1103	680285.8938

-8.6079

[18381]ENERGY: 15190000	3387.6812	5481.9116	5719.5709
334.9938	-14404.3227	-1764.8414	0.0000
8154.4162	6909.4095	310.9410	-1245.0066
311.4581	133.3221	55.8531	680285.8938

-13.8778

[18420]ENERGY: 15200000	3402.3593	5474.2453	5730.7469
331.8260	-14311.4593	-1833.0494	0.0000
8112.4565	6907.1253	309.3410	-1205.3312
311.4480	-19.4056	-11.5905	680285.8938

-11.5919

[18470]ENERGY: 15210000	3350.5800	5411.5306	5699.2260
344.5725	-14358.8254	-1740.1126	0.0000
8203.3020	6910.2731	312.8051	-1293.0289
311.3575	213.5304	181.0617	680285.8938

-11.3457

[18506]ENERGY: 15220000	3255.5978	5613.0743	5700.0610
339.7116	-14364.1853	-1802.8227	0.0000
8168.5568	6909.9935	311.4802	-1258.5633
311.6951	145.8573	82.3529	680285.8938

-13.0288

[18556]ENERGY: 15230000	3349.5672	5473.8197	5701.4752
364.3887	-14313.0569	-1786.1954	0.0000
8120.0336	6910.0322	309.6300	-1210.0015
311.3979	-22.9650	22.5380	680285.8938

-14.1553

[18592]ENERGY: 15240000	3458.0136	5399.6633	5694.6239
336.5888	-14303.9593	-1807.1160	0.0000
8130.0820	6907.8962	310.0131	-1222.1857
311.3502	-162.8796	-168.6449	680285.8938

-13.6684

[18642]ENERGY: 15250000	3277.5845	5515.5869	5711.5958
333.6069	-14263.6973	-1819.6250	0.0000
8154.1953	6909.2470	310.9326	-1244.9483
311.2186	-69.2591	-58.9255	680285.8938

-16.3671

[18678]ENERGY: 15260000	3305.9244	5443.2822	5717.3165
345.3966	-14267.0889	-1803.4670	0.0000
8169.1740	6910.5378	311.5038	-1258.6362
311.4612	88.9323	-9.0043	680285.8938

-14.8128

[18728]ENERGY: 15270000	3354.3174	5480.1311	5666.0756
356.5074	-14289.0661	-1854.2344	0.0000
8193.2538	6906.9847	312.4220	-1286.2690
311.3142	-127.8218	-81.8906	680285.8938

-17.9320

[18764]ENERGY: 15280000	3312.9967	5543.5274	5686.7491
339.3314	-14313.4916	-1846.7907	0.0000
8186.4313	6908.7535	312.1618	-1277.6778

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311.3960	-106.8707	-127.4218	680285.8938	-14.3672
-14.3499				
[18814]ENERGY: 15290000	3352.5711	5436.7598	5731.2731	
318.5696	-14337.1643	-1766.3058	0.0000	0.0000
8173.2191	6908.9226	311.6580	-1264.2965	6975.5218
311.4536	47.2034	-49.1901	680285.8938	-14.3965
-14.4079				
[18853]ENERGY: 15300000	3451.1898	5509.7730	5694.2616	
325.4560	-14409.4850	-1804.4310	0.0000	0.0000
8146.7377	6913.5021	310.6482	-1233.2355	6975.2218
311.2546	12.7314	52.3719	680285.8938	-14.0150
-14.0005				
[18903]ENERGY: 15310000	3373.9509	5533.7244	5690.2094	
349.5886	-14330.8140	-1817.3381	0.0000	0.0000
8110.5887	6909.9100	309.2698	-1200.6787	6975.4903
311.1849	5.4129	-26.4324	680285.8938	-11.2420
-11.2612				
[18939]ENERGY: 15320000	3337.5106	5551.2425	5661.1322	
313.1386	-14298.6890	-1797.7506	0.0000	0.0000
8143.0417	6909.6261	310.5073	-1233.4156	6976.5558
311.0742	69.0267	47.2327	680285.8938	-16.1453
-16.1414				
[18989]ENERGY: 15330000	3377.7927	5469.7834	5714.7847	
326.5815	-14392.5905	-1776.0129	0.0000	0.0000
8188.7048	6909.0437	312.2485	-1279.6611	6975.6695
311.0461	-4.1181	-65.3720	680285.8938	-18.6445
-18.6484				
[19025]ENERGY: 15340000	3421.1024	5491.6801	5664.1984	
334.9431	-14341.4866	-1873.2066	0.0000	0.0000
8209.8527	6907.0835	313.0549	-1302.7692	6975.4221
311.2091	-21.5340	-37.5203	680285.8938	-12.7206
-12.7267				
[19075]ENERGY: 15350000	3281.9073	5514.3946	5658.2882	
342.8395	-14339.1620	-1769.4308	0.0000	0.0000
8217.7908	6906.6275	313.3576	-1311.1633	6974.3812
311.1805	49.0376	-66.8214	680285.8938	-13.9597
-13.9528				
[19111]ENERGY: 15360000	3376.5323	5549.9547	5652.2959	
342.9732	-14394.0968	-1783.5487	0.0000	0.0000
8166.2100	6910.3205	311.3908	-1255.8894	6974.9459
311.3612	-134.6458	-83.8625	680285.8938	-11.8192
-11.7919				
[19161]ENERGY: 15370000	3373.5381	5477.7435	5687.5076	
339.7296	-14295.7395	-1792.3973	0.0000	0.0000
8124.0653	6914.4472	309.7837	-1209.6180	6974.9772
311.3539	183.4511	68.4806	680285.8938	-12.7084
-12.7307				
[19197]ENERGY: 15380000	3351.7296	5532.7107	5680.5688	
348.1871	-14383.4333	-1790.6699	0.0000	0.0000
8168.4363	6907.5293	311.4757	-1260.9070	6974.8522
311.4930	-16.4382	-20.8180	680285.8938	-11.0284
-11.0085				
[19247]ENERGY: 15390000	3343.8281	5476.6517	5683.9160	
346.5171	-14268.7185	-1815.9839	0.0000	0.0000

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8144.8941	6911.1047	310.5779	-1233.7894	6974.5830
311.3059	-93.6940	-121.3920	680285.8938	-9.3692
-9.3721				
[19286]ENERGY: 15400000	3325.4173	5403.8081	5727.5418	
357.1958	-14374.0208	-1696.9245	0.0000	0.0000
8165.0681	6908.0858	311.3472	-1256.9823	6974.7452
311.2431	163.3052	112.0061	680285.8938	-10.8255
-10.8382				
[19336]ENERGY: 15410000	3287.5282	5434.0781	5752.0532	
321.4223	-14297.7580	-1817.6596	0.0000	0.0000
8225.5188	6905.1830	313.6523	-1320.3358	6974.6546
311.2727	2.9766	74.4863	680285.8938	-10.0699
-10.0670				
[19372]ENERGY: 15420000	3319.8873	5639.7768	5642.1188	
340.4358	-14394.8488	-1740.7202	0.0000	0.0000
8104.0536	6910.7033	309.0206	-1193.3503	6974.3319
311.0677	-12.5185	-59.8355	680285.8938	-14.0355
-14.0448				
[19422]ENERGY: 15430000	3335.2058	5536.4353	5698.7274	
340.7646	-14405.8855	-1713.9488	0.0000	0.0000
8118.6389	6909.9377	309.5768	-1208.7012	6974.4495
311.1645	73.5205	110.9538	680285.8938	-8.5119
-8.5053				
[19458]ENERGY: 15440000	3326.9084	5544.8850	5709.0704	
346.3987	-14342.7746	-1818.6429	0.0000	0.0000
8144.3956	6910.2406	310.5589	-1234.1550	6974.9838
311.1919	4.0974	-11.5387	680285.8938	-15.8883
-15.8865				
[19508]ENERGY: 15450000	3242.8472	5490.1145	5675.8284	
367.9480	-14341.9389	-1723.8541	0.0000	0.0000
8198.1067	6909.0520	312.6070	-1289.0548	6974.9543
311.0971	118.9397	102.4855	680285.8938	-8.1730
-8.1731				
[19544]ENERGY: 15460000	3303.7206	5499.9618	5695.6437	
327.0175	-14235.5356	-1753.2503	0.0000	0.0000
8072.1686	6909.7262	307.8048	-1162.4423	6976.2800
311.0197	-76.9779	-65.0171	680285.8938	-8.4429
-8.4400				
[19594]ENERGY: 15470000	3384.4839	5436.7534	5674.6163	
347.7226	-14274.0415	-1743.2079	0.0000	0.0000
8088.5191	6914.8460	308.4283	-1173.6731	6978.2028
310.9213	88.9934	10.7637	680285.8938	-13.7788
-13.7820				
[19630]ENERGY: 15480000	3348.7992	5528.1359	5672.3223	
347.4103	-14285.3899	-1815.4804	0.0000	0.0000
8118.2417	6914.0391	309.5616	-1204.2026	6979.5103
311.3281	-219.3867	-181.4077	680285.8938	-12.8819
-12.8749				
[19680]ENERGY: 15490000	3327.5732	5455.2179	5715.8539	
341.5005	-14310.7623	-1725.3112	0.0000	0.0000
8108.8346	6912.9065	309.2029	-1195.9281	6978.5726
311.2413	67.4606	122.8105	680285.8938	-12.7197
-12.7344				
[19719]ENERGY: 15500000	3378.0784	5445.7363	5676.9294	

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355.9122	-14222.4633	-1835.7520	0.0000	0.0000
8117.2980	6915.7390	309.5257	-1201.5590	6979.3159
311.2698	91.3953	20.4220	680285.8938	-9.6933
-9.7017				
[19769]ENERGY: 15510000	3421.3441	5503.2891	5737.1328	
366.1034	-14302.8699	-1848.8195	0.0000	0.0000
8041.7421	6917.9221	306.6446	-1123.8200	6979.4657
311.4077	-20.2592	-7.6121	680285.8938	-11.2855
-11.2731				
[19805]ENERGY: 15520000	3388.3616	5481.1679	5698.2334	
352.4140	-14326.7148	-1853.1497	0.0000	0.0000
8175.8009	6916.1133	311.7565	-1259.6875	6978.3850
311.4368	-140.0083	-120.8838	680285.8938	-12.7563
-12.7463				
[19855]ENERGY: 15530000	3343.5647	5602.9261	5623.5970	
356.1934	-14340.1204	-1812.9271	0.0000	0.0000
8135.1223	6908.3560	310.2053	-1226.7663	6979.4615
311.4040	-109.2101	-22.1351	680285.8938	-10.4150
-10.4042				
[19891]ENERGY: 15540000	3353.8404	5494.6471	5682.3327	
353.8076	-14377.8703	-1721.3918	0.0000	0.0000
8128.2569	6913.6226	309.9435	-1214.6343	6981.1870
311.2770	39.6560	72.0112	680285.8938	-14.8843
-14.8895				
[19941]ENERGY: 15550000	3335.9178	5592.5989	5625.6539	
325.8706	-14337.5655	-1839.7822	0.0000	0.0000
8213.8485	6916.5420	313.2073	-1297.3065	6982.9913
311.4280	-89.3286	-10.1714	680285.8938	-12.0094
-12.0028				
[19977]ENERGY: 15560000	3358.9665	5498.5206	5670.2395	
358.1809	-14329.2001	-1816.2556	0.0000	0.0000
8173.9468	6914.3987	311.6858	-1259.5481	6980.9847
311.4056	39.0160	34.1374	680285.8938	-8.3423
-8.3676				
[20027]ENERGY: 15570000	3360.8035	5466.3126	5704.6278	
334.0942	-14317.2939	-1836.3780	0.0000	0.0000
8205.8649	6918.0312	312.9029	-1287.8337	6982.6883
311.3306	-8.9111	-90.8635	680285.8938	-11.0387
-11.0285				
[20063]ENERGY: 15580000	3358.4051	5454.6120	5680.9321	
338.2076	-14387.3852	-1683.3980	0.0000	0.0000
8154.3883	6915.7618	310.9400	-1238.6265	6982.2770
311.3445	-47.7784	-15.3966	680285.8938	-10.0146
-10.0207				
[20113]ENERGY: 15590000	3344.9312	5532.5984	5688.4628	
349.5951	-14295.1565	-1830.2945	0.0000	0.0000
8126.3395	6916.4761	309.8704	-1209.8634	6983.1818
311.2439	-72.2747	-36.8345	680285.8938	-9.9378
-9.9205				
[20152]ENERGY: 15600000	3342.3074	5531.1997	5713.5487	
364.4609	-14255.0273	-1814.6851	0.0000	0.0000
8036.7200	6918.5243	306.4531	-1118.1956	6984.3418
311.1349	0.9132	-20.2597	680285.8938	-13.2845
-13.3172				

Supplementary Text 6

[20202]ENERGY: 15610000	3361.7941	5430.2493	5678.4750	
358.4241	-14325.1000	-1691.9293	0.0000	0.0000
8108.8884	6920.8016	309.2050	-1188.0868	6983.7964
311.3647	153.1503	167.5438	680285.8938	-9.6265
-9.6053				
[20238]ENERGY: 15620000	3402.6768	5500.0283	5677.3413	
337.0508	-14401.8512	-1768.3842	0.0000	0.0000
8170.4808	6917.3426	311.5536	-1253.1382	6984.1783
311.5007	94.0720	123.0975	680285.8938	-7.8660
-7.8612				
[20288]ENERGY: 15630000	3389.1391	5530.0569	5709.4050	
351.5560	-14356.9163	-1785.1410	0.0000	0.0000
8083.5841	6921.6837	308.2401	-1161.9004	6985.2979
311.5236	-120.8941	-85.4602	680285.8938	-7.7922
-7.7895				
[20324]ENERGY: 15640000	3368.0975	5570.4122	5683.5495	
345.6847	-14275.1411	-1895.3958	0.0000	0.0000
8120.8400	6918.0469	309.6607	-1202.7931	6985.3753
311.4081	-136.2081	-170.6429	680285.8938	-7.6120
-7.6070				
[20374]ENERGY: 15650000	3340.5561	5423.0986	5729.2667	
328.3346	-14308.5002	-1726.4140	0.0000	0.0000
8136.5940	6922.9359	310.2614	-1213.6581	6987.0358
311.5223	5.4885	-37.7782	680285.8938	-9.4494
-9.4714				
[20410]ENERGY: 15660000	3356.2909	5528.9244	5710.0454	
356.0462	-14285.3189	-1831.9084	0.0000	0.0000
8088.9711	6923.0506	308.4455	-1165.9205	6988.0914
311.4332	-34.6365	-114.3043	680285.8938	-9.3062
-9.3093				
[20460]ENERGY: 15670000	3334.4066	5533.8336	5645.0475	
316.9664	-14371.3194	-1758.7825	0.0000	0.0000
8218.1874	6918.3397	313.3727	-1299.8477	6988.1641
311.4575	107.5975	3.9056	680285.8938	-14.7813
-14.7886				
[20496]ENERGY: 15680000	3349.8229	5526.7627	5722.3341	
344.7451	-14333.3403	-1828.2567	0.0000	0.0000
8142.2907	6924.3585	310.4787	-1217.9322	6988.4487
311.5551	90.7880	28.0120	680285.8938	-11.0426
-11.0289				
[20546]ENERGY: 15690000	3312.9465	5480.7617	5708.1671	
357.9761	-14283.3510	-1826.1884	0.0000	0.0000
8170.2277	6920.5397	311.5440	-1249.6880	6988.3225
311.5022	8.6889	35.7649	680285.8938	-11.4540
-11.4412				
[20585]ENERGY: 15700000	3361.3009	5532.1576	5741.7046	
339.5848	-14359.5735	-1784.4109	0.0000	0.0000
8095.2925	6926.0560	308.6866	-1169.2365	6988.6802
311.3748	91.2920	58.1859	680285.8938	-11.5165
-11.5318				
[20635]ENERGY: 15710000	3374.4529	5550.0123	5678.5607	
332.7396	-14291.7544	-1815.9378	0.0000	0.0000
8096.4105	6924.4838	308.7292	-1171.9267	6990.1914
311.2862	-11.1308	-104.8578	680285.8938	-13.3266

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-13.3229
[20671]ENERGY: 15720000 3375.0373 5408.7658 5724.0501
346.0801 -14353.4033 -1790.0277 0.0000 0.0000
8214.2440 6924.7462 313.2224 -1289.4978 6989.4807
311.4185 -48.1174 -138.7322 680285.8938 -13.2423
-13.2543
[20721]ENERGY: 15730000 3283.7426 5472.0163 5725.9195
354.4681 -14384.0052 -1722.4646 0.0000 0.0000
8194.2645 6923.9412 312.4605 -1270.3233 6989.4075
311.4835 205.9927 140.5775 680285.8938 -4.6177
-4.6066
[20757]ENERGY: 15740000 3409.6632 5587.6361 5685.1477
344.3977 -14380.6289 -1790.4646 0.0000 0.0000
8068.6895 6924.4406 307.6721 -1144.2489 6989.2134
311.4048 32.4097 -5.1434 680285.8938 -7.4698
-7.4667
[20807]ENERGY: 15750000 3378.3782 5552.6275 5666.2893
362.0312 -14409.8756 -1758.3409 0.0000 0.0000
8131.9360 6923.0458 310.0838 -1208.8902 6988.1966
311.4378 -121.6540 -50.1984 680285.8938 -10.1203
-10.1128
[20843]ENERGY: 15760000 3337.9560 5522.7534 5666.1811
336.6883 -14293.0318 -1792.6024 0.0000 0.0000
8146.7979 6924.7425 310.6505 -1222.0554 6989.9642
311.4180 57.9066 3.2694 680285.8938 -11.3058
-11.3192
[20893]ENERGY: 15770000 3278.4933 5512.9277 5723.0741
338.7932 -14328.5421 -1747.7233 0.0000 0.0000
8146.5634 6923.5863 310.6416 -1222.9770 6989.8104
311.3178 -76.5802 -17.2239 680285.8938 -10.2847
-10.2768
[20929]ENERGY: 15780000 3321.6596 5522.1747 5732.0187
334.6275 -14349.2190 -1742.4225 0.0000 0.0000
8104.9086 6923.7477 309.0532 -1181.1609 6989.5037
311.2029 78.0974 56.6489 680285.8938 -11.5574
-11.5580
[20979]ENERGY: 15790000 3269.6423 5510.3912 5662.8338
336.4179 -14309.6058 -1735.9025 0.0000 0.0000
8188.7130 6922.4899 312.2488 -1266.2232 6991.3913
311.3280 28.1961 46.4431 680285.8938 -10.1439
-10.1439
[21018]ENERGY: 15800000 3357.9730 5517.2035 5683.4030
346.1028 -14385.1887 -1754.0933 0.0000 0.0000
8159.1454 6924.5458 311.1214 -1234.5997 6991.3745
311.4465 43.2054 -25.0145 680285.8938 -13.1727
-13.1758
[21068]ENERGY: 15810000 3297.0727 5651.3235 5647.2792
344.1717 -14395.8513 -1781.4748 0.0000 0.0000
8162.7835 6925.3045 311.2601 -1237.4789 6991.3275
311.5281 36.5370 -10.4395 680285.8938 -8.7605
-8.7665
[21104]ENERGY: 15820000 3295.9468 5533.5622 5697.5584
334.4361 -14269.5515 -1807.2885 0.0000 0.0000
8139.8376 6924.5011 310.3851 -1215.3365 6991.2536

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311.6339	26.4252	19.9264	680285.8938	-9.8406
-9.8415				
[21154]ENERGY: 15830000	3433.3016	5456.7779	5694.8575	
328.8123	-14353.9601	-1760.5608	0.0000	0.0000
8127.9163	6927.1447	309.9306	-1200.7715	6991.8150
311.7216	-153.8275	-126.7827	680285.8938	-8.5258
-8.5217				
[21190]ENERGY: 15840000	3352.0546	5534.4762	5713.9946	
343.9610	-14357.6220	-1781.1724	0.0000	0.0000
8119.6608	6925.3528	309.6158	-1194.3080	6990.8878
311.4886	2.6301	-71.4832	680285.8938	-12.4003
-12.4025				
[21240]ENERGY: 15850000	3452.2575	5362.3010	5659.8206	
357.5136	-14277.9728	-1821.6794	0.0000	0.0000
8191.4786	6923.7191	312.3543	-1267.7595	6990.7783
311.4918	-190.6165	-108.4733	680285.8938	-9.3816
-9.3677				
[21276]ENERGY: 15860000	3389.3861	5507.4958	5634.5032	
314.2432	-14297.1685	-1766.5333	0.0000	0.0000
8140.6363	6922.5628	310.4156	-1218.0735	6991.2224
311.3882	-97.4388	-64.4289	680285.8938	-8.0696
-8.0892				
[21326]ENERGY: 15870000	3268.4622	5511.4276	5685.2826	
332.3735	-14252.3067	-1779.1249	0.0000	0.0000
8156.3908	6922.5052	311.0163	-1233.8856	6990.9550
311.3726	157.4527	127.4855	680285.8938	-4.9618
-4.9550				
[21362]ENERGY: 15880000	3327.9320	5443.2637	5681.8751	
319.3602	-14294.6574	-1723.8215	0.0000	0.0000
8173.8485	6927.8006	311.6820	-1246.0480	6991.8256
311.2475	41.8422	39.4426	680285.8938	-5.7389
-5.7469				
[21412]ENERGY: 15890000	3223.2559	5515.6068	5671.0463	
353.5909	-14179.7832	-1890.2686	0.0000	0.0000
8234.5017	6927.9497	313.9948	-1306.5520	6994.5221
311.4614	103.9008	-53.9543	680285.8938	-9.8983
-9.9082				
[21451]ENERGY: 15900000	3366.4287	5545.6252	5710.0529	
351.8188	-14292.7667	-1909.7953	0.0000	0.0000
8155.5664	6926.9300	310.9849	-1228.6364	6993.7912
311.5994	73.1956	0.4582	680285.8938	-7.9003
-7.8878				
[21501]ENERGY: 15910000	3248.0186	5507.7417	5720.4459	
319.9046	-14328.3416	-1731.4457	0.0000	0.0000
8188.1721	6924.4957	312.2282	-1263.6764	6993.3041
311.6276	34.1916	13.9231	680285.8938	-6.7657
-6.7719				
[21537]ENERGY: 15920000	3389.1929	5512.2239	5697.4728	
351.7135	-14327.9020	-1844.6185	0.0000	0.0000
8150.0260	6928.1085	310.7736	-1221.9175	6992.9948
311.7541	39.6211	-34.7199	680285.8938	-1.7378
-1.7209				
[21587]ENERGY: 15930000	3298.0514	5550.3237	5687.6006	
362.1421	-14343.8408	-1838.9620	0.0000	0.0000

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8214.5104	6929.8255	313.2325	-1284.6849	6993.9402
311.8141	203.7475	156.6470	680285.8938	-5.8813
-5.8788				
[21623]ENERGY: 15940000	3308.6043	5487.5600	5672.1198	
323.5121	-14302.6986	-1753.2485	0.0000	0.0000
8190.4782	6926.3274	312.3161	-1264.1509	6991.7080
311.8836	46.4079	18.4201	680285.8938	-6.2457
-6.2373				
[21673]ENERGY: 15950000	3383.3312	5459.4095	5695.9889	
326.8975	-14353.2750	-1717.4049	0.0000	0.0000
8132.2829	6927.2300	310.0971	-1205.0529	6992.1468
311.8556	-67.4482	-83.5872	680285.8938	-8.6116
-8.6279				
[21709]ENERGY: 15960000	3260.0617	5454.3080	5676.4754	
337.6895	-14293.9032	-1777.8067	0.0000	0.0000
8267.4126	6924.2373	315.2498	-1343.1753	6994.0152
311.9946	217.5326	157.2120	680285.8938	-5.6574
-5.6530				
[21759]ENERGY: 15970000	3323.7293	5612.9794	5645.0700	
335.8152	-14380.1451	-1765.2641	0.0000	0.0000
8152.6953	6924.8800	310.8754	-1227.8153	6994.3427
311.8582	15.1274	-14.9940	680285.8938	-11.5791
-11.5597				
[21795]ENERGY: 15980000	3336.8907	5514.9922	5648.3719	
338.7399	-14286.6718	-1859.0339	0.0000	0.0000
8235.7528	6929.0418	314.0425	-1306.7110	6995.6844
312.1395	-42.9554	-98.2115	680285.8938	-12.5785
-12.6062				
[21845]ENERGY: 15990000	3366.8436	5579.6538	5680.1181	
332.6189	-14425.1564	-1805.1991	0.0000	0.0000
8199.5673	6928.4462	312.6627	-1271.1211	6994.8919
312.1872	-163.8637	-186.3405	680285.8938	-7.3375
-7.3366				
[21884]ENERGY: 16000000	3334.1694	5479.9518	5650.3983	
337.1444	-14309.8983	-1805.6385	0.0000	0.0000
8241.2784	6927.4054	314.2532	-1313.8730	6995.4544
312.0210	114.4102	19.9861	680285.8938	-9.7881
-9.7790				
[21934]ENERGY: 16010000	3339.3603	5444.5581	5658.7195	
332.0276	-14315.2869	-1760.4941	0.0000	0.0000
8231.5069	6930.3914	313.8806	-1301.1155	6994.8490
311.8613	85.8370	-9.5280	680285.8938	-9.8682
-9.8703				
[21970]ENERGY: 16020000	3404.9863	5448.5798	5664.2456	
337.1879	-14321.6987	-1835.5422	0.0000	0.0000
8228.6428	6926.4016	313.7714	-1302.2413	6994.4379
311.8954	-149.4712	-154.4478	680285.8938	-6.1099
-6.1136				
[22020]ENERGY: 16030000	3364.6118	5505.0937	5630.4122	
347.9450	-14340.1410	-1814.9049	0.0000	0.0000
8234.8118	6927.8287	314.0067	-1306.9831	6993.7442
312.0551	28.2252	-7.8623	680285.8938	-9.3372
-9.3354				
[22056]ENERGY: 16040000	3398.8318	5475.2363	5647.5905	

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342.8599	-14364.0464	-1776.6842	0.0000	0.0000
8205.9654	6929.7532	312.9067	-1276.2122	6995.9150
312.0595	-21.6009	-69.3740	680285.8938	-7.0826
-7.0903				
[22106]ENERGY: 16050000	3323.0413	5578.7355	5691.0282	
334.8055	-14392.3919	-1751.3536	0.0000	0.0000
8145.7993	6929.6642	310.6125	-1216.1350	6995.2570
312.0236	-39.1536	-64.1335	680285.8938	-10.4662
-10.4738				
[22142]ENERGY: 16060000	3361.8560	5606.1422	5656.1530	
354.5203	-14325.1444	-1833.7810	0.0000	0.0000
8109.1245	6928.8707	309.2140	-1180.2538	6995.0179
311.9873	-14.2367	-58.0313	680285.8938	-8.2040
-8.1865				
[22192]ENERGY: 16070000	3320.0419	5546.9328	5652.3438	
331.3035	-14347.0035	-1810.9417	0.0000	0.0000
8233.7693	6926.4460	313.9669	-1307.3232	6994.5400
312.1015	13.5857	-57.6251	680285.8938	-10.2013
-10.2020				
[22228]ENERGY: 16080000	3413.7064	5417.2998	5706.5061	
354.8738	-14365.8306	-1740.8482	0.0000	0.0000
8147.2783	6932.9856	310.6689	-1214.2927	6995.1482
312.0194	63.2531	11.3082	680285.8938	-8.0127
-8.0252				
[22278]ENERGY: 16090000	3348.8112	5601.4395	5644.6397	
360.9609	-14343.0340	-1829.5497	0.0000	0.0000
8146.6340	6929.9015	310.6443	-1216.7325	6996.0241
311.8255	24.0626	-54.3384	680285.8938	-10.5473
-10.5406				
[22317]ENERGY: 16100000	3340.3324	5541.8787	5654.4309	
351.5418	-14388.9972	-1830.2975	0.0000	0.0000
8257.0894	6925.9783	314.8561	-1331.1111	6995.1762
312.0966	-68.0559	-100.5689	680285.8938	-8.7066
-8.6995				
[22367]ENERGY: 16110000	3351.0302	5562.8414	5656.1013	
341.8585	-14375.5338	-1760.5836	0.0000	0.0000
8152.3363	6928.0502	310.8617	-1224.2861	6995.5936
312.2017	12.0317	-13.3267	680285.8938	-4.9937
-4.9919				
[22403]ENERGY: 16120000	3328.3612	5462.0414	5646.1720	
347.5596	-14305.7444	-1755.1619	0.0000	0.0000
8203.5985	6926.8265	312.8164	-1276.7720	6995.4025
312.1473	20.3536	-27.7150	680285.8938	-10.0350
-10.0417				
[22453]ENERGY: 16130000	3343.5450	5485.7929	5666.1192	
351.3782	-14340.9999	-1748.4887	0.0000	0.0000
8173.4695	6930.8161	311.6676	-1242.6533	6995.9878
312.0232	8.6036	-54.7105	680285.8938	-5.9415
-5.9479				
[22489]ENERGY: 16140000	3408.4447	5491.8209	5671.6840	
328.0388	-14370.8796	-1770.2456	0.0000	0.0000
8168.9725	6927.8356	311.4961	-1241.1368	6995.9879
312.0222	-129.0202	-133.1536	680285.8938	-5.9210
-5.8999				

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[22539]ENERGY: 16150000	3379.8964	5525.0065	5656.6542
353.5150	-14379.4847	-1735.8153	0.0000
8134.9981	6934.7703	310.2006	-1200.2278
312.0960	22.4209	-8.9632	680285.8938
-7.1501			-7.1525
[22575]ENERGY: 16160000	3299.6918	5554.1324	5668.1948
323.0058	-14356.2650	-1806.7730	0.0000
8248.9408	6930.9276	314.5454	-1318.0132
312.3987	-38.3185	13.7617	680285.8938
-7.5887			-7.5672
[22625]ENERGY: 16170000	3388.4948	5417.3975	5680.3527
337.2902	-14320.1139	-1807.0896	0.0000
8235.6513	6931.9830	314.0387	-1303.6683
312.2575	-35.9397	-40.9670	680285.8938
-13.5611			-13.5728
[22661]ENERGY: 16180000	3325.9464	5456.9158	5719.7980
318.2513	-14255.9393	-1836.4855	0.0000
8202.6726	6931.1593	312.7811	-1271.5134
312.1887	-174.8653	-142.4946	680285.8938
-9.9261			-9.9199
[22711]ENERGY: 16190000	3326.4241	5440.9686	5672.2329
343.9261	-14248.6029	-1834.8998	0.0000
8230.4451	6930.4939	313.8401	-1299.9511
312.0787	-54.6213	-97.6786	680285.8938
-7.9358			-7.9425
[22750]ENERGY: 16200000	3292.3483	5588.0682	5757.2670
338.7219	-14418.3550	-1838.5709	0.0000
8210.2104	6929.6900	313.0686	-1280.5204
312.1346	154.3034	92.4838	680285.8938
-9.5775			-9.5606
[22800]ENERGY: 16210000	3331.4777	5462.8452	5718.3458
368.6281	-14329.5977	-1760.0748	0.0000
8138.7913	6930.4155	310.3452	-1208.3758
312.1246	-113.5729	-138.1928	680285.8938
-11.3166			-11.3271
[22836]ENERGY: 16220000	3435.9567	5540.4333	5684.7527
338.0830	-14371.8059	-1829.7798	0.0000
8134.1742	6931.8142	310.1692	-1202.3600
312.0884	-67.3588	-72.0062	680285.8938
-12.1204			-12.1167
[22886]ENERGY: 16230000	3294.3460	5584.7020	5704.2439
344.1301	-14348.6124	-1841.7014	0.0000
8194.1073	6931.2155	312.4545	-1262.8918
312.0063	-54.5276	-156.8842	680285.8938
-7.5923			-7.5962
[22922]ENERGY: 16240000	3305.0911	5514.9801	5667.6927
346.5320	-14279.5046	-1791.9921	0.0000
8168.9695	6931.7688	311.4960	-1237.2008
312.1503	262.3729	237.9441	680285.8938
-16.0345			-16.0365
[22972]ENERGY: 16250000	3290.6657	5488.3001	5674.9482
345.9761	-14294.1706	-1724.2753	0.0000
8152.3342	6933.7784	310.8616	-1218.5558
312.1052	160.9462	61.3245	680285.8938
			-10.7481

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-10.7640
[23008]ENERGY: 16260000 3311.7188 5518.2071 5660.4087
340.2454 -14275.0864 -1789.2509 0.0000 0.0000
8166.4695 6932.7123 311.4007 -1233.7572 6997.5308
311.8800 -62.6896 -61.9924 680285.8938 -9.7778
-9.7533
[23058]ENERGY: 16270000 3371.9020 5518.2337 5664.2551
339.5556 -14368.2045 -1774.7317 0.0000 0.0000
8179.9475 6930.9577 311.9146 -1248.9898 6997.4031
311.9604 -43.5732 -12.3612 680285.8938 -11.2103
-11.2151
[23094]ENERGY: 16280000 3420.0061 5533.0686 5681.9515
363.5023 -14374.7743 -1835.5262 0.0000 0.0000
8145.6276 6933.8554 310.6059 -1211.7722 6998.1315
312.0060 -137.7653 -80.4252 680285.8938 -13.7371
-13.7397
[23144]ENERGY: 16290000 3372.0012 5441.7491 5681.0173
313.1562 -14260.3399 -1775.1938 0.0000 0.0000
8163.1923 6935.5823 311.2757 -1227.6100 6997.3708
312.0570 -55.8836 -19.8882 680285.8938 -9.8477
-9.8687
[23183]ENERGY: 16300000 3359.8680 5534.8219 5696.3676
361.6300 -14428.6017 -1785.2097 0.0000 0.0000
8190.7271 6929.6032 312.3256 -1261.1239 6997.2856
312.0677 63.9870 51.7017 680285.8938 -8.3426
-8.3300
[23233]ENERGY: 16310000 3287.7217 5503.1175 5666.9605
345.6493 -14337.2878 -1777.9726 0.0000 0.0000
8239.2856 6927.4742 314.1772 -1311.8114 6996.7899
312.0487 157.8818 56.8461 680285.8938 -9.9924
-9.9894
[23269]ENERGY: 16320000 3325.4589 5418.1104 5687.2039
337.2401 -14252.0593 -1804.8055 0.0000 0.0000
8220.3239 6931.4725 313.4542 -1288.8515 6997.7258
312.1277 1.8021 -26.6170 680285.8938 -7.8982
-7.8949
[23319]ENERGY: 16330000 3278.8813 5472.6328 5691.4243
332.0711 -14329.4530 -1729.2832 0.0000 0.0000
8215.3676 6931.6409 313.2652 -1283.7267 6996.7948
311.8641 212.7492 77.7634 680285.8938 -8.7821
-8.7770
[23355]ENERGY: 16340000 3396.0130 5467.7220 5693.7574
318.9162 -14351.6708 -1743.0817 0.0000 0.0000
8147.6938 6929.3500 310.6847 -1218.3438 6995.6849
311.9778 117.4266 59.6177 680285.8938 -8.9803
-8.9759
[23405]ENERGY: 16350000 3369.3707 5486.2297 5645.3149
364.9352 -14272.1104 -1834.2634 0.0000 0.0000
8172.6106 6932.0873 311.6348 -1240.5233 6996.7185
311.9403 -38.5486 -9.5391 680285.8938 -13.3235
-13.3274
[23441]ENERGY: 16360000 3370.5513 5553.0362 5631.7340
339.4428 -14336.3102 -1783.2680 0.0000 0.0000
8159.4297 6934.6158 311.1322 -1224.8139 6998.4595

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311.9614	22.9070	54.6595	680285.8938	-9.6243
-9.6278				
[23491]ENERGY: 16370000	3295.3188	5581.6383	5678.4977	
343.0455	-14333.3317	-1798.4249	0.0000	0.0000
8168.4165	6935.1602	311.4749	-1233.2563	6999.7901
312.0371	0.0033	33.8856	680285.8938	-14.5560
-14.5620				
[23527]ENERGY: 16380000	3392.4607	5538.8204	5663.0619	
331.3541	-14308.8848	-1782.4161	0.0000	0.0000
8100.0458	6934.4419	308.8678	-1165.6039	6999.6010
312.1229	41.3538	18.3137	680285.8938	-13.0709
-13.0834				
[23577]ENERGY: 16390000	3288.8217	5464.4070	5722.4134	
355.7083	-14319.5827	-1776.5179	0.0000	0.0000
8198.9702	6934.2201	312.6400	-1264.7502	7000.3781
312.0370	-29.0282	-26.1154	680285.8938	-11.3034
-11.2904				
[23616]ENERGY: 16400000	3361.2873	5499.1408	5702.5433	
335.1598	-14344.1629	-1778.3694	0.0000	0.0000
8160.7806	6936.3795	311.1837	-1224.4011	7001.7498
312.1689	40.9530	36.0733	680285.8938	-10.1751
-10.1624				
[23666]ENERGY: 16410000	3358.7737	5578.0061	5664.5146	
338.8166	-14290.5076	-1818.1370	0.0000	0.0000
8105.4804	6936.9467	309.0750	-1168.5337	7002.1075
312.1712	-152.8146	-143.5001	680285.8938	-10.4991
-10.4945				
[23702]ENERGY: 16420000	3352.5185	5505.7555	5665.9713	
350.1535	-14297.2071	-1860.0955	0.0000	0.0000
8219.3544	6936.4507	313.4172	-1282.9037	7002.6669
312.1467	20.3348	-18.3478	680285.8938	-8.1886
-8.2140				
[23752]ENERGY: 16430000	3372.2001	5460.5586	5689.2843	
335.9372	-14342.6778	-1821.9896	0.0000	0.0000
8240.0130	6933.3259	314.2050	-1306.6871	7002.6712
312.3336	-27.8713	-13.7602	680285.8938	-8.9666
-8.9586				
[23788]ENERGY: 16440000	3312.0213	5543.3032	5702.1860	
322.0305	-14324.9440	-1761.0492	0.0000	0.0000
8146.6598	6940.2076	310.6453	-1206.4522	7003.7098
312.1394	-35.3644	-54.7365	680285.8938	-7.5330
-7.5274				
[23838]ENERGY: 16450000	3364.5511	5450.9935	5650.4658	
336.0796	-14259.1597	-1761.8784	0.0000	0.0000
8157.5347	6938.5865	311.0600	-1218.9482	7002.9684
312.0357	37.1673	36.6856	680285.8938	-7.6938
-7.7030				
[23874]ENERGY: 16460000	3340.6657	5420.2942	5732.7233	
323.9456	-14267.3333	-1784.9372	0.0000	0.0000
8170.9065	6936.2647	311.5698	-1234.6417	7004.7627
312.0932	-166.8093	-126.3386	680285.8938	-4.7987
-4.7709				
[23924]ENERGY: 16470000	3334.0089	5537.4508	5720.1073	
312.1087	-14341.1774	-1764.6186	0.0000	0.0000

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8144.7793	6942.6591	310.5736	-1202.1202	7004.7838
312.0806	84.2090	64.6006	680285.8938	-9.0529
-9.0788				
[23960]ENERGY: 16480000	3417.3339	5520.9063	5670.8274	
337.1460	-14299.0613	-1793.9225	0.0000	0.0000
8089.3380	6942.5678	308.4595	-1146.7702	7004.4306
312.0980	-29.5001	-17.1320	680285.8938	-11.3828
-11.3681				
[24010]ENERGY: 16490000	3353.3795	5526.0044	5693.3226	
338.4989	-14324.5837	-1775.5996	0.0000	0.0000
8131.3277	6942.3497	310.0606	-1188.9780	7004.7246
312.1347	42.1490	28.4389	680285.8938	-10.7051
-10.7143				
[24049]ENERGY: 16500000	3408.6479	5428.2081	5718.0196	
353.7742	-14263.2778	-1844.3478	0.0000	0.0000
8141.5871	6942.6113	310.4518	-1198.9758	7003.8456
312.2339	-6.8341	-22.1450	680285.8938	-6.3654
-6.3693				
[24099]ENERGY: 16510000	3295.7060	5477.0123	5638.7853	
333.0726	-14294.8124	-1772.1691	0.0000	0.0000
8258.0939	6935.6886	314.8944	-1322.4053	7002.3976
312.4249	-36.9152	-81.0904	680285.8938	-5.4252
-5.4301				
[24135]ENERGY: 16520000	3361.7141	5498.2688	5687.5988	
332.3169	-14337.5508	-1783.6445	0.0000	0.0000
8178.9808	6937.6840	311.8777	-1241.2968	7004.1830
312.3899	-6.1115	-67.8577	680285.8938	-5.1560
-5.1446				
[24185]ENERGY: 16530000	3344.9710	5534.3404	5612.1358	
350.3114	-14393.7199	-1778.3309	0.0000	0.0000
8263.9152	6933.6231	315.1164	-1330.2922	7003.0150
312.3170	-53.7139	-54.4499	680285.8938	-4.9431
-4.9428				
[24221]ENERGY: 16540000	3290.2422	5492.9169	5705.3616	
341.3869	-14259.1171	-1833.7747	0.0000	0.0000
8203.8838	6940.8996	312.8273	-1262.9842	7003.9030
312.2545	-34.3677	-83.6205	680285.8938	-7.1147
-7.1114				
[24271]ENERGY: 16550000	3287.5635	5593.7198	5668.9423	
327.9792	-14410.9458	-1831.5747	0.0000	0.0000
8297.3852	6933.0695	316.3927	-1364.3158	7003.9443
312.2415	16.3369	-60.0077	680285.8938	-8.0099
-8.0274				
[24307]ENERGY: 16560000	3288.9887	5427.3762	5662.8692	
354.1331	-14301.7780	-1775.1549	0.0000	0.0000
8280.2513	6936.6858	315.7393	-1343.5655	7004.6923
312.2865	73.9173	-1.6921	680285.8938	-7.2077
-7.2051				
[24357]ENERGY: 16570000	3343.0395	5425.1182	5618.0163	
325.9965	-14303.2386	-1684.2023	0.0000	0.0000
8217.9955	6942.7251	313.3654	-1275.2704	7004.7083
312.3509	153.8813	40.7340	680285.8938	-5.4308
-5.4107				
[24393]ENERGY: 16580000	3289.5479	5416.0364	5655.7625	

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355.4477	-14265.9961	-1774.4750	0.0000	0.0000
8262.9853	6939.3088	315.0810	-1323.6765	7005.9485
312.2380	68.9262	17.1962	680285.8938	-9.9244
-9.9450				
[24443]ENERGY: 16590000	3367.3390	5453.6757	5668.9029	
337.4416	-14298.4913	-1749.2506	0.0000	0.0000
8159.8137	6939.4309	311.1469	-1220.3828	7004.2595
312.2514	-14.4338	-46.8310	680285.8938	-10.0630
-10.0573				
[24482]ENERGY: 16600000	3351.2954	5537.2480	5656.0696	
329.2135	-14393.9640	-1763.7976	0.0000	0.0000
8221.0140	6937.0789	313.4805	-1283.9351	7005.4778
312.3276	-48.3448	-42.0844	680285.8938	-10.9248
-10.9216				
[24532]ENERGY: 16610000	3330.4822	5524.6261	5670.4360	
375.8251	-14363.9830	-1751.9370	0.0000	0.0000
8157.3293	6942.7786	311.0521	-1214.5507	7005.8897
312.4175	156.5346	116.7938	680285.8938	-12.3537
-12.3517				
[24568]ENERGY: 16620000	3334.8944	5452.3366	5663.2952	
319.5583	-14282.0238	-1726.0220	0.0000	0.0000
8177.6431	6939.6818	311.8267	-1237.9613	7006.5026
312.2917	-9.4338	-10.7181	680285.8938	-9.3484
-9.3432				
[24618]ENERGY: 16630000	3347.9745	5535.4615	5651.0715	
349.8590	-14306.7296	-1862.8335	0.0000	0.0000
8227.3841	6942.1876	313.7234	-1285.1965	7006.3599
312.2868	-2.3562	25.4473	680285.8938	-6.6506
-6.6770				
[24654]ENERGY: 16640000	3375.5947	5542.9951	5670.3515	
342.3700	-14436.4565	-1816.8016	0.0000	0.0000
8262.9655	6941.0187	315.0802	-1321.9468	7007.0517
312.4182	23.4497	34.8435	680285.8938	-12.0445
-12.0140				
[24704]ENERGY: 16650000	3293.3052	5508.5807	5672.3446	
346.1545	-14295.8836	-1785.7649	0.0000	0.0000
8205.7977	6944.5341	312.9003	-1261.2636	7009.7894
312.2934	-30.8645	-33.1342	680285.8938	-14.2667
-14.2775				
[24740]ENERGY: 16660000	3414.2319	5552.0341	5665.2303	
331.8134	-14418.8636	-1728.5577	0.0000	0.0000
8130.3975	6946.2859	310.0252	-1184.1116	7009.8033
312.2800	-73.2102	-118.2213	680285.8938	-5.8345
-5.8296				
[24790]ENERGY: 16670000	3347.7050	5453.5603	5672.4672	
364.7421	-14320.8841	-1873.7967	0.0000	0.0000
8299.7646	6943.5583	316.4834	-1356.2063	7009.9752
312.1374	-16.8135	-28.9314	680285.8938	-7.9962
-7.9951				
[24826]ENERGY: 16680000	3392.0985	5483.2754	5644.4211	
339.4148	-14380.0160	-1741.6355	0.0000	0.0000
8206.3341	6943.8924	312.9208	-1262.4417	7009.3884
312.4123	6.4988	-34.1828	680285.8938	-6.0688
-6.0616				

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[24876]ENERGY: 16690000	3292.8504	5511.4064	5657.6388	
362.3785	-14310.9604	-1840.0970	0.0000	0.0000
8267.3216	6940.5383	315.2463	-1326.7833	7010.6100
312.2762	60.0079	-37.0622	680285.8938	-8.8805
-8.8970				
[24915]ENERGY: 16700000	3408.0426	5412.0515	5657.2300	
337.2521	-14322.3283	-1785.5931	0.0000	0.0000
8233.9235	6940.5783	313.9728	-1293.3453	7009.8248
312.2291	86.8973	91.1623	680285.8938	-12.5834
-12.5858				
[24965]ENERGY: 16710000	3402.8607	5499.1999	5661.5955	
326.5880	-14304.3384	-1804.0507	0.0000	0.0000
8163.5447	6945.3996	311.2891	-1218.1451	7009.1917
312.1579	-53.4688	1.8594	680285.8938	-7.4787
-7.4750				
[25001]ENERGY: 16720000	3439.4767	5465.7694	5697.3130	
315.8417	-14390.5873	-1788.3460	0.0000	0.0000
8203.0450	6942.5125	312.7953	-1260.5325	7009.2000
312.3145	-101.4224	-161.5988	680285.8938	-9.4201
-9.4255				
[25051]ENERGY: 16730000	3334.1809	5468.3655	5625.5221	
338.3609	-14259.4932	-1801.1160	0.0000	0.0000
8234.1453	6939.9655	313.9812	-1294.1797	7009.7496
312.4251	-115.5673	-126.1898	680285.8938	-11.5415
-11.5487				
[25087]ENERGY: 16740000	3372.9803	5504.6044	5678.6038	
366.1360	-14337.9397	-1771.7077	0.0000	0.0000
8132.1547	6944.8317	310.0922	-1187.3229	7011.1053
312.2895	141.1280	56.6962	680285.8938	-8.3839
-8.3672				
[25137]ENERGY: 16750000	3401.7513	5450.2116	5661.0821	
346.5861	-14353.9303	-1780.9424	0.0000	0.0000
8225.0554	6949.8137	313.6346	-1275.2417	7012.0414
312.2886	-54.9283	-40.8870	680285.8938	-12.5083
-12.5151				
[25173]ENERGY: 16760000	3347.4040	5632.5033	5698.7118	
328.3394	-14368.3147	-1794.1691	0.0000	0.0000
8099.5024	6943.9772	308.8471	-1155.5252	7011.4090
312.4195	-95.1731	-57.4218	680285.8938	-7.6058
-7.5873				
[25223]ENERGY: 16770000	3437.2085	5530.7958	5644.2409	
349.7293	-14428.0457	-1772.8573	0.0000	0.0000
8186.0270	6947.0987	312.1464	-1238.9284	7013.7293
312.5266	-92.3545	-57.9335	680285.8938	-6.7357
-6.7474				
[25259]ENERGY: 16780000	3310.5648	5511.4231	5623.4150	
335.9878	-14331.6430	-1725.5113	0.0000	0.0000
8223.8618	6948.0983	313.5891	-1275.7635	7014.7417
312.4933	4.1427	65.4715	680285.8938	-5.3711
-5.3635				
[25309]ENERGY: 16790000	3377.5173	5558.1037	5670.0351	
333.2209	-14294.6589	-1834.8787	0.0000	0.0000
8143.3761	6952.7155	310.5201	-1190.6607	7016.5986
312.4522	-121.8710	-134.3218	680285.8938	-6.7222

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-6.7348
 [25348]ENERGY: 16800000 3368.3414 5510.8165 5692.6029
 368.0549 -14340.6370 -1833.6342 0.0000 0.0000
 8179.8942 6945.4388 311.9126 -1234.4554 7015.0794
 312.2722 -218.9205 -139.7488 680285.8938 -9.3322
 -9.3247
 [25398]ENERGY: 16810000 3321.5179 5498.5450 5653.7877
 338.1832 -14236.1260 -1850.1786 0.0000 0.0000
 8223.1585 6948.8877 313.5623 -1274.2708 7015.3826
 312.5441 -34.3782 -76.6081 680285.8938 -8.2787
 -8.2876
 [25434]ENERGY: 16820000 3309.7991 5498.6499 5677.0560
 315.0381 -14395.2074 -1676.1924 0.0000 0.0000
 8220.5055 6949.6488 313.4611 -1270.8567 7014.8888
 312.2535 71.3025 42.2328 680285.8938 -7.7043
 -7.7053
 [25484]ENERGY: 16830000 3350.1966 5549.4294 5699.5827
 332.1413 -14381.4184 -1783.8080 0.0000 0.0000
 8185.5495 6951.6730 312.1282 -1233.8764 7015.7609
 312.4408 66.8195 -100.9064 680285.8938 -7.3568
 -7.3387
 [25520]ENERGY: 16840000 3292.5654 5556.3835 5674.0541
 370.1906 -14377.2259 -1800.6719 0.0000 0.0000
 8232.5762 6947.8720 313.9214 -1284.7043 7016.5889
 312.4876 -97.9912 -111.3748 680285.8938 -9.4212
 -9.4271
 [25570]ENERGY: 16850000 3387.3839 5574.4960 5638.5426
 354.6282 -14421.6522 -1759.8280 0.0000 0.0000
 8179.9254 6953.4959 311.9137 -1226.4295 7016.2225
 312.4770 -38.1560 -26.1700 680285.8938 -8.1170
 -8.1216
 [25606]ENERGY: 16860000 3387.7155 5455.0955 5685.2821
 346.6617 -14274.1523 -1837.1019 0.0000 0.0000
 8188.0982 6951.5987 312.2254 -1236.4995 7016.7081
 312.3814 -80.9617 -118.6686 680285.8938 -5.4097
 -5.4090
 [25656]ENERGY: 16870000 3378.0794 5500.6007 5641.4717
 325.2318 -14367.1639 -1767.0364 0.0000 0.0000
 8235.7208 6946.9039 314.0413 -1288.8169 7016.2829
 312.4452 -183.8789 -176.1389 680285.8938 -5.5440
 -5.5434
 [25692]ENERGY: 16880000 3352.6306 5476.6466 5645.8364
 339.1235 -14315.1660 -1813.3151 0.0000 0.0000
 8265.9746 6951.7305 315.1949 -1314.2440 7017.3334
 312.2966 84.2243 -6.1868 680285.8938 -7.0215
 -7.0327
 [25742]ENERGY: 16890000 3407.4464 5577.6294 5692.8028
 324.2102 -14429.0049 -1767.3388 0.0000 0.0000
 8144.4759 6950.2209 310.5620 -1194.2549 7017.2847
 312.3662 39.8819 23.3172 680285.8938 -9.3569
 -9.3399
 [25781]ENERGY: 16900000 3400.0886 5462.7056 5707.1759
 366.4354 -14396.3707 -1735.5046 0.0000 0.0000
 8149.3584 6953.8885 310.7482 -1195.4699 7018.2999

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312.3753	55.5450	26.0756	680285.8938	-15.3079
-15.3171				
[25831]ENERGY: 16910000	3416.1314	5490.9339	5670.0211	
335.9702	-14282.2301	-1832.5930	0.0000	0.0000
8153.9495	6952.1830	310.9232	-1201.7665	7017.5173
312.7235	-105.9812	-28.1539	680285.8938	-8.4692
-8.4757				
[25867]ENERGY: 16920000	3403.8094	5517.9642	5672.9375	
347.2678	-14400.1099	-1775.7240	0.0000	0.0000
8189.1825	6955.3274	312.2667	-1233.8551	7017.5621
312.6874	16.3501	21.4976	680285.8938	-4.9743
-4.9538				
[25917]ENERGY: 16930000	3333.1536	5426.3913	5635.5172	
354.1217	-14330.8114	-1746.7295	0.0000	0.0000
8276.5122	6948.1550	315.5968	-1328.3572	7017.7136
312.3150	37.7349	41.8814	680285.8938	-12.3161
-12.3205				
[25953]ENERGY: 16940000	3352.6988	5537.4506	5698.9784	
318.8099	-14387.5791	-1782.3781	0.0000	0.0000
8214.2961	6952.2765	313.2244	-1262.0196	7018.7663
312.2796	-25.2697	-70.8524	680285.8938	-10.7715
-10.7844				
[26003]ENERGY: 16950000	3394.8017	5551.9986	5642.0371	
344.5001	-14363.0309	-1814.7171	0.0000	0.0000
8198.7076	6954.2971	312.6299	-1244.4105	7018.2601
312.3668	-275.4549	-164.2505	680285.8938	-14.5325
-14.5324				
[26039]ENERGY: 16960000	3338.8110	5481.3644	5678.2879	
371.5520	-14276.3186	-1802.2211	0.0000	0.0000
8159.6012	6951.0768	311.1388	-1208.5244	7017.1120
312.3492	123.6005	63.5016	680285.8938	-6.7362
-6.7278				
[26089]ENERGY: 16970000	3370.3974	5437.8353	5697.8312	
355.6977	-14330.7230	-1786.9870	0.0000	0.0000
8206.5111	6950.5627	312.9275	-1255.9484	7016.4293
312.3347	-71.6482	-99.8153	680285.8938	-9.3265
-9.3320				
[26125]ENERGY: 16980000	3324.6998	5502.7471	5698.6704	
314.5826	-14319.0609	-1840.9780	0.0000	0.0000
8268.3386	6948.9998	315.2851	-1319.3388	7016.7111
312.3571	-124.6408	-73.7771	680285.8938	-6.1389
-6.1304				
[26175]ENERGY: 16990000	3352.3382	5447.7328	5700.0613	
340.0853	-14302.3326	-1769.4621	0.0000	0.0000
8182.0460	6950.4688	311.9946	-1231.5771	7016.7199
312.4840	67.9020	-26.8014	680285.8938	-10.1556
-10.1787				
[26214]ENERGY: 17000000	3406.1237	5431.9606	5739.5197	
342.5558	-14331.2160	-1830.0153	0.0000	0.0000
8196.5398	6955.4683	312.5473	-1241.0715	7017.8471
312.6926	-101.6091	-107.4267	680285.8938	-6.6173
-6.5826				
[26264]ENERGY: 17010000	3392.6639	5592.0215	5651.8115	
330.6426	-14377.9067	-1778.5657	0.0000	0.0000

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8139.8285	6950.4954	310.3848	-1189.3331	7018.0282
312.7373	86.0068	-39.7496	680285.8938	-5.6266
-5.6570				
[26300]ENERGY: 17020000	3330.4131	5399.2061	5671.3144	
345.3979	-14260.4867	-1800.1286	0.0000	0.0000
8268.2123	6953.9285	315.2803	-1314.2839	7017.5066
312.6034	34.3385	-28.2382	680285.8938	-5.5223
-5.5229				
[26350]ENERGY: 17030000	3387.2958	5530.2329	5618.6742	
334.2037	-14245.0899	-1799.9621	0.0000	0.0000
8131.1640	6956.5185	310.0544	-1174.6455	7017.7888
312.5632	-232.6638	-205.2246	680285.8938	-2.3758
-2.3663				
[26386]ENERGY: 17040000	3342.6399	5423.3177	5704.0293	
346.5971	-14244.6254	-1790.0616	0.0000	0.0000
8172.0144	6953.9114	311.6121	-1218.1030	7017.5606
312.3985	-124.6244	-49.5216	680285.8938	-10.8046
-10.7940				
[26436]ENERGY: 17050000	3326.0557	5465.3015	5704.0208	
341.1144	-14333.7195	-1729.2829	0.0000	0.0000
8180.3105	6953.8006	311.9284	-1226.5099	7018.6566
312.2710	68.1825	57.2758	680285.8938	-8.6504
-8.6703				
[26472]ENERGY: 17060000	3368.8060	5577.4547	5633.8699	
324.8392	-14225.4842	-1894.8599	0.0000	0.0000
8165.3877	6950.0133	311.3594	-1215.3743	7017.4301
312.3942	-226.0240	-145.9153	680285.8938	-17.9942
-17.9789				
[26522]ENERGY: 17070000	3351.5283	5452.0101	5677.0983	
340.1631	-14306.3379	-1806.8418	0.0000	0.0000
8243.8521	6951.4723	314.3514	-1292.3798	7018.8335
312.3809	84.6820	-13.7453	680285.8938	-8.4305
-8.4289				
[26558]ENERGY: 17080000	3313.1797	5496.0180	5688.5524	
339.7092	-14398.2389	-1719.1971	0.0000	0.0000
8232.0298	6952.0532	313.9006	-1279.9766	7017.2098
312.4071	83.7825	27.0859	680285.8938	-14.7228
-14.7220				
[26608]ENERGY: 17090000	3345.2541	5580.0165	5661.0923	
343.7247	-14391.9559	-1811.7556	0.0000	0.0000
8221.6621	6948.0381	313.5052	-1273.6240	7016.5489
312.4203	-91.8685	-94.1168	680285.8938	-5.0778
-5.0785				
[26647]ENERGY: 17100000	3418.5068	5410.2464	5689.8190	
331.7945	-14369.8676	-1766.2487	0.0000	0.0000
8235.8083	6950.0586	314.0446	-1285.7496	7018.0130
312.3211	169.0796	68.6673	680285.8938	-7.3985
-7.4015				
[26697]ENERGY: 17110000	3322.6101	5505.3732	5693.4438	
329.9131	-14358.8572	-1741.3719	0.0000	0.0000
8196.7675	6947.8787	312.5560	-1248.8887	7017.8255
312.2904	128.4257	145.5607	680285.8938	-6.3349
-6.3330				
[26733]ENERGY: 17120000	3326.2705	5542.3734	5676.8119	

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326.2984	-14372.5631	-1699.7811	0.0000	0.0000
8154.7058	6954.1158	310.9521	-1200.5899	7018.9757
312.3136	83.9461	-2.4986	680285.8938	-11.3628
-11.3842				
[26783]ENERGY: 17130000	3330.6020	5434.8329	5664.3642	
341.8717	-14313.0329	-1745.2037	0.0000	0.0000
8239.3155	6952.7496	314.1784	-1286.5659	7018.0253
312.1359	233.2850	183.0083	680285.8938	-6.8487
-6.8337				
[26819]ENERGY: 17140000	3365.3191	5505.0312	5734.4296	
366.0007	-14379.0411	-1877.8477	0.0000	0.0000
8238.2795	6952.1712	314.1389	-1286.1083	7019.0559
312.3057	-57.0843	-123.9842	680285.8938	-9.5494
-9.5469				
[26869]ENERGY: 17150000	3393.3217	5408.3434	5677.1655	
345.2855	-14303.4474	-1794.2113	0.0000	0.0000
8225.6428	6952.1003	313.6570	-1273.5426	7016.5334
312.2990	79.8122	-18.5319	680285.8938	-13.3116
-13.3262				
[26905]ENERGY: 17160000	3376.6024	5467.5351	5688.1390	
325.3920	-14382.7313	-1689.8245	0.0000	0.0000
8170.9596	6956.0723	311.5719	-1214.8873	7017.5299
312.2681	140.0219	99.0871	680285.8938	-10.3446
-10.3412				
[26955]ENERGY: 17170000	3279.6168	5483.5672	5718.0106	
340.7616	-14232.7600	-1841.5592	0.0000	0.0000
8204.5241	6952.1612	312.8517	-1252.3629	7018.5015
312.3734	34.9803	25.9902	680285.8938	-15.4915
-15.4788				
[26991]ENERGY: 17180000	3261.2465	5545.7662	5747.4313	
332.9303	-14317.5827	-1806.4028	0.0000	0.0000
8188.4196	6951.8084	312.2376	-1236.6112	7019.0589
312.4111	127.8021	74.7734	680285.8938	-10.1328
-10.1440				
[27041]ENERGY: 17190000	3370.5185	5511.7332	5726.0256	
329.6917	-14477.9499	-1741.2709	0.0000	0.0000
8234.5520	6953.3003	313.9967	-1281.2517	7018.5214
312.2571	80.2519	71.8140	680285.8938	-10.6770
-10.6625				
[27080]ENERGY: 17200000	3342.2313	5533.9722	5651.9430	
316.6421	-14335.5294	-1781.5433	0.0000	0.0000
8221.3577	6949.0734	313.4936	-1272.2843	7018.1857
312.3561	-70.1049	-104.7169	680285.8938	-10.2004
-10.2100				
[27130]ENERGY: 17210000	3396.5780	5462.2211	5667.3340	
354.4782	-14334.4954	-1770.0138	0.0000	0.0000
8173.7852	6949.8873	311.6796	-1223.8979	7017.9345
312.4528	-88.9543	-26.9888	680285.8938	-10.2538
-10.2518				
[27166]ENERGY: 17220000	3361.8505	5470.2055	5749.4524	
334.9956	-14377.8901	-1772.9941	0.0000	0.0000
8188.2610	6953.8808	312.2316	-1234.3802	7017.8188
312.4825	129.1795	114.7239	680285.8938	-9.4528
-9.4405				

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[27216]ENERGY: 17230000	3382.2590	5545.0360	5674.4721
332.0091	-14278.8700	-1827.7196	0.0000
8126.1183	6953.3049	309.8620	-1172.8134
312.4310	-41.6023	-52.2449	680285.8938
-10.2786			-10.2553
[27252]ENERGY: 17240000	3390.3467	5460.4458	5700.7155
336.8129	-14341.0803	-1746.1175	0.0000
8153.2724	6954.3955	310.8974	-1198.8769
312.4434	-1.6301	25.3266	680285.8938
-8.4512			-8.4653
[27302]ENERGY: 17250000	3339.6169	5444.3395	5731.7094
352.4625	-14358.9890	-1731.4648	0.0000
8176.2325	6953.9070	311.7729	-1222.3255
312.2773	-36.9656	0.4234	680285.8938
-10.9185			-10.9085
[27338]ENERGY: 17260000	3286.1619	5509.4271	5671.1630
337.2336	-14276.8925	-1762.8096	0.0000
8192.6499	6956.9334	312.3990	-1235.7165
312.2374	51.4681	91.1084	680285.8938
-9.4817			-9.5028
[27388]ENERGY: 17270000	3412.3437	5437.7026	5706.0285
333.6637	-14273.6832	-1843.6568	0.0000
8182.9913	6955.3897	312.0307	-1227.6016
312.3857	-70.9876	-113.4254	680285.8938
-7.3736			-7.3442
[27424]ENERGY: 17280000	3415.6889	5539.5702	5708.9328
325.8069	-14334.0720	-1824.5050	0.0000
8122.2380	6953.6598	309.7140	-1168.5782
312.4292	-94.1375	-153.8705	680285.8938
-12.2273			-12.2338
[27474]ENERGY: 17290000	3472.0760	5565.1988	5609.9341
353.1383	-14353.1859	-1842.0245	0.0000
8154.5849	6959.7217	310.9475	-1194.8632
312.4135	-117.5354	-110.8863	680285.8938
-7.7431			-7.7438
[27513]ENERGY: 17300000	3334.1882	5624.7624	5673.3635
330.1610	-14301.4686	-1778.7989	0.0000
8079.7202	6961.9277	308.0928	-1117.7925
312.4670	46.5753	6.4918	680285.8938
-9.8241			-9.8546
[27563]ENERGY: 17310000	3357.0253	5522.7478	5685.0666
354.1694	-14406.6131	-1740.4160	0.0000
8185.7952	6957.7753	312.1376	-1228.0200
312.5601	121.9006	52.5330	680285.8938
-11.7581			-11.7208
[27599]ENERGY: 17320000	3354.5453	5497.9092	5684.0123
346.2852	-14346.2407	-1765.2032	0.0000
8184.8590	6956.1671	312.1019	-1228.6919
312.5202	24.2677	27.2377	680285.8938
-12.4423			-12.4513
[27649]ENERGY: 17330000	3343.0470	5446.0564	5647.5033
332.1540	-14288.4297	-1697.4795	0.0000
8175.2011	6958.0527	311.7336	-1217.1484
312.5027	122.4760	51.1058	680285.8938
			-10.5353

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-10.5302
 [27685]ENERGY: 17340000 3324.9021 5632.0736 5703.1224
 336.7755 -14381.6451 -1831.5348 0.0000 0.0000
 8171.2039 6954.8974 311.5812 -1216.3064 7022.9003
 312.4532 -91.3563 -111.9309 680285.8938 -8.8991
 -8.9157
 [27735]ENERGY: 17350000 3410.1372 5440.8488 5658.1226
 327.0895 -14281.9621 -1794.6472 0.0000 0.0000
 8197.2408 6956.8296 312.5740 -1240.4111 7021.5687
 312.5691 -52.2441 2.7446 680285.8938 -10.6169
 -10.5799
 [27771]ENERGY: 17360000 3407.4511 5461.9342 5682.8514
 349.6029 -14408.9952 -1784.2822 0.0000 0.0000
 8248.3210 6956.8831 314.5218 -1291.4378 7022.3056
 312.6093 -65.1854 -65.2962 680285.8938 -10.1397
 -10.1650
 [27821]ENERGY: 17370000 3228.8339 5592.5503 5684.1934
 341.9543 -14329.4022 -1766.2099 0.0000 0.0000
 8205.2134 6957.1332 312.8780 -1248.0802 7023.1312
 312.5385 201.4204 70.9288 680285.8938 -16.8522
 -16.8454
 [27857]ENERGY: 17380000 3300.6962 5566.8731 5713.5702
 316.9928 -14367.1688 -1757.0682 0.0000 0.0000
 8187.2639 6961.1593 312.1936 -1226.1047 7022.4752
 312.4444 273.1275 221.1023 680285.8938 -10.1537
 -10.1600
 [27907]ENERGY: 17390000 3350.5886 5492.4834 5671.9547
 331.6603 -14397.9507 -1656.7489 0.0000 0.0000
 8163.6122 6955.5996 311.2917 -1208.0126 7022.1162
 312.3916 36.2427 106.4968 680285.8938 -10.2696
 -10.2627
 [27946]ENERGY: 17400000 3338.8067 5570.4420 5650.8290
 357.4241 -14287.0161 -1835.9666 0.0000 0.0000
 8162.7012 6957.2203 311.2570 -1205.4809 7023.3833
 312.3359 94.1614 61.3874 680285.8938 -8.9690
 -8.9715
 [27996]ENERGY: 17410000 3361.0543 5486.6510 5631.4286
 367.0751 -14336.5680 -1773.6255 0.0000 0.0000
 8220.0254 6956.0407 313.4428 -1263.9846 7023.2751
 312.4965 -84.5689 -80.6552 680285.8938 -11.6604
 -11.6680
 [28032]ENERGY: 17420000 3375.7672 5589.9430 5676.8074
 337.8740 -14327.7450 -1822.2632 0.0000 0.0000
 8127.9725 6958.3559 309.9327 -1169.6166 7023.8944
 312.7703 -52.4687 3.0055 680285.8938 -14.3003
 -14.2829
 [28082]ENERGY: 17430000 3333.4089 5459.9378 5679.9207
 330.5402 -14283.1680 -1732.7320 0.0000 0.0000
 8174.1559 6962.0635 311.6937 -1212.0924 7025.4813
 312.8967 -1.2004 -8.9951 680285.8938 -8.1642
 -8.1759
 [28118]ENERGY: 17440000 3358.7664 5431.6444 5743.2062
 349.3381 -14336.0340 -1716.7598 0.0000 0.0000
 8128.6072 6958.7685 309.9569 -1169.8387 7024.5402

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312.6341	22.3798	23.5474	680285.8938	-9.8779
-9.8968				
[28168]ENERGY: 17450000	3411.9085	5453.2060	5640.4272	
343.9618	-14393.4743	-1764.3103	0.0000	0.0000
8263.0975	6954.8165	315.0852	-1308.2810	7023.1522
312.6864	-108.5331	-85.9157	680285.8938	-12.7205
-12.7081				
[28204]ENERGY: 17460000	3443.4274	5424.6731	5708.4256	
350.7230	-14369.1341	-1722.7973	0.0000	0.0000
8123.6167	6958.9343	309.7666	-1164.6824	7022.2523
312.6824	-58.7295	-46.0576	680285.8938	-9.7822
-9.7829				
[28254]ENERGY: 17470000	3400.9855	5476.4466	5652.1940	
360.3409	-14325.2934	-1806.2740	0.0000	0.0000
8200.3609	6958.7606	312.6930	-1241.6003	7024.2570
312.7585	-97.8526	-181.7233	680285.8938	-10.1613
-10.1610				
[28290]ENERGY: 17480000	3374.6408	5509.6797	5658.5058	
329.2108	-14258.8480	-1851.5795	0.0000	0.0000
8196.5273	6958.1368	312.5468	-1238.3904	7023.4614
312.6501	-40.4637	-114.7787	680285.8938	-9.1167
-9.0956				
[28340]ENERGY: 17490000	3361.9007	5525.7131	5648.4197	
324.6808	-14337.4962	-1733.5111	0.0000	0.0000
8164.7645	6954.4716	311.3356	-1210.2929	7022.9946
312.4231	-66.8502	-31.1554	680285.8938	-13.8515
-13.8644				
[28379]ENERGY: 17500000	3422.5993	5446.5994	5656.7648	
332.0466	-14359.9213	-1760.7198	0.0000	0.0000
8220.5402	6957.9092	313.4625	-1262.6310	7022.6181
312.4257	-26.6139	-32.4156	680285.8938	-8.7827
-8.7907				
[28429]ENERGY: 17510000	3379.8991	5492.9974	5698.8058	
345.9753	-14289.8336	-1759.6524	0.0000	0.0000
8090.1670	6958.3587	308.4911	-1131.8083	7021.5040
312.4653	-84.7252	-65.1570	680285.8938	-16.6822
-16.6723				
[28465]ENERGY: 17520000	3375.3606	5511.5832	5641.5374	
358.5986	-14286.2774	-1756.0524	0.0000	0.0000
8114.0056	6958.7556	309.4001	-1155.2499	7022.3795
312.3876	-30.0777	2.2965	680285.8938	-15.0560
-15.0428				
[28515]ENERGY: 17530000	3325.8903	5543.6799	5685.2309	
337.8817	-14289.8059	-1767.2594	0.0000	0.0000
8124.3492	6959.9668	309.7945	-1164.3824	7023.5143
312.5277	203.7764	170.2652	680285.8938	-12.8190
-12.8399				
[28551]ENERGY: 17540000	3384.0187	5568.5895	5707.2148	
335.1701	-14391.3314	-1766.7432	0.0000	0.0000
8117.0869	6954.0054	309.5176	-1163.0816	7024.3921
312.5144	-20.1445	-22.4389	680285.8938	-16.3664
-16.3578				
[28601]ENERGY: 17550000	3289.9636	5514.7025	5686.0986	
325.3878	-14275.2914	-1762.5921	0.0000	0.0000

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8177.4311	6955.7001	311.8186	-1221.7309	7023.6127
312.4884	33.4393	101.9611	680285.8938	-11.6919
-11.6949				
[28637]ENERGY: 17560000	3327.9189	5437.3276	5687.2905	
344.0868	-14301.3612	-1740.7982	0.0000	0.0000
8203.0655	6957.5298	312.7961	-1245.5357	7026.0060
312.4889	-7.9681	-19.0705	680285.8938	-11.4587
-11.4536				
[28687]ENERGY: 17570000	3379.3912	5544.0837	5727.5854	
331.8041	-14415.5164	-1802.3254	0.0000	0.0000
8193.3369	6958.3594	312.4251	-1234.9774	7024.1247
312.7160	-58.5721	-83.0742	680285.8938	-13.5340
-13.5567				
[28723]ENERGY: 17580000	3400.7954	5468.4598	5676.8527	
343.1121	-14296.3631	-1840.3816	0.0000	0.0000
8205.0902	6957.5654	312.8733	-1247.5248	7024.6719
312.4617	-201.7043	-178.1318	680285.8938	-12.9300
-12.9039				
[28773]ENERGY: 17590000	3395.4164	5518.5019	5739.5223	
353.4821	-14375.0067	-1771.3514	0.0000	0.0000
8101.2795	6961.8442	308.9149	-1139.4354	7025.5034
312.4408	-33.8467	-29.6290	680285.8938	-15.9813
-15.9878				
[28812]ENERGY: 17600000	3379.2566	5501.8858	5702.1704	
367.4375	-14338.1987	-1804.9125	0.0000	0.0000
8155.4298	6963.0689	310.9797	-1192.3609	7026.9255
312.6979	25.4704	3.1830	680285.8938	-14.0896
-14.0810				
[28862]ENERGY: 17610000	3365.9024	5484.6399	5700.0883	
331.7607	-14318.0500	-1794.2294	0.0000	0.0000
8187.0840	6957.1961	312.1867	-1229.8880	7025.7472
312.5060	-182.0122	-124.1604	680285.8938	-8.9720
-8.9787				
[28898]ENERGY: 17620000	3374.3526	5488.8812	5696.6869	
342.2460	-14319.9822	-1841.8738	0.0000	0.0000
8221.4103	6961.7211	313.4956	-1259.6892	7028.2074
312.7165	15.0781	-65.6804	680285.8938	-15.8397
-15.8346				
[28948]ENERGY: 17630000	3343.0792	5516.6543	5711.2282	
339.8495	-14383.2534	-1759.9311	0.0000	0.0000
8194.6154	6962.2420	312.4739	-1232.3734	7027.6901
312.7114	-67.4250	-97.1439	680285.8938	-14.7522
-14.7627				
[28984]ENERGY: 17640000	3357.5184	5469.8034	5672.3597	
332.0145	-14306.3748	-1795.3243	0.0000	0.0000
8229.3091	6959.3059	313.7968	-1270.0032	7027.5532
312.9167	45.5332	37.2332	680285.8938	-9.4459
-9.4487				
[29034]ENERGY: 17650000	3320.2331	5564.1428	5645.5301	
345.3225	-14351.1116	-1843.4017	0.0000	0.0000
8278.0378	6958.7530	315.6549	-1319.2848	7027.2611
312.9820	0.5450	30.6107	680285.8938	-10.9061
-10.8958				
[29070]ENERGY: 17660000	3325.4392	5536.1974	5685.1686	

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336.7346	-14363.3683	-1796.2673	0.0000	0.0000
8236.8790	6960.7832	314.0855	-1276.0957	7027.7272
312.9433	-125.2628	-103.3101	680285.8938	-12.5555
-12.5550				
[29120]ENERGY: 17670000	3334.4009	5546.0683	5663.1378	
323.7771	-14376.4416	-1812.1430	0.0000	0.0000
8279.4071	6958.2065	315.7071	-1321.2005	7026.5158
312.7204	-45.5177	18.9805	680285.8938	-11.5963
-11.5915				
[29156]ENERGY: 17680000	3363.8828	5455.3714	5647.5894	
330.7982	-14297.0910	-1796.1229	0.0000	0.0000
8256.3746	6960.8024	314.8289	-1295.5722	7027.4204
312.7149	-19.9897	9.6707	680285.8938	-12.4061
-12.4028				
[29206]ENERGY: 17690000	3354.5485	5502.1444	5668.9922	
357.5258	-14351.4164	-1769.7738	0.0000	0.0000
8197.6420	6959.6628	312.5893	-1237.9792	7027.5081
312.4346	-87.9761	-73.7179	680285.8938	-14.1917
-14.2075				
[29245]ENERGY: 17700000	3362.0817	5537.7960	5648.7646	
334.7243	-14369.2694	-1739.6556	0.0000	0.0000
8187.3925	6961.8342	312.1985	-1225.5583	7026.0760
312.5690	-65.1931	-76.0969	680285.8938	-14.2258
-14.2177				
[29295]ENERGY: 17710000	3336.2250	5478.6624	5700.1539	
338.9818	-14385.0559	-1798.3626	0.0000	0.0000
8290.6781	6961.2828	316.1369	-1329.3953	7027.1320
312.5469	-42.6604	-20.9373	680285.8938	-13.3244
-13.3356				
[29331]ENERGY: 17720000	3377.8646	5454.1288	5712.8355	
316.7839	-14269.4948	-1816.3405	0.0000	0.0000
8181.9642	6957.7417	311.9915	-1224.2225	7026.2707
312.7245	-11.8902	70.6233	680285.8938	-10.1688
-10.1729				
[29381]ENERGY: 17730000	3337.1931	5484.0511	5650.6133	
354.7481	-14294.7334	-1747.9126	0.0000	0.0000
8180.1368	6964.0965	311.9218	-1216.0404	7026.7153
312.6873	-116.8112	-71.6000	680285.8938	-12.7790
-12.7658				
[29417]ENERGY: 17740000	3373.1934	5430.0552	5657.5519	
354.6874	-14303.7087	-1720.2450	0.0000	0.0000
8169.9486	6961.4828	311.5333	-1208.4658	7026.6838
312.7879	-71.7167	-59.6220	680285.8938	-12.3614
-12.3721				
[29467]ENERGY: 17750000	3421.9588	5499.8631	5665.3249	
333.9399	-14363.6790	-1791.8354	0.0000	0.0000
8196.3728	6961.9450	312.5409	-1234.4278	7028.2167
312.7731	52.2874	24.3202	680285.8938	-10.3334
-10.3215				
[29503]ENERGY: 17760000	3370.7982	5463.2461	5692.0733	
348.4911	-14337.9355	-1732.3545	0.0000	0.0000
8157.9240	6962.2426	311.0748	-1195.6814	7028.0105
312.8007	-75.0521	-65.4842	680285.8938	-12.8486
-12.8427				

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[29553]ENERGY: 17770000	3316.4871	5598.6197	5672.0808	
347.1143	-14443.2302	-1729.2509	0.0000	0.0000
8203.3910	6965.2118	312.8085	-1238.1792	7028.4763
312.8721	85.6823	80.9410	680285.8938	-14.2364
-14.2486				
[29589]ENERGY: 17780000	3362.0902	5466.2973	5708.0374	
339.9385	-14313.7588	-1776.9063	0.0000	0.0000
8177.0580	6962.7564	311.8044	-1214.3017	7028.3897
313.0383	17.6781	-47.4311	680285.8938	-11.2848
-11.2931				
[29639]ENERGY: 17790000	3387.4204	5522.4336	5673.5389	
346.0880	-14322.3397	-1834.2894	0.0000	0.0000
8190.6883	6963.5401	312.3242	-1227.1482	7029.3571
313.1195	-90.5202	-115.5634	680285.8938	-12.8142
-12.8030				
[29678]ENERGY: 17800000	3337.0990	5499.9196	5691.4824	
324.6972	-14337.9244	-1748.3495	0.0000	0.0000
8193.3848	6960.3091	312.4270	-1233.0757	7028.9482
313.1247	30.8078	-4.4766	680285.8938	-11.6006
-11.6248				
[29728]ENERGY: 17810000	3392.7899	5472.1048	5662.8819	
361.3869	-14381.1423	-1779.8406	0.0000	0.0000
8234.6199	6962.8006	313.9993	-1271.8193	7030.2787
313.1965	24.1700	-33.0706	680285.8938	-6.8204
-6.7954				
[29764]ENERGY: 17820000	3315.8747	5505.5149	5675.9408	
347.5576	-14418.4267	-1719.0582	0.0000	0.0000
8257.0952	6964.4982	314.8564	-1292.5970	7031.0038
313.0892	273.5173	100.2741	680285.8938	-10.0289
-10.0256				
[29814]ENERGY: 17830000	3364.0339	5412.6317	5679.7783	
325.6652	-14352.9111	-1761.7412	0.0000	0.0000
8294.7833	6962.2402	316.2935	-1332.5431	7030.7991
313.0998	50.3222	27.6872	680285.8938	-10.3636
-10.3678				
[29850]ENERGY: 17840000	3342.8707	5505.0823	5647.1720	
326.7627	-14374.6001	-1719.5156	0.0000	0.0000
8239.0110	6966.7830	314.1668	-1272.2280	7031.9627
312.9553	135.5109	23.9259	680285.8938	-12.9836
-12.9978				
[29900]ENERGY: 17850000	3402.6350	5488.0475	5690.9461	
356.1780	-14399.3745	-1782.7212	0.0000	0.0000
8215.1211	6970.8321	313.2558	-1244.2890	7031.6492
313.0417	130.0146	39.4693	680285.8938	-11.6595
-11.6464				
[29936]ENERGY: 17860000	3323.2855	5485.0441	5677.8631	
363.8373	-14326.6824	-1771.9110	0.0000	0.0000
8213.4983	6964.9349	313.1939	-1248.5634	7030.8938
313.1817	108.8319	104.4510	680285.8938	-10.6053
-10.6140				
[29986]ENERGY: 17870000	3412.1538	5519.9839	5678.9758	
337.5410	-14387.0465	-1754.5331	0.0000	0.0000
8159.7476	6966.8224	311.1443	-1192.9252	7031.5070
313.0057	56.5645	85.1057	680285.8938	-5.8493

Supplementary Text 6

-5.8256
 [30022]ENERGY: 17880000 3424.5097 5439.8043 5676.6838
 350.5812 -14315.1104 -1755.9044 0.0000 0.0000
 8145.9860 6966.5502 310.6196 -1179.4358 7030.5257
 312.9841 -21.9729 -2.6138 680285.8938 -10.0782
 -10.0920
 [30072]ENERGY: 17890000 3341.1605 5525.1608 5654.2229
 329.7551 -14338.8636 -1693.1173 0.0000 0.0000
 8152.1325 6970.4510 310.8540 -1181.6815 7031.0924
 312.9034 57.0861 11.9113 680285.8938 -7.9650
 -7.9659
 [30111]ENERGY: 17900000 3352.1935 5534.0915 5637.6740
 333.1349 -14330.7172 -1751.4902 0.0000 0.0000
 8190.8565 6965.7431 312.3306 -1225.1134 7031.0167
 312.9302 10.6404 -17.7020 680285.8938 -13.3312
 -13.3355
 [30161]ENERGY: 17910000 3470.4181 5559.7427 5700.0818
 360.0501 -14410.3853 -1767.2059 0.0000 0.0000
 8056.5992 6969.3008 307.2111 -1087.2984 7032.4722
 313.0849 35.9565 21.3588 680285.8938 -11.7788
 -11.7717
 [30197]ENERGY: 17920000 3416.0397 5454.9601 5634.0108
 316.9686 -14291.6406 -1789.0906 0.0000 0.0000
 8225.5566 6966.8046 313.6537 -1258.7520 7033.1546
 312.9684 -12.0563 -53.4054 680285.8938 -11.9518
 -11.9625
 [30247]ENERGY: 17930000 3352.5042 5453.5629 5638.0062
 358.5880 -14292.1764 -1759.4689 0.0000 0.0000
 8214.4126 6965.4287 313.2288 -1248.9839 7032.9093
 312.9870 25.1673 39.7122 680285.8938 -13.5368
 -13.5287
 [30283]ENERGY: 17940000 3336.6582 5380.3161 5701.7953
 354.1266 -14335.0687 -1766.8073 0.0000 0.0000
 8296.7120 6967.7323 316.3670 -1328.9797 7033.9948
 312.9011 159.0405 80.4038 680285.8938 -14.6371
 -14.6453
 [30333]ENERGY: 17950000 3448.2907 5548.7601 5701.3529
 358.0281 -14377.1611 -1809.3676 0.0000 0.0000
 8101.8196 6971.7226 308.9354 -1130.0970 7033.7826
 312.9904 88.8342 -10.8283 680285.8938 -10.7852
 -10.7767
 [30369]ENERGY: 17960000 3396.1414 5562.9154 5704.7134
 324.4090 -14426.2681 -1831.7287 0.0000 0.0000
 8231.3684 6961.5508 313.8754 -1269.8176 7032.8259
 313.0323 -251.5640 -184.4323 680285.8938 -13.0956
 -13.0990
 [30419]ENERGY: 17970000 3374.6011 5430.0972 5690.6094
 338.0130 -14349.7907 -1771.0381 0.0000 0.0000
 8254.7262 6967.2180 314.7660 -1287.5082 7032.2433
 313.0485 -89.5415 -100.8899 680285.8938 -10.1898
 -10.1751
 [30455]ENERGY: 17980000 3302.7917 5531.6148 5710.3072
 329.8023 -14296.8093 -1809.0067 0.0000 0.0000
 8194.3797 6963.0795 312.4649 -1231.3002 7032.1494

Supplementary Text 6

312.9702	57.9351	42.1531	680285.8938	-13.6772
-13.6954				
[30505]ENERGY: 17990000	3344.3010	5412.5093	5690.0188	
356.9889	-14293.3044	-1816.9555	0.0000	0.0000
8270.5340	6964.0922	315.3688	-1306.4418	7032.0073
312.9214	9.2389	-20.4913	680285.8938	-16.0718
-16.0700				
[30544]ENERGY: 18000000	3357.5670	5512.7625	5667.7366	
338.6491	-14331.7950	-1801.9036	0.0000	0.0000
8221.3226	6964.3392	313.4923	-1256.9834	7031.6349
312.8020	-16.9692	-40.9806	680285.8938	-8.3696
-8.3795				
[30594]ENERGY: 18010000	3359.6674	5433.2911	5661.3646	
351.1745	-14370.4917	-1759.1860	0.0000	0.0000
8287.8709	6963.6909	316.0299	-1324.1801	7032.4807
312.7902	18.0528	-116.0171	680285.8938	-10.4623
-10.4480				
[30630]ENERGY: 18020000	3359.0286	5469.7633	5624.3350	
328.4172	-14304.7538	-1780.2690	0.0000	0.0000
8269.5283	6966.0496	315.3305	-1303.4787	7032.0212
312.8511	19.1161	11.8734	680285.8938	-10.0472
-10.0415				
[30680]ENERGY: 18030000	3298.5261	5487.7070	5645.2097	
327.0928	-14287.7747	-1779.8584	0.0000	0.0000
8275.8868	6966.7894	315.5729	-1309.0974	7033.3711
312.9277	73.8177	41.5167	680285.8938	-17.0584
-17.0699				
[30716]ENERGY: 18040000	3438.0181	5537.9531	5682.9904	
352.5684	-14409.6903	-1841.3699	0.0000	0.0000
8205.6136	6966.0834	312.8933	-1239.5302	7032.2657
313.0828	-23.5412	-69.1437	680285.8938	-10.6044
-10.6080				
[30766]ENERGY: 18050000	3428.9482	5615.4318	5669.5508	
322.2216	-14419.5434	-1770.0292	0.0000	0.0000
8122.3480	6968.9278	309.7182	-1153.4202	7032.9490
313.2277	-57.6412	-56.5710	680285.8938	-12.4243
-12.4261				
[30802]ENERGY: 18060000	3309.4106	5526.6678	5673.4278	
339.1779	-14346.3926	-1756.6269	0.0000	0.0000
8219.1995	6964.8642	313.4113	-1254.3354	7032.1062
313.0034	229.7018	118.9308	680285.8938	-9.3515
-9.3422				
[30852]ENERGY: 18070000	3266.3078	5474.1694	5711.0917	
315.2362	-14282.7696	-1790.4538	0.0000	0.0000
8273.5868	6967.1685	315.4852	-1306.4183	7033.5802
312.8978	110.2935	110.5656	680285.8938	-14.0363
-14.0532				
[30888]ENERGY: 18080000	3368.1667	5542.4306	5688.3790	
361.9315	-14299.9612	-1837.1467	0.0000	0.0000
8143.1892	6966.9892	310.5129	-1176.2000	7033.3709
312.9382	-90.1857	-38.6684	680285.8938	-13.9364
-13.9170				
[30938]ENERGY: 18090000	3477.6077	5484.2097	5646.6847	
336.2028	-14278.7729	-1827.8306	0.0000	0.0000

Supplementary Text 6

8129.8425	6967.9439	310.0040	-1161.8986	7034.2246
312.9658	-71.4651	-103.0802	680285.8938	-8.2146
-8.2234				
[30977]ENERGY: 18100000	3382.2025	5542.2991	5622.5314	
337.3588	-14243.1340	-1773.1841	0.0000	0.0000
8100.4824	6968.5562	308.8845	-1131.9262	7033.9432
312.9421	12.3331	-0.2208	680285.8938	-13.7118
-13.7000				
[31027]ENERGY: 18110000	3344.8057	5550.8685	5619.1415	
338.0701	-14489.7104	-1701.6958	0.0000	0.0000
8302.3223	6963.8021	316.5809	-1338.5203	7033.9205
312.9928	149.1417	123.3248	680285.8938	-12.4158
-12.4306				
[31063]ENERGY: 18120000	3340.4135	5496.2085	5674.4489	
352.4922	-14325.5083	-1849.6168	0.0000	0.0000
8279.9351	6968.3731	315.7273	-1311.5620	7034.1590
313.0583	77.3355	24.0422	680285.8938	-15.6628
-15.6523				
[31113]ENERGY: 18130000	3278.6926	5498.7609	5700.0273	
336.3434	-14327.3472	-1825.3257	0.0000	0.0000
8301.5081	6962.6594	316.5499	-1338.8487	7034.5168
313.0587	26.4487	-51.5605	680285.8938	-10.4893
-10.4796				
[31149]ENERGY: 18140000	3235.1729	5527.4670	5667.9245	
351.8660	-14270.5907	-1832.3300	0.0000	0.0000
8289.3723	6968.8820	316.0871	-1320.4904	7035.5418
313.1021	176.5619	51.2880	680285.8938	-13.0482
-13.0620				
[31199]ENERGY: 18150000	3318.4193	5467.6347	5651.4146	
366.6660	-14332.6639	-1731.7678	0.0000	0.0000
8226.5730	6966.2758	313.6925	-1260.2972	7034.2360
313.1120	28.6504	11.9799	680285.8938	-18.0474
-18.0374				
[31235]ENERGY: 18160000	3357.8334	5593.8807	5648.8286	
348.8636	-14351.9563	-1783.9850	0.0000	0.0000
8155.8975	6969.3626	310.9975	-1186.5349	7034.8884
313.1940	11.8960	56.0966	680285.8938	-14.0594
-14.0602				
[31285]ENERGY: 18170000	3330.0827	5563.2400	5695.7080	
337.6582	-14386.0240	-1771.0725	0.0000	0.0000
8202.6068	6972.1990	312.7786	-1230.4078	7036.3060
313.2219	117.8029	172.5479	680285.8938	-15.4950
-15.4936				
[31321]ENERGY: 18180000	3284.4194	5477.0750	5684.2375	
348.2345	-14263.5179	-1786.3860	0.0000	0.0000
8227.7540	6971.8166	313.7375	-1255.9375	7036.8848
313.0822	-71.7821	-33.0461	680285.8938	-15.0096
-15.0064				
[31371]ENERGY: 18190000	3395.7346	5572.2613	5688.2821	
332.1771	-14277.8159	-1881.5229	0.0000	0.0000
8143.1812	6972.2976	310.5126	-1170.8836	7035.9244
312.9615	-221.2317	-174.2072	680285.8938	-16.4219
-16.4312				
[31410]ENERGY: 18200000	3268.0192	5479.7340	5621.8666	

Supplementary Text 6

345.0737	-14199.8082	-1806.5245	0.0000	0.0000
8265.7523	6974.1130	315.1865	-1291.6393	7037.8142
313.1146	156.0449	40.5862	680285.8938	-16.0898
-16.0925				
[31460]ENERGY: 18210000	3342.3840	5599.3878	5666.6824	
330.2101	-14316.2286	-1810.2583	0.0000	0.0000
8158.3626	6970.5400	311.0915	-1187.8227	7038.2362
312.8633	-90.9150	-196.1605	680285.8938	-14.7233
-14.7241				
[31496]ENERGY: 18220000	3319.7985	5492.9696	5686.9943	
342.5678	-14399.0599	-1768.7780	0.0000	0.0000
8298.1315	6972.6238	316.4211	-1325.5077	7038.3300
313.1256	38.6165	23.6803	680285.8938	-14.8110
-14.8102				
[31546]ENERGY: 18230000	3388.0382	5513.5160	5721.3857	
361.7292	-14398.3459	-1839.9627	0.0000	0.0000
8224.0192	6970.3796	313.5951	-1253.6395	7038.3659
313.1592	-31.4053	-81.5625	680285.8938	-14.6504
-14.6519				
[31582]ENERGY: 18240000	3356.5507	5630.1234	5683.8847	
353.2084	-14299.4552	-1862.5737	0.0000	0.0000
8112.6457	6974.3840	309.3483	-1138.2617	7039.4347
313.1475	-8.5930	-39.5004	680285.8938	-14.2049
-14.1910				
[31632]ENERGY: 18250000	3306.7684	5549.1394	5691.2115	
339.3534	-14249.8118	-1812.2287	0.0000	0.0000
8150.0551	6974.4873	310.7747	-1175.5677	7038.4481
313.0530	-29.4627	23.4718	680285.8938	-14.8907
-14.8999				
[31668]ENERGY: 18260000	3369.8948	5560.5967	5681.9096	
332.4504	-14309.9221	-1787.3891	0.0000	0.0000
8126.0159	6973.5563	309.8581	-1152.4596	7037.5235
313.0266	-70.0308	-23.4130	680285.8938	-15.6169
-15.6175				
[31718]ENERGY: 18270000	3423.0441	5466.6650	5667.2490	
342.2743	-14345.0449	-1810.3271	0.0000	0.0000
8226.9046	6970.7649	313.7051	-1256.1397	7039.2456
312.8867	-77.9966	-115.7201	680285.8938	-16.1440
-16.1499				
[31754]ENERGY: 18280000	3404.4714	5456.9461	5639.6889	
337.1005	-14437.4431	-1661.1347	0.0000	0.0000
8232.2872	6971.9165	313.9104	-1260.3707	7039.0750
312.9626	93.3778	28.9111	680285.8938	-12.2407
-12.2279				
[31804]ENERGY: 18290000	3298.2921	5582.9068	5654.3265	
354.7421	-14370.4709	-1766.1617	0.0000	0.0000
8217.8599	6971.4949	313.3602	-1246.3650	7039.5691
313.0580	-113.1872	-124.7288	680285.8938	-12.6352
-12.6464				
[31843]ENERGY: 18300000	3362.4384	5573.7036	5654.6973	
339.5948	-14407.4884	-1772.1018	0.0000	0.0000
8222.6803	6973.5242	313.5441	-1249.1561	7039.1234
313.0691	133.7689	63.8925	680285.8938	-13.0739
-13.0661				

Supplementary Text 6

[31893]ENERGY: 18310000	3297.5255	5571.8048	5658.6294	
359.1872	-14360.2859	-1758.1253	0.0000	0.0000
8203.4499	6972.1856	312.8108	-1231.2642	7039.0829
313.1044	98.7343	49.8441	680285.8938	-15.0010
-15.0010				
[31929]ENERGY: 18320000	3360.1755	5507.3306	5657.9467	
357.5839	-14393.0765	-1813.1662	0.0000	0.0000
8294.5940	6971.3881	316.2862	-1323.2059	7037.5571
313.2215	14.3446	-28.0483	680285.8938	-11.4982
-11.5072				
[31979]ENERGY: 18330000	3324.0640	5499.3209	5688.6169	
352.6020	-14261.8899	-1822.0711	0.0000	0.0000
8195.4811	6976.1240	312.5069	-1219.3571	7037.5534
313.0659	-52.4428	-49.4548	680285.8938	-9.5341
-9.5193				
[32015]ENERGY: 18340000	3331.4506	5454.2500	5653.2184	
322.6650	-14281.8167	-1771.6474	0.0000	0.0000
8262.6469	6970.7669	315.0681	-1291.8800	7038.8099
313.0145	129.4113	24.8200	680285.8938	-10.6719
-10.6761				
[32065]ENERGY: 18350000	3420.4993	5510.6547	5681.6166	
365.9105	-14339.4318	-1783.0418	0.0000	0.0000
8119.2986	6975.5060	309.6019	-1143.7925	7038.3376
312.9371	73.9190	-27.2573	680285.8938	-14.1858
-14.1871				
[32101]ENERGY: 18360000	3346.1649	5562.1691	5697.6787	
347.3973	-14360.2664	-1765.0420	0.0000	0.0000
8147.5611	6975.6627	310.6796	-1171.8984	7037.3439
313.1398	-153.5359	-99.6763	680285.8938	-12.5382
-12.5371				
[32151]ENERGY: 18370000	3392.8409	5494.1331	5671.5104	
334.3497	-14277.1664	-1862.6057	0.0000	0.0000
8219.2489	6972.3110	313.4132	-1246.9379	7038.3325
313.2114	-119.6308	-119.6264	680285.8938	-13.6328
-13.6369				
[32187]ENERGY: 18380000	3377.1640	5537.8183	5639.1261	
341.7657	-14283.1760	-1826.4224	0.0000	0.0000
8188.9945	6975.2702	312.2596	-1213.7243	7039.2252
313.0599	-127.9779	-102.2330	680285.8938	-14.2022
-14.2031				
[32237]ENERGY: 18390000	3363.6511	5556.1861	5691.6065	
341.2036	-14325.4849	-1846.7177	0.0000	0.0000
8194.1055	6974.5503	312.4545	-1219.5552	7040.1185
313.0616	145.4768	75.4949	680285.8938	-13.1855
-13.1766				
[32276]ENERGY: 18400000	3396.6330	5494.5124	5704.1774	
328.0670	-14256.3267	-1876.2740	0.0000	0.0000
8183.6500	6974.4391	312.0558	-1209.2109	7040.9426
312.9519	75.8979	-1.4516	680285.8938	-12.5706
-12.5699				
[32326]ENERGY: 18410000	3387.4103	5497.5303	5676.0852	
347.6902	-14272.6365	-1860.9997	0.0000	0.0000
8198.4432	6973.5231	312.6199	-1224.9201	7041.4566
312.9624	-26.8748	-39.9170	680285.8938	-15.6586

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-15.6453
[32362]ENERGY: 18420000 3256.1138 5448.0641 5703.9854
354.8964 -14261.1780 -1781.8945 0.0000 0.0000
8252.7201 6972.7073 314.6895 -1280.0128 7042.1434
313.0904 123.8688 62.0632 680285.8938 -10.1134
-10.1255
[32412]ENERGY: 18430000 3470.1150 5529.0378 5655.4150
326.8636 -14320.0124 -1792.6118 0.0000 0.0000
8109.4047 6978.2120 309.2247 -1131.1927 7041.8089
312.9224 -140.3678 -85.5951 680285.8938 -17.8983
-17.9074
[32448]ENERGY: 18440000 3373.0793 5444.7328 5631.7583
334.6077 -14314.0062 -1729.6778 0.0000 0.0000
8233.0206 6973.5145 313.9384 -1259.5061 7040.6165
313.0946 24.5708 30.5658 680285.8938 -13.2065
-13.2087
[32498]ENERGY: 18450000 3441.0880 5568.0553 5677.2728
353.1617 -14352.4834 -1902.4230 0.0000 0.0000
8191.3918 6976.0632 312.3510 -1215.3286 7042.3803
313.0687 -142.5355 -174.6777 680285.8938 -12.7631
-12.7647
[32534]ENERGY: 18460000 3320.5819 5532.5214 5638.2786
356.9474 -14296.8112 -1782.7603 0.0000 0.0000
8208.9691 6977.7270 313.0212 -1231.2421 7041.8579
313.1268 87.4723 9.0274 680285.8938 -13.6246
-13.6483
[32584]ENERGY: 18470000 3291.9436 5652.7218 5664.7978
320.6841 -14396.9600 -1833.6965 0.0000 0.0000
8272.5233 6972.0140 315.4447 -1300.5092 7041.6070
313.1496 104.0776 -6.3497 680285.8938 -12.8375
-12.8169
[32620]ENERGY: 18480000 3349.5831 5452.2906 5676.7941
358.6345 -14365.1103 -1781.6511 0.0000 0.0000
8281.1827 6971.7236 315.7748 -1309.4591 7042.0370
312.9816 -145.7589 -121.5133 680285.8938 -17.0168
-17.0168
[32670]ENERGY: 18490000 3384.6142 5501.4084 5693.2333
346.8417 -14339.0812 -1819.0841 0.0000 0.0000
8208.1215 6976.0539 312.9889 -1232.0676 7041.0267
312.8683 -124.6335 -190.4461 680285.8938 -14.4500
-14.4485
[32709]ENERGY: 18500000 3346.9998 5489.9720 5648.9152
336.8998 -14292.9321 -1778.1747 0.0000 0.0000
8223.3806 6975.0605 313.5708 -1248.3201 7042.3121
312.9632 -151.1339 -116.5352 680285.8938 -12.3793
-12.3683
[32759]ENERGY: 18510000 3379.2603 5544.2302 5694.4711
322.9303 -14372.8887 -1785.5296 0.0000 0.0000
8193.7310 6976.2047 312.4402 -1217.5263 7042.9206
312.9601 146.4267 53.0338 680285.8938 -11.6456
-11.6696
[32795]ENERGY: 18520000 3351.9102 5571.1094 5682.4568
340.0032 -14339.9388 -1789.8288 0.0000 0.0000
8162.7770 6978.4890 311.2599 -1184.2880 7043.2460

Supplementary Text 6

312.9947	-15.8136	41.8662	680285.8938	-14.0054
-13.9860				
[32845]ENERGY: 18530000	3263.8523	5546.2773	5687.1519	
344.6200	-14351.4126	-1805.6434	0.0000	0.0000
8288.2572	6973.1026	316.0446	-1315.1546	7042.4996
313.1103	92.5967	46.9917	680285.8938	-12.0804
-12.0872				
[32881]ENERGY: 18540000	3479.0791	5480.4788	5663.5614	
339.2775	-14364.7841	-1786.4041	0.0000	0.0000
8167.3961	6978.6047	311.4360	-1188.7914	7043.8695
313.1439	-211.5185	-211.0159	680285.8938	-12.1157
-12.1020				
[32931]ENERGY: 18550000	3338.9754	5558.9238	5649.6239	
331.7121	-14309.1479	-1829.0311	0.0000	0.0000
8236.3645	6977.4206	314.0659	-1258.9439	7043.2659
313.0829	-126.5601	-98.9443	680285.8938	-11.9740
-11.9869				
[32967]ENERGY: 18560000	3341.2290	5454.6652	5700.3480	
322.8933	-14322.9273	-1790.2773	0.0000	0.0000
8271.4479	6977.3787	315.4036	-1294.0692	7043.4645
313.0861	57.1289	78.3522	680285.8938	-10.1958
-10.1925				
[33017]ENERGY: 18570000	3347.9583	5603.9095	5627.8145	
348.6426	-14302.2819	-1791.1097	0.0000	0.0000
8142.2978	6977.2311	310.4789	-1165.0667	7042.6281
313.0307	89.9022	110.0664	680285.8938	-13.4105
-13.4124				
[33053]ENERGY: 18580000	3336.9285	5612.2695	5681.9756	
373.6323	-14290.4156	-1849.0720	0.0000	0.0000
8112.3473	6977.6655	309.3369	-1134.6818	7042.4514
313.0920	45.7861	22.6960	680285.8938	-14.4728
-14.4732				
[33103]ENERGY: 18590000	3405.8813	5447.9177	5662.2785	
352.1250	-14244.0625	-1882.2571	0.0000	0.0000
8235.1820	6977.0648	314.0208	-1258.1172	7043.5987
313.0718	-93.1960	-75.0535	680285.8938	-15.9836
-15.9702				
[33142]ENERGY: 18600000	3374.7252	5522.3296	5673.1560	
361.1261	-14307.4486	-1815.0526	0.0000	0.0000
8173.1747	6982.0104	311.6563	-1191.1643	7044.6469
313.0808	-94.4392	-59.6947	680285.8938	-12.5645
-12.5750				
[33192]ENERGY: 18610000	3316.8880	5614.9473	5675.8160	
338.1807	-14334.0680	-1845.3360	0.0000	0.0000
8210.0216	6976.4495	313.0614	-1233.5721	7044.2314
312.9525	21.2711	-39.1372	680285.8938	-16.6967
-16.7065				
[33228]ENERGY: 18620000	3400.5807	5487.2617	5655.2691	
325.2619	-14221.9971	-1856.8999	0.0000	0.0000
8187.2241	6976.7006	312.1921	-1210.5235	7043.5238
313.0623	-272.8356	-175.9326	680285.8938	-13.0855
-13.0792				
[33278]ENERGY: 18630000	3319.9382	5507.2780	5645.7286	
322.5770	-14228.6989	-1831.9173	0.0000	0.0000

Supplementary Text 6

8244.1964	6979.1020	314.3645	-1265.0944	7044.6961
312.9675	-36.7339	36.6922	680285.8938	-14.1726
-14.1681				
[33314]ENERGY: 18640000	3413.9335	5409.5088	5694.7666	
344.4862	-14343.8526	-1760.4275	0.0000	0.0000
8218.1536	6976.5686	313.3714	-1241.5850	7044.4774
313.1002	81.2899	18.1928	680285.8938	-14.6408
-14.6521				
[33364]ENERGY: 18650000	3412.1774	5421.6457	5678.4072	
335.7471	-14305.8574	-1820.5948	0.0000	0.0000
8257.1457	6978.6709	314.8583	-1278.4748	7043.1794
313.0186	-29.7739	-85.1333	680285.8938	-11.0395
-11.0350				
[33400]ENERGY: 18660000	3433.5617	5491.6400	5667.6428	
360.2466	-14361.1326	-1762.9769	0.0000	0.0000
8152.7485	6981.7299	310.8774	-1171.0186	7044.7600
312.9894	-60.0791	-84.3370	680285.8938	-9.6766
-9.6641				
[33450]ENERGY: 18670000	3386.5832	5399.6034	5702.9782	
355.1941	-14416.8860	-1730.5772	0.0000	0.0000
8277.9516	6974.8473	315.6516	-1303.1043	7043.8881
312.9775	-52.9773	15.1734	680285.8938	-15.0122
-15.0120				
[33486]ENERGY: 18680000	3335.0023	5568.2486	5670.7919	
332.6464	-14330.2903	-1831.3449	0.0000	0.0000
8231.8336	6976.8875	313.8931	-1254.9461	7044.3371
313.0523	38.8145	12.8674	680285.8938	-15.0723
-15.0912				
[33536]ENERGY: 18690000	3390.9855	5440.6022	5662.3070	
336.3624	-14303.9869	-1814.8588	0.0000	0.0000
8266.4883	6977.8998	315.2145	-1288.5885	7045.2934
312.9894	-49.4864	-47.8383	680285.8938	-19.5701
-19.5607				
[33575]ENERGY: 18700000	3358.5455	5472.4175	5706.5402	
342.3654	-14230.7049	-1905.5485	0.0000	0.0000
8236.6911	6980.3062	314.0783	-1256.3849	7047.0066
313.2419	-143.1470	-171.3252	680285.8938	-15.5176
-15.5214				
[33625]ENERGY: 18710000	3392.0471	5582.6458	5662.8102	
319.1530	-14326.1854	-1794.7676	0.0000	0.0000
8147.4893	6983.1924	310.6769	-1164.2969	7046.1966
313.2977	77.1823	88.0463	680285.8938	-16.1390
-16.1311				
[33661]ENERGY: 18720000	3382.6874	5516.7867	5719.2651	
328.9737	-14310.8986	-1834.7965	0.0000	0.0000
8180.6307	6982.6485	311.9406	-1197.9821	7046.6973
313.2683	-166.3333	-73.1157	680285.8938	-17.5883
-17.5843				
[33711]ENERGY: 18730000	3370.2798	5529.7240	5640.8891	
351.5811	-14302.8854	-1806.3387	0.0000	0.0000
8198.9579	6982.2078	312.6395	-1216.7501	7047.1877
313.1915	67.2465	62.8006	680285.8938	-18.8209
-18.8305				
[33747]ENERGY: 18740000	3334.8241	5508.0401	5718.4566	

Supplementary Text 6

347.4016	-14448.1328	-1701.1203	0.0000	0.0000
8216.0814	6975.5507	313.2924	-1240.5307	7045.6756
313.1294	161.8702	120.2224	680285.8938	-19.2039
-19.1952				
[33797]ENERGY: 18750000	3381.0956	5427.5215	5647.5840	
340.4026	-14259.5411	-1876.7987	0.0000	0.0000
8317.8636	6978.1274	317.1736	-1339.7362	7047.2993
313.0510	-110.8900	-82.7546	680285.8938	-21.2041
-21.2193				
[33833]ENERGY: 18760000	3408.8576	5479.7139	5662.6222	
331.0209	-14266.2533	-1817.9162	0.0000	0.0000
8184.3249	6982.3698	312.0815	-1201.9551	7047.3043
313.0743	98.1271	25.3569	680285.8938	-19.7215
-19.7091				
[33883]ENERGY: 18770000	3375.6963	5526.1947	5672.8799	
335.8859	-14293.6876	-1833.9568	0.0000	0.0000
8199.7136	6982.7259	312.6683	-1216.9877	7048.2003
313.1070	-77.1710	-105.4652	680285.8938	-14.6624
-14.6594				
[33919]ENERGY: 18780000	3285.6767	5579.7010	5654.0920	
331.8519	-14335.7123	-1762.9046	0.0000	0.0000
8225.5595	6978.2641	313.6538	-1247.2954	7045.4110
312.8986	-134.1231	-146.5489	680285.8938	-15.8189
-15.8137				
[33969]ENERGY: 18790000	3377.9651	5470.6665	5664.9556	
354.7088	-14370.1193	-1839.3268	0.0000	0.0000
8320.1334	6978.9834	317.2601	-1341.1500	7046.0084
313.0266	-153.1042	-143.1099	680285.8938	-18.0822
-18.0973				
[34008]ENERGY: 18800000	3321.3997	5576.0784	5716.8577	
316.6795	-14353.7413	-1777.1589	0.0000	0.0000
8183.3779	6983.4930	312.0454	-1199.8849	7046.7196
313.1935	151.5689	96.7748	680285.8938	-14.2432
-14.2619				
[34058]ENERGY: 18810000	3348.4249	5566.6126	5687.7010	
362.0103	-14334.7753	-1816.6826	0.0000	0.0000
8166.7008	6979.9917	311.4095	-1186.7090	7046.9343
313.2029	-104.5251	-131.1879	680285.8938	-13.9476
-13.9198				
[34094]ENERGY: 18820000	3437.3100	5522.7560	5686.4789	
345.1560	-14342.2248	-1869.0411	0.0000	0.0000
8199.7780	6980.2131	312.6708	-1219.5649	7045.4726
313.3082	-87.6761	-82.1891	680285.8938	-15.8231
-15.8177				
[34144]ENERGY: 18830000	3359.4744	5570.1413	5665.9418	
344.2813	-14391.0597	-1765.3006	0.0000	0.0000
8197.9537	6981.4323	312.6012	-1216.5214	7046.3736
313.3132	50.5974	111.0559	680285.8938	-12.7586
-12.7698				
[34180]ENERGY: 18840000	3377.4556	5460.7385	5677.5252	
334.4179	-14277.3568	-1801.1264	0.0000	0.0000
8210.1944	6981.8484	313.0680	-1228.3460	7046.3477
313.1932	-21.6145	-76.1100	680285.8938	-16.6438
-16.6526				

Supplementary Text 6

[34230]ENERGY: 18850000	3329.1429	5472.0195	5611.8214
334.3685	-14283.4090	-1697.8750	0.0000
8219.8474	6985.9157	313.4360	-1233.9317
313.0692	108.9208	86.4478	680285.8938
-16.7572			-16.7834
[34266]ENERGY: 18860000	3352.4239	5519.8524	5672.9476
348.3126	-14248.9532	-1829.8987	0.0000
8168.4110	6983.0957	311.4747	-1185.3153
312.9176	52.1401	59.2215	680285.8938
-16.0670			-16.0550
[34316]ENERGY: 18870000	3373.4362	5503.9757	5724.9882
347.7483	-14334.3217	-1830.0436	0.0000
8195.8604	6981.6435	312.5214	-1214.2169
313.0803	-36.9207	-66.2848	680285.8938
-15.6928			-15.6904
[34352]ENERGY: 18880000	3337.0880	5555.5894	5680.2287
355.5227	-14319.3082	-1796.7535	0.0000
8168.9438	6981.3108	311.4950	-1187.6330
313.0565	-107.8912	-100.9658	680285.8938
-17.7374			-17.7371
[34402]ENERGY: 18890000	3316.0138	5592.6662	5715.9451
329.3763	-14299.7608	-1798.9185	0.0000
8123.8888	6979.2109	309.7770	-1144.6780
312.9446	-28.5393	-42.3677	680285.8938
-13.1493			-13.1237
[34441]ENERGY: 18900000	3318.9100	5511.6440	5647.0372
347.9028	-14315.0147	-1782.9685	0.0000
8254.6890	6982.1997	314.7646	-1272.4893
313.0084	35.5637	-29.5108	680285.8938
-12.4994			-12.5291
[34491]ENERGY: 18910000	3403.2065	5585.7002	5630.3914
363.2241	-14272.6034	-1844.2091	0.0000
8116.5411	6982.2508	309.4968	-1134.2903
313.2278	-106.7882	-125.2810	680285.8938
-11.0062			-11.0093
[34527]ENERGY: 18920000	3398.9073	5468.7219	5648.2550
341.0386	-14409.5282	-1685.3630	0.0000
8219.9204	6981.9520	313.4388	-1237.9684
313.3387	135.2686	118.2797	680285.8938
-12.1927			-12.1766
[34577]ENERGY: 18930000	3413.0916	5487.3815	5673.6944
362.6304	-14377.1305	-1782.5624	0.0000
8202.5369	6979.6419	312.7760	-1222.8950
313.5046	-33.3656	-32.1704	680285.8938
-12.8504			-12.8515
[34613]ENERGY: 18940000	3335.7246	5610.0592	5710.7463
360.2210	-14355.7203	-1846.3025	0.0000
8167.9524	6982.6806	311.4572	-1185.2718
313.4479	-98.9071	-108.1198	680285.8938
-17.1212			-17.1340
[34663]ENERGY: 18950000	3364.0079	5558.2964	5655.0611
351.3000	-14350.0967	-1725.4313	0.0000
8131.8078	6984.9452	310.0789	-1146.8626
313.2734	16.5944	62.0927	680285.8938
			-14.4827

Supplementary Text 6

-14.4842
 [34699]ENERGY: 18960000 3440.3079 5560.7847 5645.1234
 363.1237 -14348.2263 -1799.8001 0.0000 0.0000
 8122.9140 6984.2274 309.7398 -1138.6866 7049.4812
 313.2543 -87.3779 -103.2090 680285.8938 -17.4661
 -17.4743
 [34749]ENERGY: 18970000 3337.4149 5359.2909 5736.6273
 342.1657 -14312.9715 -1781.9127 0.0000 0.0000
 8300.1788 6980.7934 316.4992 -1319.3854 7049.0406
 313.3128 7.3115 43.7221 680285.8938 -13.2140
 -13.2046
 [34785]ENERGY: 18980000 3346.7184 5450.2444 5705.4025
 335.0486 -14323.3546 -1804.6778 0.0000 0.0000
 8274.9432 6984.3248 315.5369 -1290.6185 7049.7427
 313.2662 64.0060 1.0011 680285.8938 -18.0724
 -18.0690
 [34835]ENERGY: 18990000 3341.1965 5440.1958 5662.5401
 332.2269 -14181.9482 -1803.0292 0.0000 0.0000
 8193.0856 6984.2674 312.4156 -1208.8182 7048.3296
 313.2530 -33.2841 -60.4437 680285.8938 -14.5229
 -14.5402
 [34874]ENERGY: 19000000 3337.1342 5424.3487 5594.8231
 321.9932 -14293.3808 -1703.1792 0.0000 0.0000
 8300.0840 6981.8232 316.4956 -1318.2608 7048.9561
 313.0611 108.4683 68.0295 680285.8938 -17.6325
 -17.6153
 [34924]ENERGY: 19010000 3380.1483 5550.5499 5664.6570
 343.1577 -14337.2946 -1765.5327 0.0000 0.0000
 8152.1456 6987.8311 310.8545 -1164.3145 7049.2645
 313.1361 -164.3354 -114.7087 680285.8938 -17.1882
 -17.2135
 [34960]ENERGY: 19020000 3365.5275 5517.2767 5678.5209
 334.4841 -14358.2809 -1778.2082 0.0000 0.0000
 8222.5853 6981.9054 313.5404 -1240.6799 7050.6774
 313.3325 -74.8295 -45.4972 680285.8938 -12.8606
 -12.8443
 [35010]ENERGY: 19030000 3371.1145 5471.6406 5646.3054
 330.1763 -14296.4495 -1772.5043 0.0000 0.0000
 8234.9249 6985.2080 314.0110 -1249.7169 7049.6850
 313.2345 -38.5220 32.7266 680285.8938 -15.6172
 -15.6029
 [35046]ENERGY: 19040000 3406.7861 5513.1150 5689.1710
 361.3058 -14299.4507 -1854.3885 0.0000 0.0000
 8166.5369 6983.0756 311.4032 -1183.4613 7050.8958
 313.2038 -112.5662 -190.7330 680285.8938 -13.6759
 -13.6865
 [35096]ENERGY: 19050000 3293.5155 5372.3681 5677.8963
 341.1703 -14329.1024 -1703.6329 0.0000 0.0000
 8328.0269 6980.2419 317.5611 -1347.7850 7049.1144
 313.0876 111.5629 108.7694 680285.8938 -14.9898
 -14.9987
 [35132]ENERGY: 19060000 3355.2558 5644.3616 5634.7479
 336.5683 -14345.8951 -1857.6435 0.0000 0.0000
 8215.4280 6982.8230 313.2675 -1232.6050 7049.8853

Supplementary Text 6

313.3443	20.7989	-51.2202	680285.8938	-21.7794
-21.7777				
[35182]ENERGY: 19070000	3436.8255	5494.9236	5608.8307	
345.2848	-14385.7314	-1750.8593	0.0000	0.0000
8235.7097	6984.9836	314.0409	-1250.7260	7050.0109
313.3093	28.9361	20.3715	680285.8938	-17.0880
-17.0833				
[35218]ENERGY: 19080000	3425.9314	5526.6182	5686.8511	
341.3281	-14327.6538	-1812.4414	0.0000	0.0000
8141.6397	6982.2733	310.4539	-1159.3664	7050.7950
313.1888	-75.1722	-84.6499	680285.8938	-14.1728
-14.1801				
[35268]ENERGY: 19090000	3340.7116	5576.6723	5690.6703	
338.9929	-14325.4684	-1797.7853	0.0000	0.0000
8161.4998	6985.2932	311.2111	-1176.2066	7050.9238
313.2723	175.0680	151.4152	680285.8938	-12.8605
-12.8687				
[35307]ENERGY: 19100000	3366.0600	5452.2085	5661.9392	
350.7199	-14243.2663	-1773.2625	0.0000	0.0000
8166.7990	6981.1977	311.4132	-1185.6013	7049.4325
313.1818	46.8232	26.3618	680285.8938	-14.9623
-14.9503				
[35357]ENERGY: 19110000	3321.8308	5517.3568	5655.2352	
356.8684	-14292.0691	-1850.6736	0.0000	0.0000
8277.1387	6985.6871	315.6206	-1291.4516	7050.9655
313.3101	43.1789	31.7649	680285.8938	-16.0834
-16.0874				
[35393]ENERGY: 19120000	3404.9355	5463.1430	5664.0978	
326.3249	-14271.4184	-1800.0581	0.0000	0.0000
8197.4366	6984.4613	312.5815	-1212.9753	7051.4390
313.2102	-33.2948	-38.1238	680285.8938	-16.5390
-16.5252				
[35443]ENERGY: 19130000	3269.2910	5604.4438	5687.3275	
332.8585	-14342.4916	-1793.2925	0.0000	0.0000
8226.5856	6984.7223	313.6930	-1241.8633	7051.2176
313.4286	79.6008	132.6126	680285.8938	-18.9443
-18.9460				
[35479]ENERGY: 19140000	3360.5967	5520.6132	5655.7468	
332.3655	-14300.3866	-1778.3872	0.0000	0.0000
8192.9672	6983.5156	312.4111	-1209.4516	7051.9336
313.2655	-23.6217	-26.9372	680285.8938	-16.7869
-16.7949				
[35529]ENERGY: 19150000	3369.9656	5505.1021	5663.7416	
356.6557	-14239.9812	-1880.0602	0.0000	0.0000
8213.6047	6989.0283	313.1980	-1224.5764	7052.5541
313.3026	-18.3550	-42.6639	680285.8938	-18.7246
-18.7179				
[35565]ENERGY: 19160000	3304.7673	5544.6530	5713.2453	
336.9164	-14354.4762	-1744.1424	0.0000	0.0000
8186.5662	6987.5296	312.1670	-1199.0366	7050.8827
313.2462	-12.1824	43.4011	680285.8938	-20.8657
-20.8621				
[35615]ENERGY: 19170000	3404.4062	5327.5737	5693.8443	
347.2035	-14280.7067	-1806.1724	0.0000	0.0000

Supplementary Text 6

8298.5886	6984.7373	316.4386	-1313.8513	7051.7722
313.2513	-11.6605	-50.8062	680285.8938	-18.9781
-18.9751				
[35651]ENERGY: 19180000	3368.8493	5513.7758	5723.8813	
334.0283	-14350.8029	-1748.5384	0.0000	0.0000
8146.8432	6988.0366	310.6523	-1158.8066	7051.2981
313.1806	-53.2533	-68.0318	680285.8938	-20.1662
-20.1711				
[35701]ENERGY: 19190000	3287.6158	5490.7663	5702.4047	
327.7866	-14272.4562	-1759.9678	0.0000	0.0000
8210.4776	6986.6272	313.0788	-1223.8504	7052.9177
313.0120	110.2744	63.4999	680285.8938	-16.3426
-16.3459				
[35740]ENERGY: 19200000	3344.4245	5585.6534	5683.6525	
350.6910	-14263.3182	-1850.9005	0.0000	0.0000
8138.1838	6988.3865	310.3221	-1149.7973	7053.1592
313.1673	-26.2699	-61.0111	680285.8938	-18.3431
-18.3449				
[35790]ENERGY: 19210000	3426.6957	5462.1079	5718.5596	
347.2871	-14272.3680	-1804.4435	0.0000	0.0000
8111.4808	6989.3196	309.3038	-1122.1611	7053.0556
313.0401	-250.4888	-223.0975	680285.8938	-15.0720
-15.0861				
[35826]ENERGY: 19220000	3235.5916	5617.1188	5705.4105	
332.7471	-14329.7948	-1780.3707	0.0000	0.0000
8205.3945	6986.0970	312.8849	-1219.2975	7054.0005
313.1354	141.3559	90.6769	680285.8938	-21.4996
-21.4813				
[35876]ENERGY: 19230000	3332.3820	5622.2810	5650.6577	
349.5402	-14415.5164	-1776.7848	0.0000	0.0000
8224.3488	6986.9086	313.6077	-1237.4403	7053.1965
313.1025	-134.4259	-91.4059	680285.8938	-16.9911
-16.9914				
[35912]ENERGY: 19240000	3428.3701	5466.3683	5707.5863	
351.4680	-14266.9881	-1814.0849	0.0000	0.0000
8115.1693	6987.8890	309.4445	-1127.2803	7052.4633
313.1825	7.6549	4.4195	680285.8938	-18.2396
-18.2627				
[35962]ENERGY: 19250000	3337.6721	5509.2921	5694.8481	
339.5997	-14262.3965	-1859.9679	0.0000	0.0000
8226.6402	6985.6876	313.6951	-1240.9526	7052.3714
313.0964	-38.3386	-87.4489	680285.8938	-21.1497
-21.1275				
[35998]ENERGY: 19260000	3351.9196	5441.0232	5611.1975	
342.1257	-14203.1191	-1784.7445	0.0000	0.0000
8228.1912	6986.5935	313.7542	-1241.5977	7050.9087
313.1909	43.4195	29.2978	680285.8938	-15.2691
-15.2651				
[36048]ENERGY: 19270000	3319.2888	5403.0649	5675.9984	
370.3041	-14300.9762	-1812.5839	0.0000	0.0000
8326.1849	6981.2809	317.4909	-1344.9039	7052.9592
313.2113	-38.6063	-59.9998	680285.8938	-16.0862
-16.0933				
[36084]ENERGY: 19280000	3322.3151	5607.0103	5714.8339	

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323.6026	-14323.5542	-1817.6729	0.0000	0.0000
8160.1122	6986.6469	311.1582	-1173.4652	7053.7691
313.3425	-85.0155	-130.3698	680285.8938	-13.3316
-13.3264				
[36134]ENERGY: 19290000	3366.1207	5523.5370	5683.8786	
341.3080	-14348.1690	-1789.9760	0.0000	0.0000
8211.9900	6988.6893	313.1364	-1223.3006	7053.7278
313.3908	-93.0626	-81.7853	680285.8938	-16.3394
-16.3404				
[36173]ENERGY: 19300000	3316.9399	5457.8449	5681.6864	
345.5313	-14197.5788	-1836.8988	0.0000	0.0000
8218.4580	6985.9828	313.3831	-1232.4752	7054.3425
313.4807	74.9108	90.4562	680285.8938	-17.9390
-17.9457				
[36223]ENERGY: 19310000	3329.3617	5519.6325	5685.8895	
344.2417	-14238.9694	-1830.0530	0.0000	0.0000
8180.2514	6990.3544	311.9262	-1189.8970	7055.8596
313.2706	-36.8770	-30.1523	680285.8938	-13.5821
-13.5657				
[36259]ENERGY: 19320000	3266.7886	5482.2580	5632.7073	
353.6361	-14226.8315	-1807.5540	0.0000	0.0000
8286.4879	6987.4924	315.9771	-1298.9955	7056.3434
313.2916	68.5011	-10.5043	680285.8938	-14.8729
-14.8943				
[36309]ENERGY: 19330000	3384.2684	5521.7122	5670.8176	
360.7440	-14337.9443	-1749.2263	0.0000	0.0000
8139.9821	6990.3536	310.3906	-1149.6284	7054.5335
313.1738	0.9775	-28.9925	680285.8938	-13.5950
-13.5979				
[36345]ENERGY: 19340000	3306.8714	5519.0059	5696.3659	
367.8896	-14262.3155	-1828.8444	0.0000	0.0000
8195.2194	6994.1923	312.4969	-1201.0271	7055.6342
313.1932	26.1061	8.3372	680285.8938	-17.5116
-17.4920				
[36395]ENERGY: 19350000	3316.4395	5560.8830	5714.9783	
348.6931	-14373.1310	-1770.3644	0.0000	0.0000
8190.8880	6988.3864	312.3318	-1202.5016	7055.3601
313.4281	16.2069	12.4519	680285.8938	-16.0225
-16.0223				
[36431]ENERGY: 19360000	3336.6031	5625.0083	5656.7806	
359.5427	-14331.5463	-1805.5176	0.0000	0.0000
8149.8508	6990.7215	310.7670	-1159.1293	7055.0024
313.4250	142.1371	91.6799	680285.8938	-17.4634
-17.4784				
[36481]ENERGY: 19370000	3276.5248	5556.1393	5671.2041	
343.5603	-14219.1103	-1830.3709	0.0000	0.0000
8191.1898	6989.1371	312.3433	-1202.0527	7056.3390
313.3376	246.2151	112.6473	680285.8938	-14.5620
-14.5750				
[36517]ENERGY: 19380000	3320.5284	5454.1035	5741.3427	
347.1710	-14333.3102	-1774.5074	0.0000	0.0000
8233.5306	6988.8586	313.9578	-1244.6721	7055.7575
313.3569	97.0945	29.9634	680285.8938	-14.3396
-14.3327				

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[36567]ENERGY: 19390000	3310.6889	5541.4412	5660.6147
331.6831	-14297.4474	-1781.5442	0.0000
8224.7138	6990.1501	313.6216	-1234.5637
313.3383	26.5277	-13.4743	680285.8938
-19.3103			-19.3265
[36606]ENERGY: 19400000	3360.3290	5524.7194	5675.4916
333.3911	-14315.0645	-1832.2226	0.0000
8243.0657	6989.7097	314.3214	-1253.3560
313.3625	-142.3229	-130.0213	680285.8938
-19.5277			-19.5229
[36656]ENERGY: 19410000	3357.0412	5494.4931	5707.5736
335.3995	-14313.1916	-1779.5044	0.0000
8190.0130	6991.8244	312.2984	-1198.1886
313.2746	55.7250	89.3917	680285.8938
-18.8261			-18.8117
[36692]ENERGY: 19420000	3374.3372	5590.0049	5714.2294
339.8788	-14370.2111	-1749.7496	0.0000
8094.5996	6993.0892	308.6601	-1101.5103
313.2289	45.4132	75.6594	680285.8938
-14.6765			-14.6953
[36742]ENERGY: 19430000	3291.7122	5571.3971	5654.8942
342.9991	-14288.4639	-1772.4908	0.0000
8190.1895	6990.2375	312.3051	-1199.9521
313.2117	-25.4809	-18.0574	680285.8938
-13.9831			-13.9621
[36778]ENERGY: 19440000	3358.8691	5488.1833	5655.0742
332.8606	-14299.1830	-1750.9991	0.0000
8210.3407	6995.1458	313.0735	-1215.1949
313.3722	151.2346	91.2570	680285.8938
-15.6571			-15.6624
[36828]ENERGY: 19450000	3372.1229	5552.2536	5679.3727
330.9096	-14312.8592	-1842.0031	0.0000
8212.2583	6992.0548	313.1467	-1220.2034
313.4529	-125.5085	-131.0329	680285.8938
-13.6039			-13.6192
[36864]ENERGY: 19460000	3470.1207	5433.2463	5658.8725
351.1935	-14308.8073	-1844.7806	0.0000
8231.0355	6990.8806	313.8627	-1240.1549
313.3556	-74.2023	-144.3905	680285.8938
-17.7354			-17.7320
[36914]ENERGY: 19470000	3441.6090	5561.1928	5705.7249
339.6676	-14316.1438	-1820.7347	0.0000
8084.0832	6995.3989	308.2591	-1088.6843
313.3184	-152.3734	-169.4063	680285.8938
-19.0807			-19.0972
[36950]ENERGY: 19480000	3418.0936	5542.7115	5618.4306
343.6094	-14324.4860	-1804.6942	0.0000
8199.2190	6992.8839	312.6494	-1206.3351
313.3673	-104.5801	-56.4526	680285.8938
-19.1705			-19.1558
[37000]ENERGY: 19490000	3430.2189	5559.7377	5707.2104
326.3061	-14361.5013	-1864.7742	0.0000
8195.7225	6992.9200	312.5161	-1202.8025
313.4361	-124.9972	-58.3213	680285.8938
			-18.7755

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-18.7773
 [37039]ENERGY: 19500000 3384.6350 5436.3999 5661.5360
 324.6276 -14298.6403 -1768.9990 0.0000 0.0000
 8248.3360 6987.8952 314.5224 -1260.4408 7056.9317
 313.3526 43.0789 2.9913 680285.8938 -18.5461
 -18.5380
 [37089]ENERGY: 19510000 3286.8302 5534.2502 5676.6070
 345.7393 -14324.9978 -1759.6021 0.0000 0.0000
 8237.1069 6995.9337 314.0942 -1241.1732 7057.4853
 313.3258 77.7585 83.2157 680285.8938 -16.3273
 -16.3387
 [37125]ENERGY: 19520000 3379.1540 5424.0182 5656.3658
 314.4864 -14161.0254 -1815.4662 0.0000 0.0000
 8197.3942 6994.9269 312.5799 -1202.4672 7058.2989
 313.1728 -59.1967 -47.5822 680285.8938 -18.0301
 -18.0206
 [37175]ENERGY: 19530000 3372.7544 5524.8789 5658.4861
 334.7710 -14277.9446 -1847.0110 0.0000 0.0000
 8221.7292 6987.6640 313.5078 -1234.0653 7057.7241
 313.2150 -168.4851 -91.9347 680285.8938 -12.3668
 -12.3725
 [37211]ENERGY: 19540000 3383.2991 5547.3224 5651.6671
 356.0891 -14328.8045 -1814.3634 0.0000 0.0000
 8197.7303 6992.9401 312.5927 -1204.7902 7057.2979
 313.3845 65.6135 50.6423 680285.8938 -14.3273
 -14.3496
 [37261]ENERGY: 19550000 3392.9954 5498.2037 5660.7637
 350.6150 -14269.9026 -1842.0151 0.0000 0.0000
 8201.3247 6991.9848 312.7297 -1209.3400 7058.2248
 313.1945 -143.2055 -137.2137 680285.8938 -19.7062
 -19.6818
 [37297]ENERGY: 19560000 3291.4511 5527.7571 5648.9518
 345.9729 -14270.3670 -1806.8872 0.0000 0.0000
 8253.9528 6990.8315 314.7365 -1263.1213 7056.5645
 313.3259 66.3640 72.9516 680285.8938 -17.4857
 -17.4856
 [37347]ENERGY: 19570000 3395.7345 5512.9882 5647.6576
 325.8123 -14227.1291 -1859.9177 0.0000 0.0000
 8193.7467 6988.8923 312.4408 -1204.8543 7058.1645
 313.2935 7.4302 -77.0002 680285.8938 -16.5700
 -16.5678
 [37383]ENERGY: 19580000 3283.7156 5457.6407 5636.1704
 334.3046 -14283.0646 -1767.0412 0.0000 0.0000
 8329.3088 6991.0344 317.6100 -1338.2745 7056.6996
 313.2673 95.3754 86.8004 680285.8938 -19.7729
 -19.7783
 [37433]ENERGY: 19590000 3318.7992 5462.8816 5678.2063
 328.7992 -14302.5628 -1781.8918 0.0000 0.0000
 8280.5627 6984.7945 315.7512 -1295.7683 7057.4865
 313.2691 63.0098 -16.1387 680285.8938 -17.0861
 -17.0867
 [37472]ENERGY: 19600000 3357.6064 5499.3641 5686.6537
 342.7775 -14267.2190 -1841.0632 0.0000 0.0000
 8211.5896 6989.7091 313.1212 -1221.8805 7058.0908

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313.2719	153.2302	-3.2299	680285.8938	-17.7738
-17.7667				
[37522]ENERGY: 19610000	3368.9546	5477.1713	5639.3048	
339.5538	-14292.5241	-1769.1611	0.0000	0.0000
8231.7768	6995.0761	313.8909	-1236.7008	7059.0195
313.3496	196.6178	116.6656	680285.8938	-17.5411
-17.5384				
[37558]ENERGY: 19620000	3392.6479	5436.8796	5725.7035	
360.6531	-14223.5103	-1879.5991	0.0000	0.0000
8181.8140	6994.5888	311.9858	-1187.2252	7059.5814
313.3174	-6.9962	-75.5339	680285.8938	-16.8989
-16.9240				
[37608]ENERGY: 19630000	3410.9026	5529.9132	5677.6125	
349.6377	-14331.3521	-1815.3218	0.0000	0.0000
8172.1047	6993.4968	311.6155	-1178.6078	7057.7238
313.2992	-65.6241	-31.5385	680285.8938	-13.3547
-13.3289				
[37644]ENERGY: 19640000	3295.5689	5520.1084	5702.3820	
352.5303	-14327.2821	-1686.6956	0.0000	0.0000
8136.6742	6993.2862	310.2645	-1143.3880	7057.5075
313.3422	12.7438	8.1269	680285.8938	-17.7051
-17.7140				
[37694]ENERGY: 19650000	3382.4120	5545.2278	5644.2687	
333.5055	-14335.1333	-1711.4087	0.0000	0.0000
8133.8218	6992.6937	310.1557	-1141.1280	7058.3077
313.2100	20.9487	3.3770	680285.8938	-17.9056
-17.8937				
[37730]ENERGY: 19660000	3421.6836	5471.3333	5665.9713	
327.7661	-14251.3388	-1839.5413	0.0000	0.0000
8200.2029	6996.0773	312.6870	-1204.1256	7059.8108
313.1206	-1.2987	-24.9277	680285.8938	-13.8323
-13.8658				
[37780]ENERGY: 19670000	3413.0101	5546.5655	5682.7763	
357.6862	-14318.5162	-1808.7813	0.0000	0.0000
8122.8627	6995.6034	309.7379	-1127.2593	7060.2932
312.9862	-38.6494	-61.9485	680285.8938	-19.8394
-19.8174				
[37816]ENERGY: 19680000	3443.9368	5466.2548	5654.3548	
358.8450	-14314.1055	-1828.8793	0.0000	0.0000
8213.5682	6993.9748	313.1966	-1219.5934	7060.7514
313.0994	0.8920	-63.3587	680285.8938	-17.3113
-17.3080				
[37866]ENERGY: 19690000	3322.3748	5484.4782	5674.2419	
332.1046	-14228.3593	-1787.1033	0.0000	0.0000
8197.5523	6995.2890	312.5859	-1202.2632	7060.9820
313.0263	195.6917	79.3284	680285.8938	-15.5095
-15.5072				
[37905]ENERGY: 19700000	3469.4415	5493.3832	5753.6408	
339.6896	-14286.4714	-1916.4690	0.0000	0.0000
8140.3800	6993.5948	310.4058	-1146.7852	7061.3219
312.9436	-87.9910	-149.2145	680285.8938	-16.9506
-16.9536				
[37955]ENERGY: 19710000	3325.9743	5382.8423	5749.1415	
351.5888	-14243.3511	-1813.2862	0.0000	0.0000

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8239.1741	6992.0837	314.1730	-1247.0903	7061.6654
313.0326	-8.2895	-74.3060	680285.8938	-17.3029
-17.2898				
[37991]ENERGY: 19720000	3353.3067	5468.3458	5741.0927	
344.3985	-14399.0841	-1741.6484	0.0000	0.0000
8228.9680	6995.3792	313.7838	-1233.5888	7061.4617
313.1582	145.9020	112.8103	680285.8938	-21.2564
-21.2706				
[38041]ENERGY: 19730000	3385.2454	5533.4137	5654.4005	
327.2091	-14315.3165	-1848.8129	0.0000	0.0000
8256.7976	6992.9370	314.8450	-1263.8606	7062.4355
313.2289	51.3464	-68.8570	680285.8938	-19.0144
-19.0150				
[38077]ENERGY: 19740000	3324.0089	5486.8253	5686.7272	
323.0299	-14321.4604	-1747.1126	0.0000	0.0000
8241.6396	6993.6578	314.2670	-1247.9818	7061.3134
313.3415	14.7822	60.2203	680285.8938	-17.0445
-17.0381				
[38127]ENERGY: 19750000	3342.2880	5526.9359	5697.7041	
327.1404	-14204.1800	-1814.7925	0.0000	0.0000
8124.7517	6999.8475	309.8099	-1124.9042	7061.8180
313.2754	89.8063	-30.7627	680285.8938	-19.4155
-19.4270				
[38163]ENERGY: 19760000	3376.9625	5496.9438	5662.2407	
322.2409	-14273.4410	-1764.5326	0.0000	0.0000
8176.1597	6996.5741	311.7702	-1179.5857	7061.8766
313.3599	128.0667	81.1759	680285.8938	-18.5226
-18.5203				
[38213]ENERGY: 19770000	3315.7277	5553.3374	5710.5029	
330.2731	-14298.0967	-1811.1945	0.0000	0.0000
8193.9353	6994.4852	312.4480	-1199.4501	7062.9187
313.0989	67.2520	32.1992	680285.8938	-18.7648
-18.7624				
[38249]ENERGY: 19780000	3274.1819	5534.7281	5645.6660	
339.6741	-14324.7872	-1728.2475	0.0000	0.0000
8252.9892	6994.2046	314.6998	-1258.7846	7061.5880
313.3024	44.7223	25.3944	680285.8938	-18.8772
-18.8706				
[38299]ENERGY: 19790000	3389.3720	5596.9768	5692.6779	
347.5111	-14380.7553	-1787.7196	0.0000	0.0000
8137.5978	6995.6607	310.2997	-1141.9371	7061.6224
313.3801	-238.5599	-189.1849	680285.8938	-16.3807
-16.3807				
[38338]ENERGY: 19800000	3311.5775	5508.2105	5698.2225	
324.9951	-14227.9236	-1857.3103	0.0000	0.0000
8240.9693	6998.7410	314.2414	-1242.2283	7061.4162
313.2139	45.9257	-0.8681	680285.8938	-18.2184
-18.2229				
[38388]ENERGY: 19810000	3414.5016	5575.7419	5656.4780	
338.9184	-14370.3204	-1758.7376	0.0000	0.0000
8143.3403	6999.9221	310.5187	-1143.4182	7062.0307
313.3273	7.2464	-68.2285	680285.8938	-16.1681
-16.1510				
[38424]ENERGY: 19820000	3347.2760	5486.1810	5711.6310	

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355.5508	-14310.4443	-1839.3966	0.0000	0.0000
8245.8560	6996.6539	314.4278	-1249.2021	7062.8441
313.5598	-185.9496	-134.3820	680285.8938	-18.1113
-18.1276				
[38474]ENERGY: 19830000	3402.7661	5523.9346	5646.1498	
332.4598	-14299.1263	-1805.1326	0.0000	0.0000
8200.9667	7002.0181	312.7161	-1198.9486	7063.2618
313.5726	-2.2735	-73.2597	680285.8938	-18.0483
-18.0460				
[38510]ENERGY: 19840000	3308.9397	5486.2508	5723.0285	
345.0765	-14317.4500	-1825.0446	0.0000	0.0000
8273.5306	6994.3316	315.4831	-1279.1990	7063.0493
313.3781	-21.9804	-52.6573	680285.8938	-20.1607
-20.1647				
[38560]ENERGY: 19850000	3314.1453	5598.7790	5677.3295	
326.6335	-14326.3782	-1765.1924	0.0000	0.0000
8174.1194	6999.4362	311.6924	-1174.6832	7061.9721
313.3446	151.9090	121.9282	680285.8938	-18.4744
-18.4843				
[38596]ENERGY: 19860000	3372.3103	5520.0311	5683.0315	
322.1633	-14302.4618	-1781.7683	0.0000	0.0000
8185.7468	6999.0529	312.1357	-1186.6939	7063.9208
313.5157	21.6816	-79.2960	680285.8938	-15.9649
-15.9569				
[38646]ENERGY: 19870000	3314.9510	5485.1135	5704.9538	
339.7699	-14258.7675	-1860.5070	0.0000	0.0000
8268.6954	6994.2091	315.2987	-1274.4864	7063.0205
313.6017	-4.6975	-75.2222	680285.8938	-16.9992
-17.0019				
[38682]ENERGY: 19880000	3332.9874	5491.4798	5684.9150	
368.9790	-14321.0109	-1833.1402	0.0000	0.0000
8267.8039	6992.0140	315.2647	-1275.7899	7062.7832
313.5227	93.4416	11.6285	680285.8938	-19.8042
-19.8012				
[38732]ENERGY: 19890000	3358.7054	5456.9419	5697.0633	
345.1498	-14342.9098	-1781.2721	0.0000	0.0000
8265.9289	6999.6074	315.1932	-1266.3215	7063.2059
313.4430	-106.9774	-66.1412	680285.8938	-17.2625
-17.2574				
[38771]ENERGY: 19900000	3382.8797	5557.8890	5619.6076	
317.6656	-14309.9305	-1796.1827	0.0000	0.0000
8223.3041	6995.2327	313.5678	-1228.0713	7065.1231
313.3410	-79.3824	-70.9985	680285.8938	-19.6839
-19.6873				
[38821]ENERGY: 19910000	3320.2087	5469.8253	5648.0320	
357.1371	-14338.0306	-1802.1869	0.0000	0.0000
8340.7241	6995.7097	318.0453	-1345.0144	7065.0114
313.3389	-7.8685	-17.7984	680285.8938	-18.6273
-18.6366				
[38857]ENERGY: 19920000	3367.6584	5555.9640	5711.9199	
350.1238	-14419.2223	-1745.4392	0.0000	0.0000
8181.2992	7002.3038	311.9661	-1178.9954	7065.3979
313.5938	74.8261	75.4230	680285.8938	-14.9264
-14.9252				

Supplementary Text 6

[38907]ENERGY:	19930000	3375.5420	5499.2803	5686.8278
354.8375	-14316.4676	-1832.3583	0.0000	0.0000
8228.8625	6996.5242	313.7798	-1232.3383	7065.3988
313.3361	-79.8627	-39.7559	680285.8938	-15.8546
-15.8351				
[38943]ENERGY:	19940000	3426.6488	5483.3888	5673.9594
338.7669	-14378.5350	-1764.2862	0.0000	0.0000
8218.5766	6998.5193	313.3876	-1220.0574	7064.2667
313.4854	-96.6654	-128.9283	680285.8938	-13.9583
-13.9957				
[38993]ENERGY:	19950000	3342.6746	5610.3571	5675.7942
328.0389	-14373.3914	-1802.9296	0.0000	0.0000
8219.9172	7000.4610	313.4387	-1219.4562	7064.8902
313.5459	-5.2780	-14.0102	680285.8938	-15.9811
-15.9603				
[39029]ENERGY:	19960000	3378.6296	5511.0533	5643.9327
351.5816	-14401.5421	-1707.0146	0.0000	0.0000
8224.8407	7001.4811	313.6264	-1223.3596	7065.5264
313.4776	43.4573	-14.5538	680285.8938	-11.4871
-11.4874				
[39079]ENERGY:	19970000	3335.5675	5532.1497	5627.0179
365.5352	-14297.2205	-1738.8833	0.0000	0.0000
8177.5803	7001.7467	311.8243	-1175.8336	7066.0082
313.4959	93.8188	74.1461	680285.8938	-11.7768
-11.7689				
[39115]ENERGY:	19980000	3298.8616	5496.7805	5674.2880
338.1849	-14227.4544	-1785.9114	0.0000	0.0000
8205.2920	7000.0411	312.8810	-1205.2508	7065.2333
313.5759	30.0263	69.8218	680285.8938	-17.3011
-17.2999				
[39165]ENERGY:	19990000	3334.5185	5540.8533	5701.0846
350.7088	-14310.1089	-1818.3988	0.0000	0.0000
8196.3170	6994.9745	312.5388	-1201.3425	7064.2955
313.4313	25.9149	-37.2285	680285.8938	-15.6209
-15.6200				
[39204]ENERGY:	20000000	3315.8443	5414.0699	5699.4810
353.2916	-14209.1049	-1817.4286	0.0000	0.0000
8242.8199	6998.9732	314.3120	-1243.8467	7065.5496
313.5060	115.1911	31.4431	680285.8938	-17.6691
-17.6759				

40.1ns Q8LJP6 SIMULATION DATA

	TS	BOND	ANGLE	DIHED	IMPRP
	ELECT	VDW	BOUNDARY	MISC	KINETIC
	TOTAL	TEMP	POTENTIAL	TOTAL3	TEMPAVG
	PRESSURE	GPPRESSURE	VOLUME	PRESSAVG	GPPRESSAVG
[191]ENERGY:	0	4825.7375	5324.7236	5641.4695	295.6590
	-9244.6331	-1762.6473	0.0000	0.0000	7582.2299
	12662.5391	296.4687	5080.3092	12770.8391	296.4687
	2869.8628	504.4981	718822.6829	2869.8628	504.4981
[279]ENERGY:	10000	3207.6936	5275.1286	5637.9631	340.6081
	-13675.3958	-1595.4022	0.0000	0.0000	7715.6098
	6906.2051	301.6839	-809.4047	6966.9136	321.4630

Supplementary Text 6

	-19.1770	26.0408	671341.7472	-5.2476	-5.1047
[318]ENERGY:	20000	3149.8881	5202.4290	5596.9617	331.1071
	-13824.9602	-1580.2266	0.0000	0.0000	7591.4949
	6466.6941	296.8309	-1124.8008	6527.5675	300.1132
	183.2514	78.5816	671614.5889	0.3868	0.3722
[370]ENERGY:	30000	3181.1358	5135.8029	5566.2936	330.6999
	-13948.4391	-1570.7178	0.0000	0.0000	7573.9534
	6268.7287	296.1450	-1305.2247	6328.9724	298.2765
	-54.6593	-45.8716	674320.6968	0.0007	0.0294
[408]ENERGY:	40000	3190.0070	5237.7604	5577.0545	331.3075
	-13949.8435	-1639.1522	0.0000	0.0000	7663.2848
	6410.4185	299.6379	-1252.8663	6474.2867	298.5818
	78.2373	55.4913	630912.4250	1.3771	1.3418
[460]ENERGY:	50000	3156.4891	5190.3730	5563.2384	339.9715
	-13931.2816	-1672.2100	0.0000	0.0000	7600.6186
	6247.1991	297.1877	-1353.4196	6309.6681	298.6943
	-19.1232	-55.3864	628905.1138	1.5852	1.6226
[498]ENERGY:	60000	3217.1413	5254.1283	5473.0069	308.1163
	-13901.9547	-1637.8486	0.0000	0.0000	7676.1919
	6388.7814	300.1426	-1287.4105	6449.6946	298.5016
	52.3279	38.3390	661707.3109	3.2082	3.1954
[549]ENERGY:	70000	3238.3290	5159.3004	5556.0584	302.1582
	-13921.0565	-1599.7070	0.0000	0.0000	7629.2459
	6364.3283	298.3070	-1264.9176	6426.3273	300.3755
	34.2303	6.6902	655110.8926	-1.9675	-1.9664
[586]ENERGY:	80000	3133.3989	5266.8915	5537.7790	326.8946
	-13945.0575	-1642.0673	0.0000	0.0000	7650.8094
	6328.6486	299.1501	-1322.1608	6390.4326	299.8738
	323.2783	237.2277	665564.1026	-2.8420	-2.8502
[637]ENERGY:	90000	3148.0606	5283.1731	5508.2306	324.1648
	-14006.7121	-1640.1755	0.0000	0.0000	7768.3559
	6385.0974	303.7463	-1383.2585	6448.0192	299.6132
	56.8380	59.4680	683543.2700	3.2391	3.2776
[677]ENERGY:	100000	3134.2633	5310.4758	5509.6777	316.9759
	-13993.6709	-1679.1044	0.0000	0.0000	7639.5057
	6238.1232	298.7082	-1401.3825	6302.6979	301.5901
	3.6846	13.4831	704957.5497	4.7689	4.7837
[728]ENERGY:	110000	3272.8075	5285.3915	5501.4445	329.5293
	-14020.7761	-1650.6279	0.0000	0.0000	7693.3443
	6411.1131	300.8133	-1282.2312	6470.9468	300.7788
	41.3354	86.9024	693546.0255	2.6557	2.6355
[764]ENERGY:	120000	3173.4677	5233.4588	5484.4159	318.6371
	-13934.6420	-1679.6000	0.0000	0.0000	7787.2173
	6382.9547	304.4838	-1404.2626	6443.7592	300.6300
	134.0875	-8.1535	698191.8440	0.2774	0.2643
[814]ENERGY:	130000	3159.5513	5308.2470	5524.5601	300.4078
	-13951.6726	-1728.5142	0.0000	0.0000	7615.6493
	6228.2287	297.7754	-1387.4206	6290.5889	299.1196
	83.2206	-27.4734	690565.0632	1.3824	1.3677
[850]ENERGY:	140000	3220.7511	5187.5435	5476.4798	317.8856
	-13940.3662	-1708.5407	0.0000	0.0000	7703.1248
	6256.8779	301.1957	-1446.2469	6319.2648	299.8096
	29.1188	20.8814	692871.8460	2.2105	2.2157
[900]ENERGY:	150000	3172.2852	5161.2838	5555.2567	303.9391

Supplementary Text 6

	-14046.9971	-1634.7064	0.0000	0.0000	7727.7767
	6238.8380	302.1596	-1488.9387	6302.6868	301.4051
	40.6683	60.6253	692819.0048	2.0534	2.0474
[936]ENERGY:	160000	3197.7610	5312.4626	5501.2550	318.5999
	-13950.3584	-1751.7483	0.0000	0.0000	7548.8722
	6176.8441	295.1644	-1372.0281	6235.9428	300.3564
	1.9669	19.4204	709437.4397	3.0320	3.0190
[986]ENERGY:	170000	3216.0505	5237.6703	5472.0475	323.9349
	-13981.7234	-1712.0234	0.0000	0.0000	7696.7279
	6252.6843	300.9456	-1444.0436	6316.4098	300.3456
	101.8253	-27.5106	730521.5215	-1.7520	-1.7511
[1022]ENERGY:	180000	3203.4625	5183.6633	5503.4093	
	305.6517	-13994.2809	-1776.9255	0.0000	0.0000
	7627.4884	6052.4688	298.2383	-1575.0196	6113.0599
	299.2014	-11.0809	50.2572	716815.8351	-0.0458
	-0.0727				
[1072]ENERGY:	190000	3183.1978	5195.2756	5541.3142	
	319.5725	-14125.3550	-1590.1547	0.0000	0.0000
	7673.8879	6197.7383	300.0525	-1476.1495	6262.0125
	298.0152	28.7415	47.8967	699454.4790	4.0254
	4.0155				
[1111]ENERGY:	200000	3154.8594	5230.3512	5529.4449	
	316.7139	-14069.2097	-1667.0550	0.0000	0.0000
	7627.3103	6122.4150	298.2313	-1504.8953	6182.3669
	298.9073	11.5123	91.2973	676773.0766	5.1370
	5.1453				
[1161]ENERGY:	210000	3167.0488	5209.1065	5501.7613	
	337.7381	-14099.8470	-1670.7570	0.0000	0.0000
	7699.1177	6144.1684	301.0390	-1554.9492	6210.7260
	298.2521	93.6728	45.6057	681432.2371	-0.7892
	-0.7954				
[1197]ENERGY:	220000	3230.1740	5264.5169	5503.4116	
	343.2371	-14125.1510	-1659.9842	0.0000	0.0000
	7632.9412	6189.1456	298.4515	-1443.7955	6250.5148
	298.9734	147.7541	116.6700	656028.4447	2.9393
	2.9439				
[1247]ENERGY:	230000	3247.9918	5163.9306	5480.2357	
	313.2978	-14082.9978	-1681.6638	0.0000	0.0000
	7629.5805	6070.3747	298.3201	-1559.2058	6130.7319
	300.2094	1.7180	15.1082	670832.8216	-0.6506
	-0.6455				
[1283]ENERGY:	240000	3171.2147	5284.1186	5482.6760	
	314.2209	-14088.8646	-1703.9184	0.0000	0.0000
	7642.8284	6102.2756	298.8381	-1540.5528	6167.0340
	298.1940	-34.8040	-33.3967	673632.0742	-1.0367
	-1.0342				
[1333]ENERGY:	250000	3149.3999	5294.5800	5436.4876	
	346.2894	-14161.2286	-1610.4402	0.0000	0.0000
	7608.2592	6063.3473	297.4864	-1544.9120	6127.1941
	298.5357	83.7497	68.3522	685066.8939	5.8604
	5.8278				
[1369]ENERGY:	260000	3225.5925	5118.3850	5419.8981	
	311.5559	-14000.5955	-1697.8359	0.0000	0.0000
	7662.8957	6039.8957	299.6227	-1623.0000	6101.9254

Supplementary Text 6

299.1289	-212.8030	-135.6024	698988.1237	-1.7838
-1.7814				
[1419]ENERGY:	270000	3262.2448	5211.7726	5439.9850
312.9182	-14109.2568	-1668.5242	0.0000	0.0000
7627.8134	6076.9530	298.2510	-1550.8605	6136.7628
297.8302	32.6460	-60.1177	691315.3461	2.2743
2.2921				
[1455]ENERGY:	280000	3179.5923	5205.0978	5457.7145
310.5933	-14129.6538	-1663.8158	0.0000	0.0000
7570.3249	5929.8532	296.0032	-1640.4717	5997.3552
298.0936	7.9115	3.6230	716556.8775	-0.5323
-0.5316				
[1505]ENERGY:	290000	3208.9937	5289.9287	5511.5684
317.7886	-14124.0019	-1735.2212	0.0000	0.0000
7691.7707	6160.8269	300.7518	-1530.9438	6222.5134
298.2721	64.3110	8.4665	719242.1461	2.2057
2.2027				
[1544]ENERGY:	300000	3127.8994	5159.0971	5512.5592
315.8513	-14080.5476	-1672.0867	0.0000	0.0000
7750.3024	6113.0751	303.0404	-1637.2274	6180.3636
300.3918	67.8732	57.6109	663216.7458	-4.3288
-4.3437				
[1594]ENERGY:	310000	3166.6262	5159.0435	5540.7864
326.1186	-14004.9791	-1705.4744	0.0000	0.0000
7709.3739	6191.4950	301.4400	-1517.8788	6255.4469
298.7531	57.0864	-48.6293	652600.6578	4.4120
4.4101				
[1630]ENERGY:	320000	3194.6519	5137.7509	5463.7066
320.6484	-14069.0620	-1691.0534	0.0000	0.0000
7529.9565	5886.5990	294.4247	-1643.3575	5947.1280
297.0757	31.6550	-61.2296	657862.8409	-0.2126
-0.2063				
[1680]ENERGY:	330000	3151.7368	5158.0687	5473.0229
321.0034	-14084.2482	-1641.5155	0.0000	0.0000
7568.9167	5946.9847	295.9481	-1621.9320	6012.2274
297.0223	80.9591	-7.4396	662343.6741	3.8245
3.8056				
[1716]ENERGY:	340000	3220.1281	5317.5182	5496.4321
304.5560	-14133.4557	-1715.8649	0.0000	0.0000
7526.3629	6015.6767	294.2842	-1510.6862	6075.3067
298.0336	73.1866	-24.8080	642678.2909	0.4703
0.4821				
[1766]ENERGY:	350000	3266.3500	5296.4363	5468.4957
330.9260	-14161.7808	-1772.9119	0.0000	0.0000
7673.4188	6100.9341	300.0342	-1572.4847	6164.6111
298.4271	-83.1604	-143.5563	666252.9139	0.7581
0.7676				
[1802]ENERGY:	360000	3146.7320	5170.9279	5409.7478
324.0193	-14099.7295	-1601.3462	0.0000	0.0000
7569.4728	5919.8241	295.9699	-1649.6487	5978.3047
298.2576	115.7125	90.9189	657272.3717	1.4032
1.3960				
[1852]ENERGY:	370000	3165.3502	5271.5517	5479.7902
301.1891	-14112.9218	-1649.2654	0.0000	0.0000

Supplementary Text 6

7643.8164	6099.5105	298.8767	-1544.3059	6162.6860
298.4695	55.7563	27.5310	682108.5685	-1.1780
-1.1651				
[1888]ENERGY:	380000	3100.8534	5216.8210	5494.3445
342.3288	-14112.6829	-1718.7477	0.0000	0.0000
7672.6555	5995.5726	300.0043	-1677.0829	6059.3475
298.9415	208.2194	121.3972	678227.1882	-3.8919
-3.9079				
[1938]ENERGY:	390000	3132.0725	5122.0896	5507.6832
306.3184	-14093.7759	-1670.0501	0.0000	0.0000
7501.9028	5806.2405	293.3278	-1695.6623	5862.7003
295.0688	81.9529	-0.4604	682021.0348	-1.8560
-1.8823				
[1977]ENERGY:	400000	3188.2410	5179.2022	5482.7744
310.0823	-14045.9924	-1770.0990	0.0000	0.0000
7755.2696	6099.4781	303.2346	-1655.7915	6165.0416
297.1081	-138.5724	-29.8745	667169.3578	1.8998
1.9149				
[2027]ENERGY:	410000	3227.9930	5212.5200	5533.9786
335.9363	-14138.9613	-1726.0647	0.0000	0.0000
7504.5778	5949.9797	293.4324	-1554.5981	6011.4630
297.1169	41.7281	1.3475	672218.6170	2.8310
2.8404				
[2063]ENERGY:	420000	3165.4822	5192.0029	5535.6506
306.7445	-14130.9667	-1645.2822	0.0000	0.0000
7567.8759	5991.5072	295.9074	-1576.3687	6056.5162
299.0656	-99.8361	-96.0929	683823.1495	0.3041
0.3017				
[2113]ENERGY:	430000	3215.9323	5196.7794	5482.6209
322.7668	-14259.1607	-1572.0358	0.0000	0.0000
7564.6061	5951.5090	295.7796	-1613.0971	6015.1601
296.9798	91.9531	115.3779	649135.0679	0.4941
0.4542				
[2149]ENERGY:	440000	3176.6525	5313.8393	5514.0539
326.1144	-14214.8401	-1654.8835	0.0000	0.0000
7642.7309	6103.6674	298.8343	-1539.0636	6168.4071
298.7760	-95.5689	-48.2877	641225.6748	-1.1752
-1.1321				
[2199]ENERGY:	450000	3202.7286	5122.8624	5478.0199
335.8013	-14136.0024	-1691.9034	0.0000	0.0000
7586.3812	5897.8876	296.6310	-1688.4936	5962.8081
298.4343	24.6386	-41.5415	629154.2351	0.4058
0.3928				
[2235]ENERGY:	460000	3194.1707	5247.7174	5476.8390
315.3845	-14034.1001	-1748.4748	0.0000	0.0000
7734.9805	6186.5172	302.4413	-1548.4632	6250.7580
298.1630	1.1290	-134.3915	649005.4468	0.6558
0.6136				
[2285]ENERGY:	470000	3253.5079	5246.2612	5483.5793
328.7802	-14204.5052	-1661.4596	0.0000	0.0000
7661.1827	6107.3465	299.5558	-1553.8363	6170.6054
301.3081	6.0064	8.4037	632383.9201	3.1167
3.1301				
[2321]ENERGY:	480000	3170.9905	5251.9664	5494.4038

Supplementary Text 6

310.8398	-14128.5598	-1639.3572	0.0000	0.0000
7623.7021	6083.9856	298.0902	-1539.7166	6141.9058
300.0841	110.6643	35.1574	618088.9235	1.0781
1.0696				
[2371]ENERGY:	490000	3201.3230	5191.3811	5536.2684
322.2892	-14212.2729	-1685.0878	0.0000	0.0000
7566.6715	5920.5724	295.8603	-1646.0991	5981.9096
298.4466	-76.5195	-61.1883	603134.7622	-2.0537
-2.0402				
[2410]ENERGY:	500000	3230.7809	5147.2431	5528.2240
296.9720	-14128.7693	-1651.6630	0.0000	0.0000
7579.4397	6002.2274	296.3596	-1577.2123	6061.2263
296.8549	152.1187	-15.2777	603948.5095	0.0796
0.0365				
[2460]ENERGY:	510000	3159.3759	5275.8924	5521.0978
323.2543	-14160.0011	-1668.7438	0.0000	0.0000
7600.0692	6050.9448	297.1662	-1549.1244	6116.5791
297.7435	207.1361	171.6650	591018.1983	1.5024
1.5328				
[2496]ENERGY:	520000	3150.3025	5238.4652	5545.4200
312.8538	-14146.0530	-1717.7446	0.0000	0.0000
7619.0204	6002.2643	297.9072	-1616.7561	6066.6875
297.7474	-21.0754	-117.5450	595239.4883	4.1867
4.1825				
[2546]ENERGY:	530000	3110.0141	5225.7586	5478.9499
281.8321	-14190.8002	-1636.1457	0.0000	0.0000
7659.5464	5929.1553	299.4918	-1730.3912	5994.4300
297.6570	221.6747	125.7922	611440.6140	-7.4699
-7.4803				
[2582]ENERGY:	540000	3246.5003	5254.4550	5523.0099
316.1619	-14175.3017	-1711.9310	0.0000	0.0000
7678.5853	6131.4797	300.2362	-1547.1056	6195.7335
298.5582	-37.8575	-83.5111	592836.3056	2.4713
2.4741				
[2632]ENERGY:	550000	3196.7366	5241.7333	5504.6677
323.7017	-14083.2223	-1675.8282	0.0000	0.0000
7543.7395	6051.5282	294.9637	-1492.2113	6112.3310
299.7362	139.8902	56.7691	597548.4805	1.2361
1.2492				
[2668]ENERGY:	560000	3160.9721	5269.1701	5558.4655
327.2357	-14175.3073	-1712.2117	0.0000	0.0000
7545.7628	5974.0872	295.0428	-1571.6757	6034.8187
297.8485	25.2916	-14.5210	612584.9942	3.3438
3.3818				
[2718]ENERGY:	570000	3178.4423	5200.5543	5548.2792
307.0462	-14143.1066	-1671.5394	0.0000	0.0000
7607.6741	6027.3500	297.4635	-1580.3241	6091.5436
298.1492	21.2374	-17.6019	607933.7578	-1.8291
-1.8532				
[2754]ENERGY:	580000	3211.3373	5257.4790	5507.6691
298.8225	-14090.8230	-1685.8960	0.0000	0.0000
7601.3608	6099.9497	297.2167	-1501.4111	6160.9906
299.2976	139.2734	116.8220	646665.9374	-0.6408
-0.6449				

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[2804]ENERGY:	590000	3180.2494	5246.4579	5493.1731
312.8397	-14101.7262	-1742.9409	0.0000	0.0000
7605.0991	5993.1522	297.3629	-1611.9470	6052.6279
299.9419	-53.3330	-140.1889	625943.8043	2.5141
2.4936				
[2843]ENERGY:	600000	3139.6611	5250.0079	5458.2493
310.4929	-14143.3432	-1703.8135	0.0000	0.0000
7557.0342	5868.2888	295.4835	-1688.7454	5930.9823
299.1656	-26.0180	-8.1851	644026.0798	3.7310
3.7591				
[2893]ENERGY:	610000	3217.2688	5114.3993	5507.2074
332.1408	-14096.7760	-1801.5053	0.0000	0.0000
7713.4490	5986.1841	301.5994	-1727.2649	6048.4138
297.5501	53.0706	-79.4223	647182.2944	-1.8298
-1.8423				
[2929]ENERGY:	620000	3210.6548	5294.9019	5513.3782
341.4890	-14086.1075	-1776.4620	0.0000	0.0000
7588.5840	6086.4383	296.7171	-1502.1457	6149.8715
298.1988	-143.1521	-2.4047	656516.4358	-0.3907
-0.3793				
[2979]ENERGY:	630000	3254.9755	5226.3642	5523.9240
326.5812	-14155.1582	-1663.3466	0.0000	0.0000
7643.3796	6156.7196	298.8596	-1486.6600	6218.6955
298.7348	30.2154	-3.5412	663513.7250	1.0703
1.0922				
[3015]ENERGY:	640000	3162.6554	5177.5220	5517.3976
322.9595	-14141.7063	-1664.9902	0.0000	0.0000
7647.7969	6021.6350	299.0324	-1626.1620	6083.5519
298.8410	32.2018	92.7894	652712.0362	-1.3109
-1.2985				
[3065]ENERGY:	650000	3141.5643	5152.4374	5525.7948
319.9497	-14097.4902	-1729.8477	0.0000	0.0000
7644.8776	5957.2858	298.9182	-1687.5918	6018.1044
298.9213	119.1363	-15.5433	657779.4320	0.6602
0.6312				
[3101]ENERGY:	660000	3178.5661	5213.6609	5431.1324
311.7142	-14183.1129	-1612.7737	0.0000	0.0000
7606.9900	5946.1769	297.4368	-1660.8131	6007.1291
297.2168	7.2777	30.1774	639252.1170	-2.0630
-2.0638				
[3151]ENERGY:	670000	3237.1552	5247.5467	5482.6286
311.6235	-14162.4850	-1684.0767	0.0000	0.0000
7511.5750	5943.9674	293.7060	-1567.6076	6004.2360
298.0805	-38.4109	-16.8664	617790.6021	-2.9196
-2.9114				
[3187]ENERGY:	680000	3150.5209	5225.0376	5473.8021
320.0579	-14092.9812	-1759.0590	0.0000	0.0000
7538.5617	5855.9401	294.7612	-1682.6216	5918.5995
297.4763	-36.3602	-68.2010	583842.9402	5.2118
5.2143				
[3237]ENERGY:	690000	3159.4901	5272.9820	5513.8699
313.0658	-14213.5114	-1670.3568	0.0000	0.0000
7669.3224	6044.8620	299.8740	-1624.4604	6107.5991
298.5108	159.5797	104.8781	589601.5533	0.6852

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0.6544					
[3276]ENERGY:	700000	3179.6756	5241.2386	5518.7736	
322.3114	-14204.2760	-1684.6371	0.0000	0.0000	
7580.8332	5953.9193	296.4140	-1626.9139	6017.0115	
297.8344	-54.5929	-66.0844	572892.7831	0.3040	
0.3476					
[3326]ENERGY:	710000	3187.4944	5181.7025	5507.4651	
336.3667	-14156.8944	-1700.0440	0.0000	0.0000	
7669.0675	6025.1578	299.8640	-1643.9097	6088.5649	
298.1604	-98.6580	-130.1614	565673.4489	1.1296	
1.1028					
[3362]ENERGY:	720000	3175.7428	5222.1522	5421.5118	
309.1209	-14063.6557	-1749.1710	0.0000	0.0000	
7732.4581	6048.1590	302.3426	-1684.2990	6111.8369	
299.6518	32.4442	-67.6525	568525.6612	0.0355	
0.0444					
[3412]ENERGY:	730000	3178.0021	5150.5679	5462.3951	
324.8491	-14243.3236	-1691.1954	0.0000	0.0000	
7625.9542	5807.2494	298.1783	-1818.7048	5872.4242	
298.2450	-12.4343	-14.8937	556473.5261	0.4922	
0.4808					
[3448]ENERGY:	740000	3211.6268	5154.3371	5447.9762	
313.5540	-14149.2952	-1661.2088	0.0000	0.0000	
7475.0406	5792.0306	292.2775	-1683.0100	5851.7211	
298.7068	71.4434	71.1251	538945.2063	0.7503	
0.7495					
[3498]ENERGY:	750000	3157.5150	5293.6925	5521.2970	
312.2221	-14157.7117	-1740.4561	0.0000	0.0000	
7607.3507	5993.9095	297.4509	-1613.4412	6053.8539	
296.4732	-153.3649	-110.4382	511540.4688	3.8760	
3.8782					
[266]ENERGY:	760000	3197.8384	5216.7852	5542.7027	334.9515
-14173.9059	-1667.6730	0.0000	0.0000	7542.9030	
5993.6020	294.9653	-1549.3010	6054.9761	298.7688	
-113.6951	-227.3699	511540.4688	-2.2748	-2.2676	
[305]ENERGY:	770000	3225.5945	5195.6890	5478.5354	330.7931
-14174.7753	-1661.4917	0.0000	0.0000	7601.0488	
5995.3937	297.2391	-1605.6550	6056.6821	298.6155	
-130.7157	-119.3894	511540.4688	0.1474	0.1563	
[357]ENERGY:	780000	3230.5901	5114.4164	5496.4802	335.4343
-14169.1010	-1686.3511	0.0000	0.0000	7671.4698	
5992.9387	299.9929	-1678.5311	6055.1181	298.7200	
-99.3304	-53.5613	511540.4688	-1.3898	-1.3946	
[395]ENERGY:	790000	3158.4628	5299.4381	5430.7599	316.8697
-14236.3479	-1688.3892	0.0000	0.0000	7712.5594	
5993.3528	301.5998	-1719.2067	6056.0208	298.8345	
214.0871	73.7267	511540.4688	0.9678	0.9461	
[449]ENERGY:	800000	3048.0276	5135.7370	5525.5240	338.8113
-14148.7100	-1621.5955	0.0000	0.0000	7713.1703	
5990.9647	301.6236	-1722.2056	6056.4928	298.8690	
361.2124	235.6887	511540.4688	1.3379	1.3543	
[487]ENERGY:	810000	3148.3092	5218.0582	5505.9913	324.8584
-14153.0022	-1708.5775	0.0000	0.0000	7665.8278	
6001.4652	299.7723	-1664.3626	6057.4837	298.7552	

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	24.8755	-84.1389	511540.4688	1.3439	1.3359
[538]ENERGY:	820000	3283.3956	5059.2874	5520.7991	331.9711
	-14060.5760	-1767.5295	0.0000	0.0000	7625.8451
	5993.1928	298.2088	-1632.6523	6056.4956	298.8599
	-57.0940	-26.9767	511540.4688	-1.7212	-1.7222
[575]ENERGY:	830000	3194.1267	5178.0068	5446.9890	325.9645
	-14077.2006	-1710.8084	0.0000	0.0000	7638.4752
	5995.5533	298.7027	-1642.9219	6055.5498	298.7464
	-250.4178	-172.6658	511540.4688	0.1642	0.2005
[626]ENERGY:	840000	3119.3366	5326.9482	5490.4198	309.4861
	-14160.7073	-1712.8549	0.0000	0.0000	7620.6463
	5993.2749	298.0055	-1627.3715	6055.8796	298.9456
	-144.0461	-148.0715	511540.4688	-1.7187	-1.7574
[663]ENERGY:	850000	3175.4798	5178.7180	5423.4485	322.0752
	-14038.8326	-1718.7560	0.0000	0.0000	7651.7926
	5993.9256	299.2235	-1657.8670	6055.8081	298.9841
	-129.1660	-11.0812	511540.4688	2.7433	2.7842
[714]ENERGY:	860000	3217.1063	5176.7442	5492.1934	303.7678
	-14175.5415	-1663.6608	0.0000	0.0000	7643.2842
	5993.8936	298.8907	-1649.3906	6056.0356	299.2231
	-26.8345	10.6633	511540.4688	-0.7814	-0.7886
[750]ENERGY:	870000	3235.3609	5253.6397	5428.2635	325.6029
	-14149.5964	-1698.9618	0.0000	0.0000	7600.6878
	5994.9966	297.2250	-1605.6912	6056.1866	299.1644
	-241.3918	-251.2092	511540.4688	-1.1243	-1.1316
[800]ENERGY:	880000	3256.0524	5189.9114	5475.0814	330.4329
	-14120.7140	-1724.3149	0.0000	0.0000	7589.6983
	5996.1474	296.7953	-1593.5509	6056.9617	299.3418
	-17.1987	-89.1222	511540.4688	1.5015	1.4838
[836]ENERGY:	890000	3189.3874	5249.9633	5477.2788	301.3267
	-14100.5516	-1699.0427	0.0000	0.0000	7580.2697
	5998.6316	296.4266	-1581.6380	6055.9997	299.2596
	138.5789	145.4097	511540.4688	-2.7253	-2.7090
[889]ENERGY:	900000	3199.2526	5200.7205	5527.2691	316.1408
	-14226.5085	-1681.8363	0.0000	0.0000	7658.9712
	5994.0093	299.5042	-1664.9619	6056.3762	299.3049
	-116.0650	-85.0733	511540.4688	3.7667	3.7854
[925]ENERGY:	910000	3170.3267	5178.9258	5493.9404	327.8482
	-14125.0815	-1646.6921	0.0000	0.0000	7597.1735
	5996.4410	297.0876	-1600.7326	6056.8510	299.1060
	190.3628	21.9411	511540.4688	0.5845	0.5422
[975]ENERGY:	920000	3190.5878	5199.5378	5491.9828	295.5269
	-14179.2840	-1660.5753	0.0000	0.0000	7658.1762
	5995.9523	299.4731	-1662.2239	6056.8455	299.1058
	-8.4160	-13.1341	511540.4688	-3.5077	-3.4875
[1011]ENERGY:	930000	3142.2966	5221.5418	5501.0759	
	291.4699	-14138.3749	-1702.1865	0.0000	0.0000
	7678.9775	5994.8004	300.2865	-1684.1771	6057.9988
	299.2440	-98.6732	-117.8735	511540.4688	2.8386
	2.8230				
[1061]ENERGY:	940000	3206.5629	5176.7234	5491.8602	
	314.1993	-14230.1194	-1590.3773	0.0000	0.0000
	7628.3430	5997.1922	298.3065	-1631.1508	6056.8235
	299.0567	294.0727	192.5879	511540.4688	0.0522

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0.0443
 [1097]ENERGY: 950000 3173.5836 5178.2456 5490.1169
 335.9457 -14156.5473 -1683.3870 0.0000 0.0000
 7654.5370 5992.4945 299.3308 -1662.0425 6055.5883
 299.1291 119.0863 133.5968 511540.4688 1.1990
 1.2292
 [1147]ENERGY: 960000 3114.6129 5120.6527 5513.5546
 301.5498 -14033.2200 -1689.7148 0.0000 0.0000
 7665.9756 5993.4109 299.7781 -1672.5647 6055.5359
 299.0726 38.4540 66.4380 511540.4688 2.3172
 2.3209
 [1183]ENERGY: 970000 3179.4548 5242.4013 5487.4061
 319.2903 -14174.6919 -1741.7611 0.0000 0.0000
 7683.0393 5995.1389 300.4454 -1687.9005 6056.0704
 299.0150 -126.5395 -184.9954 511540.4688 1.0868
 1.0711
 [1233]ENERGY: 980000 3199.8026 5136.1107 5461.2766
 312.9185 -14141.0034 -1625.4811 0.0000 0.0000
 7650.4234 5994.0474 299.1699 -1656.3760 6055.8676
 299.0049 164.2714 85.6511 511540.4688 -0.5558
 -0.5612
 [1269]ENERGY: 990000 3220.6008 5239.7783 5446.7169
 330.1018 -14233.7689 -1678.2108 0.0000 0.0000
 7667.6532 5992.8713 299.8437 -1674.7819 6056.0383
 299.4782 60.4684 80.3062 511540.4688 -1.8808
 -1.8813
 [1322]ENERGY: 1000000 3126.4032 5213.9271 5456.4955
 317.0790 -14122.4047 -1669.0260 0.0000 0.0000
 7671.4461 5993.9202 299.9920 -1677.5260 6056.8849
 299.5114 -45.0164 -67.4676 511540.4688 -1.6660
 -1.6738
 [1358]ENERGY: 1010000 3189.9665 5186.6858 5487.8501
 324.7463 -14185.3643 -1603.7844 0.0000 0.0000
 7594.6316 5994.7315 296.9882 -1599.9001 6055.7495
 299.6354 70.3534 -41.4593 511540.4688 -13.9550
 -13.9482
 [1408]ENERGY: 1020000 3177.0235 5153.4447 5481.6129
 316.5996 -14102.6109 -1710.6425 0.0000 0.0000
 7678.3184 5993.7456 300.2608 -1684.5727 6056.3583
 300.0143 -190.7220 -226.2630 511540.4688 -22.1472
 -22.1376
 [1444]ENERGY: 1030000 3239.0269 5088.4119 5473.6677
 331.9881 -14184.2589 -1691.6564 0.0000 0.0000
 7735.5869 5992.7662 302.5002 -1742.8207 6056.3992
 300.2631 66.0232 -52.1891 511540.4688 -24.3887
 -24.3996
 [1494]ENERGY: 1040000 3094.0823 5250.6395 5450.0159
 318.1249 -14220.9764 -1612.6208 0.0000 0.0000
 7712.1203 5991.3857 301.5826 -1720.7346 6056.7263
 300.4083 169.5541 154.2758 511540.4688 -21.9800
 -21.9517
 [1530]ENERGY: 1050000 3234.7339 5283.3431 5388.1613
 320.3056 -14242.0927 -1639.3300 0.0000 0.0000
 7647.6195 5992.7408 299.0603 -1654.8787 6055.6975

Supplementary Text 6

300.3406	124.1266	90.2139	511540.4688	-24.5584
-24.5662				
[1580]ENERGY: 1060000	3234.9128	5101.3625	5472.9714	
311.7782	-14165.2726	-1709.7531	0.0000	0.0000
7744.4349	5990.4341	302.8462	-1754.0008	6056.4676
300.5224	90.1953	80.3949	511540.4688	-17.1418
-17.1318				
[1616]ENERGY: 1070000	3242.9074	5250.1353	5472.8057	
331.8446	-14192.4092	-1709.6361	0.0000	0.0000
7599.4782	5995.1260	297.1777	-1604.3522	6057.1955
300.6387	-84.9079	15.8433	511540.4688	-21.3446
-21.3614				
[1666]ENERGY: 1080000	3208.8623	5281.2133	5429.7572	
319.3899	-14237.0567	-1734.5979	0.0000	0.0000
7726.3465	5993.9147	302.1389	-1732.4319	6057.5518
300.8772	14.9907	43.3483	511540.4688	-16.1087
-16.1099				
[1702]ENERGY: 1090000	3167.9812	5266.6048	5472.9827	
307.6174	-14231.5105	-1677.9617	0.0000	0.0000
7690.8671	5996.5809	300.7515	-1694.2862	6057.7454
300.8915	-8.0459	-42.1898	511540.4688	-17.8384
-17.8369				
[1755]ENERGY: 1100000	3155.9341	5245.0937	5414.0877	
325.2440	-14166.3543	-1698.1197	0.0000	0.0000
7718.6967	5994.5822	301.8398	-1724.1145	6056.7682
300.9507	91.3333	133.0140	511540.4688	-17.1765
-17.1745				
[1791]ENERGY: 1110000	3203.3522	5187.3741	5445.7953	
330.5336	-14195.3518	-1678.5657	0.0000	0.0000
7702.6800	5995.8177	301.2134	-1706.8624	6057.1549
300.9881	-21.3634	-67.6729	511540.4688	-19.5560
-19.5506				
[1841]ENERGY: 1120000	3146.6842	5301.3076	5467.1988	
327.8612	-14246.5520	-1693.6184	0.0000	0.0000
7691.3611	5994.2424	300.7708	-1697.1186	6057.2959
300.9209	184.5880	43.4034	511540.4688	-23.3504
-23.3784				
[1877]ENERGY: 1130000	3178.4929	5235.2227	5478.4612	
325.0295	-14347.6254	-1668.2820	0.0000	0.0000
7790.4033	5991.7022	304.6438	-1798.7010	6056.4861
300.8712	23.4275	65.0725	511540.4688	-17.9434
-17.9215				
[1927]ENERGY: 1140000	3193.2684	5253.8529	5492.7235	
322.7969	-14245.7753	-1689.6436	0.0000	0.0000
7667.7636	5994.9864	299.8480	-1672.7771	6056.9106
300.9092	219.0596	108.2001	511540.4688	-21.7608
-21.7703				
[1963]ENERGY: 1150000	3227.4783	5214.1432	5482.1403	
302.8554	-14086.5917	-1798.6533	0.0000	0.0000
7653.1306	5994.5028	299.2758	-1658.6278	6056.7648
300.9477	-168.0160	-227.4965	511540.4688	-17.8468
-17.8499				
[2013]ENERGY: 1160000	3228.3403	5256.7215	5424.6529	
317.2166	-14130.8753	-1735.6225	0.0000	0.0000

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7633.8634	5994.2969	298.5223	-1639.5665	6056.4079
301.0767	32.7468	-45.3241	511540.4688	-20.6259
-20.6119				
[2049]ENERGY: 1170000	3212.1243	5215.3513	5410.3641	
313.0006	-14158.8215	-1720.7485	0.0000	0.0000
7724.0332	5995.3036	302.0484	-1728.7297	6058.5658
301.0302	-117.2274	-169.2773	511540.4688	-22.1560
-22.1482				
[2099]ENERGY: 1180000	3180.0582	5237.4276	5476.7069	
336.9315	-14225.2846	-1727.8025	0.0000	0.0000
7718.7155	5996.7526	301.8405	-1721.9629	6059.0256
301.0011	40.3021	32.9924	511540.4688	-15.4808
-15.4912				
[2135]ENERGY: 1190000	3161.6422	5207.8344	5470.0237	
339.9636	-14167.6821	-1752.8935	0.0000	0.0000
7733.8552	5992.7434	302.4325	-1741.1118	6057.3041
301.1656	126.0927	116.9674	511540.4688	-18.6136
-18.6061				
[2188]ENERGY: 1200000	3171.1238	5226.0128	5425.1215	
316.7777	-14175.0702	-1734.7085	0.0000	0.0000
7765.5842	5994.8414	303.6733	-1770.7428	6058.0598
301.2003	-58.2011	2.9238	511540.4688	-13.3629
-13.3549				
[2224]ENERGY: 1210000	3229.9569	5208.0383	5466.4541	
304.8867	-14204.9286	-1704.3929	0.0000	0.0000
7697.9092	5997.9236	301.0269	-1699.9856	6057.7422
301.0936	-48.4060	-112.6910	511540.4688	-20.6860
-20.6978				
[2274]ENERGY: 1220000	3210.5375	5327.0689	5451.3401	
313.2199	-14221.8024	-1754.2257	0.0000	0.0000
7672.2636	5998.4019	300.0240	-1673.8617	6059.2551
301.4352	169.5717	63.6241	511540.4688	-21.0970
-21.0868				
[2310]ENERGY: 1230000	3123.1477	5283.7729	5442.6387	
316.6112	-14260.7071	-1644.9938	0.0000	0.0000
7735.6113	5996.0810	302.5012	-1739.5304	6059.2486
301.0796	60.2581	93.3988	511540.4688	-20.7919
-20.7990				
[2360]ENERGY: 1240000	3182.4578	5181.5907	5441.6622	
334.0246	-14153.8347	-1768.6170	0.0000	0.0000
7776.2424	5993.5260	304.0901	-1782.7165	6058.8163
301.0385	-139.8188	-156.4869	511540.4688	-15.1005
-15.1338				
[2396]ENERGY: 1250000	3241.3007	5285.5492	5401.4571	
334.9859	-14183.9989	-1733.5134	0.0000	0.0000
7650.7086	5996.4892	299.1811	-1654.2195	6059.1540
300.8533	-191.9290	-61.7403	511540.4688	-22.3564
-22.3346				
[2446]ENERGY: 1260000	3230.0261	5308.2249	5406.5372	
323.5975	-14119.5805	-1761.5400	0.0000	0.0000
7611.4068	5998.6720	297.6442	-1612.7348	6059.5390
300.9707	-88.6444	-193.3539	511540.4688	-20.5162
-20.5072				
[2482]ENERGY: 1270000	3222.8359	5188.5512	5429.6254	

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342.0445	-14145.9046	-1725.7677	0.0000	0.0000
7685.8618	5997.2466	300.5557	-1688.6152	6059.1807
301.1162	-118.7129	-119.5480	511540.4688	-18.6080
-18.6182				
[2532]ENERGY: 1280000	3165.2620	5291.8903	5419.6654	
311.6633	-14160.6473	-1696.9966	0.0000	0.0000
7666.5204	5997.3574	299.7994	-1669.1630	6059.1447
301.2947	49.1566	-60.9685	511540.4688	-19.3938
-19.3966				
[2568]ENERGY: 1290000	3168.0594	5268.8406	5475.4270	
305.7762	-14252.4435	-1708.2124	0.0000	0.0000
7739.0740	5996.5213	302.6366	-1742.5527	6059.7027
301.5177	179.5985	122.9271	511540.4688	-19.8975
-19.8937				
[2621]ENERGY: 1300000	3145.8645	5290.1714	5450.8904	
340.5416	-14207.8486	-1759.4638	0.0000	0.0000
7738.3247	5998.4802	302.6073	-1739.8445	6059.7489
301.6030	-11.7838	39.7472	511540.4688	-18.6090
-18.5872				
[2657]ENERGY: 1310000	3199.4147	5296.1935	5392.8237	
285.6905	-14196.2015	-1727.8250	0.0000	0.0000
7746.5441	5996.6399	302.9287	-1749.9042	6059.7154
301.7849	33.7667	56.4955	511540.4688	-22.5925
-22.6044				
[2707]ENERGY: 1320000	3187.0527	5188.7000	5463.5639	
317.1958	-14148.1673	-1766.8796	0.0000	0.0000
7756.9030	5998.3684	303.3338	-1758.5346	6060.9116
301.6389	25.9170	-118.8963	511540.4688	-18.3987
-18.4216				
[2743]ENERGY: 1330000	3145.8990	5198.9092	5454.9976	
326.3551	-14122.1382	-1691.9829	0.0000	0.0000
7690.3969	6002.4366	300.7331	-1687.9602	6060.9627
301.6087	55.1839	-41.2265	511540.4688	-19.6823
-19.6601				
[2793]ENERGY: 1340000	3248.7882	5172.7614	5467.4396	
313.3783	-14238.6302	-1692.4065	0.0000	0.0000
7729.1993	6000.5302	302.2505	-1728.6691	6060.9231
301.5517	44.6521	-57.5257	511540.4688	-19.6325
-19.6601				
[2829]ENERGY: 1350000	3133.0838	5160.4954	5488.0559	
345.3815	-14160.2191	-1750.8875	0.0000	0.0000
7781.4673	5997.3774	304.2944	-1784.0899	6060.8158
301.7496	-38.0125	-142.9660	511540.4688	-18.0794
-18.0788				
[2879]ENERGY: 1360000	3176.6978	5268.1444	5504.3910	
333.5971	-14294.9076	-1743.0218	0.0000	0.0000
7754.2261	5999.1270	303.2291	-1755.0991	6061.3779
301.5195	-227.7315	-186.2794	511540.4688	-19.1566
-19.1457				
[2915]ENERGY: 1370000	3214.2892	5259.6977	5533.4330	
327.1848	-14230.8175	-1749.5258	0.0000	0.0000
7646.5401	6000.8014	299.0181	-1645.7387	6061.6933
301.8465	-82.6403	-22.8277	511540.4688	-21.7612
-21.7616				

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[2965]ENERGY: 1380000	3169.1999	5179.6933	5453.4137	
328.9201	-14161.0144	-1689.8629	0.0000	0.0000
7720.0287	6000.3784	301.8918	-1719.6503	6062.0924
301.9045	342.0122	140.8653	511540.4688	-17.9161
-17.8906				
[3001]ENERGY: 1390000	3186.9244	5258.4443	5489.1194	
328.3660	-14193.7729	-1765.7960	0.0000	0.0000
7698.2615	6001.5467	301.0406	-1696.7147	6062.3614
302.0048	-49.3211	-87.6556	511540.4688	-15.7055
-15.7141				
[3054]ENERGY: 1400000	3178.0767	5172.9347	5478.1562	
312.3265	-14186.7216	-1739.9153	0.0000	0.0000
7782.7652	5997.6222	304.3452	-1785.1429	6061.6637
301.8370	-48.7386	-71.8452	511540.4688	-18.6184
-18.6141				
[3090]ENERGY: 1410000	3218.8771	5271.5913	5475.4721	
331.5664	-14256.6581	-1731.8973	0.0000	0.0000
7689.5221	5998.4735	300.6989	-1691.0485	6062.8265
301.7862	184.9249	186.2453	511540.4688	-19.4179
-19.4232				
[3140]ENERGY: 1420000	3169.7066	5245.7656	5492.5428	
317.9903	-14235.1984	-1745.7611	0.0000	0.0000
7753.4692	5998.5150	303.1995	-1754.9542	6062.2923
302.0134	114.3326	94.3088	511540.4688	-19.0676
-19.0625				
[3176]ENERGY: 1430000	3286.1234	5217.5812	5447.2554	
298.6632	-14187.6499	-1716.9327	0.0000	0.0000
7658.8544	6003.8951	299.4996	-1654.9594	6063.4962
302.3807	-144.2542	-103.9839	511540.4688	-15.2819
-15.2752				
[3226]ENERGY: 1440000	3204.9738	5283.4691	5418.8970	
311.4633	-14282.0582	-1723.7535	0.0000	0.0000
7783.5419	5996.5336	304.3755	-1787.0084	6062.0497
302.2054	-111.2351	-216.3763	511540.4688	-15.2343
-15.2687				
[3262]ENERGY: 1450000	3192.9843	5235.5162	5479.0917	
339.3556	-14309.9481	-1709.6388	0.0000	0.0000
7769.4190	5996.7800	303.8233	-1772.6391	6062.8577
302.2408	73.9539	38.1596	511540.4688	-17.8097
-17.7797				
[3312]ENERGY: 1460000	3184.9824	5278.9695	5462.0073	
298.0215	-14259.3336	-1713.6453	0.0000	0.0000
7748.2319	5999.2338	302.9947	-1748.9982	6062.8704
302.3137	74.2403	-0.3250	511540.4688	-15.4270
-15.4389				
[3348]ENERGY: 1470000	3158.7964	5179.3714	5394.5606	
341.2657	-14175.0564	-1652.0236	0.0000	0.0000
7753.6582	6000.5723	303.2069	-1753.0859	6063.7231
302.3583	110.0120	102.8663	511540.4688	-13.4737
-13.4723				
[3398]ENERGY: 1480000	3158.9216	5256.6541	5460.9298	
335.4608	-14237.7075	-1791.3425	0.0000	0.0000
7816.8606	5999.7770	305.6785	-1817.0836	6064.5013
302.3581	230.6349	189.9663	511540.4688	-16.0026

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-16.0083
 [3434]ENERGY: 1490000 3192.6154 5189.6918 5504.1858
 343.9495 -14182.7512 -1757.9196 0.0000 0.0000
 7713.5083 6003.2800 301.6369 -1710.2283 6064.7937
 302.3879 175.4558 103.1537 511540.4688 -11.5513
 -11.5460
 [3487]ENERGY: 1500000 3170.9388 5283.9234 5535.1435
 328.0882 -14364.5466 -1649.3549 0.0000 0.0000
 7697.4746 6001.6671 301.0099 -1695.8075 6063.8382
 302.3630 186.1410 129.5556 511540.4688 -19.1438
 -19.1531
 [3523]ENERGY: 1510000 3181.2024 5234.1482 5441.6958
 327.7818 -14125.8972 -1748.6341 0.0000 0.0000
 7695.0992 6005.3962 300.9170 -1689.7030 6064.4884
 302.4755 -190.0188 -238.5069 511540.4688 -14.9895
 -14.9875
 [3573]ENERGY: 1520000 3167.8562 5234.9748 5455.5481
 316.4882 -14153.9242 -1778.4284 0.0000 0.0000
 7759.5409 6002.0556 303.4370 -1757.4853 6065.3530
 302.3808 55.4619 -10.8067 511540.4688 -20.0963
 -20.0904
 [3609]ENERGY: 1530000 3157.1267 5264.3942 5498.9472
 329.6770 -14224.7162 -1730.6641 0.0000 0.0000
 7707.4202 6002.1851 301.3988 -1705.2351 6064.5204
 302.4179 -89.8582 -72.6176 511540.4688 -15.0560
 -15.0456
 [3659]ENERGY: 1540000 3264.9597 5220.5762 5386.4567
 289.2069 -14281.7904 -1690.3124 0.0000 0.0000
 7810.9426 6000.0393 305.4470 -1810.9033 6064.4385
 302.6226 -100.4378 -131.3864 511540.4688 -18.0321
 -18.0399
 [3695]ENERGY: 1550000 3176.6767 5408.7912 5399.8044
 350.3595 -14310.1622 -1751.0437 0.0000 0.0000
 7727.1085 6001.5345 302.1687 -1725.5740 6065.1296
 302.6854 85.4154 77.7487 511540.4688 -15.3991
 -15.3991
 [3745]ENERGY: 1560000 3171.2097 5187.9371 5442.7199
 317.6722 -14212.2879 -1675.2519 0.0000 0.0000
 7767.4573 5999.4564 303.7465 -1768.0009 6064.0976
 302.6852 -103.3125 -89.4814 511540.4688 -15.2626
 -15.2574
 [3781]ENERGY: 1570000 3229.4720 5179.9322 5448.4045
 329.0770 -14284.7687 -1660.1519 0.0000 0.0000
 7761.3224 6003.2876 303.5066 -1758.0348 6064.5451
 302.7120 -52.3412 -89.3881 511540.4688 -10.8233
 -10.8527
 [3831]ENERGY: 1580000 3249.3363 5304.5571 5409.6323
 315.7612 -14281.8996 -1714.0834 0.0000 0.0000
 7717.2052 6000.5090 301.7814 -1716.6962 6065.2285
 302.6564 11.4409 -22.3457 511540.4688 -16.7998
 -16.7868
 [3867]ENERGY: 1590000 3198.6193 5232.8819 5448.7304
 308.6357 -14183.5149 -1733.8942 0.0000 0.0000
 7734.5479 6006.0061 302.4596 -1728.5418 6065.9237

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302.7550	-37.8617	-80.5851	511540.4688	-15.4411
-15.4264				
[3920]ENERGY: 1600000	3232.6908	5306.1044	5440.7020	
329.6147	-14328.7870	-1715.4706	0.0000	0.0000
7734.4612	5999.3155	302.4562	-1735.1457	6065.7971
302.8107	-65.8157	-169.0732	511540.4688	-17.7822
-17.8172				
[3956]ENERGY: 1610000	3211.5615	5262.4320	5437.2413	
312.9369	-14290.0950	-1688.5646	0.0000	0.0000
7755.8547	6001.3667	303.2928	-1754.4880	6065.1433
302.7055	16.5010	47.6742	511540.4688	-18.1920
-18.1659				
[4006]ENERGY: 1620000	3216.9845	5224.9938	5446.4733	
329.9935	-14266.8412	-1714.2032	0.0000	0.0000
7763.7074	6001.1080	303.5999	-1762.5994	6066.6108
302.8131	-86.6507	-122.3680	511540.4688	-17.4766
-17.4690				
[4042]ENERGY: 1630000	3198.6050	5319.1739	5470.8484	
347.3414	-14341.2930	-1744.8587	0.0000	0.0000
7751.9733	6001.7903	303.1410	-1750.1830	6065.1224
302.7580	-349.4644	-242.6611	511540.4688	-19.9121
-19.9037				
[4092]ENERGY: 1640000	3183.8503	5243.1686	5450.8566	
317.2717	-14265.3570	-1686.5914	0.0000	0.0000
7761.1019	6004.3006	303.4980	-1756.8012	6065.3983
302.6182	-32.6688	-26.8587	511540.4688	-19.9750
-19.9730				
[4128]ENERGY: 1650000	3143.1103	5313.0303	5491.8471	
329.9997	-14353.8000	-1668.0802	0.0000	0.0000
7746.4422	6002.5494	302.9247	-1743.8928	6066.1737
302.5834	40.1110	180.3064	511540.4688	-20.0224
-20.0364				
[4178]ENERGY: 1660000	3210.1352	5202.8231	5436.3366	
318.9019	-14195.4342	-1741.9884	0.0000	0.0000
7772.8611	6003.6352	303.9579	-1769.2259	6066.2759
302.7262	111.0839	106.1174	511540.4688	-20.3044
-20.3093				
[4214]ENERGY: 1670000	3154.1608	5149.1437	5498.4309	
306.6975	-14183.2374	-1712.2768	0.0000	0.0000
7789.2790	6002.1978	304.5999	-1787.0813	6066.3733
302.6555	9.6220	-20.2765	511540.4688	-16.1217
-16.1076				
[4264]ENERGY: 1680000	3222.8452	5330.7091	5425.5102	
323.9160	-14304.9328	-1713.4221	0.0000	0.0000
7719.2990	6003.9247	301.8633	-1715.3744	6066.3079
302.5937	-192.0688	-119.1749	511540.4688	-20.6474
-20.6632				
[4300]ENERGY: 1690000	3169.1607	5255.7458	5437.2820	
314.7984	-14289.7066	-1711.1329	0.0000	0.0000
7828.0474	6004.1948	306.1159	-1823.8526	6066.5311
303.1410	90.6348	33.3767	511540.4688	-17.3828
-17.3748				
[4353]ENERGY: 1700000	3221.8950	5305.0468	5494.9442	
301.1932	-14298.6706	-1687.4857	0.0000	0.0000

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7669.1792	6006.1020	299.9034	-1663.0772	6067.7341
303.0179	172.3648	27.7006	511540.4688	-16.7322
-16.7279				
[4389]ENERGY: 1710000	3206.3515	5237.7934	5458.8998	
317.8020	-14291.5748	-1678.7239	0.0000	0.0000
7752.7349	6003.2829	303.1708	-1749.4520	6068.0578
302.9540	124.7153	69.4049	511540.4688	-23.1473
-23.1624				
[4439]ENERGY: 1720000	3249.9979	5246.8673	5477.2256	
350.0167	-14279.8293	-1737.0487	0.0000	0.0000
7697.7136	6004.9430	301.0192	-1692.7706	6067.8314
302.8739	33.2499	-32.9574	511540.4688	-19.5329
-19.5257				
[4475]ENERGY: 1730000	3241.9915	5267.8291	5435.4856	
310.7640	-14310.1653	-1752.7853	0.0000	0.0000
7810.4858	6003.6055	305.4292	-1806.8804	6068.3456
302.7757	127.4045	125.3885	511540.4688	-19.2169
-19.2261				
[4525]ENERGY: 1740000	3259.5556	5257.0136	5452.2198	
322.3784	-14211.7206	-1784.1592	0.0000	0.0000
7714.3878	6009.6754	301.6713	-1704.7125	6068.6105
302.9594	-65.4003	-179.6029	511540.4688	-10.5387
-10.5387				
[4561]ENERGY: 1750000	3228.5764	5314.5844	5467.2120	
299.1813	-14290.8242	-1759.5856	0.0000	0.0000
7745.9063	6005.0507	302.9038	-1740.8556	6068.6449
303.0832	-200.0629	-83.6747	511540.4688	-17.8792
-17.8500				
[4611]ENERGY: 1760000	3176.1560	5259.3865	5483.6223	
310.2715	-14291.9612	-1695.6476	0.0000	0.0000
7760.8177	6002.6452	303.4869	-1758.1725	6068.8223
303.0379	-107.5377	42.5433	511540.4688	-17.2647
-17.2802				
[4647]ENERGY: 1770000	3254.0398	5252.5002	5453.5280	
309.9540	-14256.7058	-1773.2674	0.0000	0.0000
7766.4507	6006.4995	303.7072	-1759.9512	6068.3805
303.0574	-291.4431	-198.9290	511540.4688	-16.8898
-16.8904				
[4697]ENERGY: 1780000	3245.0748	5359.4270	5450.2823	
289.9055	-14286.6263	-1758.9003	0.0000	0.0000
7707.0619	6006.2248	301.3848	-1700.8371	6068.6963
303.0241	-113.3431	-200.9240	511540.4688	-12.7551
-12.7624				
[4733]ENERGY: 1790000	3218.3055	5338.1001	5514.2522	
334.3759	-14319.1316	-1744.5209	0.0000	0.0000
7665.2969	6006.6781	299.7516	-1658.6188	6068.9276
302.8060	-53.1075	-68.0302	511540.4688	-20.5275
-20.5152				
[4786]ENERGY: 1800000	3213.6494	5338.6080	5461.1651	
327.0389	-14234.9557	-1759.7581	0.0000	0.0000
7661.6002	6007.3476	299.6070	-1654.2526	6068.8383
303.0744	1.6174	-3.0749	511540.4688	-17.0409
-17.0496				
[4822]ENERGY: 1810000	3249.6578	5339.5479	5387.0194	

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337.1313	-14250.5694	-1744.5808	0.0000	0.0000
7686.1040	6004.3102	300.5652	-1681.7938	6068.3094
303.1607	-21.5374	57.4155	511540.4688	-17.5042
-17.5013				
[4872]ENERGY: 1820000	3168.6557	5301.8832	5481.9554	
331.9036	-14345.7550	-1679.8112	0.0000	0.0000
7745.4572	6004.2889	302.8862	-1741.1683	6068.8596
303.1053	56.4113	89.6534	511540.4688	-14.6055
-14.5917				
[4908]ENERGY: 1830000	3211.3651	5164.5291	5484.0301	
341.3767	-14260.9911	-1650.3304	0.0000	0.0000
7714.4578	6004.4373	301.6740	-1710.0205	6068.2020
303.1735	219.6908	85.7238	511540.4688	-20.6779
-20.7165				
[4958]ENERGY: 1840000	3245.8585	5292.3643	5445.0350	
344.9019	-14378.2250	-1661.3551	0.0000	0.0000
7719.6908	6008.2705	301.8786	-1711.4204	6069.9861
303.2434	82.2201	-31.8623	511540.4688	-17.3619
-17.3495				
[4994]ENERGY: 1850000	3285.2591	5288.4037	5463.9608	
322.5195	-14275.1474	-1742.5777	0.0000	0.0000
7666.4176	6008.8355	299.7954	-1657.5821	6070.0415
303.0090	-69.8544	-77.2973	511540.4688	-17.9635
-17.9543				
[5044]ENERGY: 1860000	3224.6215	5255.8176	5499.1442	
337.4200	-14333.8757	-1726.3752	0.0000	0.0000
7749.6206	6006.3731	303.0490	-1743.2475	6070.1218
302.9108	-14.6097	58.6739	511540.4688	-14.2258
-14.2224				
[5080]ENERGY: 1870000	3193.7511	5294.6475	5463.1155	
311.3713	-14319.9662	-1688.3368	0.0000	0.0000
7751.9134	6006.4957	303.1387	-1745.4177	6070.0160
302.8664	132.9527	83.4919	511540.4688	-18.9712
-18.9791				
[5130]ENERGY: 1880000	3240.9375	5288.4977	5430.1209	
324.5127	-14227.4083	-1731.8563	0.0000	0.0000
7684.1088	6008.9131	300.4872	-1675.1957	6070.8576
302.9921	77.7810	13.0729	511540.4688	-10.0694
-10.0713				
[5166]ENERGY: 1890000	3210.3341	5293.7150	5417.2865	
321.8225	-14281.0672	-1689.3398	0.0000	0.0000
7731.5640	6004.3151	302.3429	-1727.2489	6069.4826
302.8921	105.6918	73.3600	511540.4688	-16.0135
-16.0176				
[5219]ENERGY: 1900000	3284.7795	5208.7672	5484.4524	
308.5822	-14338.7170	-1705.9745	0.0000	0.0000
7766.3247	6008.2144	303.7022	-1758.1102	6068.9927
303.1102	-104.9822	-68.6137	511540.4688	-13.0619
-13.0573				
[5255]ENERGY: 1910000	3202.4366	5279.3209	5490.6256	
321.1363	-14410.2659	-1683.6074	0.0000	0.0000
7805.4125	6005.0587	305.2308	-1800.3538	6069.2534
303.3282	-147.4000	-146.7370	511540.4688	-15.5006
-15.4807				

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[5305]ENERGY: 1920000	3315.8790	5230.2382	5492.2573	
336.2112	-14369.7110	-1740.0687	0.0000	0.0000
7747.6863	6012.4923	302.9734	-1735.1940	6071.7482
303.3681	-185.4130	-251.3752	511540.4688	-12.4575
-12.4816				
[5341]ENERGY: 1930000	3260.7336	5222.2660	5420.5983	
335.1129	-14232.0195	-1713.4010	0.0000	0.0000
7716.2836	6009.5739	301.7454	-1706.7097	6072.0118
303.1554	-146.6659	-144.1662	511540.4688	-16.0743
-16.0740				
[5391]ENERGY: 1940000	3247.3270	5221.3246	5478.7589	
329.0850	-14306.1715	-1738.2482	0.0000	0.0000
7777.8402	6009.9160	304.1526	-1767.9242	6072.2768
303.1563	133.7355	-37.6060	511540.4688	-15.5798
-15.5994				
[5427]ENERGY: 1950000	3106.4312	5215.2113	5464.7207	
331.6043	-14183.3573	-1666.3357	0.0000	0.0000
7738.7718	6007.0463	302.6248	-1731.7255	6071.7343
302.8863	209.9866	198.0644	511540.4688	-13.9548
-13.9209				
[5477]ENERGY: 1960000	3215.5226	5229.6851	5455.6235	
326.1056	-14245.7423	-1753.3538	0.0000	0.0000
7780.2426	6008.0834	304.2465	-1772.1592	6071.1713
302.9259	11.7728	-58.1578	511540.4688	-16.6810
-16.6864				
[5513]ENERGY: 1970000	3232.0589	5293.9322	5460.6402	
324.0081	-14319.0699	-1669.2941	0.0000	0.0000
7684.7644	6007.0397	300.5128	-1677.7246	6071.6129
303.2760	39.0516	54.1757	511540.4688	-17.4318
-17.4145				
[5563]ENERGY: 1980000	3264.6707	5266.4248	5449.2767	
319.7704	-14365.8994	-1676.7145	0.0000	0.0000
7750.1085	6007.6372	303.0681	-1742.4713	6070.8655
303.4641	-98.2339	-97.0357	511540.4688	-16.0606
-16.0927				
[5599]ENERGY: 1990000	3218.4221	5278.6344	5476.7859	
330.0772	-14363.0008	-1685.9327	0.0000	0.0000
7757.9286	6012.9146	303.3739	-1745.0140	6071.7906
303.5268	233.3385	190.6009	511540.4688	-18.8924
-18.8688				
[5652]ENERGY: 2000000	3241.1755	5329.9372	5472.7034	
328.4418	-14373.4077	-1664.5417	0.0000	0.0000
7678.3258	6012.6343	300.2610	-1665.6915	6072.0233
303.4764	262.9744	101.2648	511540.4688	-12.3134
-12.3153				
[5688]ENERGY: 2010000	3210.2510	5259.1467	5491.0470	
316.6426	-14265.7670	-1742.8827	0.0000	0.0000
7740.8216	6009.2592	302.7049	-1731.5625	6071.3049
303.4567	-3.6657	22.8940	511540.4688	-17.5756
-17.5828				
[5738]ENERGY: 2020000	3165.0202	5282.9834	5447.6381	
314.8446	-14279.8026	-1719.6856	0.0000	0.0000
7795.2740	6006.2721	304.8343	-1789.0019	6070.7668
303.3204	60.9846	50.0399	511540.4688	-16.4765

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-16.4666
 [5774]ENERGY: 2030000 3173.0745 5336.1473 5473.3794
 324.6064 -14379.5639 -1649.3247 0.0000 0.0000
 7729.0133 6007.3323 302.2432 -1721.6810 6072.0840
 303.2465 156.7363 193.8214 511540.4688 -12.6849
 -12.7025
 [5824]ENERGY: 2040000 3184.1455 5324.1452 5480.7748
 324.2663 -14293.1772 -1719.0896 0.0000 0.0000
 7707.8672 6008.9323 301.4163 -1698.9349 6070.7582
 303.1090 140.3170 105.7038 511540.4688 -16.7494
 -16.7309
 [5860]ENERGY: 2050000 3222.9019 5384.6426 5417.0345
 325.6396 -14402.0677 -1722.3654 0.0000 0.0000
 7779.5117 6005.2972 304.2179 -1774.2144 6072.2644
 303.2421 -47.0158 1.6245 511540.4688 -14.2274
 -14.2253
 [5910]ENERGY: 2060000 3218.5270 5277.6365 5459.7397
 322.2139 -14291.6980 -1781.9559 0.0000 0.0000
 7806.8225 6011.2857 305.2859 -1795.5368 6072.5639
 303.2558 96.4734 -88.6367 511540.4688 -18.0303
 -18.0840
 [5946]ENERGY: 2070000 3225.7495 5304.4825 5462.7248
 324.9278 -14332.6600 -1680.9264 0.0000 0.0000
 7709.7459 6014.0441 301.4897 -1695.7017 6073.1697
 303.3329 -121.3599 -69.2135 511540.4688 -13.4710
 -13.4204
 [5996]ENERGY: 2080000 3234.9944 5311.0449 5445.3878
 326.7102 -14344.6485 -1642.2031 0.0000 0.0000
 7678.3116 6009.5973 300.2605 -1668.7144 6072.7885
 303.2851 -5.1187 17.6599 511540.4688 -17.3294
 -17.3312
 [6032]ENERGY: 2090000 3168.3621 5349.8776 5500.9203
 328.3365 -14366.5810 -1662.2147 0.0000 0.0000
 7690.2222 6008.9229 300.7263 -1681.2993 6072.8008
 303.4116 60.7070 85.6050 511540.4688 -15.7231
 -15.7147
 [6085]ENERGY: 2100000 3175.6009 5275.6530 5443.1627
 334.2701 -14226.1907 -1756.0156 0.0000 0.0000
 7763.4560 6009.9364 303.5901 -1753.5196 6074.5862
 303.4343 53.6834 -35.9852 511540.4688 -16.0709
 -16.0928
 [6121]ENERGY: 2110000 3264.1027 5370.7720 5452.2478
 340.7548 -14468.3657 -1652.9113 0.0000 0.0000
 7705.6345 6012.2348 301.3290 -1693.3997 6074.0261
 303.5106 -122.4595 -89.4370 511540.4688 -17.3073
 -17.2686
 [6171]ENERGY: 2120000 3162.1433 5247.5971 5468.5557
 338.8517 -14270.3214 -1695.8370 0.0000 0.0000
 7759.4161 6010.4054 303.4321 -1749.0107 6073.9241
 303.6189 110.5848 32.2261 511540.4688 -14.2102
 -14.2393
 [6207]ENERGY: 2130000 3192.2841 5300.4340 5418.2415
 318.1054 -14343.8901 -1670.9689 0.0000 0.0000
 7795.8392 6010.0452 304.8564 -1785.7940 6074.8685

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303.5621	7.8815	5.9085	511540.4688	-14.7926
-14.7892				
[6257]ENERGY: 2140000	3216.8486	5271.6217	5420.2168	
314.2899	-14332.4831	-1634.0982	0.0000	0.0000
7755.8173	6012.2131	303.2914	-1743.6042	6074.5451
303.4103	33.8372	-6.6437	511540.4688	-21.9240
-21.9447				
[6293]ENERGY: 2150000	3239.7992	5252.3824	5431.8692	
339.0028	-14236.8226	-1749.4273	0.0000	0.0000
7736.6647	6013.4684	302.5424	-1723.1964	6076.3376
303.4296	-165.7940	-232.0076	511540.4688	-17.6122
-17.5954				
[6343]ENERGY: 2160000	3173.1109	5296.8705	5482.5564	
289.6801	-14264.8476	-1695.4333	0.0000	0.0000
7730.9179	6012.8549	302.3177	-1718.0630	6075.8791
303.4976	297.4487	101.8584	511540.4688	-16.8535
-16.8718				
[6379]ENERGY: 2170000	3194.8262	5302.9368	5467.5451	
318.0816	-14301.9836	-1741.3400	0.0000	0.0000
7772.0858	6012.1518	303.9275	-1759.9339	6076.2112
303.5429	-67.4222	-6.4634	511540.4688	-14.2794
-14.2524				
[6429]ENERGY: 2180000	3174.2753	5252.5125	5426.0265	
331.1167	-14380.7973	-1636.6096	0.0000	0.0000
7843.8038	6010.3279	306.7321	-1833.4759	6073.9507
303.5016	215.3228	88.5924	511540.4688	-18.0933
-18.1248				
[6465]ENERGY: 2190000	3242.8592	5302.0252	5477.7289	
346.6983	-14353.0845	-1726.2863	0.0000	0.0000
7724.0492	6013.9900	302.0491	-1710.0592	6075.2978
303.3872	-193.0257	-268.7829	511540.4688	-14.5810
-14.5735				
[6518]ENERGY: 2200000	3289.7890	5346.1660	5472.3830	
346.8262	-14368.8705	-1739.7077	0.0000	0.0000
7668.3487	6014.9346	299.8709	-1653.4141	6075.6330
303.3373	-180.9904	-127.9047	511540.4688	-17.4776
-17.4491				
[6554]ENERGY: 2210000	3275.9198	5284.7428	5479.8596	
330.4375	-14334.0932	-1807.6396	0.0000	0.0000
7782.0770	6011.3038	304.3182	-1770.7732	6075.9365
303.3043	-203.3319	-272.7280	511540.4688	-14.9278
-14.9319				
[6604]ENERGY: 2220000	3223.3749	5286.4768	5428.8880	
309.8924	-14319.9786	-1705.4955	0.0000	0.0000
7790.9867	6014.1446	304.6667	-1776.8420	6076.7813
303.6664	5.9672	-70.7838	511540.4688	-19.9740
-20.0001				
[6640]ENERGY: 2230000	3228.4261	5209.0998	5428.1390	
326.3050	-14323.7186	-1637.5767	0.0000	0.0000
7781.5928	6012.2674	304.2993	-1769.3254	6076.0601
303.6505	-43.1171	-17.2531	511540.4688	-13.8154
-13.7958				
[6690]ENERGY: 2240000	3162.1898	5266.8452	5499.4822	
348.3659	-14266.0376	-1712.0739	0.0000	0.0000

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7717.8534	6016.6249	301.8068	-1701.2284	6077.4206
303.7559	210.0327	76.0211	511540.4688	-12.9611
-12.9612				
[6726]ENERGY: 2250000	3220.3937	5194.5040	5467.5288	
334.6198	-14293.3941	-1652.3793	0.0000	0.0000
7744.9173	6016.1903	302.8651	-1728.7270	6075.2390
303.6102	-163.5937	-114.7512	511540.4688	-15.8788
-15.8526				
[6776]ENERGY: 2260000	3180.5106	5310.0637	5424.9992	
332.6449	-14356.4215	-1700.6534	0.0000	0.0000
7821.7006	6012.8440	305.8677	-1808.8565	6075.6492
303.6272	9.5219	-111.8324	511540.4688	-14.1379
-14.1552				
[6812]ENERGY: 2270000	3160.7628	5320.5222	5486.0352	
330.0354	-14370.5967	-1716.2326	0.0000	0.0000
7798.5820	6009.1083	304.9637	-1789.4737	6074.8536
303.7803	-69.2448	-112.8528	511540.4688	-14.2659
-14.2671				
[6862]ENERGY: 2280000	3240.2407	5266.2532	5423.6536	
321.3810	-14294.7314	-1733.7693	0.0000	0.0000
7788.6666	6011.6944	304.5759	-1776.9722	6075.3633
303.5915	-6.2131	-23.9474	511540.4688	-12.6344
-12.6418				
[6898]ENERGY: 2290000	3225.2097	5302.4201	5449.3099	
336.3389	-14269.3875	-1762.8677	0.0000	0.0000
7734.2731	6015.2965	302.4489	-1718.9766	6076.6168
303.4936	-83.4444	-76.6833	511540.4688	-14.3350
-14.3225				
[6951]ENERGY: 2300000	3211.6977	5297.4193	5463.3117	
312.2385	-14322.6039	-1687.3615	0.0000	0.0000
7735.0238	6009.7257	302.4782	-1725.2981	6074.7086
303.4137	-21.9157	-62.8860	511540.4688	-11.7353
-11.7403				
[6987]ENERGY: 2310000	3169.2523	5345.4424	5435.6009	
310.4689	-14313.9664	-1736.3476	0.0000	0.0000
7800.4504	6010.9008	305.0367	-1789.5496	6075.0676
303.5924	-155.2978	-129.7903	511540.4688	-18.3820
-18.3827				
[7037]ENERGY: 2320000	3201.6619	5276.4906	5495.8144	
331.0900	-14314.4641	-1685.1578	0.0000	0.0000
7712.3834	6017.8186	301.5929	-1694.5648	6076.5464
303.6184	192.5353	115.6993	511540.4688	-14.5262
-14.5587				
[7073]ENERGY: 2330000	3240.0201	5248.6843	5427.1119	
323.4702	-14295.1003	-1696.0898	0.0000	0.0000
7766.1858	6014.2823	303.6968	-1751.9035	6076.6727
303.3292	-76.2987	-121.2942	511540.4688	-10.8157
-10.7889				
[7123]ENERGY: 2340000	3184.8438	5261.0456	5469.0646	
321.3272	-14233.0555	-1784.6730	0.0000	0.0000
7794.2764	6012.8291	304.7953	-1781.4472	6077.5954
303.3920	18.7121	39.2958	511540.4688	-17.5437
-17.5559				
[7159]ENERGY: 2350000	3216.8360	5228.6066	5479.0094	

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349.2089	-14251.0969	-1779.5817	0.0000	0.0000
7771.9154	6014.8978	303.9209	-1757.0176	6078.9826
303.4191	-220.2319	-238.9752	511540.4688	-7.9645
-7.9622				
[7209]ENERGY: 2360000	3214.7936	5275.9617	5481.0638	
322.0010	-14281.2181	-1707.9969	0.0000	0.0000
7711.2888	6015.8939	301.5501	-1695.3949	6077.4456
303.6073	-127.3145	-38.3457	511540.4688	-16.3547
-16.3427				
[7245]ENERGY: 2370000	3271.0725	5324.2738	5465.2883	
319.3740	-14351.7061	-1737.3332	0.0000	0.0000
7723.8761	6014.8455	302.0423	-1709.0305	6078.9348
303.6592	18.8008	-135.0775	511540.4688	-13.4900
-13.4914				
[7295]ENERGY: 2380000	3219.4014	5212.5050	5457.6196	
308.7447	-14358.9005	-1645.6516	0.0000	0.0000
7820.6327	6014.3513	305.8260	-1806.2814	6077.5681
303.5157	195.4152	51.3700	511540.4688	-12.6459
-12.6523				
[7331]ENERGY: 2390000	3152.2360	5252.2344	5446.3683	
331.3123	-14291.7943	-1686.8309	0.0000	0.0000
7810.1952	6013.7210	305.4178	-1796.4742	6078.4099
303.6340	171.2457	106.9920	511540.4688	-8.4575
-8.4523				
[7384]ENERGY: 2400000	3207.0303	5331.7515	5454.3643	
328.6462	-14409.8175	-1693.4603	0.0000	0.0000
7793.9947	6012.5091	304.7843	-1781.4855	6078.2415
303.6393	57.0739	-15.6318	511540.4688	-14.8425
-14.8403				
[7420]ENERGY: 2410000	3137.6518	5215.0625	5493.6075	
345.0791	-14337.2451	-1676.1948	0.0000	0.0000
7836.0656	6014.0265	306.4295	-1822.0391	6078.4263
303.4949	177.0763	121.3207	511540.4688	-10.2809
-10.2810				
[7470]ENERGY: 2420000	3172.1507	5350.5314	5501.5782	
341.2738	-14348.5912	-1738.8817	0.0000	0.0000
7738.6507	6016.7119	302.6201	-1721.9388	6079.8922
303.5045	-91.0541	-61.4430	511540.4688	-14.1699
-14.1645				
[7506]ENERGY: 2430000	3230.9379	5305.7947	5499.6219	
331.8175	-14345.7493	-1666.6688	0.0000	0.0000
7664.9539	6020.7078	299.7381	-1644.2460	6080.9744
303.3108	107.5851	-8.1536	511540.4688	-7.7171
-7.7477				
[7556]ENERGY: 2440000	3180.0516	5327.4666	5377.3454	
313.1599	-14384.4244	-1600.5693	0.0000	0.0000
7800.8082	6013.8380	305.0507	-1786.9701	6078.7348
303.2425	59.6086	157.8165	511540.4688	-10.5334
-10.5059				
[7592]ENERGY: 2450000	3162.9530	5352.8757	5549.8096	
302.7813	-14341.5235	-1727.8740	0.0000	0.0000
7717.7969	6016.8191	301.8046	-1700.9778	6080.3197
303.2677	121.8975	92.1044	511540.4688	-10.4094
-10.4294				

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[7642]ENERGY: 2460000	3260.9250	5294.0361	5527.9795	
319.9392	-14360.1695	-1689.1808	0.0000	0.0000
7666.9653	6020.4949	299.8168	-1646.4704	6080.4149
303.4061	97.4391	75.5212	511540.4688	-6.7200
-6.7357				
[7678]ENERGY: 2470000	3155.4198	5298.6540	5490.1811	
310.3403	-14291.2281	-1702.7966	0.0000	0.0000
7754.9543	6015.5247	303.2576	-1739.4295	6080.7195
303.4770	59.8311	-132.9274	511540.4688	-6.5777
-6.5398				
[7728]ENERGY: 2480000	3268.2178	5257.8652	5457.9794	
320.4187	-14328.2917	-1680.8138	0.0000	0.0000
7725.5293	6020.9050	302.1069	-1704.6243	6080.6981
303.5198	-7.8650	-68.1073	511540.4688	-11.6084
-11.6059				
[7764]ENERGY: 2490000	3195.4820	5333.4957	5474.5453	
330.1754	-14373.5899	-1652.0266	0.0000	0.0000
7708.1746	6016.2566	301.4283	-1691.9180	6080.4047
303.6730	177.0181	157.1366	511540.4688	-10.7142
-10.7160				
[7817]ENERGY: 2500000	3186.3890	5255.2256	5448.3468	
320.8935	-14253.1310	-1698.0901	0.0000	0.0000
7760.4325	6020.0661	303.4718	-1740.3663	6081.3859
303.6188	-82.6019	-86.2815	511540.4688	-9.2493
-9.2859				
[7853]ENERGY: 2510000	3251.7912	5264.6403	5455.3136	
326.2291	-14317.9912	-1678.0158	0.0000	0.0000
7719.3514	6021.3187	301.8654	-1698.0327	6082.1644
303.7109	-36.0977	-100.7278	511540.4688	-9.6234
-9.5835				
[7903]ENERGY: 2520000	3158.8234	5328.2193	5469.7691	
360.5800	-14327.5101	-1787.2918	0.0000	0.0000
7816.7200	6019.3099	305.6730	-1797.4101	6081.7290
303.6296	-83.9441	-143.7639	511540.4688	-13.1388
-13.1535				
[7939]ENERGY: 2530000	3276.7468	5256.5050	5438.1188	
303.0808	-14305.2620	-1761.8752	0.0000	0.0000
7811.4485	6018.7626	305.4668	-1792.6859	6082.7856
303.5327	-138.2893	-168.2877	511540.4688	-12.3635
-12.3519				
[7989]ENERGY: 2540000	3181.2661	5254.9721	5460.0617	
304.9659	-14352.7956	-1656.4982	0.0000	0.0000
7826.5746	6018.5465	306.0583	-1808.0280	6082.6047
303.7825	68.3765	-9.8606	511540.4688	-13.4467
-13.4650				
[8025]ENERGY: 2550000	3240.7419	5292.6451	5508.6557	
326.2985	-14345.0068	-1742.2134	0.0000	0.0000
7741.7515	6022.8725	302.7413	-1718.8790	6082.9408
303.6502	94.1117	40.7739	511540.4688	-12.5858
-12.5915				
[8075]ENERGY: 2560000	3253.1115	5248.4076	5500.6796	
339.6395	-14427.0132	-1680.1674	0.0000	0.0000
7784.4534	6019.1111	304.4112	-1765.3423	6082.8345
303.7458	-79.7699	-109.9590	511540.4688	-11.1998

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-11.1860
 [8111]ENERGY: 2570000 3189.3523 5193.1357 5435.9978
 352.4779 -14322.0199 -1718.8553 0.0000 0.0000
 7887.0051 6017.0935 308.4215 -1869.9116 6083.2405
 303.8989 52.7228 -103.5781 511540.4688 -10.3834
 -10.3985
 [8161]ENERGY: 2580000 3222.8961 5306.1972 5454.7697
 322.6157 -14346.3424 -1728.4938 0.0000 0.0000
 7786.7999 6018.4424 304.5029 -1768.3576 6083.6975
 303.8200 -69.4408 -136.7138 511540.4688 -11.4389
 -11.4286
 [8197]ENERGY: 2590000 3231.0758 5321.4973 5547.2260
 329.3196 -14351.3110 -1752.9361 0.0000 0.0000
 7696.7686 6021.6403 300.9823 -1675.1283 6084.1832
 303.7252 -41.0177 -80.7122 511540.4688 -11.7791
 -11.7855
 [8250]ENERGY: 2600000 3156.3410 5338.0459 5481.1262
 330.1378 -14370.3496 -1678.3183 0.0000 0.0000
 7765.6304 6022.6135 303.6751 -1743.0170 6084.1577
 303.6845 37.2259 80.8785 511540.4688 -13.5462
 -13.5435
 [8286]ENERGY: 2610000 3211.6818 5314.4114 5535.9775
 318.8734 -14348.7747 -1738.4223 0.0000 0.0000
 7728.0433 6021.7904 302.2053 -1706.2529 6084.6729
 303.9685 -28.9322 -132.9045 511540.4688 -10.3607
 -10.3684
 [8336]ENERGY: 2620000 3190.3375 5272.0988 5490.9880
 349.7242 -14356.3549 -1657.8199 0.0000 0.0000
 7734.6958 6023.6696 302.4654 -1711.0262 6084.5384
 303.8687 131.0901 79.4483 511540.4688 -10.0030
 -9.9910
 [8372]ENERGY: 2630000 3282.8771 5241.3389 5468.2297
 340.0911 -14356.5953 -1736.4871 0.0000 0.0000
 7781.0854 6020.5398 304.2795 -1760.5456 6083.6068
 303.7907 -180.5729 -142.5433 511540.4688 -12.8694
 -12.8669
 [8422]ENERGY: 2640000 3250.3331 5289.5807 5469.1046
 328.2435 -14394.7539 -1663.6414 0.0000 0.0000
 7741.8860 6020.7526 302.7466 -1721.1334 6085.1236
 303.8060 56.4724 -1.1028 511540.4688 -16.5043
 -16.5096
 [8458]ENERGY: 2650000 3252.5940 5335.6571 5473.5496
 350.9712 -14362.3357 -1696.3388 0.0000 0.0000
 7672.0939 6026.1914 300.0173 -1645.9024 6084.4916
 303.7070 112.7483 32.7645 511540.4688 -12.2793
 -12.2490
 [8508]ENERGY: 2660000 3230.4584 5233.5115 5427.6502
 335.1166 -14335.0479 -1649.7140 0.0000 0.0000
 7779.4436 6021.4186 304.2153 -1758.0250 6083.0000
 303.7550 -133.2665 -81.7725 511540.4688 -13.6193
 -13.6351
 [8544]ENERGY: 2670000 3225.1451 5263.5169 5446.3059
 314.3221 -14219.8906 -1773.9673 0.0000 0.0000
 7766.8657 6022.2978 303.7234 -1744.5680 6086.3050

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303.6892	-7.2188	-45.7979	511540.4688	-10.0569
-10.0860				
[8594]ENERGY: 2680000	3248.4758	5295.5137	5458.9593	
308.8287	-14351.5736	-1740.4464	0.0000	0.0000
7798.4678	6018.2253	304.9592	-1780.2425	6084.5033
303.7419	-12.4515	-94.3170	511540.4688	-14.5561
-14.5296				
[8630]ENERGY: 2690000	3108.7655	5352.0305	5488.6404	
342.4620	-14409.6804	-1631.5393	0.0000	0.0000
7768.2160	6018.8946	303.7762	-1749.3213	6083.8785
303.8723	142.4661	113.5475	511540.4688	-11.1121
-11.1167				
[8683]ENERGY: 2700000	3199.0138	5291.3418	5403.0656	
328.7691	-14334.9612	-1645.6908	0.0000	0.0000
7778.7144	6020.2526	304.1867	-1758.4617	6085.4919
303.7600	327.6358	280.2836	511540.4688	-11.5869
-11.5758				
[8719]ENERGY: 2710000	3244.2458	5245.6432	5465.1597	
334.3459	-14263.7900	-1664.7881	0.0000	0.0000
7665.7408	6026.5572	299.7689	-1639.1835	6085.7094
303.7784	77.1355	49.9472	511540.4688	-12.0844
-12.0986				
[8769]ENERGY: 2720000	3185.6171	5345.1684	5523.7797	
306.9310	-14480.1563	-1646.0221	0.0000	0.0000
7786.2278	6021.5458	304.4806	-1764.6821	6084.8239
303.8627	67.2214	132.9108	511540.4688	-13.6685
-13.6534				
[8805]ENERGY: 2730000	3207.5171	5280.2063	5451.6225	
345.2477	-14316.2953	-1643.1066	0.0000	0.0000
7697.1893	6022.3811	300.9987	-1674.8083	6083.8896
303.8024	-132.7569	-13.5124	511540.4688	-11.2682
-11.2753				
[8855]ENERGY: 2740000	3167.8107	5212.7559	5486.6807	
309.2004	-14227.5447	-1688.4836	0.0000	0.0000
7762.3052	6022.7247	303.5451	-1739.5806	6084.9432
303.4499	58.0758	-22.9287	511540.4688	-16.4475
-16.4626				
[8891]ENERGY: 2750000	3193.6186	5301.2365	5501.3444	
336.5523	-14248.5145	-1742.6510	0.0000	0.0000
7681.7013	6023.2875	300.3930	-1658.4138	6084.9568
303.7689	31.4458	-23.0214	511540.4688	-10.1262
-10.1158				
[8941]ENERGY: 2760000	3207.6455	5345.8360	5436.6479	
333.3237	-14316.9523	-1703.7209	0.0000	0.0000
7723.5595	6026.3394	302.0299	-1697.2201	6086.0646
303.8454	-17.3590	-119.7568	511540.4688	-13.8866
-13.9053				
[8977]ENERGY: 2770000	3227.3128	5166.7952	5445.4651	
294.5721	-14317.7176	-1649.7287	0.0000	0.0000
7853.4814	6020.1802	307.1105	-1833.3012	6085.7284
303.8530	68.6934	-121.9300	511540.4688	-12.9946
-13.0082				
[9027]ENERGY: 2780000	3170.6302	5280.5261	5450.5674	
311.2896	-14273.6980	-1698.0877	0.0000	0.0000

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7782.5160	6023.7436	304.3354	-1758.7725	6085.7433
303.8114	-90.2818	13.5148	511540.4688	-13.1617
-13.1411				
[9063]ENERGY: 2790000	3242.6642	5314.4986	5448.1959	
326.7704	-14303.2216	-1743.4772	0.0000	0.0000
7738.5676	6023.9981	302.6168	-1714.5696	6086.6940
303.9065	-46.4421	22.7739	511540.4688	-10.8304
-10.8186				
[9116]ENERGY: 2800000	3201.3701	5258.4788	5431.9845	
314.6184	-14259.7717	-1692.5290	0.0000	0.0000
7769.6145	6023.7655	303.8309	-1745.8490	6086.8257
303.7917	-169.1800	-142.6301	511540.4688	-14.9029
-14.9155				
[9152]ENERGY: 2810000	3202.8190	5313.3404	5473.6358	
325.3949	-14335.3982	-1699.1622	0.0000	0.0000
7744.6404	6025.2701	302.8543	-1719.3703	6086.7703
303.7798	-199.5593	-144.9483	511540.4688	-12.3561
-12.3472				
[9202]ENERGY: 2820000	3230.6854	5355.4937	5433.9902	
336.3496	-14356.3970	-1693.6816	0.0000	0.0000
7718.8276	6025.2679	301.8449	-1693.5597	6086.9485
303.8743	201.7065	226.5665	511540.4688	-15.7702
-15.7817				
[9238]ENERGY: 2830000	3260.7464	5284.4100	5447.8069	
327.4082	-14332.4032	-1742.6051	0.0000	0.0000
7776.7577	6022.1210	304.1102	-1754.6367	6087.1562
304.0031	-135.1222	-261.3490	511540.4688	-13.9607
-13.9543				
[9288]ENERGY: 2840000	3165.6750	5290.7422	5473.1779	
334.6217	-14245.9403	-1723.8731	0.0000	0.0000
7729.7935	6024.1969	302.2737	-1705.5965	6088.2192
303.9354	126.1879	57.2654	511540.4688	-16.6393
-16.6291				
[9324]ENERGY: 2850000	3216.9521	5331.2605	5445.7271	
310.2402	-14332.8525	-1680.1010	0.0000	0.0000
7734.4007	6025.6271	302.4539	-1708.7736	6087.0474
303.9084	-25.9508	-33.7329	511540.4688	-16.0588
-16.0532				
[9374]ENERGY: 2860000	3215.3320	5385.2235	5496.3382	
315.5419	-14387.2609	-1724.8977	0.0000	0.0000
7727.6272	6027.9042	302.1890	-1699.7230	6088.8978
303.9027	-119.1498	-172.6268	511540.4688	-18.0516
-18.0459				
[9410]ENERGY: 2870000	3196.2284	5325.9850	5441.8678	
314.7981	-14307.8651	-1705.6098	0.0000	0.0000
7761.0394	6026.4438	303.4956	-1734.5956	6088.4225
303.8897	302.4218	158.4159	511540.4688	-14.9812
-15.0064				
[9460]ENERGY: 2880000	3124.7157	5393.2066	5481.7224	
323.9992	-14327.9229	-1712.2368	0.0000	0.0000
7743.2404	6026.7246	302.7995	-1716.5158	6088.8511
304.1203	35.3561	-7.5498	511540.4688	-16.6671
-16.6409				
[9496]ENERGY: 2890000	3187.1621	5316.4026	5462.0114	

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303.7098	-14237.3310	-1753.6721	0.0000	0.0000
7748.6374	6026.9203	303.0106	-1721.7171	6089.6378
303.9577	26.0660	-23.0024	511540.4688	-17.5460
-17.5860				
[9549]ENERGY: 2900000	3302.7013	5283.1137	5466.9419	
339.3333	-14380.9563	-1717.0532	0.0000	0.0000
7732.3376	6026.4183	302.3732	-1705.9194	6087.9192
304.1241	-187.3446	-157.8434	511540.4688	-14.7760
-14.7624				
[9585]ENERGY: 2910000	3202.7463	5344.0151	5472.5187	
326.4546	-14215.3425	-1751.9674	0.0000	0.0000
7650.1026	6028.5274	299.1574	-1621.5752	6088.8551
304.0520	-248.0963	-153.5176	511540.4688	-14.8377
-14.8279				
[9635]ENERGY: 2920000	3183.6429	5362.6388	5497.9098	
336.4744	-14394.2037	-1627.5744	0.0000	0.0000
7669.2092	6028.0968	299.9045	-1641.1123	6088.9570
304.0085	183.4123	164.9136	511540.4688	-13.0089
-13.0294				
[9671]ENERGY: 2930000	3254.2806	5284.1783	5453.9049	
310.0865	-14376.2322	-1635.8843	0.0000	0.0000
7737.1372	6027.4709	302.5609	-1709.6663	6088.6385
304.0881	55.8359	-29.4771	511540.4688	-14.3732
-14.3699				
[9721]ENERGY: 2940000	3232.5935	5391.0959	5466.8784	
326.1793	-14345.6759	-1712.3545	0.0000	0.0000
7667.6814	6026.3981	299.8448	-1641.2833	6087.7316
304.1130	-27.9684	-40.8522	511540.4688	-20.1210
-20.0958				
[9757]ENERGY: 2950000	3141.0484	5293.6839	5472.6036	
325.2434	-14368.6873	-1630.8540	0.0000	0.0000
7792.4325	6025.4706	304.7232	-1766.9620	6088.8776
304.1202	241.8516	120.6474	511540.4688	-11.4910
-11.5058				
[9807]ENERGY: 2960000	3194.3313	5335.4676	5444.2155	
311.5744	-14337.9152	-1659.1259	0.0000	0.0000
7733.1792	6021.7269	302.4061	-1711.4524	6089.2706
303.9660	8.2422	69.8511	511540.4688	-18.0178
-18.0137				
[9843]ENERGY: 2970000	3163.9029	5328.7483	5510.3662	
319.8766	-14300.4187	-1756.0646	0.0000	0.0000
7760.0940	6026.5047	303.4586	-1733.5893	6089.3191
304.2341	100.8354	37.3410	511540.4688	-12.8068
-12.8072				
[9893]ENERGY: 2980000	3218.0155	5343.1922	5455.3329	
328.6098	-14374.3585	-1698.4450	0.0000	0.0000
7754.5612	6026.9081	303.2422	-1727.6531	6089.4453
304.2972	-46.7967	-36.2940	511540.4688	-16.5021
-16.5008				
[9929]ENERGY: 2990000	3250.3200	5190.0167	5473.0386	
318.1071	-14374.3099	-1596.8237	0.0000	0.0000
7768.3012	6028.6501	303.7795	-1739.6511	6088.5405
304.2039	138.1943	103.3154	511540.4688	-15.6601
-15.6716				

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[9982]ENERGY: 3000000	3242.8510	5316.3742	5497.0429	
323.5909	-14302.8507	-1772.2835	0.0000	0.0000
7721.2037	6025.9283	301.9378	-1695.2754	6090.1700
304.2994	-9.2326	-43.3238	511540.4688	-14.8950
-14.8688				
[10018]ENERGY: 3010000	3197.1511	5304.7326	5483.4850	
318.4660	-14433.7605	-1663.0179	0.0000	0.0000
7817.4038	6024.4602	305.6997	-1792.9437	6090.0877
304.3097	178.4358	93.9845	511540.4688	-15.4331
-15.4525				
[10068]ENERGY: 3020000	3215.8622	5201.8047	5475.4278	
319.0872	-14324.3823	-1715.0138	0.0000	0.0000
7850.6867	6023.4725	307.0012	-1827.2142	6089.2813
304.2682	-237.4033	-124.9491	511540.4688	-17.8574
-17.8644				
[10104]ENERGY: 3030000	3205.7529	5205.8967	5431.6522	
317.9969	-14290.3562	-1690.0138	0.0000	0.0000
7845.4035	6026.3321	306.7946	-1819.0713	6090.4647
304.2712	-116.8664	-34.9078	511540.4688	-18.3228
-18.2862				
[10154]ENERGY: 3040000	3264.8675	5225.8665	5436.0636	
322.2852	-14345.2747	-1684.6252	0.0000	0.0000
7806.5868	6025.7698	305.2767	-1780.8170	6089.3181
304.2402	24.7553	-37.5126	511540.4688	-11.0340
-11.0685				
[10190]ENERGY: 3050000	3219.9965	5226.6653	5439.3250	
324.3761	-14328.9578	-1691.4440	0.0000	0.0000
7838.2478	6028.2088	306.5148	-1810.0390	6091.1592
304.3847	-173.9300	-183.8452	511540.4688	-19.7942
-19.7800				
[10240]ENERGY: 3060000	3281.8461	5271.2994	5436.6489	
339.5545	-14413.6080	-1592.1075	0.0000	0.0000
7710.3395	6033.9728	301.5129	-1676.3667	6091.0904
304.3235	146.7140	41.1207	511540.4688	-13.2629
-13.2797				
[10276]ENERGY: 3070000	3190.9383	5316.0563	5458.8827	
296.8558	-14317.3049	-1704.9962	0.0000	0.0000
7785.8374	6026.2695	304.4653	-1759.5680	6090.4788
304.2770	54.2585	46.0997	511540.4688	-18.9628
-18.9440				
[10326]ENERGY: 3080000	3217.9807	5261.5426	5489.5802	
300.0744	-14387.6293	-1618.6251	0.0000	0.0000
7767.1957	6030.1192	303.7363	-1737.0765	6090.3946
303.9749	-105.8194	-68.5529	511540.4688	-11.9892
-11.9998				
[10362]ENERGY: 3090000	3201.2752	5248.3660	5442.7881	
320.8708	-14303.1041	-1698.2726	0.0000	0.0000
7815.7748	6027.6982	305.6360	-1788.0766	6092.0704
304.2269	91.4609	26.5899	511540.4688	-17.1237
-17.1112				
[10415]ENERGY: 3100000	3254.8958	5321.1368	5488.9303	
343.8860	-14349.1633	-1736.5071	0.0000	0.0000
7708.9998	6032.1783	301.4606	-1676.8215	6091.8423
304.2308	-91.1016	-141.3350	511540.4688	-16.3104

Supplementary Text 6

-16.3283
 [10451]ENERGY: 3110000 3129.7797 5253.5828 5497.9610
 343.9797 -14309.6946 -1710.1881 0.0000 0.0000
 7821.0952 6026.5157 305.8440 -1794.5795 6092.9884
 304.1338 40.9320 -55.7367 511540.4688 -19.1758
 -19.1649
 [10501]ENERGY: 3120000 3221.8274 5263.7956 5460.4010
 318.9547 -14381.5686 -1706.4920 0.0000 0.0000
 7853.6538 6030.5718 307.1173 -1823.0820 6092.9606
 304.3404 113.0046 33.4418 511540.4688 -12.7014
 -12.6977
 [10537]ENERGY: 3130000 3248.8805 5308.0287 5432.5505
 320.9485 -14319.0496 -1667.7432 0.0000 0.0000
 7709.6052 6033.2206 301.4842 -1676.3846 6093.4166
 304.3737 81.8511 35.0038 511540.4688 -22.9182
 -22.9272
 [10587]ENERGY: 3140000 3224.2972 5301.0311 5444.5442
 327.4201 -14368.7716 -1669.3275 0.0000 0.0000
 7774.8737 6034.0673 304.0366 -1740.8064 6092.7585
 304.3850 13.3825 12.1583 511540.4688 -15.0633
 -15.0399
 [10623]ENERGY: 3150000 3229.6600 5232.3377 5474.9425
 320.5880 -14283.2945 -1735.8751 0.0000 0.0000
 7789.5378 6027.8964 304.6100 -1761.6414 6093.3066
 304.4820 29.9378 -174.8534 511540.4688 -14.7951
 -14.8227
 [10673]ENERGY: 3160000 3219.3002 5276.5495 5472.2690
 317.7082 -14308.1126 -1696.8929 0.0000 0.0000
 7751.4593 6032.2807 303.1209 -1719.1786 6092.0347
 304.3709 107.4485 133.0961 511540.4688 -22.6049
 -22.5606
 [10709]ENERGY: 3170000 3250.3437 5259.8255 5446.4083
 328.6113 -14279.2037 -1740.4601 0.0000 0.0000
 7762.6148 6028.1397 303.5572 -1734.4751 6091.3645
 304.3430 -30.4373 -96.6939 511540.4688 -13.5252
 -13.5641
 [10759]ENERGY: 3180000 3207.2783 5299.7987 5494.2931
 298.5236 -14305.6043 -1732.2379 0.0000 0.0000
 7766.6547 6028.7063 303.7152 -1737.9484 6092.2562
 304.3901 -147.8836 -90.9070 511540.4688 -17.1993
 -17.1948
 [10795]ENERGY: 3190000 3277.6054 5246.5950 5426.0340
 338.1956 -14335.3878 -1743.6157 0.0000 0.0000
 7821.4053 6030.8318 305.8562 -1790.5735 6092.7860
 304.3755 299.8345 118.5132 511540.4688 -16.8122
 -16.8374
 [10848]ENERGY: 3200000 3279.1294 5326.1784 5487.0103
 332.8223 -14415.1415 -1688.2115 0.0000 0.0000
 7710.3720 6032.1594 301.5142 -1678.2126 6093.0225
 304.4321 -73.5138 -64.9521 511540.4688 -15.7193
 -15.6798
 [10884]ENERGY: 3210000 3210.3487 5293.7571 5384.9135
 337.7881 -14297.2223 -1773.5766 0.0000 0.0000
 7870.9235 6026.9320 307.7926 -1843.9915 6092.8083

Supplementary Text 6

304.4736	-0.8374	-15.0306	511540.4688	-12.1509
-12.1542				
[10934]ENERGY: 3220000	3235.5363	5326.9831	5427.9622	
330.0521	-14346.1220	-1694.7198	0.0000	0.0000
7751.0251	6030.7171	303.1040	-1720.3080	6092.4986
304.1915	-82.1257	-127.3083	511540.4688	-17.6650
-17.6658				
[10970]ENERGY: 3230000	3210.0663	5192.3704	5487.7121	
311.3187	-14333.2797	-1656.4480	0.0000	0.0000
7814.1038	6025.8435	305.5707	-1788.2603	6091.0932
304.0730	0.2185	0.7277	511540.4688	-14.7666
-14.7524				
[11020]ENERGY: 3240000	3223.7609	5238.6293	5473.9084	
327.2641	-14288.5024	-1754.2471	0.0000	0.0000
7807.6561	6028.4693	305.3185	-1779.1868	6091.8855
304.3204	86.4801	11.2080	511540.4688	-12.1964
-12.2249				
[11056]ENERGY: 3250000	3265.6240	5213.7463	5437.9818	
290.1433	-14278.2388	-1730.3559	0.0000	0.0000
7831.8942	6030.7949	306.2663	-1801.0993	6092.9430
304.4615	1.0755	-23.8369	511540.4688	-11.8539
-11.8461				
[11106]ENERGY: 3260000	3194.8290	5250.9335	5516.0803	
323.0122	-14372.6037	-1699.0710	0.0000	0.0000
7815.5257	6028.7059	305.6263	-1786.8197	6093.1886
304.3565	18.9016	-27.5359	511540.4688	-13.7954
-13.7817				
[11142]ENERGY: 3270000	3247.3492	5308.5148	5449.1883	
318.1203	-14336.3041	-1771.2357	0.0000	0.0000
7814.8466	6030.4794	305.5997	-1784.3671	6093.5193
304.4718	57.7898	-41.9856	511540.4688	-12.5401
-12.5556				
[11192]ENERGY: 3280000	3204.9057	5286.9226	5489.8953	
315.4691	-14282.5979	-1749.8827	0.0000	0.0000
7768.2992	6033.0112	303.7795	-1735.2879	6094.1413
304.3668	-92.1536	-57.2301	511540.4688	-17.1923
-17.1944				
[11228]ENERGY: 3290000	3267.6116	5299.3968	5496.2464	
320.0017	-14373.5656	-1686.2456	0.0000	0.0000
7709.5372	6032.9825	301.4816	-1676.5546	6093.3178
304.4496	54.0625	14.8633	511540.4688	-9.5803
-9.6030				
[11281]ENERGY: 3300000	3214.5836	5358.2403	5459.3933	
289.6485	-14404.2082	-1682.9725	0.0000	0.0000
7793.2236	6027.9087	304.7541	-1765.3149	6092.6606
304.4562	-95.5678	-12.3580	511540.4688	-16.5215
-16.4914				
[11317]ENERGY: 3310000	3238.0105	5259.7684	5412.2430	
311.3945	-14267.8128	-1752.2840	0.0000	0.0000
7830.4002	6031.7198	306.2079	-1798.6804	6094.1822
304.4078	-59.1684	-115.9796	511540.4688	-11.1408
-11.1540				
[11367]ENERGY: 3320000	3230.9807	5275.1429	5443.2523	
310.6264	-14357.9701	-1624.0779	0.0000	0.0000

Supplementary Text 6

7755.2683	6033.2226	303.2699	-1722.0456	6094.2231
304.3604	42.5149	-21.5984	511540.4688	-14.1087
-14.0962				
[11403]ENERGY: 3330000	3204.2507	5242.5566	5453.4539	
316.6578	-14301.9100	-1740.3543	0.0000	0.0000
7856.3118	6030.9664	307.2212	-1825.3454	6093.8684
304.7100	-30.8507	46.3760	511540.4688	-15.4727
-15.4795				
[11453]ENERGY: 3340000	3193.4086	5382.1266	5405.5412	
331.9816	-14346.2289	-1694.2299	0.0000	0.0000
7758.9427	6031.5420	303.4136	-1727.4007	6096.2458
304.7125	144.9808	61.4096	511540.4688	-16.9083
-16.8983				
[11489]ENERGY: 3350000	3321.8699	5191.7201	5465.0927	
317.2155	-14285.1079	-1695.1756	0.0000	0.0000
7716.6856	6032.3003	301.7611	-1684.3853	6094.1864
304.5689	-63.6194	-59.8375	511540.4688	-18.7806
-18.7883				
[11539]ENERGY: 3360000	3275.9947	5274.3659	5425.6651	
346.0888	-14336.8456	-1763.4927	0.0000	0.0000
7810.4307	6032.2069	305.4270	-1778.2238	6095.7896
304.5435	-74.2614	-39.4713	511540.4688	-16.5631
-16.5669				
[11575]ENERGY: 3370000	3201.3068	5308.1272	5482.5602	
321.4455	-14291.2762	-1706.4781	0.0000	0.0000
7720.7267	6036.4120	301.9191	-1684.3148	6096.1052
304.7711	220.3999	241.9594	511540.4688	-18.1653
-18.1471				
[11625]ENERGY: 3380000	3258.5812	5257.2328	5471.3856	
341.7156	-14390.3899	-1666.9690	0.0000	0.0000
7762.3275	6033.8838	303.5459	-1728.4437	6095.1044
304.6567	193.1679	168.8347	511540.4688	-15.7719
-15.7810				
[11661]ENERGY: 3390000	3231.7765	5193.1135	5486.2674	
325.1083	-14346.0007	-1748.2396	0.0000	0.0000
7892.2669	6034.2924	308.6272	-1857.9745	6094.2974
304.7243	-81.4061	-114.2481	511540.4688	-16.2279
-16.2460				
[11714]ENERGY: 3400000	3106.9165	5261.7553	5431.1290	
319.2043	-14390.8532	-1620.9860	0.0000	0.0000
7921.7638	6028.9297	309.7807	-1892.8341	6094.5689
304.5812	52.7829	142.6376	511540.4688	-14.3286
-14.3309				
[11750]ENERGY: 3410000	3240.7891	5253.4184	5470.9270	
346.2109	-14352.1184	-1718.6006	0.0000	0.0000
7791.8419	6032.4684	304.7001	-1759.3735	6095.5718
304.6892	11.0507	-78.5356	511540.4688	-15.3865
-15.3736				
[11800]ENERGY: 3420000	3237.1358	5335.2722	5461.2842	
323.3059	-14388.9119	-1726.2760	0.0000	0.0000
7792.3621	6034.1723	304.7204	-1758.1898	6096.0785
304.8200	124.9858	24.5569	511540.4688	-16.1089
-16.1157				
[11836]ENERGY: 3430000	3291.2681	5295.6316	5416.1522	

Supplementary Text 6

322.3107	-14254.8155	-1767.9474	0.0000	0.0000
7731.9722	6034.5720	302.3589	-1697.4002	6095.5793
304.6739	-208.2880	-193.7004	511540.4688	-17.4405
-17.4291				
[11886]ENERGY: 3440000	3212.8582	5289.0632	5497.0746	
310.1054	-14286.5291	-1743.5210	0.0000	0.0000
7755.2226	6034.2739	303.2681	-1720.9487	6095.8127
304.7151	-138.8297	-50.3834	511540.4688	-18.1388
-18.1350				
[11922]ENERGY: 3450000	3226.6828	5349.2532	5433.6332	
314.9677	-14397.5104	-1692.3302	0.0000	0.0000
7797.1441	6031.8405	304.9074	-1765.3036	6096.5127
304.6180	91.6110	53.4345	511540.4688	-13.9752
-13.9670				
[11972]ENERGY: 3460000	3290.8118	5321.4492	5430.0776	
326.8920	-14423.7102	-1696.2120	0.0000	0.0000
7784.1824	6033.4909	304.4006	-1750.6916	6095.8805
304.9763	-213.8140	-232.7198	511540.4688	-13.7851
-13.7944				
[12008]ENERGY: 3470000	3272.4144	5293.5317	5482.5069	
319.2867	-14400.9948	-1759.5524	0.0000	0.0000
7824.6579	6031.8504	305.9834	-1792.8075	6096.9193
304.7772	-13.5061	-118.0295	511540.4688	-16.4811
-16.5026				
[12058]ENERGY: 3480000	3197.3915	5400.8371	5454.6820	
326.4001	-14424.3167	-1667.6455	0.0000	0.0000
7747.2600	6034.6086	302.9567	-1712.6514	6095.6189
304.7063	-59.4071	-134.9503	511540.4688	-17.7212
-17.7045				
[12094]ENERGY: 3490000	3187.1464	5312.6866	5519.0332	
343.8364	-14356.5506	-1711.2605	0.0000	0.0000
7738.5954	6033.4870	302.6179	-1705.1085	6094.7945
304.6267	160.7776	34.9624	511540.4688	-12.6834
-12.6721				
[12147]ENERGY: 3500000	3218.9075	5254.4858	5438.9128	
335.1779	-14322.3218	-1683.3475	0.0000	0.0000
7788.3165	6030.1312	304.5622	-1758.1853	6095.4045
304.6128	195.9961	80.1266	511540.4688	-18.7031
-18.7326				
[12183]ENERGY: 3510000	3199.0516	5253.8646	5488.4695	
341.2870	-14331.0679	-1684.5747	0.0000	0.0000
7762.2521	6029.2821	303.5430	-1732.9700	6096.3771
304.5960	-120.2091	-48.1988	511540.4688	-14.7766
-14.7873				
[12233]ENERGY: 3520000	3209.6106	5250.2998	5465.9300	
317.3421	-14315.1582	-1715.1003	0.0000	0.0000
7820.3647	6033.2888	305.8155	-1787.0760	6095.4742
304.6768	-34.4189	-3.4535	511540.4688	-18.8993
-18.8748				
[12269]ENERGY: 3530000	3180.9898	5282.3017	5450.0020	
332.5277	-14296.3686	-1743.6929	0.0000	0.0000
7826.8260	6032.5857	306.0682	-1794.2403	6095.5298
304.4699	-200.9936	-147.0321	511540.4688	-12.7182
-12.7161				

Supplementary Text 6

[12319]ENERGY: 3540000	3149.2113	5398.3156	5425.5003	
318.7681	-14335.3839	-1687.0958	0.0000	0.0000
7763.3084	6032.6239	303.5843	-1730.6845	6096.8620
304.5818	180.5669	104.3605	511540.4688	-14.4855
-14.4816				
[12355]ENERGY: 3550000	3183.4685	5336.4174	5467.3430	
321.7703	-14395.5411	-1703.1854	0.0000	0.0000
7823.3541	6033.6268	305.9324	-1789.7273	6097.5489
304.6958	-15.6407	34.8964	511540.4688	-14.3595
-14.3722				
[12405]ENERGY: 3560000	3186.4544	5354.3281	5433.5993	
301.3120	-14269.9422	-1797.3129	0.0000	0.0000
7824.1269	6032.5656	305.9626	-1791.5613	6097.8364
304.5717	1.5419	-3.5466	511540.4688	-14.8297
-14.8230				
[12441]ENERGY: 3570000	3303.3480	5242.8155	5505.2848	
333.8748	-14280.6601	-1784.5816	0.0000	0.0000
7715.4570	6035.5384	301.7131	-1679.9186	6097.3367
304.5569	123.8353	68.2819	511540.4688	-15.5728
-15.5543				
[12491]ENERGY: 3580000	3190.2452	5339.1967	5496.5174	
323.5644	-14367.6538	-1742.1442	0.0000	0.0000
7794.5205	6034.2463	304.8048	-1760.2742	6097.7782
304.5695	346.2959	168.5330	511540.4688	-19.8922
-19.9172				
[12527]ENERGY: 3590000	3255.1868	5291.2403	5445.8923	
312.0435	-14367.7685	-1708.5129	0.0000	0.0000
7805.6950	6033.7765	305.2418	-1771.9184	6098.0880
304.6855	-82.1159	-105.0066	511540.4688	-15.9595
-15.9476				
[12580]ENERGY: 3600000	3238.7271	5363.1906	5485.2268	
319.5040	-14393.2930	-1654.7048	0.0000	0.0000
7677.8229	6036.4737	300.2414	-1641.3492	6098.9730
304.6158	-83.9381	-154.4156	511540.4688	-18.0178
-18.0124				
[12616]ENERGY: 3610000	3229.5388	5333.0067	5460.3679	
316.8697	-14245.0826	-1764.4724	0.0000	0.0000
7709.9555	6040.1838	301.4979	-1669.7717	6099.1380
304.6213	-206.0896	-228.1481	511540.4688	-14.9032
-14.9102				
[12666]ENERGY: 3620000	3271.5631	5274.6525	5426.1108	
304.4020	-14268.9042	-1774.0549	0.0000	0.0000
7801.4368	6035.2061	305.0753	-1766.2307	6100.4386
304.7444	93.8593	-52.2405	511540.4688	-15.5539
-15.5691				
[12702]ENERGY: 3630000	3193.4499	5323.1039	5475.0071	
327.0974	-14287.9961	-1729.0807	0.0000	0.0000
7739.6365	6041.2180	302.6586	-1698.4184	6101.3326
304.5999	-78.7283	-100.8746	511540.4688	-18.0263
-17.9919				
[12752]ENERGY: 3640000	3175.1443	5307.0746	5500.6124	
336.6324	-14299.6989	-1736.5362	0.0000	0.0000
7756.2367	6039.4653	303.3078	-1716.7714	6101.4641
304.5509	89.3030	-32.4179	511540.4688	-19.0406

Supplementary Text 6

-19.0872
 [12788]ENERGY: 3650000 3316.3269 5280.9054 5431.1416
 314.5743 -14375.0332 -1763.1693 0.0000 0.0000
 7834.7342 6039.4799 306.3774 -1795.2543 6100.7994
 304.8173 -234.6231 -237.8482 511540.4688 -16.4977
 -16.4729
 [12838]ENERGY: 3660000 3152.6570 5271.0096 5433.7948
 323.5701 -14297.3590 -1706.2528 0.0000 0.0000
 7859.1025 6036.5221 307.3303 -1822.5804 6101.6202
 304.7591 290.3523 49.4643 511540.4688 -16.4360
 -16.4393
 [12874]ENERGY: 3670000 3215.6840 5338.3353 5442.3469
 300.1567 -14273.7624 -1748.3711 0.0000 0.0000
 7765.3485 6039.7380 303.6641 -1725.6106 6102.2531
 304.8076 -84.3547 -143.6728 511540.4688 -19.8074
 -19.8068
 [12924]ENERGY: 3680000 3266.3541 5280.0064 5424.0625
 304.2363 -14373.7516 -1717.6048 0.0000 0.0000
 7855.7885 6039.0913 307.2007 -1816.6972 6102.5507
 304.6515 146.6178 -22.6755 511540.4688 -13.7312
 -13.7264
 [12960]ENERGY: 3690000 3347.5329 5373.0612 5452.4814
 313.8357 -14420.1793 -1724.3595 0.0000 0.0000
 7696.2351 6038.6075 300.9614 -1657.6276 6102.1548
 304.9514 -229.2076 -78.3263 511540.4688 -13.8499
 -13.8245
 [13013]ENERGY: 3700000 3164.0331 5329.9410 5416.9367
 335.1205 -14303.7391 -1729.0253 0.0000 0.0000
 7826.3516 6039.6184 306.0496 -1786.7332 6103.1672
 304.8494 -225.1320 -263.9273 511540.4688 -17.7098
 -17.7508
 [13049]ENERGY: 3710000 3241.1207 5269.0823 5455.4464
 308.7878 -14355.3660 -1713.5573 0.0000 0.0000
 7837.7323 6043.2463 306.4946 -1794.4860 6103.2036
 304.7969 -11.5795 -86.2053 511540.4688 -16.7656
 -16.7492
 [13099]ENERGY: 3720000 3245.1146 5263.1865 5495.3218
 314.4798 -14256.2063 -1746.4748 0.0000 0.0000
 7727.0569 6042.4785 302.1667 -1684.5784 6102.3572
 305.0085 -57.8134 -129.3978 511540.4688 -18.5353
 -18.5346
 [13135]ENERGY: 3730000 3173.5248 5238.9057 5431.4826
 329.4970 -14356.1239 -1649.1469 0.0000 0.0000
 7870.6982 6038.8375 307.7838 -1831.8607 6102.7786
 304.8622 146.7864 105.5262 511540.4688 -17.6419
 -17.6354
 [13185]ENERGY: 3740000 3234.3303 5344.7636 5460.5033
 302.1348 -14333.1605 -1709.4016 0.0000 0.0000
 7743.1951 6042.3651 302.7978 -1700.8301 6104.4860
 304.8832 -73.1324 -29.9243 511540.4688 -17.3481
 -17.3618
 [13221]ENERGY: 3750000 3244.1081 5375.8949 5437.4895
 331.3818 -14347.6416 -1734.9486 0.0000 0.0000
 7733.7946 6040.0787 302.4302 -1693.7159 6103.8965

Supplementary Text 6

304.9139	120.8916	69.1477	511540.4688	-14.7048
-14.7107				
[13271]ENERGY: 3760000	3272.8144	5330.8358	5460.5300	
314.1860	-14379.6884	-1726.4385	0.0000	0.0000
7770.1153	6042.3547	303.8505	-1727.7607	6103.9158
304.8883	132.5079	75.2770	511540.4688	-19.4888
-19.4683				
[13307]ENERGY: 3770000	3221.0599	5297.4273	5472.2724	
301.3866	-14403.9579	-1659.8687	0.0000	0.0000
7812.8260	6041.1456	305.5207	-1771.6804	6104.6177
304.8222	89.7574	2.8651	511540.4688	-16.6052
-16.6105				
[13357]ENERGY: 3780000	3211.6839	5282.3852	5465.9953	
308.4880	-14366.7091	-1698.0698	0.0000	0.0000
7839.1672	6042.9405	306.5508	-1796.2266	6105.3022
304.6270	-87.9183	-133.5604	511540.4688	-15.6588
-15.6381				
[13393]ENERGY: 3790000	3200.1729	5322.5139	5436.6080	
322.3042	-14343.2883	-1668.7442	0.0000	0.0000
7771.9385	6041.5049	303.9218	-1730.4335	6104.2827
304.6214	-4.0044	-99.3550	511540.4688	-12.9045
-12.9292				
[13446]ENERGY: 3800000	3234.8785	5269.3944	5437.1092	
343.3883	-14323.6537	-1714.2851	0.0000	0.0000
7792.5095	6039.3412	304.7262	-1753.1684	6105.5557
304.6369	1.1811	-140.5981	511540.4688	-16.0771
-16.0934				
[13482]ENERGY: 3810000	3204.0501	5265.6355	5463.8312	
317.5053	-14309.6710	-1695.4639	0.0000	0.0000
7798.8850	6044.7723	304.9755	-1754.1127	6105.0251
304.5877	97.3170	0.0416	511540.4688	-16.7469
-16.7520				
[13532]ENERGY: 3820000	3163.7659	5280.7795	5447.8729	
321.4180	-14341.9129	-1727.4627	0.0000	0.0000
7895.9092	6040.3699	308.7696	-1855.5393	6105.8524
304.7612	253.0449	174.9963	511540.4688	-15.0944
-15.0825				
[13568]ENERGY: 3830000	3222.1465	5365.5070	5488.7118	
304.5399	-14399.2754	-1680.3957	0.0000	0.0000
7741.9809	6043.2150	302.7503	-1698.7659	6106.2826
304.9238	159.3837	27.6903	511540.4688	-20.9061
-20.8987				
[13618]ENERGY: 3840000	3181.7001	5267.1485	5435.7172	
327.5227	-14245.1504	-1702.6049	0.0000	0.0000
7779.0827	6043.4158	304.2011	-1735.6669	6106.8852
304.9208	35.1557	40.1344	511540.4688	-15.1769
-15.1659				
[13654]ENERGY: 3850000	3265.7811	5344.1621	5470.9232	
317.3425	-14389.9470	-1730.7068	0.0000	0.0000
7765.3782	6042.9333	303.6652	-1722.4449	6106.9205
304.9505	66.3141	-73.7999	511540.4688	-13.0837
-13.1064				
[13704]ENERGY: 3860000	3188.5959	5398.3075	5535.3896	
324.4968	-14412.6669	-1748.6388	0.0000	0.0000

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7756.2093	6041.6933	303.3067	-1714.5160	6105.4933
304.8843	-77.7237	-50.6021	511540.4688	-17.1117
-17.0931				
[13740]ENERGY: 3870000	3244.0213	5289.4085	5474.7649	
305.8276	-14343.8683	-1716.6746	0.0000	0.0000
7788.6516	6042.1311	304.5753	-1746.5205	6106.2744
305.0747	-149.1716	-168.8591	511540.4688	-16.3273
-16.3164				
[13790]ENERGY: 3880000	3112.1414	5281.3937	5431.5599	
317.5189	-14281.8948	-1701.6852	0.0000	0.0000
7881.0366	6040.0705	308.1881	-1840.9661	6105.3154
305.0581	52.5539	112.5526	511540.4688	-16.0734
-16.0734				
[13826]ENERGY: 3890000	3240.7024	5313.7190	5412.5119	
332.4084	-14298.7852	-1801.2719	0.0000	0.0000
7842.5170	6041.8016	306.6817	-1800.7154	6104.3498
304.8789	-47.7958	-122.6504	511540.4688	-18.1857
-18.2006				
[13879]ENERGY: 3900000	3205.9211	5335.4002	5437.7825	
327.4068	-14312.3380	-1779.5979	0.0000	0.0000
7826.8077	6041.3824	306.0674	-1785.4252	6105.2561
305.1838	-43.7734	-54.9622	511540.4688	-15.4968
-15.4865				
[13915]ENERGY: 3910000	3221.5922	5281.5235	5474.8497	
315.4105	-14380.6032	-1756.8333	0.0000	0.0000
7881.2937	6037.2332	308.1981	-1844.0605	6104.8590
305.0496	93.0616	-9.1839	511540.4688	-18.7700
-18.7889				
[13965]ENERGY: 3920000	3212.2015	5272.8724	5453.9419	
312.7952	-14306.0650	-1706.9192	0.0000	0.0000
7802.2066	6041.0334	305.1054	-1761.1733	6104.3188
304.9030	43.3344	-10.3164	511540.4688	-19.3050
-19.2964				
[14001]ENERGY: 3930000	3258.1127	5325.3350	5517.4148	
327.5451	-14392.1867	-1682.7003	0.0000	0.0000
7687.4675	6040.9882	300.6185	-1646.4794	6103.8777
304.7935	-191.6788	-35.5749	511540.4688	-14.5842
-14.5868				
[14051]ENERGY: 3940000	3224.4893	5323.5030	5463.3168	
315.2616	-14343.7456	-1706.9612	0.0000	0.0000
7765.0711	6040.9351	303.6532	-1724.1360	6104.5119
304.8596	-355.7286	-256.2187	511540.4688	-18.0095
-17.9904				
[14087]ENERGY: 3950000	3174.7925	5322.1698	5441.4253	
331.3758	-14431.2449	-1635.1522	0.0000	0.0000
7835.3157	6038.6820	306.4001	-1796.6337	6104.4742
304.9031	60.9676	115.2386	511540.4688	-13.9612
-13.9787				
[14137]ENERGY: 3960000	3250.8142	5313.0723	5483.9305	
305.8924	-14326.9758	-1732.8370	0.0000	0.0000
7745.9695	6039.8661	302.9063	-1706.1034	6105.3416
305.0132	-5.8594	53.4876	511540.4688	-15.5005
-15.4762				
[14173]ENERGY: 3970000	3181.4626	5276.2588	5460.5575	

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315.9443	-14324.5218	-1741.2843	0.0000	0.0000
7873.3418	6041.7588	307.8872	-1831.5830	6105.6194
304.9395	-16.1964	-135.1479	511540.4688	-15.2547
-15.2942				
[14223]ENERGY: 3980000	3207.9900	5423.9294	5464.0428	
311.9534	-14301.0898	-1743.7075	0.0000	0.0000
7682.8599	6045.9782	300.4384	-1636.8817	6106.7216
304.9447	89.6688	11.3344	511540.4688	-11.9672
-11.9538				
[14259]ENERGY: 3990000	3249.4694	5360.2744	5426.0072	
303.3590	-14347.7135	-1738.3571	0.0000	0.0000
7792.4188	6045.4581	304.7227	-1746.9607	6106.4783
304.9144	-13.3583	-103.5156	511540.4688	-11.6405
-11.6516				
[14312]ENERGY: 4000000	3221.3080	5257.6159	5488.0306	
338.1267	-14314.7887	-1712.0553	0.0000	0.0000
7768.8082	6047.0454	303.7994	-1721.7628	6107.9048
304.8248	192.8945	69.6412	511540.4688	-13.9610
-13.9725				
[14348]ENERGY: 4010000	3253.3165	5355.8803	5401.2360	
331.4850	-14328.8508	-1762.1601	0.0000	0.0000
7793.5111	6044.4179	304.7654	-1749.0932	6107.5523
304.8692	-109.1446	-166.2865	511540.4688	-19.0620
-19.0091				
[14398]ENERGY: 4020000	3221.9139	5357.3869	5505.8188	
317.1618	-14336.3177	-1788.3619	0.0000	0.0000
7764.4576	6042.0594	303.6292	-1722.3983	6106.2110
305.1061	-88.4895	-70.1379	511540.4688	-9.7386
-9.7683				
[14434]ENERGY: 4030000	3211.6380	5332.7649	5490.6250	
331.1660	-14369.1378	-1740.7644	0.0000	0.0000
7784.6011	6040.8928	304.4169	-1743.7083	6106.8672
305.1361	55.1513	43.1252	511540.4688	-12.4017
-12.3947				
[14484]ENERGY: 4040000	3105.7959	5270.7942	5509.7589	
310.4960	-14331.8377	-1651.0775	0.0000	0.0000
7830.4347	6044.3646	306.2093	-1786.0702	6106.2995
305.1181	146.3992	127.4942	511540.4688	-11.6705
-11.6638				
[14520]ENERGY: 4050000	3230.9994	5373.0334	5504.9328	
308.4876	-14466.0705	-1698.2602	0.0000	0.0000
7785.7806	6038.9031	304.4631	-1746.8775	6107.0072
304.9504	44.0769	60.4280	511540.4688	-13.8025
-13.8184				
[14570]ENERGY: 4060000	3195.3970	5305.7890	5479.8091	
338.3509	-14283.5785	-1728.7342	0.0000	0.0000
7736.2545	6043.2877	302.5264	-1692.9668	6106.7191
304.8002	7.8107	-118.7212	511540.4688	-11.7356
-11.7378				
[14606]ENERGY: 4070000	3205.0210	5310.4382	5491.7955	
291.2390	-14228.9133	-1769.8582	0.0000	0.0000
7746.4896	6046.2118	302.9266	-1700.2778	6107.3226
304.7227	36.7560	-3.0717	511540.4688	-13.3803
-13.3718				

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[14656]ENERGY: 4080000	3190.2017	5298.0378	5487.2337	
320.8098	-14376.6216	-1701.6344	0.0000	0.0000
7822.9165	6040.9435	305.9153	-1781.9730	6107.6976
304.6738	197.8097	78.3379	511540.4688	-14.9803
-14.9759				
[14692]ENERGY: 4090000	3235.4107	5317.8195	5490.9406	
332.7188	-14384.7916	-1694.8545	0.0000	0.0000
7749.0775	6046.3209	303.0278	-1702.7566	6107.9149
304.8615	39.0645	33.6472	511540.4688	-14.1765
-14.1761				
[14745]ENERGY: 4100000	3266.4135	5373.8107	5483.4338	
313.7750	-14288.0607	-1796.0966	0.0000	0.0000
7694.3402	6047.6159	300.8873	-1646.7243	6108.4911
304.8309	-214.8144	-140.0010	511540.4688	-12.4019
-12.4104				
[14781]ENERGY: 4110000	3224.0547	5366.0078	5455.1705	
339.9823	-14438.6654	-1703.8915	0.0000	0.0000
7802.1386	6044.7970	305.1028	-1757.3416	6107.9466
304.9208	291.1732	224.0529	511540.4688	-14.6935
-14.6930				
[14831]ENERGY: 4120000	3206.3283	5214.5938	5491.2014	
310.7916	-14253.7622	-1689.1693	0.0000	0.0000
7762.8937	6042.8773	303.5681	-1720.0164	6106.9932
304.7254	35.7586	2.9024	511540.4688	-17.2325
-17.2373				
[14867]ENERGY: 4130000	3167.2036	5275.9937	5437.3315	
326.6114	-14258.8524	-1702.0314	0.0000	0.0000
7799.2524	6045.5089	304.9899	-1753.7435	6107.3508
304.8255	-44.6756	-122.9925	511540.4688	-13.7748
-13.7835				
[14917]ENERGY: 4140000	3232.8894	5353.5918	5392.4107	
322.1997	-14334.2537	-1687.5283	0.0000	0.0000
7761.6093	6040.9190	303.5179	-1720.6903	6108.1705
304.7523	-47.8917	24.0598	511540.4688	-17.6431
-17.6043				
[14953]ENERGY: 4150000	3257.4980	5235.5452	5528.5946	
351.1694	-14279.9401	-1804.4494	0.0000	0.0000
7757.4451	6045.8627	303.3550	-1711.5824	6107.9944
304.9262	-396.8850	-255.3032	511540.4688	-17.4271
-17.4478				
[15003]ENERGY: 4160000	3187.0449	5215.9923	5441.2436	
322.0258	-14336.7916	-1680.0432	0.0000	0.0000
7893.2689	6042.7407	308.6664	-1850.5283	6109.1161
304.7131	90.5120	-2.2436	511540.4688	-18.8066
-18.8219				
[15039]ENERGY: 4170000	3245.9220	5240.5398	5522.1001	
304.4061	-14355.0204	-1684.9406	0.0000	0.0000
7772.0086	6045.0157	303.9245	-1726.9929	6108.7056
304.7303	48.3822	8.6909	511540.4688	-18.0779
-18.0675				
[15089]ENERGY: 4180000	3207.6910	5357.8875	5425.0980	
310.9402	-14245.0859	-1791.8747	0.0000	0.0000
7781.1154	6045.7715	304.2806	-1735.3439	6109.0956
305.0744	-59.5847	-46.2728	511540.4688	-17.1455

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-17.1453
 [15125]ENERGY: 4190000 3252.3789 5336.9573 5453.2567
 293.9923 -14347.1297 -1761.2554 0.0000 0.0000
 7814.7364 6042.9365 305.5954 -1771.7998 6110.6296
 304.9925 -62.9059 -82.4478 511540.4688 -17.8260
 -17.8292
 [15178]ENERGY: 4200000 3276.5543 5231.9229 5426.0808
 316.5269 -14291.6067 -1779.2480 0.0000 0.0000
 7864.7512 6044.9815 307.5512 -1819.7697 6109.3312
 305.0352 -115.3457 -168.7040 511540.4688 -17.5207
 -17.5117
 [15214]ENERGY: 4210000 3217.7588 5292.9010 5464.0416
 329.2153 -14377.2936 -1651.1967 0.0000 0.0000
 7770.8251 6046.2516 303.8782 -1724.5736 6109.2023
 304.8666 123.9648 88.7612 511540.4688 -18.4293
 -18.4099
 [15264]ENERGY: 4220000 3170.9750 5202.1557 5504.7149
 335.4599 -14314.5732 -1699.7720 0.0000 0.0000
 7848.5246 6047.4848 306.9167 -1801.0398 6109.0546
 304.8412 205.6385 8.9286 511540.4688 -11.8030
 -11.8239
 [15300]ENERGY: 4230000 3226.3041 5329.4777 5445.1563
 325.9914 -14371.4903 -1727.6265 0.0000 0.0000
 7815.1514 6042.9640 305.6116 -1772.1873 6109.6265
 304.7938 162.5627 68.1878 511540.4688 -22.8964
 -22.9015
 [15350]ENERGY: 4240000 3118.4838 5279.3645 5508.4310
 310.6429 -14306.9028 -1663.3680 0.0000 0.0000
 7799.7313 6046.3827 305.0086 -1753.3486 6110.2954
 304.8211 67.0823 -18.3613 511540.4688 -18.5287
 -18.5294
 [15386]ENERGY: 4250000 3155.5841 5255.1729 5473.4878
 332.0224 -14343.3267 -1704.3345 0.0000 0.0000
 7874.1990 6042.8050 307.9207 -1831.3940 6109.2178
 304.8462 14.4453 29.3422 511540.4688 -15.2624
 -15.2648
 [15436]ENERGY: 4260000 3240.2302 5308.2759 5445.3540
 317.2974 -14277.7751 -1775.0374 0.0000 0.0000
 7789.7480 6048.0931 304.6182 -1741.6549 6110.8832
 304.7821 -196.7982 -221.2930 511540.4688 -15.9699
 -15.9708
 [15472]ENERGY: 4270000 3210.5135 5340.8061 5478.8756
 324.7293 -14372.9301 -1717.8491 0.0000 0.0000
 7783.5842 6047.7294 304.3772 -1735.8548 6110.5572
 304.8626 -236.1865 -170.8471 511540.4688 -12.6144
 -12.6028
 [15522]ENERGY: 4280000 3256.6675 5250.4328 5473.5519
 326.8754 -14266.6871 -1749.3668 0.0000 0.0000
 7757.5827 6049.0563 303.3604 -1708.5264 6110.8329
 304.9798 -37.3740 11.0951 511540.4688 -19.3815
 -19.3796
 [15558]ENERGY: 4290000 3204.1496 5248.2137 5458.0568
 321.2884 -14199.9284 -1777.7390 0.0000 0.0000
 7794.3373 6048.3783 304.7977 -1745.9590 6110.8248

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305.1394	-261.7339	-190.9515	511540.4688	-15.6733
-15.6856				
[15611]ENERGY: 4300000	3228.5093	5348.3264	5446.3816	
320.6529	-14387.0008	-1720.7417	0.0000	0.0000
7810.7638	6046.8915	305.4400	-1763.8723	6110.9748
304.9877	-122.1982	-69.5901	511540.4688	-20.1380
-20.1137				
[15647]ENERGY: 4310000	3286.4770	5295.1806	5502.0276	
328.1017	-14339.8611	-1740.9291	0.0000	0.0000
7718.9074	6049.9041	301.8480	-1669.0033	6111.5184
305.1233	-102.6735	-93.4922	511540.4688	-15.5484
-15.5620				
[15697]ENERGY: 4320000	3229.8581	5344.9957	5448.0841	
311.0696	-14399.3230	-1722.6315	0.0000	0.0000
7836.6012	6048.6542	306.4504	-1787.9470	6111.5824
305.2727	-75.5253	-62.2509	511540.4688	-14.5869
-14.6035				
[15733]ENERGY: 4330000	3280.9280	5263.6269	5454.6852	
322.9161	-14391.1962	-1683.9384	0.0000	0.0000
7803.9443	6050.9659	305.1734	-1752.9784	6111.0765
305.0121	44.9705	0.1446	511540.4688	-16.7444
-16.7642				
[15783]ENERGY: 4340000	3261.2792	5311.5768	5465.8961	
306.3797	-14361.8059	-1679.1497	0.0000	0.0000
7744.5129	6048.6891	302.8493	-1695.8237	6112.3388
304.8076	-18.9134	16.9048	511540.4688	-15.5086
-15.4616				
[15819]ENERGY: 4350000	3208.5356	5410.9791	5443.1569	
336.8104	-14380.8583	-1722.6914	0.0000	0.0000
7755.7701	6051.7024	303.2895	-1704.0677	6111.9309
305.0093	-77.0575	-83.1712	511540.4688	-15.9258
-15.9425				
[15869]ENERGY: 4360000	3293.1155	5372.7433	5477.6466	
331.6495	-14364.3308	-1730.4295	0.0000	0.0000
7672.5284	6052.9229	300.0343	-1619.6055	6113.0658
305.0876	-67.4447	-152.8898	511540.4688	-17.3480
-17.3462				
[15905]ENERGY: 4370000	3277.3704	5291.1950	5479.9263	
321.8807	-14367.5384	-1737.2675	0.0000	0.0000
7787.3265	6052.8930	304.5235	-1734.4335	6113.4355
305.0404	-24.9622	-49.5116	511540.4688	-15.5782
-15.5703				
[15955]ENERGY: 4380000	3182.9191	5410.9194	5375.6577	
340.3779	-14364.2119	-1708.8569	0.0000	0.0000
7809.7741	6046.5794	305.4013	-1763.1947	6112.8037
304.9971	-117.4058	-57.6681	511540.4688	-17.3778
-17.3907				
[15991]ENERGY: 4390000	3331.3627	5251.6732	5466.7838	
344.1015	-14437.5070	-1659.4373	0.0000	0.0000
7751.8965	6048.8734	303.1380	-1703.0231	6112.4462
305.1115	-7.2832	26.2438	511540.4688	-16.5232
-16.4857				
[16044]ENERGY: 4400000	3262.4413	5301.9537	5468.5678	
325.1835	-14394.3204	-1695.7439	0.0000	0.0000

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7782.6034	6050.6855	304.3388	-1731.9179	6112.9478
305.0767	-172.7036	-153.9021	511540.4688	-18.1718
-18.2000				
[16080]ENERGY: 4410000	3322.4492	5305.8563	5509.8008	
319.9046	-14467.8443	-1723.1299	0.0000	0.0000
7780.4211	6047.4578	304.2535	-1732.9633	6112.9274
304.9860	-180.5874	-153.3815	511540.4688	-15.7949
-15.8028				
[16130]ENERGY: 4420000	3262.6929	5364.5464	5443.7195	
319.7871	-14295.5684	-1803.9686	0.0000	0.0000
7759.6671	6050.8759	303.4419	-1708.7911	6112.2531
304.8818	-281.2951	-202.0532	511540.4688	-15.1634
-15.1455				
[16166]ENERGY: 4430000	3217.2363	5270.9077	5397.0106	
330.1983	-14383.5727	-1693.3322	0.0000	0.0000
7908.0274	6046.4755	309.2435	-1861.5519	6112.7661
305.0188	190.7688	59.8016	511540.4688	-12.0850
-12.1066				
[16216]ENERGY: 4440000	3258.2154	5309.6992	5444.3012	
337.5371	-14346.7560	-1689.2375	0.0000	0.0000
7735.0798	6048.8393	302.4804	-1686.2406	6113.0441
304.9570	96.4212	9.0901	511540.4688	-12.6337
-12.6284				
[16252]ENERGY: 4450000	3289.6310	5196.9181	5434.4819	
338.9314	-14321.1221	-1715.8746	0.0000	0.0000
7828.0347	6051.0005	306.1154	-1777.0343	6113.3526
305.0953	-141.9796	-214.9004	511540.4688	-13.2179
-13.2061				
[16302]ENERGY: 4460000	3171.5415	5246.4549	5474.6183	
343.9074	-14299.2684	-1710.2831	0.0000	0.0000
7823.4543	6050.4249	305.9363	-1773.0294	6113.6672
305.0015	-34.1161	2.2830	511540.4688	-11.6412
-11.6557				
[16338]ENERGY: 4470000	3231.4817	5397.4529	5442.8342	
347.0312	-14482.8842	-1645.5549	0.0000	0.0000
7760.3296	6050.6905	303.4678	-1709.6391	6113.0131
304.9673	75.7188	83.8012	511540.4688	-13.2550
-13.2387				
[16388]ENERGY: 4480000	3284.4539	5322.3553	5459.6738	
323.9502	-14402.5406	-1719.0695	0.0000	0.0000
7782.1442	6050.9674	304.3209	-1731.1768	6114.5475
304.9946	103.4072	16.1197	511540.4688	-12.2681
-12.2934				
[16424]ENERGY: 4490000	3218.0272	5281.2354	5482.8363	
314.4219	-14319.2447	-1709.0550	0.0000	0.0000
7783.1109	6051.3319	304.3587	-1731.7790	6113.9163
305.1078	-91.7432	8.2668	511540.4688	-18.5195
-18.4995				
[16477]ENERGY: 4500000	3202.9722	5186.8873	5456.8396	
333.2284	-14299.4874	-1683.7168	0.0000	0.0000
7855.0370	6051.7602	307.1713	-1803.2768	6114.0166
305.0046	109.7143	82.8695	511540.4688	-13.4526
-13.4717				
[16513]ENERGY: 4510000	3260.4663	5324.4830	5481.3362	

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315.4182	-14357.3861	-1705.4070	0.0000	0.0000
7734.0130	6052.9237	302.4387	-1681.0894	6113.7718
304.9343	-156.4552	-62.5472	511540.4688	-15.7777
-15.7597				
[16563]ENERGY: 4520000	3264.9659	5350.6132	5437.6592	
318.3735	-14365.8480	-1707.7417	0.0000	0.0000
7753.1181	6051.1401	303.1858	-1701.9780	6114.2550
304.9952	75.0022	-14.9491	511540.4688	-13.1636
-13.1960				
[16599]ENERGY: 4530000	3177.2010	5294.0371	5434.4621	
325.7982	-14308.4958	-1684.0160	0.0000	0.0000
7810.9529	6049.9395	305.4474	-1761.0134	6113.8213
304.8392	257.7271	140.6676	511540.4688	-15.2643
-15.2457				
[16649]ENERGY: 4540000	3208.9360	5363.0702	5483.7458	
306.7412	-14370.2924	-1672.0298	0.0000	0.0000
7734.0149	6054.1858	302.4388	-1679.8290	6114.8008
305.0369	45.3056	34.9928	511540.4688	-10.8769
-10.8717				
[16685]ENERGY: 4550000	3256.9026	5356.6349	5445.0376	
325.9797	-14255.1327	-1802.1405	0.0000	0.0000
7722.1581	6049.4396	301.9751	-1672.7185	6113.6770
305.2341	48.6596	73.9961	511540.4688	-9.4881
-9.4885				
[16735]ENERGY: 4560000	3225.8854	5268.3374	5485.0433	
322.0760	-14399.5383	-1666.0573	0.0000	0.0000
7814.0425	6049.7890	305.5683	-1764.2534	6114.8172
304.9291	94.8874	6.8444	511540.4688	-15.2880
-15.2968				
[16771]ENERGY: 4570000	3243.6440	5260.7491	5480.2840	
311.6046	-14298.8950	-1748.3248	0.0000	0.0000
7801.6440	6050.7059	305.0834	-1750.9381	6115.0218
305.1379	82.8396	9.7093	511540.4688	-9.8372
-9.8577				
[16821]ENERGY: 4580000	3187.2082	5316.2309	5467.6871	
317.1800	-14416.3071	-1636.3527	0.0000	0.0000
7814.6486	6050.2951	305.5920	-1764.3535	6114.9611
305.1575	8.5657	-22.3297	511540.4688	-11.6139
-11.5905				
[16857]ENERGY: 4590000	3239.8028	5259.9653	5437.6220	
315.5869	-14399.9410	-1637.9081	0.0000	0.0000
7837.6784	6052.8062	306.4925	-1784.8721	6114.0527
304.9192	96.4527	66.4390	511540.4688	-13.9401
-13.9476				
[16910]ENERGY: 4600000	3209.3362	5277.3560	5413.9113	
333.1263	-14343.0786	-1656.3181	0.0000	0.0000
7820.3599	6054.6930	305.8153	-1765.6669	6116.1981
304.7930	324.9190	112.9312	511540.4688	-15.1239
-15.1255				
[16946]ENERGY: 4610000	3306.4003	5255.7689	5465.6972	
323.9590	-14357.4607	-1701.6685	0.0000	0.0000
7762.3462	6055.0423	303.5467	-1707.3039	6114.8942
304.8848	37.1503	-21.1593	511540.4688	-9.9518
-9.9454				

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[16996]ENERGY: 4620000	3211.8108	5313.0377	5483.6892	
320.3410	-14408.2208	-1641.1981	0.0000	0.0000
7776.2877	6055.7475	304.0919	-1720.5402	6115.8600
304.9264	46.2773	-18.4749	511540.4688	-20.5484
-20.5515				
[17032]ENERGY: 4630000	3195.4630	5366.1769	5437.4115	
314.3812	-14379.3398	-1711.5283	0.0000	0.0000
7829.0460	6051.6106	306.1550	-1777.4354	6116.5442
304.9115	17.2656	-84.9602	511540.4688	-14.2485
-14.2397				
[17082]ENERGY: 4640000	3250.7431	5264.8834	5440.6344	
309.8929	-14283.7064	-1700.4872	0.0000	0.0000
7773.9154	6055.8755	303.9991	-1718.0399	6117.9031
305.0667	47.5560	12.2894	511540.4688	-13.7427
-13.7344				
[17118]ENERGY: 4650000	3294.7448	5306.6951	5485.0361	
341.5561	-14402.5135	-1764.7365	0.0000	0.0000
7793.6014	6054.3834	304.7689	-1739.2180	6116.0494
305.0187	-28.4076	-42.2621	511540.4688	-19.8440
-19.8422				
[17168]ENERGY: 4660000	3233.3653	5230.7697	5437.8505	
319.8298	-14345.6940	-1662.5644	0.0000	0.0000
7838.8421	6052.3990	306.5380	-1786.4431	6117.3707
305.1638	-120.2821	-43.7496	511540.4688	-13.9251
-13.9249				
[17204]ENERGY: 4670000	3249.7569	5324.5835	5425.9617	
307.7353	-14382.1318	-1721.3374	0.0000	0.0000
7847.1828	6051.7510	306.8642	-1795.4317	6116.6732
304.9804	61.2087	-27.4070	511540.4688	-12.2498
-12.2487				
[17254]ENERGY: 4680000	3214.1104	5358.7463	5453.0104	
338.0968	-14431.3015	-1706.3858	0.0000	0.0000
7828.7133	6054.9898	306.1420	-1773.7235	6117.8405
305.0077	301.3649	250.4912	511540.4688	-11.7072
-11.7211				
[17290]ENERGY: 4690000	3176.8080	5279.1527	5458.8194	
345.6315	-14369.5908	-1684.1228	0.0000	0.0000
7842.2079	6048.9060	306.6697	-1793.3019	6117.6751
305.1737	215.7876	129.8599	511540.4688	-14.4587
-14.4340				
[17343]ENERGY: 4700000	3259.1555	5309.3110	5450.5277	
331.2898	-14377.3305	-1720.1398	0.0000	0.0000
7802.0835	6054.8974	305.1006	-1747.1862	6117.4950
304.9064	151.4847	147.3636	511540.4688	-11.4604
-11.4735				
[17379]ENERGY: 4710000	3231.5370	5311.0254	5453.9584	
339.4182	-14459.0106	-1661.3968	0.0000	0.0000
7837.8500	6053.3816	306.4992	-1784.4684	6118.0175
305.1961	219.5321	89.1468	511540.4688	-18.3409
-18.3256				
[17429]ENERGY: 4720000	3233.7984	5251.5454	5412.0956	
318.4195	-14308.2861	-1691.0624	0.0000	0.0000
7838.9229	6055.4334	306.5412	-1783.4895	6119.5911
305.2144	21.1548	-123.2261	511540.4688	-13.0647

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-13.1135
 [17465]ENERGY: 4730000 3274.8103 5274.1018 5487.4375
 316.1339 -14415.7241 -1627.8894 0.0000 0.0000
 7748.6580 6057.5279 303.0114 -1691.1301 6118.9374
 305.1590 101.9294 92.6436 511540.4688 -19.6503
 -19.6170
 [17515]ENERGY: 4740000 3194.5617 5372.3616 5434.9187
 324.4534 -14307.1232 -1788.4616 0.0000 0.0000
 7825.1202 6055.8308 306.0014 -1769.2893 6119.6523
 305.1909 -29.9342 -122.3200 511540.4688 -13.9169
 -13.9453
 [17551]ENERGY: 4750000 3265.1743 5351.3377 5423.5854
 323.2555 -14505.0310 -1653.7545 0.0000 0.0000
 7848.2291 6052.7964 306.9051 -1795.4327 6119.6106
 305.1499 77.3879 103.8359 511540.4688 -14.6343
 -14.6359
 [17601]ENERGY: 4760000 3245.6432 5254.3062 5450.3734
 319.1806 -14237.3076 -1747.1173 0.0000 0.0000
 7773.9347 6059.0132 303.9998 -1714.9215 6120.3573
 305.1677 27.6524 9.4995 511540.4688 -17.4068
 -17.3837
 [17637]ENERGY: 4770000 3215.3535 5311.6180 5460.2899
 296.2393 -14387.5808 -1693.2389 0.0000 0.0000
 7855.7988 6058.4797 307.2011 -1797.3191 6120.0962
 305.3680 -75.0094 -121.7184 511540.4688 -11.6941
 -11.7029
 [17687]ENERGY: 4780000 3232.5837 5393.4536 5433.5326
 317.5433 -14307.8415 -1742.5425 0.0000 0.0000
 7730.5445 6057.2737 302.3031 -1673.2708 6119.6786
 305.1111 -193.0061 -247.5128 511540.4688 -14.2679
 -14.2566
 [17723]ENERGY: 4790000 3197.8267 5302.1515 5425.3428
 309.6973 -14376.1388 -1625.7428 0.0000 0.0000
 7824.5293 6057.6659 305.9783 -1766.8635 6120.1097
 305.0260 201.1109 197.8657 511540.4688 -17.6629
 -17.6851
 [17776]ENERGY: 4800000 3292.1448 5200.9071 5414.3944
 329.0243 -14362.0218 -1665.1214 0.0000 0.0000
 7847.6490 6056.9764 306.8824 -1790.6725 6119.5847
 305.3636 -209.2071 -133.3673 511540.4688 -13.1746
 -13.1430
 [17812]ENERGY: 4810000 3186.1630 5319.6246 5466.3407
 315.6234 -14310.5834 -1725.3264 0.0000 0.0000
 7806.1155 6057.9573 305.2583 -1748.1582 6120.6624
 305.1293 97.7736 25.8032 511540.4688 -11.2271
 -11.2460
 [17862]ENERGY: 4820000 3244.8934 5346.8769 5430.7645
 317.8717 -14410.3813 -1682.0566 0.0000 0.0000
 7803.9239 6051.8926 305.1726 -1752.0313 6120.0097
 305.1889 -163.7078 -221.3222 511540.4688 -12.7266
 -12.7365
 [17898]ENERGY: 4830000 3158.6892 5358.7706 5421.6876
 326.8140 -14427.8940 -1605.4506 0.0000 0.0000
 7821.1731 6053.7899 305.8471 -1767.3832 6119.3470

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305.0263	89.7077	77.3132	511540.4688	-13.9304
-13.9095				
[17948]ENERGY: 4840000	3242.0396	5330.5702	5424.2494	
306.4317	-14332.5656	-1757.4030	0.0000	0.0000
7840.1526	6053.4749	306.5893	-1786.6777	6120.4941
305.3268	-82.0132	-99.1638	511540.4688	-14.4903
-14.5007				
[17984]ENERGY: 4850000	3270.6392	5375.1878	5494.8551	
334.7796	-14398.8573	-1764.3099	0.0000	0.0000
7748.1810	6060.4755	302.9927	-1687.7055	6121.3355
305.2803	-305.8113	-255.6119	511540.4688	-13.8439
-13.8532				
[18034]ENERGY: 4860000	3140.0860	5290.4379	5455.0652	
351.4921	-14347.2737	-1648.9058	0.0000	0.0000
7813.3609	6054.2626	305.5416	-1759.0983	6118.8631
305.3487	-55.1209	11.4331	511540.4688	-19.3732
-19.3480				
[18070]ENERGY: 4870000	3231.3220	5367.6409	5411.7222	
329.4703	-14385.2548	-1652.7672	0.0000	0.0000
7758.2052	6060.3387	303.3847	-1697.8665	6121.5090
305.1744	31.8841	11.6333	511540.4688	-16.4150
-16.4183				
[18120]ENERGY: 4880000	3211.8841	5265.1538	5500.3056	
342.8139	-14437.5832	-1665.9615	0.0000	0.0000
7840.0074	6056.6201	306.5836	-1783.3872	6121.3826
305.1037	32.6843	83.5598	511540.4688	-15.9656
-15.9696				
[18156]ENERGY: 4890000	3271.8221	5358.4218	5428.5960	
327.0989	-14427.8858	-1655.4686	0.0000	0.0000
7754.1770	6056.7615	303.2272	-1697.4156	6122.0068
305.3371	-145.9581	-224.6557	511540.4688	-18.8528
-18.8518				
[18209]ENERGY: 4900000	3312.9802	5361.6606	5439.1724	
299.6200	-14378.0349	-1725.6915	0.0000	0.0000
7751.7135	6061.4203	303.1309	-1690.2931	6122.5224
305.6073	-76.9843	-40.3172	511540.4688	-14.7585
-14.7536				
[18245]ENERGY: 4910000	3172.4320	5321.9920	5423.6385	
328.4243	-14316.8759	-1722.5584	0.0000	0.0000
7848.6599	6055.7123	306.9220	-1792.9476	6123.0938
305.4949	-242.5023	-109.6179	511540.4688	-16.7533
-16.7643				
[18295]ENERGY: 4920000	3157.6457	5310.1732	5485.1888	
325.9998	-14338.1670	-1718.0401	0.0000	0.0000
7833.4813	6056.2816	306.3284	-1777.1997	6122.0379
305.3412	-14.5169	23.0037	511540.4688	-20.5074
-20.5015				
[18331]ENERGY: 4930000	3209.9605	5277.7553	5412.3968	
332.4125	-14365.4664	-1639.8210	0.0000	0.0000
7832.6529	6059.8907	306.2960	-1772.7622	6122.7190
305.1148	-114.0048	-1.7368	511540.4688	-15.8756
-15.8805				
[18381]ENERGY: 4940000	3325.6723	5355.7680	5473.2580	
326.5339	-14335.3201	-1723.0003	0.0000	0.0000

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7641.8063	6064.7181	298.8330	-1577.0882	6123.1604
305.0459	-126.9651	-136.9235	511540.4688	-14.7597
-14.7779				
[18417]ENERGY: 4950000	3183.8445	5279.4271	5453.8137	
328.0054	-14342.0854	-1713.6445	0.0000	0.0000
7869.5585	6058.9193	307.7392	-1810.6393	6122.5599
305.2453	60.2641	18.4825	511540.4688	-16.0604
-16.0413				
[18467]ENERGY: 4960000	3206.9350	5303.9439	5482.9551	
327.7859	-14373.5645	-1708.5528	0.0000	0.0000
7818.1612	6057.6638	305.7293	-1760.4975	6123.2060
305.2681	1.4737	-154.0735	511540.4688	-16.4263
-16.4116				
[18503]ENERGY: 4970000	3258.0308	5369.0681	5471.7609	
321.4491	-14316.4492	-1804.3497	0.0000	0.0000
7756.7569	6056.2668	303.3281	-1700.4901	6123.4624
305.3923	-43.7887	-41.4122	511540.4688	-14.9019
-14.9258				
[18553]ENERGY: 4980000	3298.9846	5312.5967	5428.4765	
314.2697	-14354.4718	-1790.2220	0.0000	0.0000
7849.5966	6059.2303	306.9586	-1790.3664	6125.3364
305.3589	-25.2350	-63.3564	511540.4688	-15.3446
-15.3176				
[18589]ENERGY: 4990000	3264.0781	5240.8666	5477.1805	
322.6365	-14316.1442	-1764.1441	0.0000	0.0000
7837.6010	6062.0745	306.4895	-1775.5265	6124.6074
305.4109	11.6820	-65.1939	511540.4688	-20.0246
-20.0365				
[18642]ENERGY: 5000000	3258.3273	5316.0132	5419.2336	
332.4553	-14339.2402	-1702.8894	0.0000	0.0000
7780.7089	6064.6086	304.2647	-1716.1003	6124.8147
305.4859	-253.4686	-310.6234	511540.4688	-13.5910
-13.5768				
[18678]ENERGY: 5010000	3218.3423	5313.7143	5465.5936	
340.0447	-14387.1050	-1703.4942	0.0000	0.0000
7817.3093	6064.4050	305.6960	-1752.9042	6124.8281
305.5067	61.7549	-82.6236	511540.4688	-16.8989
-16.9187				
[18728]ENERGY: 5020000	3212.6387	5267.0160	5462.8008	
303.0286	-14361.6821	-1717.1984	0.0000	0.0000
7893.2220	6059.8256	308.6646	-1833.3964	6124.0631
305.5809	-35.9106	72.8698	511540.4688	-17.4680
-17.4558				
[18764]ENERGY: 5030000	3213.0174	5304.7074	5433.3831	
298.5506	-14368.4315	-1672.2331	0.0000	0.0000
7849.8548	6058.8487	306.9687	-1791.0061	6125.5774
305.5513	203.7562	109.7288	511540.4688	-14.0462
-14.0700				
[18814]ENERGY: 5040000	3235.8604	5308.1024	5443.8824	
322.4471	-14320.2315	-1668.2428	0.0000	0.0000
7742.8587	6064.6767	302.7846	-1678.1820	6124.4578
305.4307	88.2817	105.7722	511540.4688	-14.2935
-14.2872				
[18850]ENERGY: 5050000	3244.4750	5298.9968	5461.0320	

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318.2751	-14421.9916	-1704.0519	0.0000	0.0000
7865.3486	6062.0840	307.5746	-1803.2646	6125.0833
305.3617	32.4088	-37.2307	511540.4688	-13.7041
-13.6872				
[18900]ENERGY: 5060000	3284.0767	5250.1425	5447.9101	
328.8781	-14348.0332	-1746.8575	0.0000	0.0000
7842.3552	6058.4720	306.6754	-1783.8832	6125.3178
305.3343	-69.8242	-126.2697	511540.4688	-8.4282
-8.4353				
[18936]ENERGY: 5070000	3174.6149	5247.4821	5486.9983	
336.8113	-14286.8210	-1677.1737	0.0000	0.0000
7781.8746	6063.7865	304.3103	-1718.0881	6125.8872
305.2140	7.0278	-69.7083	511540.4688	-12.9430
-12.9477				
[18986]ENERGY: 5080000	3212.2938	5332.7162	5470.9675	
328.4341	-14380.4916	-1670.8906	0.0000	0.0000
7768.9632	6061.9926	303.8054	-1706.9706	6125.1763
305.2623	30.3569	35.9473	511540.4688	-5.6048
-5.6084				
[19022]ENERGY: 5090000	3340.4261	5276.7052	5470.5382	
311.9986	-14347.7066	-1705.6660	0.0000	0.0000
7719.7040	6065.9995	301.8791	-1653.7045	6125.7313
305.4528	-269.1892	-160.3176	511540.4688	-11.4899
-11.4815				
[19075]ENERGY: 5100000	3268.8094	5291.6216	5461.5641	
338.9646	-14317.9240	-1786.2415	0.0000	0.0000
7806.6058	6063.4000	305.2774	-1743.2058	6125.7274
305.5384	-219.6605	-260.0782	511540.4688	-11.5704
-11.5674				
[19111]ENERGY: 5110000	3226.4546	5427.1182	5475.4184	
320.3266	-14473.0833	-1721.8560	0.0000	0.0000
7805.2582	6059.6367	305.2247	-1745.6215	6124.9387
305.6882	304.1299	181.8593	511540.4688	-10.0450
-10.0597				
[19161]ENERGY: 5120000	3168.8916	5261.5313	5500.8140	
320.4526	-14201.1375	-1718.1910	0.0000	0.0000
7733.6098	6065.9707	302.4229	-1667.6391	6125.7083
305.6659	117.2595	36.6995	511540.4688	-10.0474
-10.0403				
[19197]ENERGY: 5130000	3207.6140	5285.7918	5405.9276	
329.6917	-14292.9608	-1693.5154	0.0000	0.0000
7816.4549	6059.0039	305.6626	-1757.4510	6125.1556
305.6828	-16.4183	-74.7028	511540.4688	-11.4992
-11.5069				
[19247]ENERGY: 5140000	3208.0370	5327.3220	5441.9048	
309.1443	-14388.9519	-1661.4008	0.0000	0.0000
7825.2300	6061.2854	306.0057	-1763.9447	6125.9832
305.7778	82.0589	-14.1630	511540.4688	-12.6222
-12.6099				
[19283]ENERGY: 5150000	3302.8545	5244.1555	5479.1644	
312.9031	-14400.5537	-1661.4196	0.0000	0.0000
7787.3871	6064.4913	304.5259	-1722.8958	6125.1602
305.4931	-112.7276	-170.1470	511540.4688	-13.0079
-13.0247				

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[19333]ENERGY: 5160000	3194.6894	5253.9272	5455.5326	
311.3414	-14319.9280	-1704.8305	0.0000	0.0000
7872.1703	6062.9024	307.8413	-1809.2679	6127.0852
305.6922	281.2005	196.9872	511540.4688	-11.6651
-11.6644				
[19369]ENERGY: 5170000	3232.4337	5337.7193	5452.1423	
322.6244	-14303.9715	-1740.9424	0.0000	0.0000
7760.5451	6060.5509	303.4762	-1699.9942	6126.5579
305.5693	-153.6694	1.6175	511540.4688	-10.4642
-10.4553				
[19419]ENERGY: 5180000	3261.0518	5294.2179	5446.5449	
336.8131	-14403.1661	-1675.9482	0.0000	0.0000
7803.2483	6062.7617	305.1461	-1740.4866	6127.7428
305.4207	140.7455	86.8765	511540.4688	-12.1675
-12.1682				
[19455]ENERGY: 5190000	3271.0354	5205.5580	5492.2681	
349.5435	-14355.6802	-1734.2982	0.0000	0.0000
7833.8733	6062.2999	306.3437	-1771.5735	6128.0356
305.5496	129.0366	87.4642	511540.4688	-6.8390
-6.8344				
[19508]ENERGY: 5200000	3244.2009	5288.7880	5494.9673	
314.6558	-14431.7624	-1683.6155	0.0000	0.0000
7835.1302	6062.3642	306.3929	-1772.7660	6127.6323
305.5626	109.8966	40.9076	511540.4688	-13.4242
-13.4339				
[19544]ENERGY: 5210000	3149.2739	5342.2788	5473.7165	
311.0853	-14344.2701	-1699.2007	0.0000	0.0000
7829.7296	6062.6133	306.1817	-1767.1163	6128.9824
305.5411	203.0288	132.5681	511540.4688	-9.3336
-9.3184				
[19594]ENERGY: 5220000	3228.0068	5301.5165	5468.9584	
308.1674	-14376.3629	-1675.1505	0.0000	0.0000
7809.2585	6064.3941	305.3812	-1744.8643	6127.3861
305.3131	138.6008	98.0094	511540.4688	-10.9970
-11.0073				
[19630]ENERGY: 5230000	3265.7744	5388.7310	5490.9367	
323.6558	-14426.2506	-1779.6436	0.0000	0.0000
7802.4664	6065.6701	305.1156	-1736.7963	6127.8199
305.1926	-28.8585	22.2093	511540.4688	-9.3695
-9.3700				
[19680]ENERGY: 5240000	3201.9646	5313.2022	5513.2558	
324.2632	-14336.4606	-1766.0372	0.0000	0.0000
7817.9067	6068.0947	305.7194	-1749.8120	6129.5305
305.5812	-5.6355	-16.1373	511540.4688	-13.7540
-13.7628				
[19716]ENERGY: 5250000	3238.9742	5315.1950	5443.5000	
335.1148	-14263.2207	-1788.2565	0.0000	0.0000
7783.4063	6064.7131	304.3702	-1718.6932	6129.5626
305.4669	50.7136	-35.1851	511540.4688	-10.7862
-10.7770				
[19766]ENERGY: 5260000	3231.7240	5319.4321	5500.2459	
313.0842	-14339.3785	-1761.3815	0.0000	0.0000
7805.2295	6068.9556	305.2236	-1736.2739	6129.9708
305.5861	180.5899	48.6724	511540.4688	-13.7102

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-13.7174
 [19802]ENERGY: 5270000 3275.7962 5309.8921 5437.7028
 313.3998 -14456.1687 -1603.8917 0.0000 0.0000
 7792.2810 6069.0116 304.7173 -1723.2694 6128.2041
 305.4710 48.6791 87.1075 511540.4688 -10.2766
 -10.2587
 [19852]ENERGY: 5280000 3211.6494 5387.6577 5458.8068
 322.6747 -14358.5434 -1724.3224 0.0000 0.0000
 7769.1136 6067.0364 303.8113 -1702.0772 6130.5251
 305.6420 3.4088 62.6216 511540.4688 -10.7958
 -10.7906
 [19888]ENERGY: 5290000 3185.4734 5283.5518 5473.1274
 326.2680 -14250.5382 -1768.0840 0.0000 0.0000
 7817.0988 6066.8972 305.6878 -1750.2016 6129.6568
 305.6359 11.9190 34.7758 511540.4688 -16.7922
 -16.8087
 [19941]ENERGY: 5300000 3285.9576 5276.0824 5456.2157
 312.4493 -14336.1676 -1715.3930 0.0000 0.0000
 7791.7439 6070.8882 304.6963 -1720.8556 6131.3945
 305.4786 3.3478 -118.9806 511540.4688 -6.9022
 -6.9036
 [19977]ENERGY: 5310000 3216.2921 5312.2191 5437.2274
 335.1663 -14398.1809 -1643.3663 0.0000 0.0000
 7805.8985 6065.2564 305.2498 -1740.6421 6130.1504
 305.3877 35.1192 22.0049 511540.4688 -11.0176
 -11.0106
 [20027]ENERGY: 5320000 3280.4868 5262.9857 5475.9046
 331.1579 -14387.1402 -1628.2843 0.0000 0.0000
 7731.7903 6066.9007 302.3518 -1664.8896 6128.9182
 305.3104 50.6076 85.0593 511540.4688 -9.9394
 -9.9313
 [20063]ENERGY: 5330000 3186.6294 5402.4208 5420.6089
 316.7358 -14384.0245 -1681.2975 0.0000 0.0000
 7804.8397 6065.9126 305.2084 -1738.9271 6130.1507
 305.1433 152.4599 50.6784 511540.4688 -14.2485
 -14.2481
 [20113]ENERGY: 5340000 3246.8739 5311.9496 5459.6516
 313.6604 -14317.0755 -1767.1491 0.0000 0.0000
 7819.8624 6067.7732 305.7958 -1752.0891 6130.1444
 305.4029 -56.6069 -18.9118 511540.4688 -10.8844
 -10.8926
 [20149]ENERGY: 5350000 3235.1602 5332.9206 5452.7204
 312.0022 -14251.6091 -1769.4110 0.0000 0.0000
 7757.3436 6069.1269 303.3510 -1688.2167 6129.5801
 305.4546 29.2269 59.5448 511540.4688 -13.0139
 -13.0126
 [20199]ENERGY: 5360000 3222.8249 5244.2161 5436.6928
 307.2597 -14277.0435 -1753.3758 0.0000 0.0000
 7885.7238 6066.2980 308.3714 -1819.4258 6131.3715
 305.4980 47.1685 74.4116 511540.4688 -14.8428
 -14.8281
 [20235]ENERGY: 5370000 3163.3840 5307.7840 5500.9384
 315.4780 -14301.9418 -1761.9869 0.0000 0.0000
 7841.7181 6065.3737 306.6505 -1776.3443 6131.5921

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305.4632	183.2084	129.9032	511540.4688	-10.7714
-10.8154				
[20285]ENERGY: 5380000	3305.4610	5286.4545	5529.3998	
316.6651	-14298.1912	-1839.2396	0.0000	0.0000
7771.5626	6072.1123	303.9071	-1699.4504	6130.6999
305.4510	22.5344	-67.5217	511540.4688	-15.3129
-15.2719				
[20321]ENERGY: 5390000	3262.6177	5481.4868	5430.8307	
323.2904	-14451.0775	-1707.2802	0.0000	0.0000
7729.1856	6069.0535	302.2499	-1660.1321	6130.8838
305.4325	45.8044	9.3724	511540.4688	-16.1582
-16.1794				
[20374]ENERGY: 5400000	3290.5259	5292.1397	5414.1909	
327.2415	-14363.1317	-1771.9760	0.0000	0.0000
7878.2540	6067.2444	308.0792	-1811.0097	6132.8537
305.6155	-192.5861	-172.6668	511540.4688	-10.5230
-10.5160				
[20410]ENERGY: 5410000	3229.2591	5242.6065	5398.3187	
304.0927	-14314.1201	-1651.8259	0.0000	0.0000
7859.8113	6068.1423	307.3580	-1791.6690	6132.2975
305.5013	-169.3908	2.9017	511540.4688	-14.5842
-14.5724				
[20460]ENERGY: 5420000	3161.3378	5261.6653	5472.7669	
330.0865	-14282.3289	-1703.8048	0.0000	0.0000
7827.9991	6067.7219	306.1140	-1760.2772	6132.7842
305.3134	32.1383	23.6043	511540.4688	-8.9240
-8.9354				
[20496]ENERGY: 5430000	3168.2940	5385.3634	5416.2834	
313.1619	-14308.8578	-1678.0312	0.0000	0.0000
7776.1786	6072.3922	304.0876	-1703.7864	6133.6325
305.5494	173.5936	145.4711	511540.4688	-10.7696
-10.7680				
[20546]ENERGY: 5440000	3253.7349	5246.3136	5459.8332	
346.0803	-14313.2581	-1709.5319	0.0000	0.0000
7784.5247	6067.6966	304.4140	-1716.8281	6133.4268
305.6046	-23.8532	-80.2318	511540.4688	-13.5468
-13.5338				
[20582]ENERGY: 5450000	3172.9307	5423.8139	5430.1796	
314.7710	-14353.0253	-1688.5656	0.0000	0.0000
7771.9954	6072.0999	303.9240	-1699.8955	6134.6286
305.4665	-9.3619	-83.0459	511540.4688	-14.0327
-14.0329				
[20632]ENERGY: 5460000	3236.0168	5362.2162	5451.1853	
322.8263	-14444.9065	-1619.8850	0.0000	0.0000
7766.3718	6073.8248	303.7041	-1692.5470	6135.1846
305.5307	66.4704	139.7900	511540.4688	-12.0957
-12.1111				
[20668]ENERGY: 5470000	3192.5149	5266.7895	5499.8637	
323.3185	-14305.8211	-1738.8237	0.0000	0.0000
7836.0294	6073.8712	306.4281	-1762.1582	6136.0441
305.4396	106.1637	22.3836	511540.4688	-10.5251
-10.5355				
[20718]ENERGY: 5480000	3279.0525	5320.6884	5542.3276	
339.7029	-14348.4181	-1754.4383	0.0000	0.0000

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7698.8065	6077.7216	301.0619	-1621.0849	6136.9415
305.5704	-49.9462	47.4135	511540.4688	-13.4954
-13.4942				
[20754]ENERGY: 5490000	3267.0571	5228.7799	5474.4111	
330.5581	-14339.8403	-1635.4693	0.0000	0.0000
7750.3721	6075.8688	303.0784	-1674.5034	6136.9522
305.5111	-166.0070	-55.2117	511540.4688	-11.8690
-11.8609				
[20807]ENERGY: 5500000	3250.1757	5352.7444	5459.6240	
332.9130	-14333.4971	-1759.9750	0.0000	0.0000
7773.0726	6075.0576	303.9661	-1698.0150	6137.4240
305.4505	115.7214	60.1418	511540.4688	-15.7424
-15.7289				
[20843]ENERGY: 5510000	3251.6729	5295.3655	5457.1236	
308.3905	-14245.5185	-1722.8327	0.0000	0.0000
7736.6757	6080.8771	302.5428	-1655.7987	6138.5892
305.5913	63.3769	23.8876	511540.4688	-11.1644
-11.1687				
[20893]ENERGY: 5520000	3196.7865	5304.2461	5479.8585	
323.0525	-14367.1146	-1757.3146	0.0000	0.0000
7896.1628	6075.6772	308.7796	-1820.4856	6139.1163
305.5853	-107.5310	-35.9144	511540.4688	-16.2295
-16.2294				
[20929]ENERGY: 5530000	3242.6640	5325.8551	5456.3002	
307.1654	-14246.8888	-1774.0787	0.0000	0.0000
7767.8087	6078.8259	303.7603	-1688.9828	6138.8580
305.7861	-207.6447	-202.1277	511540.4688	-13.8377
-13.8391				
[20979]ENERGY: 5540000	3215.1096	5268.4505	5450.7778	
330.8219	-14266.0458	-1730.6126	0.0000	0.0000
7805.8607	6074.3622	305.2483	-1731.4985	6138.6756
305.5708	20.4595	33.6822	511540.4688	-15.3670
-15.3778				
[21015]ENERGY: 5550000	3306.9232	5285.8700	5445.2514	
327.1373	-14382.4268	-1737.2324	0.0000	0.0000
7830.8966	6076.4192	306.2273	-1754.4773	6137.3529
305.7937	-92.4692	-60.6097	511540.4688	-18.4764
-18.4584				
[21065]ENERGY: 5560000	3233.9607	5323.9445	5481.3931	
333.4352	-14397.8985	-1713.9798	0.0000	0.0000
7814.1827	6075.0378	305.5737	-1739.1449	6138.7671
305.5645	-100.8624	-132.5725	511540.4688	-17.6733
-17.6920				
[21101]ENERGY: 5570000	3254.1787	5307.8881	5441.7976	
323.2190	-14234.1623	-1808.4563	0.0000	0.0000
7789.5665	6074.0312	304.6111	-1715.5352	6137.8575
305.7003	-350.6904	-263.9094	511540.4688	-11.8607
-11.8625				
[21151]ENERGY: 5580000	3276.4865	5332.8977	5450.4691	
328.3772	-14314.3536	-1735.3812	0.0000	0.0000
7739.8662	6078.3620	302.6676	-1661.5042	6137.8390
305.8220	-56.9912	70.6801	511540.4688	-15.5328
-15.5000				
[21187]ENERGY: 5590000	3263.7755	5289.8214	5418.3435	

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317.7703	-14330.3883	-1659.5299	0.0000	0.0000
7776.1841	6075.9767	304.0878	-1700.2074	6136.7033
305.7183	72.5889	-58.3400	511540.4688	-18.3880
-18.4157				
[21240]ENERGY: 5600000	3212.4685	5271.1762	5473.4019	
324.6429	-14312.4408	-1706.1873	0.0000	0.0000
7811.5028	6074.5640	305.4689	-1736.9387	6137.3178
305.8395	3.2711	45.3950	511540.4688	-12.4027
-12.4054				
[21276]ENERGY: 5610000	3145.6704	5273.0023	5417.3523	
321.9601	-14341.9657	-1662.9864	0.0000	0.0000
7920.0497	6073.0826	309.7137	-1846.9670	6137.5414
305.8648	247.9873	142.2431	511540.4688	-20.1871
-20.2023				
[21326]ENERGY: 5620000	3175.6365	5392.6993	5418.9267	
323.9232	-14345.1918	-1732.9226	0.0000	0.0000
7843.4978	6076.5691	306.7201	-1766.9288	6137.6930
306.0079	-20.6740	-6.0454	511540.4688	-21.8980
-21.8813				
[21362]ENERGY: 5630000	3334.9276	5371.1461	5387.1415	
309.4439	-14337.1584	-1757.2718	0.0000	0.0000
7766.4972	6074.7261	303.7090	-1691.7711	6138.2284
305.9234	-18.4753	17.7167	511540.4688	-16.2349
-16.2245				
[21412]ENERGY: 5640000	3196.9199	5350.3162	5472.3158	
331.3809	-14297.0044	-1704.4980	0.0000	0.0000
7729.5181	6078.9484	302.2629	-1650.5696	6138.0865
305.8410	-62.8038	-115.3282	511540.4688	-19.7191
-19.7352				
[21448]ENERGY: 5650000	3291.9711	5276.5781	5454.6483	
340.8497	-14387.3817	-1710.1980	0.0000	0.0000
7808.8708	6075.3384	305.3660	-1733.5324	6137.5791
305.9467	39.2573	49.4714	511540.4688	-17.1953
-17.1847				
[21498]ENERGY: 5660000	3193.3887	5288.8795	5458.1015	
314.6177	-14299.7881	-1706.5657	0.0000	0.0000
7825.4153	6074.0488	306.0130	-1751.3665	6138.4024
305.9214	58.8726	-63.1076	511540.4688	-19.1344
-19.1374				
[21534]ENERGY: 5670000	3189.4420	5357.6649	5443.1465	
305.3575	-14371.1218	-1672.9811	0.0000	0.0000
7824.5062	6076.0142	305.9774	-1748.4919	6138.3452
305.9506	12.5862	24.5755	511540.4688	-21.9142
-21.9051				
[21584]ENERGY: 5680000	3228.6047	5317.1613	5398.9084	
304.8397	-14346.7157	-1699.0051	0.0000	0.0000
7870.3721	6074.1655	307.7710	-1796.2066	6137.4650
305.8051	-3.3329	-43.8875	511540.4688	-18.3247
-18.3360				
[21620]ENERGY: 5690000	3261.6132	5348.4770	5443.8442	
318.6105	-14399.3099	-1667.3694	0.0000	0.0000
7769.4844	6075.3500	303.8258	-1694.1344	6137.6214
305.7855	75.4757	86.9759	511540.4688	-16.1433
-16.1544				

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[21673]ENERGY: 5700000	3209.0705	5368.0474	5500.6827	
340.6747	-14361.5648	-1707.2350	0.0000	0.0000
7729.0053	6078.6808	302.2429	-1650.3245	6138.3003
305.9151	-223.2544	-196.1957	511540.4688	-20.5380
-20.5447				
[21709]ENERGY: 5710000	3224.8248	5390.9038	5418.2583	
325.8495	-14393.2707	-1682.0978	0.0000	0.0000
7791.3486	6075.8164	304.6808	-1715.5322	6137.8710
306.0657	102.0123	189.3761	511540.4688	-20.1179
-20.0977				
[21759]ENERGY: 5720000	3314.7229	5322.2621	5427.8610	
338.1449	-14408.9574	-1706.9718	0.0000	0.0000
7789.6584	6076.7202	304.6147	-1712.9382	6138.4351
306.0146	-124.9006	-201.0617	511540.4688	-19.0262
-19.0481				
[21795]ENERGY: 5730000	3178.9767	5412.2648	5432.0326	
333.5366	-14383.6705	-1739.6629	0.0000	0.0000
7839.2556	6072.7329	306.5542	-1766.5227	6138.9628
305.9486	69.0276	-23.3315	511540.4688	-19.8185
-19.7876				
[21845]ENERGY: 5740000	3236.0902	5393.7451	5436.9976	
323.1388	-14340.3520	-1746.4536	0.0000	0.0000
7769.1635	6072.3295	303.8133	-1696.8339	6139.0352
305.9171	-63.2335	-52.7116	511540.4688	-21.2086
-21.2144				
[21881]ENERGY: 5750000	3260.3788	5239.2579	5471.4670	
322.0083	-14332.4180	-1757.2650	0.0000	0.0000
7869.5582	6072.9873	307.7392	-1796.5710	6139.3296
306.0477	-2.7287	-71.2966	511540.4688	-17.4235
-17.4140				
[21931]ENERGY: 5760000	3310.0212	5212.1397	5427.0587	
338.2617	-14356.8226	-1763.8228	0.0000	0.0000
7908.2454	6075.0811	309.2521	-1833.1642	6139.4818
306.0118	-113.7108	-154.9840	511540.4688	-20.1946
-20.1928				
[21967]ENERGY: 5770000	3273.0162	5282.6316	5482.4783	
315.6057	-14321.9699	-1747.5947	0.0000	0.0000
7792.8365	6077.0037	304.7390	-1715.8328	6139.5570
305.8530	-152.3458	-203.9113	511540.4688	-17.7895
-17.8187				
[22017]ENERGY: 5780000	3268.0019	5283.9677	5433.3536	
310.9953	-14386.7279	-1681.8068	0.0000	0.0000
7848.9618	6076.7456	306.9338	-1772.2162	6139.9500
305.8230	141.5892	98.1929	511540.4688	-18.4279
-18.4256				
[22053]ENERGY: 5790000	3221.4976	5364.5840	5460.2386	
345.2952	-14339.6395	-1736.2601	0.0000	0.0000
7763.9310	6079.6467	303.6086	-1684.2843	6140.5777
305.8988	144.1647	44.8379	511540.4688	-24.2157
-24.2073				
[22106]ENERGY: 5800000	3221.9814	5304.3154	5460.6553	
313.6470	-14356.2136	-1719.0254	0.0000	0.0000
7846.2513	6071.6113	306.8278	-1774.6400	6139.8918
305.9916	-96.3778	-110.1803	511540.4688	-15.4694

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-15.4700

[22142]ENERGY: 5810000	3094.7839	5313.4473	5402.8883	
316.6431	-14291.5864	-1690.8011	0.0000	0.0000
7930.3981	6075.7733	310.1183	-1854.6249	6139.3563
306.1722	197.7352	93.4484	511540.4688	-22.4130

-22.4116

[22192]ENERGY: 5820000	3242.6374	5321.8297	5402.7920	
312.0373	-14358.7790	-1712.6820	0.0000	0.0000
7867.1062	6074.9416	307.6433	-1792.1646	6139.7473
306.0043	-118.6134	-200.1717	511540.4688	-16.6136

-16.6180

[22228]ENERGY: 5830000	3267.4399	5244.7813	5450.5277	
328.5304	-14447.6697	-1591.2204	0.0000	0.0000
7823.1539	6075.5433	305.9246	-1747.6107	6139.4754
305.8029	71.3667	91.7056	511540.4688	-18.1062

-18.0930

[22278]ENERGY: 5840000	3242.5001	5262.4542	5428.8378	
325.1658	-14288.6785	-1749.0055	0.0000	0.0000
7852.9872	6074.2610	307.0912	-1778.7261	6139.6317
306.0405	-76.9841	-121.1426	511540.4688	-15.9701

-15.9865

[22314]ENERGY: 5850000	3318.1838	5295.5151	5458.4772	
312.5885	-14348.4418	-1713.7723	0.0000	0.0000
7753.2675	6075.8179	303.1916	-1677.4496	6140.5177
306.0967	-11.7218	46.1064	511540.4688	-20.5492

-20.5383

[22364]ENERGY: 5860000	3264.1636	5380.7605	5432.1479	
326.6687	-14416.8284	-1728.1453	0.0000	0.0000
7814.6994	6073.4665	305.5939	-1741.2330	6140.2651
305.8716	-37.2646	-63.2184	511540.4688	-18.1627

-18.1697

[22400]ENERGY: 5870000	3219.1092	5292.2235	5431.5647	
328.0301	-14312.1256	-1730.3554	0.0000	0.0000
7847.7645	6076.2109	306.8870	-1771.5535	6141.1827
305.7637	118.7068	28.5096	511540.4688	-18.4799

-18.4626

[22450]ENERGY: 5880000	3244.7396	5305.7390	5433.7573	
311.5968	-14253.3361	-1754.6010	0.0000	0.0000
7789.0074	6076.9030	304.5893	-1712.1044	6140.4999
305.9275	17.4757	-34.0399	511540.4688	-19.5602

-19.5664

[22486]ENERGY: 5890000	3227.9960	5224.7763	5470.1385	
330.3117	-14369.2890	-1638.1554	0.0000	0.0000
7831.6800	6077.4582	306.2580	-1754.2219	6140.0122
305.9698	101.6859	91.9292	511540.4688	-19.4881

-19.5022

[22539]ENERGY: 5900000	3185.9137	5278.7238	5481.1747	
328.5615	-14393.8274	-1684.6197	0.0000	0.0000
7875.5958	6071.5224	307.9753	-1804.0734	6139.9513
305.9826	75.6019	59.4099	511540.4688	-17.0557

-17.0437

[22575]ENERGY: 5910000	3253.7407	5417.3473	5438.5917	
305.2183	-14408.2818	-1717.9429	0.0000	0.0000
7791.5855	6080.2588	304.6901	-1711.3267	6141.1844

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306.1350	95.7679	93.7054	511540.4688	-19.6069
-19.6173				
[22625]ENERGY: 5920000	3266.8405	5376.7767	5470.8025	
321.3305	-14474.4384	-1685.9563	0.0000	0.0000
7800.0929	6075.4484	305.0228	-1724.6445	6140.0926
305.9332	124.8883	110.4317	511540.4688	-12.1243
-12.1196				
[22661]ENERGY: 5930000	3235.8161	5222.0834	5457.5133	
328.8527	-14295.9439	-1689.1771	0.0000	0.0000
7819.3391	6078.4836	305.7754	-1740.8556	6139.7861
305.9910	16.8691	-58.9219	511540.4688	-13.8576
-13.8632				
[22711]ENERGY: 5940000	3300.3473	5336.7459	5442.5135	
323.2713	-14448.6981	-1673.0325	0.0000	0.0000
7800.1250	6081.2724	305.0240	-1718.8526	6142.7486
305.7126	86.2143	-32.7618	511540.4688	-13.5398
-13.5288				
[22747]ENERGY: 5950000	3269.4866	5300.2497	5384.3246	
320.7602	-14314.5823	-1725.1817	0.0000	0.0000
7844.5841	6079.6412	306.7626	-1764.9429	6141.3066
305.8488	62.8231	88.3195	511540.4688	-16.4474
-16.4320				
[22797]ENERGY: 5960000	3182.1555	5336.7457	5455.0566	
322.7054	-14303.5727	-1718.7478	0.0000	0.0000
7802.9556	6077.2983	305.1347	-1725.6573	6142.4230
306.0384	71.9954	98.8997	511540.4688	-19.2483
-19.2683				
[22833]ENERGY: 5970000	3309.3206	5268.4826	5458.5137	
314.7808	-14320.7128	-1779.4579	0.0000	0.0000
7829.2773	6080.2043	306.1640	-1749.0730	6143.4645
306.0759	-119.0428	-163.0637	511540.4688	-16.7498
-16.7356				
[22883]ENERGY: 5980000	3262.5430	5324.7607	5459.0421	
318.8990	-14356.6399	-1717.6328	0.0000	0.0000
7789.8986	6080.8706	304.6241	-1709.0280	6142.6062
306.0360	-106.8974	-151.7336	511540.4688	-11.6411
-11.6473				
[22919]ENERGY: 5990000	3257.9631	5352.1103	5453.8125	
303.8047	-14355.8541	-1695.6871	0.0000	0.0000
7761.0178	6077.1673	303.4947	-1683.8505	6142.1186
306.0027	47.0358	30.8798	511540.4688	-18.4540
-18.4767				
[22972]ENERGY: 6000000	3198.9940	5374.3055	5445.4211	
337.5293	-14405.7022	-1733.3383	0.0000	0.0000
7862.7991	6080.0085	307.4749	-1782.7906	6143.1472
305.8932	-34.4620	-35.7652	511540.4688	-14.9833
-14.9642				
[23008]ENERGY: 6010000	3195.0452	5400.4568	5417.9359	
339.1554	-14327.6409	-1729.4637	0.0000	0.0000
7787.1380	6082.6266	304.5162	-1704.5114	6144.0978
306.0077	326.1235	267.6465	511540.4688	-17.6912
-17.6978				
[23058]ENERGY: 6020000	3267.0685	5359.0828	5452.4283	
336.5812	-14373.3691	-1689.4399	0.0000	0.0000

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7732.7562	6085.1079	302.3896	-1647.6483	6144.6281
306.0681	-32.3738	-136.9579	511540.4688	-14.7680
-14.7688				
[23094]ENERGY: 6030000	3279.8612	5342.6920	5435.3280	
324.6134	-14522.6639	-1647.0256	0.0000	0.0000
7863.5969	6076.4021	307.5061	-1787.1948	6142.3122
306.0240	33.0453	20.9662	511540.4688	-16.7152
-16.7015				
[23144]ENERGY: 6040000	3272.7253	5390.8133	5434.3619	
322.9888	-14508.0217	-1661.0054	0.0000	0.0000
7829.9718	6081.8340	306.1912	-1748.1378	6143.6669
305.7743	-9.8756	30.7211	511540.4688	-13.5212
-13.5160				
[23180]ENERGY: 6050000	3322.1513	5363.3042	5470.7153	
320.5980	-14481.1420	-1704.0126	0.0000	0.0000
7786.8563	6078.4706	304.5051	-1708.3857	6142.4835
305.9279	-122.1205	-107.3840	511540.4688	-13.9334
-13.9386				
[23230]ENERGY: 6060000	3229.6433	5417.4426	5438.2139	
339.4939	-14404.8326	-1644.1936	0.0000	0.0000
7707.2696	6083.0370	301.3929	-1624.2326	6142.3399
305.7559	34.2469	60.7940	511540.4688	-6.7958
-6.8045				
[23266]ENERGY: 6070000	3244.8313	5273.7031	5485.4890	
323.1085	-14424.0394	-1651.7592	0.0000	0.0000
7827.2702	6078.6035	306.0855	-1748.6667	6142.6077
305.8349	41.5124	52.5274	511540.4688	-10.8679
-10.8616				
[23316]ENERGY: 6080000	3230.4615	5269.5461	5471.3831	
335.3063	-14371.4431	-1694.6723	0.0000	0.0000
7839.5928	6080.1742	306.5674	-1759.4185	6142.5577
306.0503	-34.7135	-36.3292	511540.4688	-12.9803
-12.9838				
[23352]ENERGY: 6090000	3206.2533	5287.0212	5411.9276	
331.1739	-14293.2764	-1677.9321	0.0000	0.0000
7814.4420	6079.6095	305.5839	-1734.8325	6142.2265
305.7558	158.4129	41.1429	511540.4688	-14.0349
-14.0473				
[23405]ENERGY: 6100000	3179.0361	5352.2316	5507.3488	
335.1653	-14386.4277	-1708.1866	0.0000	0.0000
7803.8780	6083.0455	305.1708	-1720.8325	6143.5123
305.7208	201.3890	174.1269	511540.4688	-13.4275
-13.4109				
[23441]ENERGY: 6110000	3280.3728	5366.8070	5447.4115	
306.1684	-14458.0986	-1723.6007	0.0000	0.0000
7863.4132	6082.4736	307.4989	-1780.9396	6143.4470
305.8967	-237.3075	-187.9404	511540.4688	-9.1972
-9.2044				
[23491]ENERGY: 6120000	3247.2509	5365.1592	5481.7497	
309.9575	-14427.4918	-1684.6350	0.0000	0.0000
7789.1604	6081.1508	304.5952	-1708.0096	6144.2656
306.0141	-28.7848	30.4321	511540.4688	-11.1810
-11.1713				
[23527]ENERGY: 6130000	3296.3398	5395.8157	5500.9439	

Supplementary Text 6

320.1513	-14479.5009	-1716.5416	0.0000	0.0000
7763.3302	6080.5384	303.5851	-1682.7918	6143.8744
305.8559	26.1906	-7.1998	511540.4688	-15.2782
-15.3050				
[23577]ENERGY: 6140000	3148.1364	5359.3440	5439.9312	
304.9025	-14399.0673	-1650.6771	0.0000	0.0000
7873.2374	6075.8072	307.8831	-1797.4302	6141.8494
305.9614	48.0091	33.1303	511540.4688	-10.9387
-10.9343				
[23613]ENERGY: 6150000	3280.9465	5258.3510	5432.6801	
330.6351	-14335.0354	-1727.0880	0.0000	0.0000
7834.8276	6075.3169	306.3811	-1759.5107	6142.1224
305.9352	91.6738	54.9023	511540.4688	-12.7530
-12.7424				
[23663]ENERGY: 6160000	3263.6103	5339.5150	5433.9685	
309.5162	-14361.6378	-1722.9725	0.0000	0.0000
7819.3852	6081.3850	305.7772	-1738.0001	6143.2994
305.9275	-125.3985	15.9425	511540.4688	-11.2416
-11.2416				
[23699]ENERGY: 6170000	3198.8692	5307.7895	5503.3799	
311.9050	-14384.3064	-1772.6144	0.0000	0.0000
7914.1698	6079.1926	309.4837	-1834.9772	6143.7476
305.8270	-2.9692	-108.4340	511540.4688	-15.3784
-15.3662				
[23749]ENERGY: 6180000	3251.5938	5347.5773	5418.6490	
313.7008	-14392.8234	-1642.2137	0.0000	0.0000
7785.6448	6082.1286	304.4578	-1703.5162	6143.6959
305.9238	222.0606	197.8575	511540.4688	-9.9302
-9.9422				
[23785]ENERGY: 6190000	3201.2865	5357.0021	5467.9117	
335.3740	-14416.3851	-1692.5906	0.0000	0.0000
7825.5295	6078.1281	306.0175	-1747.4014	6142.8939
305.8075	149.9290	205.3480	511540.4688	-14.2613
-14.2459				
[23838]ENERGY: 6200000	3187.1925	5369.4084	5437.8738	
326.2745	-14351.0293	-1691.5462	0.0000	0.0000
7802.1832	6080.3570	305.1045	-1721.8262	6144.0485
305.8522	226.2322	55.0109	511540.4688	-12.7232
-12.7302				
[23874]ENERGY: 6210000	3292.4643	5293.4525	5447.6662	
324.8400	-14434.6780	-1655.0685	0.0000	0.0000
7810.2443	6078.9208	305.4197	-1731.3235	6142.7786
305.8490	112.5949	33.6080	511540.4688	-13.1053
-13.1314				
[23924]ENERGY: 6220000	3278.4261	5355.7051	5469.7715	
313.1033	-14417.9453	-1659.1901	0.0000	0.0000
7742.3867	6082.2573	302.7662	-1660.1295	6143.3729
305.8666	153.4818	81.8438	511540.4688	-10.2149
-10.2140				
[23960]ENERGY: 6230000	3212.1218	5286.2647	5494.3748	
314.5935	-14377.6008	-1725.6662	0.0000	0.0000
7873.8298	6077.9176	307.9062	-1795.9121	6145.0301
305.9115	-111.7480	-148.8359	511540.4688	-9.6294
-9.6178				

Supplementary Text 6

[24010]ENERGY: 6240000	3217.6050	5349.8733	5476.5773	
333.5469	-14362.1281	-1691.0547	0.0000	0.0000
7757.7527	6082.1724	303.3670	-1675.5803	6144.6518
305.7484	205.2354	36.8210	511540.4688	-7.6254
-7.6273				
[24046]ENERGY: 6250000	3157.2450	5338.1716	5493.0980	
333.2677	-14409.5828	-1706.2340	0.0000	0.0000
7874.0591	6080.0247	307.9152	-1794.0344	6144.9656
305.9234	35.7278	47.2138	511540.4688	-10.8828
-10.8539				
[24096]ENERGY: 6260000	3288.6200	5355.6577	5447.8892	
313.0771	-14446.8043	-1704.3137	0.0000	0.0000
7825.7431	6079.8691	306.0258	-1745.8740	6144.2723
305.7970	-81.4007	-2.9841	511540.4688	-8.8402
-8.8763				
[24132]ENERGY: 6270000	3284.6118	5294.4823	5466.3576	
312.6449	-14385.8417	-1744.7808	0.0000	0.0000
7853.7113	6081.1855	307.1195	-1772.5259	6145.2343
305.8411	-25.3290	-5.9760	511540.4688	-14.6825
-14.6504				
[24182]ENERGY: 6280000	3288.3270	5289.6623	5439.6559	
317.2276	-14330.8369	-1731.6829	0.0000	0.0000
7813.0359	6085.3890	305.5289	-1727.6470	6145.6487
305.8185	64.6097	54.0550	511540.4688	-14.3286
-14.3543				
[24218]ENERGY: 6290000	3252.9860	5260.1523	5481.9500	
330.3256	-14473.7136	-1590.5458	0.0000	0.0000
7820.3739	6081.5283	305.8158	-1738.8456	6144.3984
306.0008	169.1121	168.3428	511540.4688	-10.9148
-10.8868				
[24271]ENERGY: 6300000	3201.2998	5278.0611	5403.3736	
327.7921	-14387.2889	-1756.1658	0.0000	0.0000
8008.5592	6075.6311	313.1748	-1932.9281	6144.3479
306.0609	-81.5320	-57.8172	511540.4688	-15.9668
-15.9862				
[24307]ENERGY: 6310000	3204.4037	5402.4414	5464.0112	
329.1212	-14410.7788	-1704.4555	0.0000	0.0000
7795.5838	6080.3270	304.8464	-1715.2568	6143.3960
306.0187	177.4414	150.1460	511540.4688	-15.2026
-15.1901				
[24357]ENERGY: 6320000	3204.3928	5310.0844	5455.9320	
324.4027	-14349.4848	-1650.8830	0.0000	0.0000
7788.9963	6083.4404	304.5888	-1705.5559	6145.8208
306.1217	296.4325	130.9457	511540.4688	-14.8726
-14.8743				
[24393]ENERGY: 6330000	3204.3971	5409.3029	5414.2266	
326.6411	-14396.2524	-1655.0420	0.0000	0.0000
7783.3967	6086.6701	304.3698	-1696.7266	6144.6747
305.9731	161.1914	198.3007	511540.4688	-16.1328
-16.1425				
[24443]ENERGY: 6340000	3147.9541	5369.9915	5513.5757	
323.9395	-14399.0680	-1714.1531	0.0000	0.0000
7840.2679	6082.5077	306.5938	-1757.7602	6144.3299
306.1513	175.3000	87.1860	511540.4688	-13.7836

Supplementary Text 6

-13.7784
 [24479]ENERGY: 6350000 3215.7392 5469.4825 5421.6256
 310.8972 -14340.7441 -1770.4535 0.0000 0.0000
 7774.4122 6080.9591 304.0185 -1693.4531 6145.1329
 305.9545 72.6757 51.0247 511540.4688 -16.9190
 -16.8955
 [24529]ENERGY: 6360000 3213.2956 5360.9966 5478.1308
 303.5904 -14356.5484 -1703.3147 0.0000 0.0000
 7788.4635 6084.6138 304.5680 -1703.8496 6145.1075
 305.9405 -16.5815 -59.1256 511540.4688 -16.3523
 -16.3706
 [24565]ENERGY: 6370000 3150.9978 5385.5701 5473.9436
 337.0385 -14312.4811 -1777.6583 0.0000 0.0000
 7824.1520 6081.5626 305.9636 -1742.5893 6145.3743
 306.1142 78.9562 130.0795 511540.4688 -12.6934
 -12.6815
 [24615]ENERGY: 6380000 3283.3755 5343.5382 5435.0293
 312.5907 -14421.4419 -1726.0489 0.0000 0.0000
 7854.3271 6081.3701 307.1436 -1772.9570 6145.8784
 306.0951 -41.2119 7.4257 511540.4688 -17.8023
 -17.8188
 [24651]ENERGY: 6390000 3209.3659 5336.0392 5451.8103
 320.6560 -14382.8602 -1665.6771 0.0000 0.0000
 7811.4548 6080.7890 305.4671 -1730.6658 6146.1118
 306.0795 76.9243 -5.7757 511540.4688 -13.6897
 -13.6962
 [24704]ENERGY: 6400000 3219.9907 5309.5646 5412.2735
 314.4138 -14349.1067 -1684.0217 0.0000 0.0000
 7860.0786 6083.1928 307.3685 -1776.8858 6145.9006
 305.9273 140.8679 45.2755 511540.4688 -13.5550
 -13.5457
 [24740]ENERGY: 6410000 3275.3025 5324.5076 5472.4714
 318.2972 -14437.4048 -1680.8215 0.0000 0.0000
 7808.8888 6081.2412 305.3667 -1727.6476 6145.3161
 305.9371 -53.1097 71.0122 511540.4688 -13.5423
 -13.5488
 [24790]ENERGY: 6420000 3261.8904 5368.2797 5462.7290
 320.0252 -14403.5863 -1755.1245 0.0000 0.0000
 7831.4985 6085.7119 306.2509 -1745.7866 6147.0059
 306.0601 -173.2998 -124.1240 511540.4688 -14.6851
 -14.6850
 [24826]ENERGY: 6430000 3213.2903 5325.9839 5500.4164
 343.1222 -14384.5718 -1725.3691 0.0000 0.0000
 7812.1816 6085.0535 305.4955 -1727.1281 6145.9372
 305.9162 86.2878 123.0533 511540.4688 -10.7660
 -10.7632
 [24876]ENERGY: 6440000 3283.8853 5305.9343 5440.1595
 333.3148 -14245.4507 -1826.5807 0.0000 0.0000
 7792.1413 6083.4037 304.7118 -1708.7376 6147.1398
 305.8278 -38.6522 -165.9357 511540.4688 -13.3327
 -13.3443
 [24912]ENERGY: 6450000 3171.4763 5417.6415 5470.5238
 316.6261 -14360.6962 -1740.0255 0.0000 0.0000
 7804.6312 6080.1771 305.2002 -1724.4541 6146.3057

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305.9644	125.6599	151.2508	511540.4688	-15.6773
-15.6550				
[24962]ENERGY: 6460000	3187.3348	5344.7423	5485.9371	
317.7658	-14359.9439	-1685.0223	0.0000	0.0000
7789.4470	6080.2607	304.6064	-1709.1863	6146.4197
305.9965	-27.2237	15.3884	511540.4688	-16.9640
-16.9946				
[24998]ENERGY: 6470000	3268.8478	5270.4625	5462.7350	
314.3916	-14354.6581	-1692.0317	0.0000	0.0000
7814.8823	6084.6293	305.6011	-1730.2529	6146.0402
306.1048	-37.4787	42.3219	511540.4688	-13.3519
-13.3304				
[25048]ENERGY: 6480000	3250.9857	5308.2643	5492.7601	
318.4270	-14365.3772	-1716.0683	0.0000	0.0000
7795.9725	6084.9642	304.8616	-1711.0083	6146.3994
306.1735	54.0648	-74.7477	511540.4688	-16.9822
-16.9836				
[25084]ENERGY: 6490000	3235.3213	5330.9798	5436.3032	
330.0160	-14372.8484	-1787.6738	0.0000	0.0000
7914.9974	6087.0955	309.5161	-1827.9019	6147.5760
306.0231	-41.9185	-67.2130	511540.4688	-15.6093
-15.6299				
[25137]ENERGY: 6500000	3221.4647	5254.1576	5458.6861	
318.1858	-14363.7822	-1704.5507	0.0000	0.0000
7899.0356	6083.1969	308.8919	-1815.8387	6147.2264
305.8789	-141.4775	-185.0690	511540.4688	-15.9298
-15.9067				
[25173]ENERGY: 6510000	3175.1472	5413.5955	5443.3393	
314.6368	-14317.6360	-1752.2817	0.0000	0.0000
7809.5080	6086.3091	305.3909	-1723.1989	6147.3138
306.0368	29.8455	9.9727	511540.4688	-14.2809
-14.2745				
[25223]ENERGY: 6520000	3263.3363	5231.1993	5458.4243	
337.1941	-14392.4483	-1673.6786	0.0000	0.0000
7861.2549	6085.2821	307.4145	-1775.9728	6147.6838
305.9481	-42.5742	-69.4588	511540.4688	-18.9530
-18.9664				
[25259]ENERGY: 6530000	3145.5700	5263.2848	5487.8949	
326.0217	-14276.3615	-1726.5218	0.0000	0.0000
7864.2068	6084.0949	307.5299	-1780.1119	6147.6818
306.0626	78.2070	29.2055	511540.4688	-15.0862
-15.1131				
[25309]ENERGY: 6540000	3239.0704	5308.6000	5423.7135	
312.7489	-14293.5436	-1711.9024	0.0000	0.0000
7805.8968	6084.5835	305.2497	-1721.3133	6147.2291
306.2303	97.0529	26.0039	511540.4688	-17.7787
-17.7429				
[25345]ENERGY: 6550000	3237.0503	5312.3573	5423.2041	
322.1839	-14318.9916	-1726.9326	0.0000	0.0000
7834.8919	6083.7632	306.3836	-1751.1287	6147.7104
306.1897	-115.4693	-117.9688	511540.4688	-16.8791
-16.8848				
[25395]ENERGY: 6560000	3168.8267	5226.2841	5412.8233	
308.5569	-14318.0353	-1614.3252	0.0000	0.0000

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7899.5516	6083.6821	308.9121	-1815.8696	6147.1756
305.9666	137.3472	68.6372	511540.4688	-19.8038
-19.8149				
[25431]ENERGY: 6570000	3198.7174	5427.0443	5404.8331	
314.1750	-14402.6880	-1699.4299	0.0000	0.0000
7838.9458	6081.5978	306.5421	-1757.3480	6148.7816
306.1727	103.8361	-98.7391	511540.4688	-13.5496
-13.5408				
[25481]ENERGY: 6580000	3189.4129	5437.6707	5438.7363	
322.2350	-14412.3552	-1716.7833	0.0000	0.0000
7821.0111	6079.9274	305.8408	-1741.0837	6146.6100
306.3731	31.0228	25.5119	511540.4688	-19.3399
-19.3427				
[25517]ENERGY: 6590000	3225.5713	5293.7218	5486.2325	
334.7555	-14353.9031	-1676.9715	0.0000	0.0000
7773.7778	6083.1842	303.9937	-1690.5936	6147.2492
306.3321	-80.6633	-81.2601	511540.4688	-14.9524
-14.9428				
[25570]ENERGY: 6600000	3258.4078	5363.0220	5457.5656	
316.4437	-14373.6654	-1732.8770	0.0000	0.0000
7797.1642	6086.0610	304.9082	-1711.1032	6147.2091
306.6248	-151.7428	-136.2446	511540.4688	-15.4240
-15.4369				
[25606]ENERGY: 6610000	3194.5240	5328.1987	5452.5958	
308.8168	-14366.8508	-1712.2477	0.0000	0.0000
7877.0883	6082.1250	308.0337	-1794.9632	6147.1542
306.4218	6.2351	25.9422	511540.4688	-17.4402
-17.4369				
[25656]ENERGY: 6620000	3298.1754	5288.2788	5392.3028	
297.8196	-14388.4145	-1686.0136	0.0000	0.0000
7881.4865	6083.6348	308.2056	-1797.8516	6147.8036
306.6155	109.2119	9.7522	511540.4688	-16.7697
-16.7765				
[25692]ENERGY: 6630000	3120.1569	5347.0033	5439.0930	
320.8685	-14356.7634	-1648.0824	0.0000	0.0000
7862.1401	6084.4161	307.4491	-1777.7240	6145.4790
306.7187	84.5065	102.7001	511540.4688	-16.4045
-16.3861				
[25742]ENERGY: 6640000	3213.8567	5334.8930	5401.3297	
318.9058	-14392.3099	-1672.5270	0.0000	0.0000
7876.7266	6080.8750	308.0195	-1795.8515	6147.2586
306.5050	87.6666	126.6022	511540.4688	-18.7955
-18.8002				
[25778]ENERGY: 6650000	3171.9570	5330.9581	5523.8168	
311.5459	-14447.8513	-1671.0155	0.0000	0.0000
7862.8913	6082.3023	307.4785	-1780.5890	6147.2492
306.5015	93.8596	74.3950	511540.4688	-17.7778
-17.7833				
[25828]ENERGY: 6660000	3199.6408	5321.9849	5497.0026	
312.6678	-14332.4785	-1744.8962	0.0000	0.0000
7831.9295	6085.8509	306.2677	-1746.0787	6149.1900
306.5501	93.1387	4.3020	511540.4688	-15.9437
-15.9119				
[25864]ENERGY: 6670000	3292.4524	5282.4493	5415.9804	

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325.1179	-14265.9017	-1779.7052	0.0000	0.0000
7813.4232	6083.8164	305.5440	-1729.6068	6148.4772
306.5030	27.3945	8.1588	511540.4688	-18.2610
-18.3062				
[25914]ENERGY: 6680000	3265.7185	5304.5672	5422.1480	
319.7081	-14353.6226	-1724.3039	0.0000	0.0000
7851.8202	6086.0356	307.0455	-1765.7846	6149.4329
306.4704	14.6155	45.4312	511540.4688	-19.4272
-19.3982				
[25950]ENERGY: 6690000	3269.0251	5321.6499	5449.5553	
319.1113	-14391.8902	-1675.1929	0.0000	0.0000
7794.4315	6086.6899	304.8014	-1707.7416	6149.6760
306.4402	48.5587	2.8289	511540.4688	-17.1610
-17.1576				
[26003]ENERGY: 6700000	3137.8756	5376.2341	5427.4168	
336.5635	-14368.8756	-1652.5375	0.0000	0.0000
7829.0427	6085.7195	306.1548	-1743.3231	6149.3723
306.3603	-69.6390	-86.6436	511540.4688	-21.1134
-21.1265				
[26039]ENERGY: 6710000	3237.0006	5260.4408	5457.0096	
304.3650	-14342.4310	-1676.8367	0.0000	0.0000
7847.7100	6087.2583	306.8848	-1760.4518	6149.4095
306.2507	231.8626	142.2769	511540.4688	-16.7055
-16.7165				
[26089]ENERGY: 6720000	3253.7156	5195.9679	5453.7604	
333.1174	-14285.7170	-1697.8390	0.0000	0.0000
7834.6337	6087.6390	306.3735	-1746.9946	6148.6553
306.4709	28.9817	-8.8595	511540.4688	-16.0804
-16.0723				
[26125]ENERGY: 6730000	3208.0435	5275.5862	5473.6420	
321.5364	-14482.1572	-1659.3709	0.0000	0.0000
7941.9155	6079.1954	310.5687	-1862.7201	6147.9344
306.4188	-44.0667	35.5987	511540.4688	-14.8923
-14.8808				
[26175]ENERGY: 6740000	3113.5242	5410.6816	5501.6713	
337.0721	-14398.9866	-1763.5009	0.0000	0.0000
7880.9495	6081.4111	308.1847	-1799.5384	6148.6694
306.1027	78.0403	100.9165	511540.4688	-21.6445
-21.6545				
[26211]ENERGY: 6750000	3186.9459	5420.7540	5473.5594	
329.3697	-14443.5731	-1712.6377	0.0000	0.0000
7829.0734	6083.4917	306.1560	-1745.5817	6147.8108
306.2326	-260.0481	-157.1129	511540.4688	-16.3440
-16.3467				
[26261]ENERGY: 6760000	3276.6116	5335.7381	5449.7021	
320.9385	-14442.9731	-1685.2466	0.0000	0.0000
7831.6822	6086.4527	306.2581	-1745.2295	6148.8931
306.2352	27.7014	31.3688	511540.4688	-16.9684
-16.9615				
[26297]ENERGY: 6770000	3215.2018	5352.3058	5440.0854	
338.2663	-14291.1679	-1758.9735	0.0000	0.0000
7791.2405	6086.9584	304.6766	-1704.2821	6149.6402
306.4465	-125.0296	-102.6798	511540.4688	-19.1255
-19.1402				

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[26347]ENERGY: 6780000	3213.9260	5386.7165	5384.3676	
310.8723	-14355.5066	-1683.6528	0.0000	0.0000
7830.3848	6087.1077	306.2073	-1743.2770	6148.7703
306.2986	54.4413	60.7166	511540.4688	-15.1371
-15.1157				
[26383]ENERGY: 6790000	3269.1049	5389.0753	5418.9411	
305.3343	-14405.0164	-1701.4059	0.0000	0.0000
7808.8628	6084.8961	305.3657	-1723.9667	6149.6539
306.3907	148.7613	23.5456	511540.4688	-18.9722
-18.9917				
[26436]ENERGY: 6800000	3221.2204	5277.4790	5455.3248	
331.8158	-14312.7732	-1718.4663	0.0000	0.0000
7829.3100	6083.9104	306.1653	-1745.3996	6149.3324
306.3534	-3.3613	-20.0220	511540.4688	-14.7484
-14.7233				
[26472]ENERGY: 6810000	3274.3508	5382.7679	5463.3176	
312.7939	-14349.7060	-1787.7906	0.0000	0.0000
7790.0142	6085.7478	304.6286	-1704.2663	6150.2132
306.3424	-162.9591	-172.0065	511540.4688	-15.8384
-15.8488				
[26522]ENERGY: 6820000	3263.4363	5356.7024	5502.6594	
319.8826	-14457.4708	-1743.8806	0.0000	0.0000
7845.5778	6086.9072	306.8014	-1758.6706	6151.1132
306.4570	-72.4874	-210.6989	511540.4688	-15.1094
-15.1113				
[26558]ENERGY: 6830000	3278.5003	5316.0861	5435.8379	
307.3181	-14381.8490	-1672.6175	0.0000	0.0000
7805.7771	6089.0529	305.2450	-1716.7241	6150.5207
306.2093	39.2182	93.0794	511540.4688	-17.2305
-17.2308				
[26608]ENERGY: 6840000	3257.4507	5352.4357	5466.7206	
326.3046	-14392.2648	-1682.7511	0.0000	0.0000
7758.6876	6086.5834	303.4036	-1672.1042	6149.7707
306.1980	200.4990	173.3432	511540.4688	-16.2167
-16.2328				
[26644]ENERGY: 6850000	3294.3781	5285.3176	5450.0501	
342.1162	-14387.4818	-1716.8079	0.0000	0.0000
7820.5632	6088.1355	305.8232	-1732.4277	6149.7868
306.2041	-40.4351	-59.1640	511540.4688	-15.4089
-15.3877				
[26694]ENERGY: 6860000	3166.0398	5260.2037	5497.6498	
328.6364	-14364.7400	-1671.8287	0.0000	0.0000
7864.7331	6080.6941	307.5505	-1784.0390	6150.0237
306.3151	148.9361	180.1020	511540.4688	-12.0702
-12.0855				
[26730]ENERGY: 6870000	3181.7588	5464.9425	5396.7718	
317.8393	-14344.3798	-1793.0224	0.0000	0.0000
7861.9474	6085.8576	307.4416	-1776.0898	6151.2195
306.2810	-39.7909	-8.7497	511540.4688	-15.9650
-15.9721				
[26780]ENERGY: 6880000	3246.9345	5321.9958	5471.4253	
327.5666	-14372.2621	-1792.7924	0.0000	0.0000
7884.1672	6087.0349	308.3105	-1797.1322	6150.6919
306.3700	-37.9048	-94.7167	511540.4688	-15.4929

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-15.4705

[26816]ENERGY: 6890000	3240.6420	5397.0562	5523.6380
304.5575	-14328.5856	-1790.0800	0.0000
7742.8878	6090.1159	302.7857	-1652.7719
306.3747	-66.3918	-77.0498	511540.4688
-20.1098			-20.0864

[26869]ENERGY: 6900000	3204.3245	5384.9346	5399.5161
297.9733	-14380.0798	-1645.3142	0.0000
7825.8142	6087.1686	306.0286	-1738.6456
306.3585	-195.6751	-129.6414	511540.4688
-10.7944			-10.8191

[26905]ENERGY: 6910000	3211.5839	5371.3514	5436.1667
301.4826	-14413.8157	-1681.0558	0.0000
7861.8144	6087.5277	307.4364	-1774.2867
306.1431	290.9978	210.0517	511540.4688
-19.3394			-19.3294

[26955]ENERGY: 6920000	3221.3519	5407.3333	5444.9118
345.0287	-14367.7351	-1764.1640	0.0000
7801.8170	6088.5436	305.0902	-1713.2733
306.0998	-212.1392	-127.3165	511540.4688
-14.7212			-14.7318

[26991]ENERGY: 6930000	3230.8034	5234.1991	5473.9583
330.5549	-14378.6792	-1669.7718	0.0000
7866.6844	6087.7491	307.6268	-1778.9353
306.0561	-71.7254	-2.8663	511540.4688
-12.1931			-12.1956

[27041]ENERGY: 6940000	3314.8763	5229.5976	5465.9361
365.5196	-14356.3436	-1761.0066	0.0000
7832.3974	6090.9770	306.2860	-1741.4204
306.2806	-150.0245	-207.5461	511540.4688
-22.4710			-22.4194

[27077]ENERGY: 6950000	3230.1648	5324.2754	5445.7508
311.1356	-14349.4859	-1696.4805	0.0000
7821.2505	6086.6107	305.8501	-1734.6398
306.4167	-47.3606	-56.7155	511540.4688
-19.1748			-19.2217

[27127]ENERGY: 6960000	3308.1256	5389.3456	5424.4552
328.4280	-14414.3619	-1706.9812	0.0000
7760.6570	6089.6683	303.4806	-1670.9887
306.2512	-37.0032	-33.9232	511540.4688
-20.7194			-20.7332

[27163]ENERGY: 6970000	3245.8233	5298.3804	5453.6236
333.9064	-14450.5726	-1662.2282	0.0000
7869.6993	6088.6323	307.7447	-1781.0671
306.1799	34.2649	2.0833	511540.4688
-17.5830			-17.5545

[27213]ENERGY: 6980000	3350.5372	5247.0076	5534.1932
297.4254	-14334.8103	-1791.9945	0.0000
7787.7014	6090.0601	304.5382	-1697.6413
306.1220	3.0210	-83.8064	511540.4688
-18.5535			-18.5499

[27249]ENERGY: 6990000	3213.4969	5331.0162	5443.7889
326.1832	-14312.8378	-1737.3561	0.0000
7822.3427	6086.6340	305.8928	-1735.7087
			511540.4688
			-17.5545

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306.2566	76.4616	36.7742	511540.4688	-20.5780
-20.5636				
[27302]ENERGY: 7000000	3256.2809	5286.2893	5438.3612	
312.4868	-14317.4315	-1684.8335	0.0000	0.0000
7796.7205	6087.8737	304.8909	-1708.8468	6150.4420
306.4362	94.9356	-1.3193	511540.4688	-17.0125
-17.0062				
[27338]ENERGY: 7010000	3199.4871	5357.3018	5504.9534	
334.1861	-14420.5090	-1737.0613	0.0000	0.0000
7847.2776	6085.6357	306.8679	-1761.6419	6151.4968
306.3588	-32.5253	-57.9462	511540.4688	-24.6823
-24.7088				
[27388]ENERGY: 7020000	3231.0464	5199.6552	5479.2214	
323.3589	-14371.4741	-1685.7544	0.0000	0.0000
7907.2913	6083.3448	309.2147	-1823.9465	6150.7603
306.1532	-39.4959	-6.7880	511540.4688	-17.7376
-17.7263				
[27424]ENERGY: 7030000	3222.3627	5337.3083	5429.9881	
331.7842	-14407.6616	-1683.3543	0.0000	0.0000
7854.7987	6085.2261	307.1620	-1769.5726	6149.8368
306.1437	-17.7104	90.2988	511540.4688	-20.2801
-20.2832				
[27474]ENERGY: 7040000	3232.0908	5299.2601	5494.3946	
309.4213	-14303.1653	-1799.6080	0.0000	0.0000
7856.9845	6089.3779	307.2475	-1767.6066	6150.6835
306.1404	-48.1418	-195.6481	511540.4688	-20.1577
-20.1622				
[27510]ENERGY: 7050000	3227.4942	5350.4269	5462.7089	
317.6665	-14335.7889	-1751.6526	0.0000	0.0000
7818.3026	6089.1575	305.7348	-1729.1450	6151.0775
306.2781	-47.4590	-32.6737	511540.4688	-19.2213
-19.1973				
[27560]ENERGY: 7060000	3234.8520	5239.8390	5465.1240	
312.9149	-14255.8532	-1703.6891	0.0000	0.0000
7795.8283	6089.0159	304.8560	-1706.8123	6149.6305
306.2365	-178.6012	-176.9011	511540.4688	-20.4860
-20.4920				
[27596]ENERGY: 7070000	3284.2586	5383.8215	5405.9966	
325.1619	-14407.1577	-1700.1552	0.0000	0.0000
7795.5264	6087.4520	304.8442	-1708.0744	6151.4565
306.4311	112.4937	132.8794	511540.4688	-19.3170
-19.3392				
[27646]ENERGY: 7080000	3191.2127	5267.2511	5455.5648	
299.4646	-14285.3780	-1708.5767	0.0000	0.0000
7866.2477	6085.7863	307.6097	-1780.4614	6150.7913
306.2552	93.8975	73.0149	511540.4688	-22.3968
-22.3756				
[27682]ENERGY: 7090000	3209.0917	5356.9742	5444.1479	
328.8648	-14421.7935	-1697.7519	0.0000	0.0000
7865.8390	6085.3721	307.5938	-1780.4669	6151.3185
306.2228	-14.8243	6.2993	511540.4688	-18.6012
-18.6060				
[27735]ENERGY: 7100000	3257.3423	5346.2652	5452.9015	
338.4029	-14449.1991	-1710.9056	0.0000	0.0000

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7857.3942	6092.2013	307.2635	-1765.1929	6153.1146
306.3131	-186.5349	-109.8056	511540.4688	-22.0531
-22.0418				
[27771]ENERGY: 7110000	3235.6585	5274.3178	5415.9288	
317.9050	-14261.2188	-1753.0565	0.0000	0.0000
7863.4832	6093.0179	307.5016	-1770.4653	6153.7457
306.3984	18.1318	-65.9688	511540.4688	-22.8009
-22.8429				
[27821]ENERGY: 7120000	3297.9311	5330.8633	5521.6547	
331.5674	-14344.4732	-1767.5908	0.0000	0.0000
7726.6288	6096.5813	302.1499	-1630.0476	6154.0839
306.3730	-202.8476	-221.5940	511540.4688	-23.6352
-23.5908				
[27857]ENERGY: 7130000	3170.4429	5287.6689	5447.5449	
345.6160	-14292.6742	-1678.6412	0.0000	0.0000
7808.9173	6088.8746	305.3678	-1720.0426	6154.9551
306.4033	324.1351	99.4815	511540.4688	-21.6416
-21.6733				
[27907]ENERGY: 7140000	3253.8624	5372.0842	5480.4714	
326.4974	-14412.3638	-1668.8759	0.0000	0.0000
7739.1530	6090.8286	302.6397	-1648.3244	6154.7240
306.3626	113.9092	46.8052	511540.4688	-19.6499
-19.6490				
[27943]ENERGY: 7150000	3250.4071	5319.4510	5461.6738	
301.3908	-14392.7098	-1683.2564	0.0000	0.0000
7835.3866	6092.3430	306.4029	-1743.0435	6154.4690
306.4440	76.7437	27.2450	511540.4688	-21.4124
-21.3807				
[27993]ENERGY: 7160000	3295.0356	5236.8477	5439.3507	
316.3701	-14351.9089	-1699.1624	0.0000	0.0000
7858.5006	6095.0333	307.3068	-1763.4673	6154.9136
306.5021	135.4935	83.5128	511540.4688	-18.1475
-18.1824				
[28029]ENERGY: 7170000	3305.1199	5360.4498	5473.3292	
336.8142	-14425.8867	-1707.2714	0.0000	0.0000
7751.7683	6094.3232	303.1330	-1657.4451	6156.8696
306.4768	-107.1695	-66.0348	511540.4688	-22.8312
-22.8116				
[28079]ENERGY: 7180000	3278.9416	5384.6881	5465.7663	
328.0260	-14429.0084	-1672.8621	0.0000	0.0000
7740.0295	6095.5809	302.6740	-1644.4486	6156.8028
306.5866	193.4463	65.2327	511540.4688	-21.6436
-21.6525				
[28115]ENERGY: 7190000	3229.7626	5428.1669	5450.6004	
307.9016	-14372.4973	-1722.2445	0.0000	0.0000
7772.1465	6093.8362	303.9299	-1678.3103	6157.1409
306.4552	-105.0755	-22.2759	511540.4688	-20.5570
-20.5582				
[28168]ENERGY: 7200000	3248.7124	5404.0530	5447.8351	
329.7101	-14359.9628	-1740.4165	0.0000	0.0000
7763.9775	6093.9087	303.6105	-1670.0688	6156.8556
306.5228	-32.5343	-109.8388	511540.4688	-15.8606
-15.8592				
[28204]ENERGY: 7210000	3243.9024	5362.8753	5464.9692	

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329.0378	-14510.3109	-1681.2700	0.0000	0.0000
7883.7115	6092.9153	308.2927	-1790.7963	6157.5655
306.6363	19.1295	-25.2705	511540.4688	-20.2234
-20.2235				
[28254]ENERGY: 7220000	3298.2408	5319.6608	5424.2974	
298.6691	-14404.0544	-1690.4798	0.0000	0.0000
7849.3858	6095.7198	306.9504	-1753.6660	6158.1583
306.6351	-110.1912	-153.7661	511540.4688	-18.6325
-18.6233				
[28290]ENERGY: 7230000	3275.5703	5396.5799	5452.8988	
330.6359	-14433.4325	-1727.0655	0.0000	0.0000
7800.8921	6096.0790	305.0540	-1704.8131	6157.8955
306.6491	146.9209	86.4946	511540.4688	-18.3569
-18.3544				
[28340]ENERGY: 7240000	3257.6153	5279.6086	5462.8639	
352.9048	-14319.3597	-1706.2193	0.0000	0.0000
7767.0945	6094.5081	303.7324	-1672.5864	6157.8989
306.6988	-192.6056	-97.2239	511540.4688	-19.3579
-19.3821				
[28376]ENERGY: 7250000	3259.6141	5287.6982	5499.8616	
316.0296	-14356.0666	-1807.4084	0.0000	0.0000
7897.2760	6097.0045	308.8231	-1800.2715	6158.3864
306.5680	-164.7917	-234.2221	511540.4688	-18.3590
-18.3238				
[28426]ENERGY: 7260000	3254.1415	5335.1427	5439.3168	
302.9298	-14270.1685	-1717.0939	0.0000	0.0000
7751.5308	6095.7992	303.1237	-1655.7317	6158.2571
306.5391	4.1358	-64.4070	511540.4688	-15.1369
-15.1600				
[28462]ENERGY: 7270000	3273.4661	5389.1862	5468.6974	
329.8231	-14382.3116	-1743.1148	0.0000	0.0000
7761.8268	6097.5732	303.5264	-1664.2536	6158.9960
306.5551	-166.2368	-94.0494	511540.4688	-21.3364
-21.3141				
[28512]ENERGY: 7280000	3234.9030	5283.6864	5397.4628	
350.8723	-14337.5915	-1752.8995	0.0000	0.0000
7919.3201	6095.7536	309.6851	-1823.5665	6158.9193
306.6253	9.5755	-5.5537	511540.4688	-14.0419
-14.0397				
[28548]ENERGY: 7290000	3213.0341	5288.2521	5484.4842	
331.6264	-14349.8127	-1691.7174	0.0000	0.0000
7818.9978	6094.8645	305.7620	-1724.1332	6158.3037
306.6073	-1.9895	84.5727	511540.4688	-22.4728
-22.4792				
[28601]ENERGY: 7300000	3278.7919	5348.9561	5479.7831	
321.4257	-14385.8602	-1749.0727	0.0000	0.0000
7801.6621	6095.6859	305.0841	-1705.9762	6160.2845
306.4910	-18.5748	-86.0167	511540.4688	-17.1326
-17.1435				
[28637]ENERGY: 7310000	3266.1469	5329.3026	5450.4714	
304.6068	-14385.7164	-1752.9855	0.0000	0.0000
7882.1719	6093.9977	308.2325	-1788.1742	6158.5982
306.4713	-124.5207	-252.9975	511540.4688	-15.9254
-15.9342				

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[28687]ENERGY: 7320000	3200.6986	5296.8389	5436.7396	
330.5696	-14265.5200	-1753.6747	0.0000	0.0000
7850.5827	6096.2347	306.9972	-1754.3480	6159.2711
306.4794	41.5092	-40.7390	511540.4688	-18.3787
-18.3746				
[28723]ENERGY: 7330000	3249.9244	5279.8691	5461.8071	
333.4784	-14305.8846	-1792.6933	0.0000	0.0000
7866.8235	6093.3247	307.6323	-1773.4988	6159.0177
306.5674	-50.4239	-139.8364	511540.4688	-20.1892
-20.1720				
[28773]ENERGY: 7340000	3249.0592	5313.0177	5461.7350	
316.1551	-14321.2761	-1770.1146	0.0000	0.0000
7846.7363	6095.3126	306.8467	-1751.4238	6160.2507
306.6903	-217.7438	-235.8946	511540.4688	-19.7361
-19.7382				
[28809]ENERGY: 7350000	3301.5557	5360.8053	5441.6003	
316.0969	-14445.2327	-1685.1813	0.0000	0.0000
7808.9073	6098.5515	305.3674	-1710.3557	6160.0798
306.7816	-198.7150	-179.0313	511540.4688	-21.0576
-21.0655				
[28859]ENERGY: 7360000	3272.8512	5291.2044	5461.2741	
323.7865	-14330.2725	-1745.8838	0.0000	0.0000
7823.8786	6096.8385	305.9529	-1727.0402	6161.6725
306.7390	3.4688	-89.1507	511540.4688	-16.2569
-16.2690				
[28895]ENERGY: 7370000	3199.1896	5441.0213	5441.9777	
329.0768	-14334.7934	-1742.5627	0.0000	0.0000
7764.6947	6098.6040	303.6385	-1666.0906	6160.9143
306.5972	36.6040	-50.4432	511540.4688	-18.5832
-18.5698				
[28945]ENERGY: 7380000	3226.9293	5270.2982	5448.7503	
336.8499	-14368.7713	-1628.1254	0.0000	0.0000
7814.1110	6100.0420	305.5709	-1714.0690	6160.6048
306.6424	66.6982	-1.1140	511540.4688	-21.2126
-21.2246				
[28981]ENERGY: 7390000	3204.4925	5340.5662	5403.0075	
336.0991	-14258.7034	-1719.0118	0.0000	0.0000
7793.5574	6100.0075	304.7672	-1693.5499	6161.7458
306.7768	47.4441	78.0344	511540.4688	-20.9491
-20.9324				
[29034]ENERGY: 7400000	3267.4488	5313.8920	5458.4424	
312.4856	-14337.5715	-1737.0706	0.0000	0.0000
7821.1240	6098.7507	305.8452	-1722.3733	6162.3868
306.7104	34.5648	74.9293	511540.4688	-18.4142
-18.4180				
[29070]ENERGY: 7410000	3210.5478	5309.8929	5458.1203	
354.9973	-14315.3836	-1709.3331	0.0000	0.0000
7790.7152	6099.5567	304.6560	-1691.1585	6162.8779
306.6123	107.5938	-0.4676	511540.4688	-20.2705
-20.2669				
[29120]ENERGY: 7420000	3168.3317	5277.7291	5440.2692	
338.5658	-14293.7071	-1690.8201	0.0000	0.0000
7861.5191	6101.8876	307.4248	-1759.6315	6163.7922
306.7388	70.9619	89.3761	511540.4688	-20.7701

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-20.7592
 [29156]ENERGY: 7430000 3255.0119 5440.1449 5421.6076
 334.2936 -14418.6774 -1691.6303 0.0000 0.0000
 7760.0184 6100.7687 303.4556 -1659.2497 6163.7905
 306.8748 -6.5854 100.5288 511540.4688 -14.3543
 -14.3725
 [29206]ENERGY: 7440000 3214.5516 5374.0916 5425.6067
 312.8692 -14309.4114 -1652.5868 0.0000 0.0000
 7739.0948 6104.2158 302.6374 -1634.8791 6164.1014
 306.8772 191.1753 229.1303 511540.4688 -15.5086
 -15.5130
 [29242]ENERGY: 7450000 3221.7235 5289.8830 5431.9518
 301.6566 -14360.6016 -1724.3739 0.0000 0.0000
 7940.9273 6101.1667 310.5301 -1839.7606 6163.1550
 306.8406 353.7863 241.1786 511540.4688 -17.0888
 -17.0813
 [29292]ENERGY: 7460000 3292.1802 5242.2741 5428.4342
 338.6754 -14326.0099 -1666.4260 0.0000 0.0000
 7795.1579 6104.2861 304.8298 -1690.8719 6164.2675
 306.9965 286.4037 262.2341 511540.4688 -15.7745
 -15.7865
 [29328]ENERGY: 7470000 3251.9678 5349.3702 5440.4626
 313.7095 -14307.3010 -1737.8043 0.0000 0.0000
 7792.5099 6102.9147 304.7262 -1689.5953 6165.1387
 307.0611 -132.5294 -125.8306 511540.4688 -14.9410
 -14.9381
 [29378]ENERGY: 7480000 3300.3949 5203.9052 5450.7284
 334.3998 -14368.6248 -1679.2558 0.0000 0.0000
 7858.3070 6099.8546 307.2992 -1758.4524 6164.0058
 306.8670 97.8919 3.1668 511540.4688 -12.3844
 -12.3729
 [29414]ENERGY: 7490000 3255.7537 5333.3545 5389.1166
 311.2124 -14364.3702 -1749.9174 0.0000 0.0000
 7925.9451 6101.0947 309.9442 -1824.8504 6163.6924
 307.0848 -110.6514 -55.0326 511540.4688 -16.6437
 -16.6373
 [29467]ENERGY: 7500000 3207.6547 5280.9190 5447.1469
 326.1978 -14407.0166 -1678.6225 0.0000 0.0000
 7922.0283 6098.3075 309.7910 -1823.7208 6164.3058
 307.0633 -132.2045 -186.2191 511540.4688 -15.0091
 -15.0156
 [29503]ENERGY: 7510000 3267.6517 5290.4799 5478.7629
 318.3524 -14339.3821 -1711.2735 0.0000 0.0000
 7797.1566 6101.7479 304.9079 -1695.4086 6165.0943
 306.8245 37.2398 -31.5491 511540.4688 -18.5426
 -18.5516
 [29553]ENERGY: 7520000 3261.9358 5381.3923 5429.9387
 311.5462 -14331.1463 -1762.5703 0.0000 0.0000
 7812.0580 6103.1544 305.4906 -1708.9036 6165.2801
 307.0627 -73.2819 -134.7175 511540.4688 -13.5445
 -13.5475
 [29589]ENERGY: 7530000 3277.4069 5297.1683 5476.1611
 327.0263 -14354.9821 -1782.0133 0.0000 0.0000
 7857.3417 6098.1090 307.2615 -1759.2327 6164.9782

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307.0049	65.0481	97.2657	511540.4688	-16.1341
-16.0973				
[29639]ENERGY: 7540000	3192.2711	5365.1352	5467.4888	
310.7872	-14274.1027	-1736.8897	0.0000	0.0000
7777.2854	6101.9753	304.1309	-1675.3101	6165.6558
307.0008	58.4241	13.8908	511540.4688	-17.4737
-17.4911				
[29675]ENERGY: 7550000	3253.5460	5300.1382	5479.8710	
335.0897	-14387.1667	-1717.2267	0.0000	0.0000
7840.5365	6104.7881	306.6043	-1735.7484	6165.9360
307.0183	12.4386	-58.3736	511540.4688	-13.0107
-13.0166				
[29725]ENERGY: 7560000	3204.8897	5337.5590	5445.0688	
329.6273	-14392.1471	-1744.3446	0.0000	0.0000
7921.4478	6102.1009	309.7683	-1819.3469	6167.0255
307.1335	175.0602	92.6203	511540.4688	-18.5565
-18.5647				
[29761]ENERGY: 7570000	3302.3987	5430.4342	5408.9956	
308.6708	-14470.2150	-1733.2668	0.0000	0.0000
7854.5141	6101.5315	307.1509	-1752.9826	6165.9849
307.0205	-42.8941	-57.9161	511540.4688	-15.1071
-15.1050				
[29811]ENERGY: 7580000	3201.9505	5309.1622	5406.9819	
341.3315	-14411.7022	-1648.1248	0.0000	0.0000
7901.1671	6100.7663	308.9753	-1800.4008	6166.0134
307.0412	72.6109	-20.4907	511540.4688	-12.4112
-12.4016				
[29847]ENERGY: 7590000	3178.0004	5437.4993	5394.7967	
312.4578	-14381.3686	-1671.0508	0.0000	0.0000
7835.2532	6105.5881	306.3977	-1729.6651	6165.6733
306.9017	210.2417	68.6203	511540.4688	-17.2038
-17.2334				
[29900]ENERGY: 7600000	3249.7943	5384.5876	5442.7601	
306.4769	-14399.4079	-1739.9284	0.0000	0.0000
7858.0031	6102.2857	307.2873	-1755.7174	6166.4778
307.0200	-70.3985	-85.0361	511540.4688	-17.7235
-17.7206				
[29936]ENERGY: 7610000	3232.0893	5355.2083	5450.1310	
314.2383	-14381.5359	-1752.6379	0.0000	0.0000
7884.2594	6101.7524	308.3141	-1782.5070	6165.8233
307.0270	-89.6037	-92.0690	511540.4688	-16.3269
-16.3092				
[29986]ENERGY: 7620000	3231.0980	5348.5660	5409.4645	
296.7373	-14409.9411	-1695.7971	0.0000	0.0000
7920.5265	6100.6541	309.7323	-1819.8724	6165.2118
306.8823	150.0779	92.6990	511540.4688	-17.3586
-17.3582				
[30022]ENERGY: 7630000	3221.7403	5401.6490	5425.4114	
305.3163	-14288.5420	-1786.1564	0.0000	0.0000
7823.0000	6102.4186	305.9185	-1720.5814	6166.5004
306.7499	-178.9871	-109.1174	511540.4688	-19.1983
-19.1852				
[30072]ENERGY: 7640000	3220.4128	5357.2443	5413.8299	
330.8306	-14364.5198	-1688.0192	0.0000	0.0000

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7830.3874	6100.1661	306.2074	-1730.2213	6165.3679
306.7333	161.6860	113.1110	511540.4688	-14.6415
-14.6450				
[30108]ENERGY: 7650000	3304.4694	5293.7204	5429.7557	
338.2588	-14460.2020	-1696.7785	0.0000	0.0000
7889.9171	6099.1410	308.5353	-1790.7761	6165.2821
306.6504	5.3855	28.6553	511540.4688	-13.2958
-13.3187				
[30158]ENERGY: 7660000	3268.6364	5397.1000	5454.8206	
329.7659	-14341.0842	-1778.6924	0.0000	0.0000
7771.1806	6101.7269	303.8921	-1669.4537	6166.2247
306.8485	48.0172	-16.1288	511540.4688	-15.4038
-15.4128				
[30194]ENERGY: 7670000	3244.8619	5358.0440	5437.1364	
302.3586	-14319.4087	-1722.6721	0.0000	0.0000
7800.6489	6100.9689	305.0445	-1699.6800	6164.0204
306.8951	155.3558	94.7264	511540.4688	-8.9061
-8.8927				
[30244]ENERGY: 7680000	3240.4654	5317.1769	5419.2741	
313.6858	-14339.9840	-1710.5699	0.0000	0.0000
7858.1591	6098.2073	307.2934	-1759.9518	6164.9587
306.8244	6.9956	-63.9370	511540.4688	-12.9932
-12.9804				
[30280]ENERGY: 7690000	3281.2222	5437.5781	5410.5797	
320.2317	-14427.8478	-1702.7207	0.0000	0.0000
7781.8230	6100.8662	304.3083	-1680.9568	6165.5548
307.0490	33.5079	-32.2963	511540.4688	-11.5669
-11.5613				
[30333]ENERGY: 7700000	3207.8662	5456.2281	5444.6801	
325.8907	-14425.7475	-1681.7055	0.0000	0.0000
7775.8298	6103.0420	304.0739	-1672.7879	6165.4290
307.0849	-40.0044	7.6049	511540.4688	-17.4892
-17.5077				
[30369]ENERGY: 7710000	3218.1895	5331.3920	5394.9851	
313.8630	-14314.0886	-1649.6747	0.0000	0.0000
7810.1960	6104.8622	305.4178	-1705.3338	6166.4001
306.9735	-65.2075	-111.5094	511540.4688	-12.8413
-12.8483				
[30419]ENERGY: 7720000	3199.3223	5373.6891	5425.2685	
327.2047	-14397.4146	-1706.5945	0.0000	0.0000
7878.7449	6100.2205	308.0984	-1778.5245	6166.3346
306.8946	-24.6482	-53.9764	511540.4688	-16.3195
-16.2826				
[30455]ENERGY: 7730000	3332.8525	5270.5381	5471.8526	
329.7152	-14429.3934	-1668.9985	0.0000	0.0000
7799.2240	6105.7907	304.9888	-1693.4334	6166.9172
306.9319	-85.8915	-53.2764	511540.4688	-16.2472
-16.2577				
[30505]ENERGY: 7740000	3339.7393	5229.3583	5453.3546	
312.0808	-14344.6901	-1716.6832	0.0000	0.0000
7827.6135	6100.7732	306.0989	-1726.8403	6166.1095
306.8130	-75.7901	-6.4683	511540.4688	-17.0674
-17.0676				
[30541]ENERGY: 7750000	3337.8445	5208.3972	5494.7987	

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334.3446	-14326.3387	-1696.3876	0.0000	0.0000
7752.2493	6104.9080	303.1518	-1647.3413	6167.2029
306.6161	-20.6313	26.7978	511540.4688	-10.8731
-10.8845				
[30591]ENERGY: 7760000	3218.6154	5271.6017	5479.2510	
329.2026	-14270.9661	-1756.4571	0.0000	0.0000
7831.3862	6102.6336	306.2465	-1728.7525	6167.7266
306.8102	36.5773	-5.3250	511540.4688	-14.5772
-14.5906				
[30627]ENERGY: 7770000	3238.8235	5260.6392	5382.7106	
317.8355	-14238.7595	-1733.2688	0.0000	0.0000
7877.9056	6105.8862	308.0656	-1772.0194	6168.9127
306.9565	5.5515	-74.3828	511540.4688	-16.8268
-16.8385				
[30677]ENERGY: 7780000	3219.3545	5298.1123	5417.6124	
329.6708	-14313.2846	-1760.5588	0.0000	0.0000
7913.1955	6104.1022	309.4456	-1809.0933	6168.4006
306.9996	-94.8862	-60.2658	511540.4688	-16.9787
-16.9446				
[30713]ENERGY: 7790000	3255.1009	5267.6383	5426.4549	
317.7065	-14376.3060	-1655.9420	0.0000	0.0000
7873.6366	6108.2892	307.8987	-1765.3474	6168.3728
306.9809	75.1334	58.1997	511540.4688	-15.0381
-15.0434				
[30766]ENERGY: 7800000	3216.4661	5378.3079	5390.7466	
336.4480	-14348.8213	-1703.7560	0.0000	0.0000
7835.8427	6105.2340	306.4207	-1730.6087	6168.2058
306.9414	33.6613	17.2859	511540.4688	-13.0423
-13.0630				
[30802]ENERGY: 7810000	3277.1531	5397.4367	5448.2399	
349.8272	-14412.7592	-1684.0470	0.0000	0.0000
7733.4069	6109.2577	302.4150	-1624.1492	6168.7212
306.9475	23.0356	-90.2639	511540.4688	-13.1103
-13.0933				
[30852]ENERGY: 7820000	3244.6622	5247.2285	5445.8341	
339.8074	-14386.2203	-1685.6423	0.0000	0.0000
7899.4561	6105.1256	308.9084	-1794.3305	6167.5178
306.7607	105.7680	-30.5278	511540.4688	-16.6978
-16.7068				
[30888]ENERGY: 7830000	3257.9289	5218.0359	5492.1478	
327.7436	-14429.3679	-1645.6897	0.0000	0.0000
7881.3487	6102.1473	308.2003	-1779.2014	6167.7046
306.9035	-74.1170	-122.3279	511540.4688	-14.6275
-14.6189				
[30938]ENERGY: 7840000	3220.1574	5292.3996	5449.3258	
322.7898	-14310.1192	-1749.7109	0.0000	0.0000
7880.6579	6105.5004	308.1732	-1775.1575	6167.6488
306.8900	-60.6239	-76.9193	511540.4688	-13.1341
-13.1590				
[30974]ENERGY: 7850000	3245.2241	5352.1407	5425.0445	
319.2587	-14251.7039	-1755.7248	0.0000	0.0000
7770.9012	6105.1407	303.8812	-1665.7606	6167.5902
306.8323	146.6337	34.6281	511540.4688	-13.5845
-13.5456				

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[31024]ENERGY: 7860000	3286.5774	5331.2347	5427.4485	
335.5441	-14350.5143	-1721.4795	0.0000	0.0000
7798.9501	6107.7610	304.9781	-1691.1891	6167.7514
306.7728	121.5101	118.0907	511540.4688	-16.8753
-16.8891				
[31060]ENERGY: 7870000	3249.4026	5329.1113	5473.9101	
314.7848	-14339.7363	-1702.5986	0.0000	0.0000
7779.4555	6104.3294	304.2157	-1675.1261	6167.6285
306.7944	-34.2333	-96.8533	511540.4688	-10.6055
-10.6122				
[31110]ENERGY: 7880000	3343.3546	5287.7234	5499.6782	
312.4816	-14395.2628	-1735.5355	0.0000	0.0000
7788.4993	6100.9388	304.5694	-1687.5605	6167.2172
306.9194	-153.4439	-138.0646	511540.4688	-13.7782
-13.7576				
[31146]ENERGY: 7890000	3251.0109	5423.1752	5465.3023	
332.5665	-14469.3553	-1689.5657	0.0000	0.0000
7790.6446	6103.7784	304.6533	-1686.8661	6166.8008
306.7410	54.7748	-25.5137	511540.4688	-15.7550
-15.7811				
[31199]ENERGY: 7900000	3306.0797	5273.8251	5460.3661	
330.4258	-14354.3898	-1766.1121	0.0000	0.0000
7854.0942	6104.2889	307.1345	-1749.8053	6167.9787
306.6951	-318.2013	-207.0396	511540.4688	-12.9885
-12.9978				
[31235]ENERGY: 7910000	3244.0574	5392.3938	5491.6447	
336.1444	-14471.2837	-1658.4505	0.0000	0.0000
7767.3572	6101.8632	303.7426	-1665.4940	6167.2420
306.8525	10.5025	24.6958	511540.4688	-13.1464
-13.1136				
[31285]ENERGY: 7920000	3225.5977	5277.8364	5473.3136	
317.9680	-14428.3270	-1664.3134	0.0000	0.0000
7898.0170	6100.0922	308.8521	-1797.9247	6167.5301
306.9576	112.9254	110.3757	511540.4688	-14.0759
-14.0971				
[31321]ENERGY: 7930000	3210.9440	5352.4117	5465.2586	
295.5002	-14371.4447	-1705.4234	0.0000	0.0000
7858.4135	6105.6601	307.3034	-1752.7534	6168.7399
306.9699	-21.5759	-78.4458	511540.4688	-13.0729
-13.0561				
[31371]ENERGY: 7940000	3182.5320	5314.2541	5461.2859	
335.6358	-14359.0219	-1660.0829	0.0000	0.0000
7829.6455	6104.2485	306.1784	-1725.3970	6167.3171
306.8690	211.0090	207.3353	511540.4688	-13.8796
-13.8772				
[31407]ENERGY: 7950000	3253.3786	5412.8567	5402.7716	
334.9956	-14338.4455	-1722.4722	0.0000	0.0000
7767.3984	6110.4832	303.7442	-1656.9152	6169.2629
306.9589	24.4007	16.2872	511540.4688	-11.9863
-12.0036				
[31457]ENERGY: 7960000	3299.4157	5363.6295	5441.3299	
309.7089	-14385.3576	-1744.4506	0.0000	0.0000
7825.7497	6110.0255	306.0261	-1715.7242	6168.9891
307.0112	-114.4973	-82.5815	511540.4688	-17.9951

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-17.9979
 [31493]ENERGY: 7970000 3244.7437 5311.3694 5449.7340
 330.4696 -14318.4071 -1710.9309 0.0000 0.0000
 7802.7409 6109.7195 305.1263 -1693.0214 6169.2585
 307.0298 43.9073 27.7999 511540.4688 -13.6946
 -13.7076
 [31543]ENERGY: 7980000 3245.5800 5328.3228 5400.3292
 339.9793 -14356.0004 -1706.2053 0.0000 0.0000
 7851.0401 6103.0458 307.0150 -1747.9942 6168.2356
 306.9918 -111.6696 -143.5210 511540.4688 -15.8450
 -15.8041
 [31579]ENERGY: 7990000 3322.9504 5303.8027 5441.5405
 346.7198 -14456.1517 -1653.5715 0.0000 0.0000
 7803.4831 6108.7732 305.1553 -1694.7099 6170.1421
 307.0294 -99.4718 -115.4169 511540.4688 -14.0599
 -14.0563
 [31632]ENERGY: 8000000 3259.8241 5298.8411 5435.8181
 321.7700 -14366.6083 -1780.3331 0.0000 0.0000
 7934.1199 6103.4318 310.2639 -1830.6881 6169.1284
 307.1207 70.7388 55.3239 511540.4688 -17.1764
 -17.1828
 [31668]ENERGY: 8010000 3268.1198 5367.9477 5389.4475
 312.7775 -14363.0983 -1746.4721 0.0000 0.0000
 7871.5453 6100.2673 307.8169 -1771.2780 6169.4436
 307.1454 -33.9384 -73.8806 511540.4688 -11.6549
 -11.6573
 [31718]ENERGY: 8020000 3290.9700 5355.3560 5388.6261
 319.5903 -14438.3311 -1713.4822 0.0000 0.0000
 7903.2626 6105.9916 309.0572 -1797.2710 6169.2936
 307.1968 -91.7445 -25.6332 511540.4688 -18.6076
 -18.6184
 [31754]ENERGY: 8030000 3199.7715 5327.2132 5412.6745
 335.1964 -14344.6097 -1707.0308 0.0000 0.0000
 7879.5701 6102.7853 308.1307 -1776.7848 6167.3555
 307.0006 -18.6401 -49.2611 511540.4688 -14.3987
 -14.4222
 [31804]ENERGY: 8040000 3299.8193 5322.9711 5400.2274
 322.9247 -14359.7126 -1720.3237 0.0000 0.0000
 7838.8316 6104.7378 306.5376 -1734.0938 6168.1368
 306.9477 -159.3570 -144.4578 511540.4688 -19.8573
 -19.8383
 [31840]ENERGY: 8050000 3271.8350 5305.4493 5490.5751
 329.8808 -14381.0596 -1696.8144 0.0000 0.0000
 7783.0032 6102.8695 304.3545 -1680.1337 6167.5794
 307.2380 -181.5235 -154.2335 511540.4688 -16.7063
 -16.7049
 [31890]ENERGY: 8060000 3227.0658 5231.6404 5406.3661
 337.5229 -14356.3785 -1704.6755 0.0000 0.0000
 7962.4389 6103.9802 311.3713 -1858.4588 6168.6362
 307.2611 -140.9575 -14.8776 511540.4688 -17.4048
 -17.3968
 [31926]ENERGY: 8070000 3195.5763 5431.9310 5433.1524
 341.7171 -14446.5450 -1646.8940 0.0000 0.0000
 7796.5085 6105.4463 304.8826 -1691.0622 6169.1959

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307.0161	93.5935	79.7572	511540.4688	-19.6576
-19.6736				
[31976]ENERGY: 8080000	3239.6842	5301.2646	5382.0454	
341.5282	-14408.2122	-1715.9092	0.0000	0.0000
7963.3629	6103.7638	311.4074	-1859.5991	6169.2736
306.8857	164.3412	70.7961	511540.4688	-18.8621
-18.8589				
[32012]ENERGY: 8090000	3286.9073	5309.1102	5505.2825	
317.6905	-14398.9078	-1723.5996	0.0000	0.0000
7813.1896	6109.6728	305.5349	-1703.5168	6171.1965
307.0535	-176.4549	-178.9390	511540.4688	-20.6512
-20.6588				
[32065]ENERGY: 8100000	3261.5522	5239.5599	5490.5570	
330.1668	-14375.3672	-1718.4135	0.0000	0.0000
7880.9674	6109.0225	308.1854	-1771.9449	6171.2728
307.0930	34.0568	-59.5018	511540.4688	-18.0449
-18.0306				
[32101]ENERGY: 8110000	3229.3117	5363.4197	5442.9250	
320.6974	-14377.9888	-1727.8868	0.0000	0.0000
7857.5544	6108.0326	307.2698	-1749.5218	6171.0943
307.2652	-53.7402	-38.4688	511540.4688	-19.4228
-19.4245				
[32151]ENERGY: 8120000	3236.6121	5414.9291	5413.9491	
308.8315	-14376.8926	-1690.3886	0.0000	0.0000
7806.6979	6113.7384	305.2810	-1692.9595	6171.7233
307.0639	-47.6429	-104.5991	511540.4688	-20.8657
-20.8716				
[32187]ENERGY: 8130000	3239.6295	5352.5688	5409.4723	
341.5078	-14379.0541	-1672.0881	0.0000	0.0000
7815.6943	6107.7304	305.6328	-1707.9638	6172.6824
307.2773	87.5250	-27.1414	511540.4688	-18.2900
-18.2967				
[32237]ENERGY: 8140000	3261.6413	5347.3980	5445.2695	
344.3051	-14352.1305	-1734.5981	0.0000	0.0000
7800.2409	6112.1262	305.0285	-1688.1147	6170.6196
307.2407	-46.8219	4.4511	511540.4688	-20.2757
-20.2474				
[32273]ENERGY: 8150000	3287.4485	5301.2614	5415.0738	
317.5399	-14369.5803	-1723.4359	0.0000	0.0000
7875.5093	6103.8167	307.9719	-1771.6926	6170.9196
307.1778	-85.9128	-44.8518	511540.4688	-20.3451
-20.3488				
[32323]ENERGY: 8160000	3321.8763	5338.4437	5432.4839	
316.5609	-14378.6230	-1731.1852	0.0000	0.0000
7808.4008	6107.9574	305.3476	-1700.4434	6171.3081
307.1335	25.0555	-3.3436	511540.4688	-20.5278
-20.5433				
[32359]ENERGY: 8170000	3315.5993	5247.6854	5462.4494	
323.2064	-14359.6398	-1726.5941	0.0000	0.0000
7842.1510	6104.8576	306.6674	-1737.2934	6172.1314
307.2614	-42.5860	-97.1648	511540.4688	-19.0471
-19.0382				
[32409]ENERGY: 8180000	3281.7677	5344.3389	5391.2935	
325.7480	-14277.7029	-1754.6061	0.0000	0.0000

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7795.4100	6106.2492	304.8396	-1689.1608	6171.4829
307.2297	-115.7306	-111.4319	511540.4688	-17.0513
-17.0675				
[32445]ENERGY: 8190000	3260.4618	5327.9362	5402.0445	
344.0407	-14253.8199	-1763.2975	0.0000	0.0000
7795.3920	6112.7578	304.8389	-1682.6342	6171.9245
307.0722	-122.9975	-196.3733	511540.4688	-16.5224
-16.5277				
[32498]ENERGY: 8200000	3215.4144	5325.5433	5469.1297	
340.1800	-14372.7581	-1693.2181	0.0000	0.0000
7824.1392	6108.4305	305.9631	-1715.7088	6171.7719
306.8998	113.7755	32.7350	511540.4688	-19.4689
-19.4736				
[32534]ENERGY: 8210000	3148.1194	5324.6709	5462.5520	
349.1540	-14344.2347	-1722.3729	0.0000	0.0000
7890.5452	6108.4340	308.5599	-1782.1112	6171.9057
306.8306	108.3200	94.1076	511540.4688	-13.8215
-13.7873				
[32584]ENERGY: 8220000	3164.2710	5349.5005	5486.9450	
315.8897	-14289.3921	-1739.8796	0.0000	0.0000
7819.8052	6107.1397	305.7936	-1712.6655	6172.5506
306.8285	-13.0139	-96.2363	511540.4688	-18.7420
-18.7619				
[32620]ENERGY: 8230000	3278.8185	5173.3359	5410.5860	
327.5183	-14346.1146	-1615.1786	0.0000	0.0000
7880.7837	6109.7491	308.1782	-1771.0345	6171.6846
306.8829	-46.5069	-94.0386	511540.4688	-17.7950
-17.8006				
[32670]ENERGY: 8240000	3209.1101	5385.6041	5412.5506	
304.2737	-14357.0087	-1752.1251	0.0000	0.0000
7906.8031	6109.2078	309.1957	-1797.5953	6172.3557
306.8803	-72.8884	-68.0773	511540.4688	-19.2953
-19.2931				
[32706]ENERGY: 8250000	3249.7630	5406.2176	5434.3665	
309.9508	-14471.2301	-1685.9309	0.0000	0.0000
7864.3200	6107.4569	307.5344	-1756.8631	6171.4937
306.9197	89.2458	48.0964	511540.4688	-13.3375
-13.3184				
[32756]ENERGY: 8260000	3233.4997	5301.8107	5481.8452	
335.7784	-14441.1635	-1694.0969	0.0000	0.0000
7890.1727	6107.8464	308.5453	-1782.3263	6170.7807
306.7583	254.1355	195.4122	511540.4688	-18.8592
-18.8695				
[32792]ENERGY: 8270000	3195.3482	5316.8638	5476.0884	
326.5723	-14328.0314	-1739.5644	0.0000	0.0000
7859.8001	6107.0769	307.3576	-1752.7231	6171.2720
306.7176	-144.0614	-283.2084	511540.4688	-19.2087
-19.2208				
[32842]ENERGY: 8280000	3180.1290	5401.2649	5427.3114	
339.9413	-14390.1449	-1695.3100	0.0000	0.0000
7846.6526	6109.8443	306.8435	-1736.8083	6170.6873
307.0354	-61.1551	-37.6821	511540.4688	-15.1858
-15.1804				
[32878]ENERGY: 8290000	3348.0012	5300.1455	5456.1053	

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347.6134	-14431.6049	-1700.7359	0.0000	0.0000
7789.7146	6109.2391	304.6169	-1680.4755	6170.7864
306.9941	126.3406	102.9081	511540.4688	-17.8123
-17.7782				
[32931]ENERGY: 8300000	3213.2697	5289.7798	5439.3571	
331.8822	-14348.6963	-1710.5499	0.0000	0.0000
7894.3638	6109.4064	308.7092	-1784.9573	6172.3076
306.9618	233.4330	192.5554	511540.4688	-15.4586
-15.4897				
[32967]ENERGY: 8310000	3188.0256	5261.0706	5454.3961	
314.0407	-14333.0215	-1699.4154	0.0000	0.0000
7921.8770	6106.9731	309.7851	-1814.9039	6171.6074
306.8226	-14.2153	-9.7064	511540.4688	-16.1235
-16.1328				
[33017]ENERGY: 8320000	3252.2597	5352.9357	5440.1200	
326.5716	-14350.2201	-1751.4822	0.0000	0.0000
7839.1987	6109.3834	306.5520	-1729.8153	6172.9018
306.9541	14.0703	69.3584	511540.4688	-14.1140
-14.1009				
[33053]ENERGY: 8330000	3215.1091	5386.3687	5454.0387	
315.9651	-14397.7928	-1691.3494	0.0000	0.0000
7826.3011	6108.6405	306.0476	-1717.6606	6171.8388
306.7427	14.9372	-29.1829	511540.4688	-20.5484
-20.5577				
[33103]ENERGY: 8340000	3248.5904	5353.5936	5439.3177	
302.8625	-14323.6104	-1732.2854	0.0000	0.0000
7818.3515	6106.8197	305.7368	-1711.5317	6170.9699
307.0334	-199.2479	-138.1263	511540.4688	-17.7003
-17.6795				
[33139]ENERGY: 8350000	3257.7746	5338.2130	5508.4249	
326.1629	-14417.2403	-1745.4489	0.0000	0.0000
7842.4636	6110.3498	306.6797	-1732.1138	6171.6436
307.0320	-38.2402	-67.1137	511540.4688	-17.1906
-17.1997				
[33189]ENERGY: 8360000	3202.1244	5309.0063	5501.4476	
328.5892	-14346.3684	-1681.1701	0.0000	0.0000
7795.1921	6108.8211	304.8311	-1686.3710	6172.6555
307.0084	-3.8426	-50.9474	511540.4688	-16.3153
-16.3334				
[33225]ENERGY: 8370000	3219.1560	5237.9485	5477.1345	
325.2433	-14375.3549	-1677.5927	0.0000	0.0000
7902.5360	6109.0707	309.0288	-1793.4653	6173.3271
306.9591	106.1476	2.8947	511540.4688	-15.6465
-15.6258				
[33275]ENERGY: 8380000	3218.9825	5287.1874	5438.3454	
311.8320	-14364.0602	-1678.2646	0.0000	0.0000
7894.7963	6108.8188	308.7261	-1785.9774	6173.9848
307.0293	219.9762	89.9355	511540.4688	-12.8974
-12.9042				
[33311]ENERGY: 8390000	3255.0637	5292.3416	5462.3343	
319.7129	-14293.6098	-1721.5980	0.0000	0.0000
7796.0036	6110.2483	304.8628	-1685.7553	6172.1490
307.0411	-37.8034	-73.5957	511540.4688	-16.3600
-16.3456				

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[33364]ENERGY: 8400000	3288.5456	5295.6428	5444.4858	
326.9811	-14361.8580	-1747.7154	0.0000	0.0000
7862.3997	6108.4817	307.4593	-1753.9180	6173.1249
307.1608	-72.1970	-46.8412	511540.4688	-16.1067
-16.1184				
[33400]ENERGY: 8410000	3176.0447	5329.1422	5451.7326	
333.0757	-14393.3150	-1619.2164	0.0000	0.0000
7834.1040	6111.5678	306.3528	-1722.5362	6171.9985
307.1226	249.2581	161.5223	511540.4688	-17.3321
-17.3560				
[33450]ENERGY: 8420000	3190.9800	5328.6380	5465.5411	
324.0647	-14358.2479	-1720.5333	0.0000	0.0000
7879.5341	6109.9768	308.1293	-1769.5574	6173.3847
307.1583	107.7463	-67.7999	511540.4688	-16.7831
-16.7619				
[33486]ENERGY: 8430000	3239.3247	5408.2330	5409.7059	
331.2513	-14402.7624	-1755.3305	0.0000	0.0000
7881.1509	6111.5730	308.1925	-1769.5779	6173.3936
307.0985	172.9968	158.0643	511540.4688	-17.1786
-17.1635				
[33536]ENERGY: 8440000	3228.9081	5274.4972	5507.9321	
324.3735	-14323.1089	-1737.5700	0.0000	0.0000
7834.5591	6109.5911	306.3706	-1724.9680	6173.9460
307.2178	-42.8044	-95.5585	511540.4688	-17.0479
-17.0594				
[33572]ENERGY: 8450000	3205.1765	5443.6760	5475.1211	
316.4068	-14387.0953	-1715.4429	0.0000	0.0000
7770.9970	6108.8393	303.8850	-1662.1577	6173.4991
307.0936	-110.6239	-145.9108	511540.4688	-17.1052
-17.1203				
[33622]ENERGY: 8460000	3217.7224	5299.1490	5456.5758	
334.0359	-14436.2798	-1641.4448	0.0000	0.0000
7883.1214	6112.8798	308.2696	-1770.2415	6175.1317
307.1977	82.5567	25.4958	511540.4688	-19.6119
-19.6152				
[33658]ENERGY: 8470000	3236.7490	5365.4992	5417.6707	
322.1673	-14343.1500	-1654.5538	0.0000	0.0000
7773.9057	6118.2880	303.9987	-1655.6177	6175.9956
307.1970	174.7128	102.7642	511540.4688	-19.5872
-19.5733				
[33708]ENERGY: 8480000	3231.2283	5389.6104	5451.3816	
329.7039	-14408.2559	-1703.7594	0.0000	0.0000
7824.4229	6114.3317	305.9742	-1710.0912	6175.4862
307.1245	-53.3775	-91.5024	511540.4688	-14.4701
-14.4601				
[33744]ENERGY: 8490000	3296.4365	5299.8596	5457.1639	
357.2479	-14355.3187	-1761.8310	0.0000	0.0000
7820.3165	6113.8746	305.8136	-1706.4419	6175.6874
307.2101	91.7447	-71.6078	511540.4688	-16.4814
-16.4870				
[33797]ENERGY: 8500000	3201.0230	5368.7760	5442.8064	
311.8142	-14347.2942	-1690.0735	0.0000	0.0000
7826.2105	6113.2623	306.0441	-1712.9482	6175.7830
307.3481	-7.9968	-2.2970	511540.4688	-19.8108

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-19.8049
 [33833]ENERGY: 8510000 3307.9811 5326.1080 5500.6321
 327.2204 -14475.6424 -1677.7687 0.0000 0.0000
 7801.0590 6109.5895 305.0605 -1691.4695 6175.7801
 307.1765 55.6802 58.3749 511540.4688 -18.8862
 -18.8944
 [33883]ENERGY: 8520000 3308.6517 5293.3002 5434.3011
 337.5427 -14348.7458 -1720.4622 0.0000 0.0000
 7811.2005 6115.7882 305.4571 -1695.4123 6176.6416
 307.1581 -136.2316 -207.5679 511540.4688 -16.8924
 -16.8888
 [33919]ENERGY: 8530000 3227.9883 5411.8881 5427.4841
 311.6123 -14346.8870 -1765.7719 0.0000 0.0000
 7847.0798 6113.3937 306.8602 -1733.6861 6177.5872
 307.0744 -33.0266 -6.5387 511540.4688 -20.7841
 -20.7916
 [33969]ENERGY: 8540000 3265.8184 5344.6870 5457.0913
 337.4718 -14449.7476 -1649.7439 0.0000 0.0000
 7807.9258 6113.5027 305.3291 -1694.4231 6176.2642
 306.9883 189.4583 91.5777 511540.4688 -18.9271
 -18.9279
 [34005]ENERGY: 8550000 3173.7267 5191.2097 5431.0621
 325.1104 -14300.7015 -1681.0765 0.0000 0.0000
 7974.3184 6113.6492 311.8358 -1860.6691 6176.9580
 307.2141 237.1659 159.6134 511540.4688 -20.1464
 -20.1433
 [34055]ENERGY: 8560000 3196.7671 5263.3650 5471.8911
 320.5656 -14389.5340 -1661.8803 0.0000 0.0000
 7910.4365 6111.6110 309.3377 -1798.8255 6177.5893
 306.9287 107.8199 33.2053 511540.4688 -19.3898
 -19.3871
 [34091]ENERGY: 8570000 3186.5265 5412.4139 5459.1597
 340.7433 -14396.1668 -1706.0829 0.0000 0.0000
 7818.6377 6115.2313 305.7479 -1703.4064 6179.0187
 307.1001 -31.2186 -54.8709 511540.4688 -15.3877
 -15.3914
 [34141]ENERGY: 8580000 3270.6116 5361.2566 5480.8529
 324.3291 -14451.8998 -1669.7084 0.0000 0.0000
 7799.7360 6115.1780 305.0088 -1684.5580 6178.7915
 307.2069 125.2885 54.2702 511540.4688 -14.7724
 -14.7579
 [34177]ENERGY: 8590000 3289.5897 5274.9640 5476.2606
 330.8676 -14475.1117 -1681.5091 0.0000 0.0000
 7901.7145 6116.7756 308.9967 -1784.9388 6180.5114
 307.1272 9.6150 -31.4824 511540.4688 -19.7930
 -19.7973
 [34230]ENERGY: 8600000 3237.5240 5350.4715 5430.5926
 318.4201 -14412.4223 -1671.5917 0.0000 0.0000
 7866.5661 6119.5604 307.6222 -1747.0057 6178.6482
 307.1556 -104.2852 -83.1202 511540.4688 -13.5029
 -13.5110
 [34266]ENERGY: 8610000 3233.9798 5323.4775 5488.4549
 320.5059 -14302.7586 -1763.2920 0.0000 0.0000
 7818.5702 6118.9377 305.7453 -1699.6325 6179.2560

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307.0198	-106.8690	-105.6665	511540.4688	-20.3027
-20.2907				
[34316]ENERGY: 8620000	3247.9236	5348.7757	5442.9030	
318.0064	-14353.3950	-1742.5636	0.0000	0.0000
7851.9509	6113.6008	307.0507	-1738.3500	6179.2316
307.0924	15.7915	-27.8459	511540.4688	-18.7917
-18.8051				
[34352]ENERGY: 8630000	3217.4555	5360.0205	5454.6471	
327.6544	-14348.5106	-1742.3192	0.0000	0.0000
7843.8173	6112.7650	306.7326	-1731.0523	6178.5762
307.2742	-56.6191	-75.9894	511540.4688	-18.6179
-18.6096				
[34402]ENERGY: 8640000	3260.2485	5294.0991	5448.6494	
315.0857	-14341.3542	-1750.0885	0.0000	0.0000
7889.9440	6116.5840	308.5364	-1773.3600	6179.4942
307.3228	-61.5461	-85.4128	511540.4688	-18.3111
-18.3198				
[34438]ENERGY: 8650000	3283.5709	5351.0125	5426.7456	
320.6630	-14482.9656	-1658.3636	0.0000	0.0000
7876.5433	6117.2060	308.0123	-1759.3372	6180.5919
307.4475	69.9294	19.6605	511540.4688	-18.8877
-18.9021				
[34488]ENERGY: 8660000	3162.3288	5385.2078	5460.9067	
317.9292	-14283.9199	-1770.4884	0.0000	0.0000
7846.2242	6118.1884	306.8267	-1728.0358	6180.5373
307.3554	-100.4878	-62.2105	511540.4688	-19.6607
-19.6209				
[34524]ENERGY: 8670000	3259.2607	5316.3530	5481.1270	
306.6368	-14322.1879	-1697.3342	0.0000	0.0000
7776.7331	6120.5885	304.1093	-1656.1446	6181.0817
307.2141	2.3318	118.2189	511540.4688	-17.4104
-17.4291				
[34574]ENERGY: 8680000	3246.8158	5271.3836	5415.2048	
329.8248	-14318.8038	-1672.7144	0.0000	0.0000
7849.2844	6120.9952	306.9464	-1728.2892	6182.6805
307.1952	161.0435	-11.9331	511540.4688	-17.0481
-17.0556				
[34610]ENERGY: 8690000	3247.9538	5355.6880	5483.4969	
318.8076	-14422.4009	-1694.2002	0.0000	0.0000
7832.9911	6122.3363	306.3092	-1710.6547	6183.4895
307.3494	-110.6242	-68.0974	511540.4688	-18.8949
-18.8804				
[34663]ENERGY: 8700000	3271.3929	5476.6068	5452.4041	
333.0614	-14463.1715	-1709.4832	0.0000	0.0000
7762.7102	6123.5208	303.5609	-1639.1894	6184.7217
307.4055	172.5574	97.1740	511540.4688	-15.7984
-15.8268				
[34699]ENERGY: 8710000	3215.2304	5308.5698	5498.7386	
315.1636	-14382.6233	-1696.7032	0.0000	0.0000
7861.5077	6119.8835	307.4244	-1741.6241	6184.4615
307.4427	-56.0633	-116.3326	511540.4688	-16.3174
-16.3086				
[34749]ENERGY: 8720000	3242.1656	5365.0391	5424.2486	
321.9226	-14406.4062	-1652.0806	0.0000	0.0000

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7826.7954	6121.6846	306.0670	-1705.1109	6184.0600
307.3513	-33.0404	-32.8990	511540.4688	-16.8680
-16.8528				
[34785]ENERGY: 8730000	3179.7657	5287.8193	5530.0548	
327.5279	-14360.0218	-1711.0640	0.0000	0.0000
7866.0665	6120.1483	307.6027	-1745.9182	6183.9888
307.2982	144.1894	64.8370	511540.4688	-14.9706
-14.9707				
[34835]ENERGY: 8740000	3236.9299	5327.2826	5467.1737	
329.7050	-14387.3073	-1642.1193	0.0000	0.0000
7788.6692	6120.3338	304.5760	-1668.3354	6182.2699
307.0003	-60.7642	28.2904	511540.4688	-19.7457
-19.7454				
[34871]ENERGY: 8750000	3282.3276	5305.7449	5416.8472	
309.0458	-14370.2713	-1671.5952	0.0000	0.0000
7846.8099	6118.9089	306.8496	-1727.9010	6183.7036
307.2191	230.5784	87.7743	511540.4688	-16.4209
-16.4327				
[34921]ENERGY: 8760000	3362.4940	5382.6234	5419.1216	
325.5453	-14424.4574	-1735.5008	0.0000	0.0000
7797.0016	6126.8277	304.9019	-1670.1739	6184.4625
307.2273	-89.5089	-181.3633	511540.4688	-17.5991
-17.6083				
[34957]ENERGY: 8770000	3301.9194	5355.2086	5457.7520	
323.6757	-14463.2510	-1696.8950	0.0000	0.0000
7845.1343	6123.5441	306.7841	-1721.5902	6185.1023
307.2675	118.4907	87.6472	511540.4688	-21.0036
-20.9888				
[35007]ENERGY: 8780000	3348.5513	5301.1647	5440.9876	
320.6135	-14356.3060	-1742.3649	0.0000	0.0000
7810.2711	6122.9172	305.4208	-1687.3539	6184.7103
307.0769	-121.5651	-112.2150	511540.4688	-18.8904
-18.8965				
[35043]ENERGY: 8790000	3218.4282	5390.7365	5454.8984	
330.9368	-14448.4763	-1669.2884	0.0000	0.0000
7844.0318	6121.2669	306.7410	-1722.7649	6186.6780
307.3013	136.7298	42.6589	511540.4688	-18.8319
-18.8179				
[35096]ENERGY: 8800000	3274.3959	5326.3987	5491.3187	
324.3949	-14427.8246	-1711.3724	0.0000	0.0000
7847.0716	6124.3828	306.8599	-1722.6889	6187.4027
307.4624	109.3562	35.3853	511540.4688	-19.8305
-19.8574				
[35132]ENERGY: 8810000	3279.4933	5262.3587	5438.1033	
312.7730	-14313.6900	-1724.1656	0.0000	0.0000
7869.1964	6124.0691	307.7250	-1745.1272	6186.4890
307.4566	240.1065	220.7002	511540.4688	-15.9984
-15.9827				
[35182]ENERGY: 8820000	3293.6628	5372.0606	5418.7176	
305.2522	-14325.2660	-1769.9459	0.0000	0.0000
7832.9856	6127.4669	306.3090	-1705.5187	6187.1631
307.2860	-141.4316	-102.5031	511540.4688	-20.9769
-20.9934				
[35218]ENERGY: 8830000	3189.8084	5265.0804	5517.7613	

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298.0804	-14297.1035	-1717.5904	0.0000	0.0000
7868.1323	6124.1689	307.6834	-1743.9634	6187.1253
307.2025	39.6868	101.7684	511540.4688	-16.3869
-16.3681				
[35268]ENERGY: 8840000	3235.6683	5386.4858	5431.8672	
312.5202	-14426.4547	-1719.1817	0.0000	0.0000
7902.1666	6123.0718	309.0143	-1779.0948	6187.1218
307.3035	-77.6224	41.4956	511540.4688	-12.3856
-12.3564				
[35304]ENERGY: 8850000	3283.8880	5369.4481	5448.1020	
327.8135	-14360.5913	-1753.0349	0.0000	0.0000
7812.6315	6128.2571	305.5131	-1684.3745	6188.7953
307.3191	-126.2699	-127.5710	511540.4688	-16.0618
-16.0957				
[35354]ENERGY: 8860000	3284.7224	5340.2780	5414.9563	
322.5553	-14419.2034	-1652.2662	0.0000	0.0000
7834.7714	6125.8139	306.3789	-1708.9575	6188.2669
307.1817	82.8892	75.0836	511540.4688	-15.2445
-15.2508				
[35390]ENERGY: 8870000	3267.8588	5349.5797	5428.2842	
321.7304	-14352.0592	-1757.2544	0.0000	0.0000
7866.9805	6125.1201	307.6384	-1741.8604	6188.7894
307.2602	-23.2924	14.3402	511540.4688	-14.4011
-14.3810				
[35440]ENERGY: 8880000	3246.8707	5439.9977	5465.3522	
332.3863	-14359.7468	-1761.4809	0.0000	0.0000
7763.1882	6126.5672	303.5796	-1636.6209	6188.1884
307.1529	19.8203	-35.9273	511540.4688	-19.2885
-19.2915				
[35476]ENERGY: 8890000	3196.2272	5279.1755	5416.8341	
352.4179	-14310.2621	-1693.4545	0.0000	0.0000
7882.2254	6123.1635	308.2345	-1759.0619	6186.8382
307.2867	-91.9229	-44.9649	511540.4688	-18.8110
-18.8044				
[35529]ENERGY: 8900000	3257.5678	5293.8489	5488.6445	
312.8130	-14351.9139	-1707.7327	0.0000	0.0000
7834.4193	6127.6468	306.3651	-1706.7725	6188.7662
307.4440	-118.2116	-11.1059	511540.4688	-16.9707
-16.9668				
[35565]ENERGY: 8910000	3333.8335	5287.9346	5443.5087	
314.2074	-14387.5349	-1678.6149	0.0000	0.0000
7812.0131	6125.3475	305.4889	-1686.6656	6189.2039
307.3415	-185.9688	-89.0698	511540.4688	-18.7404
-18.7410				
[35615]ENERGY: 8920000	3246.6962	5387.8491	5469.9718	
312.8869	-14408.9546	-1685.0863	0.0000	0.0000
7801.0646	6124.4277	305.0608	-1676.6369	6186.9648
307.3200	-32.6736	57.7351	511540.4688	-16.6307
-16.6415				
[35651]ENERGY: 8930000	3187.5854	5374.4641	5452.5257	
317.3893	-14372.1130	-1624.2675	0.0000	0.0000
7794.0529	6129.6369	304.7866	-1664.4160	6189.4295
307.4145	342.9132	244.6935	511540.4688	-17.2679
-17.2732				

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[35701]ENERGY: 8940000	3296.1820	5312.5366	5487.0948	
315.5233	-14359.9922	-1732.6869	0.0000	0.0000
7809.8301	6128.4877	305.4035	-1681.3424	6189.3881
307.5664	-131.8163	-93.1451	511540.4688	-15.3122
-15.3069				
[35737]ENERGY: 8950000	3273.5988	5338.8236	5417.6302	
330.9404	-14324.2212	-1770.8922	0.0000	0.0000
7861.1388	6127.0183	307.4100	-1734.1205	6189.4608
307.3982	174.0525	42.1110	511540.4688	-17.5485
-17.5664				
[35787]ENERGY: 8960000	3263.5571	5355.8850	5509.5654	
307.5702	-14329.1071	-1756.8606	0.0000	0.0000
7777.7082	6128.3182	304.1474	-1649.3900	6190.1507
307.4080	-100.1783	-85.4387	511540.4688	-13.4934
-13.4935				
[35823]ENERGY: 8970000	3203.4965	5346.1560	5473.9214	
318.3779	-14370.6086	-1708.2195	0.0000	0.0000
7861.7982	6124.9221	307.4357	-1736.8762	6189.9424
307.4559	247.2667	201.3922	511540.4688	-12.4602
-12.4474				
[35873]ENERGY: 8980000	3212.8514	5360.6685	5475.7214	
332.8086	-14318.6990	-1765.6973	0.0000	0.0000
7828.2581	6125.9117	306.1242	-1702.3464	6190.3586
307.4778	190.4382	-9.7323	511540.4688	-19.8597
-19.8605				
[35909]ENERGY: 8990000	3258.3781	5318.3172	5431.9548	
322.4064	-14357.8065	-1744.4445	0.0000	0.0000
7892.3651	6121.1705	308.6311	-1771.1946	6189.3288
307.3676	-47.8260	-28.9016	511540.4688	-17.7665
-17.7531				
[35962]ENERGY: 9000000	3298.9106	5367.8559	5427.7364	
322.2336	-14426.3195	-1724.6382	0.0000	0.0000
7858.4776	6124.2564	307.3059	-1734.2212	6189.5860
307.4779	-156.2830	-133.5547	511540.4688	-13.4414
-13.4550				
[35998]ENERGY: 9010000	3212.1604	5295.5450	5495.1111	
338.4132	-14387.4550	-1688.4025	0.0000	0.0000
7860.8306	6126.2027	307.3979	-1734.6279	6190.9194
307.3544	231.9439	137.5037	511540.4688	-19.2507
-19.2439				
[36048]ENERGY: 9020000	3229.1443	5339.9680	5413.1994	
308.7609	-14385.3163	-1658.5415	0.0000	0.0000
7880.5140	6127.7287	308.1676	-1752.7853	6191.5116
307.2332	142.3386	109.2290	511540.4688	-14.6548
-14.6594				
[36084]ENERGY: 9030000	3253.3914	5379.5880	5499.8563	
323.5192	-14321.3414	-1762.0578	0.0000	0.0000
7754.9323	6127.8881	303.2567	-1627.0442	6190.3100
307.2635	-19.5437	-33.6545	511540.4688	-18.6727
-18.6863				
[36134]ENERGY: 9040000	3197.2150	5322.6061	5532.1944	
323.5563	-14323.9200	-1748.3167	0.0000	0.0000
7824.8283	6128.1633	305.9900	-1696.6649	6191.0457
307.2671	-69.9168	14.5744	511540.4688	-17.3320

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-17.3068
 [36170]ENERGY: 9050000 3279.9509 5363.9874 5483.3298
 304.3232 -14330.1155 -1773.6490 0.0000 0.0000
 7801.1890 6129.0158 305.0656 -1672.1732 6191.2268
 307.1636 -159.5533 -153.0240 511540.4688 -15.0783
 -15.0899
 [36220]ENERGY: 9060000 3243.7986 5304.5280 5438.3899
 338.5577 -14385.3027 -1685.8570 0.0000 0.0000
 7873.0399 6127.1545 307.8753 -1745.8855 6190.6301
 307.2960 79.7510 50.6427 511540.4688 -19.5868
 -19.5812
 [36256]ENERGY: 9070000 3199.8412 5313.5653 5488.5695
 308.8809 -14397.9400 -1708.6437 0.0000 0.0000
 7920.3464 6124.6195 309.7253 -1795.7269 6189.5330
 307.4809 101.8561 87.4673 511540.4688 -15.9371
 -15.9604
 [36306]ENERGY: 9080000 3304.6782 5380.6146 5500.4515
 326.6170 -14407.6712 -1767.0058 0.0000 0.0000
 7788.6052 6126.2894 304.5735 -1662.3157 6189.6368
 307.3787 -207.7668 -150.5759 511540.4688 -15.7769
 -15.7517
 [36342]ENERGY: 9090000 3248.3810 5426.4277 5474.8278
 331.9171 -14380.1964 -1680.7687 0.0000 0.0000
 7707.8786 6128.4671 301.4167 -1579.4114 6190.6597
 307.3572 -3.5672 -45.6558 511540.4688 -13.7106
 -13.7280
 [36395]ENERGY: 9100000 3176.6734 5307.5471 5500.7148
 335.4186 -14341.5939 -1714.0239 0.0000 0.0000
 7862.6848 6127.4209 307.4704 -1735.2639 6190.3741
 307.4349 149.2849 118.6831 511540.4688 -16.1496
 -16.1308
 [36431]ENERGY: 9110000 3192.0990 5271.3765 5449.3778
 314.1639 -14327.5683 -1731.9028 0.0000 0.0000
 7957.4396 6124.9856 311.1758 -1832.4540 6189.2706
 307.3613 -44.3283 -67.8627 511540.4688 -14.5822
 -14.5923
 [36481]ENERGY: 9120000 3217.3257 5302.1441 5452.1014
 332.0076 -14456.8228 -1713.7370 0.0000 0.0000
 7990.4868 6123.5059 312.4681 -1866.9809 6189.8087
 307.3827 68.3645 28.9882 511540.4688 -14.8578
 -14.8508
 [36517]ENERGY: 9130000 3231.6078 5250.3857 5463.0736
 320.1696 -14367.2282 -1751.1656 0.0000 0.0000
 7976.1451 6122.9881 311.9073 -1853.1570 6189.5897
 307.4902 8.4311 -93.7919 511540.4688 -14.4375
 -14.4406
 [36567]ENERGY: 9140000 3267.3720 5360.6375 5456.7924
 355.5231 -14350.1756 -1730.3981 0.0000 0.0000
 7766.4783 6126.2294 303.7083 -1640.2488 6189.9419
 307.4621 -131.9947 -70.6834 511540.4688 -14.0892
 -14.0860
 [36603]ENERGY: 9150000 3206.7802 5313.3851 5417.4964
 324.4760 -14312.2454 -1731.9525 0.0000 0.0000
 7907.6313 6125.5712 309.2280 -1782.0601 6190.9986

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307.4829	-78.1706	4.9036	511540.4688	-11.8709
-11.8593				
[36653]ENERGY: 9160000	3381.8190	5295.0616	5473.8762	
311.3767	-14410.1008	-1752.1082	0.0000	0.0000
7829.3059	6129.2304	306.1651	-1700.0755	6191.9242
307.3905	-18.9195	-95.4437	511540.4688	-21.9352
-21.9530				
[36689]ENERGY: 9170000	3263.9351	5257.4528	5504.2708	
323.9109	-14399.2648	-1676.0352	0.0000	0.0000
7855.9334	6130.2030	307.2064	-1725.7304	6191.3782
307.4710	-40.2844	-63.9432	511540.4688	-18.0007
-17.9974				
[36739]ENERGY: 9180000	3159.0858	5383.0905	5415.9698	
319.3973	-14404.5265	-1684.6439	0.0000	0.0000
7937.7796	6126.1526	310.4070	-1811.6270	6191.8275
307.2553	106.9331	127.0940	511540.4688	-14.5766
-14.5825				
[36775]ENERGY: 9190000	3287.0567	5378.5211	5450.7280	
315.4911	-14387.3557	-1737.3297	0.0000	0.0000
7821.5707	6128.6821	305.8626	-1692.8886	6192.4042
307.2415	-116.2223	-93.0533	511540.4688	-18.7471
-18.7447				
[36828]ENERGY: 9200000	3236.2923	5289.5237	5481.4114	
312.7053	-14284.0972	-1745.4739	0.0000	0.0000
7839.0545	6129.4160	306.5463	-1709.6385	6192.1391
307.2611	-131.5576	5.6112	511540.4688	-16.1958
-16.1675				
[36864]ENERGY: 9210000	3248.5038	5307.2613	5427.2244	
330.7679	-14448.2931	-1670.0526	0.0000	0.0000
7929.5903	6125.0020	310.0868	-1804.5883	6190.8480
307.2982	-37.3865	-56.5530	511540.4688	-14.6050
-14.6403				
[36914]ENERGY: 9220000	3234.4025	5343.7780	5401.7573	
315.2723	-14326.3579	-1693.9757	0.0000	0.0000
7853.5931	6128.4696	307.1149	-1725.1235	6191.3061
307.2256	30.1242	41.8217	511540.4688	-16.0528
-16.0322				
[36950]ENERGY: 9230000	3306.0297	5349.1343	5413.4867	
311.3397	-14342.6979	-1729.6834	0.0000	0.0000
7819.1171	6126.7262	305.7667	-1692.3909	6191.8774
307.3091	-106.3041	-131.1083	511540.4688	-13.8040
-13.8097				
[37000]ENERGY: 9240000	3296.5541	5337.2453	5444.3617	
342.4295	-14384.0343	-1659.7471	0.0000	0.0000
7753.4447	6130.2538	303.1986	-1623.1908	6190.2450
307.0958	47.8197	111.4716	511540.4688	-25.4982
-25.5081				
[37036]ENERGY: 9250000	3232.1194	5298.4306	5461.1809	
306.4489	-14388.8275	-1673.5920	0.0000	0.0000
7892.8385	6128.5987	308.6496	-1764.2397	6191.5973
307.3921	50.3357	16.3080	511540.4688	-16.1087
-16.1023				
[37086]ENERGY: 9260000	3220.1485	5217.3767	5497.0255	
321.3274	-14364.4727	-1668.9570	0.0000	0.0000

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7906.1052	6128.5536	309.1684	-1777.5516	6191.8723
307.4809	72.1517	40.6796	511540.4688	-19.7225
-19.7257				
[37122]ENERGY: 9270000	3290.5167	5344.0145	5495.4677	
304.5606	-14401.0374	-1698.1484	0.0000	0.0000
7791.6650	6127.0386	304.6932	-1664.6263	6191.5049
307.4422	-103.4770	106.2646	511540.4688	-17.8110
-17.8159				
[37172]ENERGY: 9280000	3247.1930	5228.7398	5519.4219	
304.4632	-14355.7309	-1692.3871	0.0000	0.0000
7875.3619	6127.0617	307.9661	-1748.3003	6192.2461
307.2292	-86.0449	-43.1589	511540.4688	-17.4954
-17.5067				
[37208]ENERGY: 9290000	3218.4109	5327.9864	5478.7848	
317.7772	-14384.2225	-1719.9658	0.0000	0.0000
7889.0116	6127.7827	308.4999	-1761.2289	6191.7331
307.1855	128.2884	14.6550	511540.4688	-18.3779
-18.3803				
[37261]ENERGY: 9300000	3238.4053	5338.2102	5450.1171	
309.9450	-14350.0242	-1652.6417	0.0000	0.0000
7797.8163	6131.8281	304.9337	-1665.9882	6194.7311
307.3351	5.6840	-18.8630	511540.4688	-18.0906
-18.0755				
[37297]ENERGY: 9310000	3211.7166	5389.3459	5456.1847	
312.7876	-14379.2405	-1685.7686	0.0000	0.0000
7825.0106	6130.0364	305.9972	-1694.9742	6191.7860
307.2368	152.4499	90.3834	511540.4688	-18.4528
-18.4418				
[37347]ENERGY: 9320000	3226.8303	5306.2683	5446.5025	
316.5407	-14337.5462	-1731.9276	0.0000	0.0000
7903.7284	6130.3964	309.0754	-1773.3320	6194.4149
307.5686	155.7637	21.4981	511540.4688	-16.5231
-16.5438				
[37383]ENERGY: 9330000	3292.8547	5270.6192	5465.5454	
321.2403	-14396.3695	-1672.9831	0.0000	0.0000
7845.8392	6126.7463	306.8117	-1719.0929	6192.8756
307.5272	-185.5091	-187.3246	511540.4688	-14.8729
-14.8496				
[37433]ENERGY: 9340000	3262.1787	5350.5367	5442.7746	
324.8857	-14353.8905	-1664.9209	0.0000	0.0000
7771.2621	6132.8264	303.8953	-1638.4357	6194.3038
307.3116	214.6410	172.4144	511540.4688	-16.7908
-16.8065				
[37469]ENERGY: 9350000	3282.8456	5230.4928	5444.0726	
331.3393	-14412.9561	-1674.8665	0.0000	0.0000
7929.8896	6130.8173	310.0985	-1799.0723	6193.4770
307.3096	51.8685	7.9829	511540.4688	-18.9545
-18.9556				
[37519]ENERGY: 9360000	3316.1278	5261.2555	5453.1615	
330.9423	-14265.5250	-1792.8346	0.0000	0.0000
7831.7731	6134.9007	306.2616	-1696.8724	6193.3718
307.3545	-144.8454	-152.5929	511540.4688	-20.9106
-20.8982				
[37555]ENERGY: 9370000	3232.6091	5300.0009	5475.7049	

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334.4799	-14461.9672	-1657.5291	0.0000	0.0000
7905.4833	6128.7817	309.1440	-1776.7015	6194.5398
307.4654	41.6823	-19.1117	511540.4688	-18.5993
-18.6129				
[37605]ENERGY: 9380000	3279.0120	5335.0418	5469.8938	
329.6757	-14391.3508	-1729.4267	0.0000	0.0000
7837.4216	6130.2674	306.4825	-1707.1542	6194.6388
307.3669	93.1633	41.3494	511540.4688	-19.8164
-19.8178				
[37641]ENERGY: 9390000	3228.6071	5238.1962	5421.9957	
329.1353	-14345.0772	-1693.7654	0.0000	0.0000
7952.1314	6131.2231	310.9682	-1820.9083	6194.7110
307.2966	-0.5879	-45.6729	511540.4688	-18.5703
-18.5387				
[37694]ENERGY: 9400000	3243.0164	5342.8943	5472.1055	
340.5108	-14333.2794	-1761.5359	0.0000	0.0000
7826.5487	6130.2605	306.0573	-1696.2882	6195.8106
307.2315	214.0785	-0.0822	511540.4688	-18.8414
-18.8552				
[37730]ENERGY: 9410000	3239.7158	5266.9838	5460.1205	
337.0278	-14341.3917	-1666.2034	0.0000	0.0000
7836.6655	6132.9185	306.4529	-1703.7471	6195.9599
307.4183	55.2961	59.7126	511540.4688	-20.1416
-20.1403				
[37780]ENERGY: 9420000	3350.5205	5315.7298	5420.6054	
310.5204	-14331.9219	-1777.9600	0.0000	0.0000
7847.3628	6134.8570	306.8712	-1712.5059	6195.4203
307.2819	-167.8281	-51.8011	511540.4688	-22.7414
-22.7578				
[37816]ENERGY: 9430000	3310.9400	5325.2559	5440.7784	
307.9094	-14342.5582	-1744.7671	0.0000	0.0000
7835.3437	6132.9021	306.4012	-1702.4417	6195.9382
307.2908	-258.3162	-201.6313	511540.4688	-14.7640
-14.7374				
[37866]ENERGY: 9440000	3290.0275	5372.2106	5464.8053	
343.0500	-14348.9431	-1740.9670	0.0000	0.0000
7753.3734	6133.5567	303.1958	-1619.8167	6195.1226
307.3430	-251.3546	-250.4667	511540.4688	-20.8677
-20.8815				
[37902]ENERGY: 9450000	3249.4730	5366.2552	5477.5662	
334.9666	-14442.5831	-1668.2033	0.0000	0.0000
7815.5171	6132.9917	305.6259	-1682.5254	6193.9834
307.2850	53.2298	19.7802	511540.4688	-17.8030
-17.7982				
[37952]ENERGY: 9460000	3266.7774	5309.6167	5452.9204	
308.0589	-14400.7517	-1671.2890	0.0000	0.0000
7863.1708	6128.5035	307.4894	-1734.6673	6194.2696
307.2606	5.7411	-5.5310	511540.4688	-22.4523
-22.4545				
[37988]ENERGY: 9470000	3282.2421	5283.8485	5462.9818	
335.2113	-14352.1910	-1705.9853	0.0000	0.0000
7827.3770	6133.4844	306.0897	-1693.8926	6194.2049
307.2892	-76.3996	-61.5878	511540.4688	-22.7120
-22.7112				

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[38038]ENERGY: 9480000	3294.7698	5319.5384	5405.9344	
306.1155	-14331.6705	-1733.2149	0.0000	0.0000
7867.0757	6128.5485	307.6421	-1738.5272	6193.6452
307.2279	-79.4615	-122.3456	511540.4688	-22.7727
-22.7845				
[38074]ENERGY: 9490000	3331.5682	5360.3365	5409.8816	
331.7118	-14376.7126	-1750.6962	0.0000	0.0000
7828.5560	6134.6453	306.1358	-1693.9106	6195.0732
307.4084	-257.2582	-248.3808	511540.4688	-22.8486
-22.8550				
[38127]ENERGY: 9500000	3292.2138	5307.8598	5456.2959	
319.0874	-14450.2012	-1665.9779	0.0000	0.0000
7869.5914	6128.8692	307.7405	-1740.7222	6194.2286
307.3052	111.5739	103.6881	511540.4688	-19.6872
-19.6806				
[38163]ENERGY: 9510000	3222.5367	5351.2759	5466.3568	
335.9071	-14326.9563	-1702.7118	0.0000	0.0000
7784.8447	6131.2532	304.4265	-1653.5916	6195.2394
307.5000	113.0156	153.5277	511540.4688	-24.0584
-24.0318				
[38213]ENERGY: 9520000	3256.4728	5324.8255	5474.2150	
324.1225	-14441.4252	-1669.8103	0.0000	0.0000
7863.1714	6131.5717	307.4894	-1731.5997	6193.8542
307.6155	-202.7616	-134.6931	511540.4688	-22.1733
-22.1879				
[38249]ENERGY: 9530000	3300.0622	5372.9810	5421.9765	
310.3737	-14299.9191	-1778.6296	0.0000	0.0000
7802.8738	6129.7185	305.1315	-1673.1552	6194.7597
307.5539	81.8995	54.5597	511540.4688	-18.1762
-18.2035				
[38299]ENERGY: 9540000	3249.4096	5287.1362	5471.1742	
325.9597	-14379.3019	-1753.6330	0.0000	0.0000
7931.2548	6131.9996	310.1518	-1799.2553	6196.1468
307.3247	-260.1040	-248.3984	511540.4688	-16.7174
-16.7070				
[38335]ENERGY: 9550000	3132.0273	5183.5798	5483.1353	
327.8993	-14248.2413	-1718.8120	0.0000	0.0000
7969.3744	6128.9629	311.6425	-1840.4115	6195.9485
307.4584	131.9589	90.2854	511540.4688	-17.9924
-17.9828				
[38385]ENERGY: 9560000	3243.6430	5353.1718	5495.7864	
309.2896	-14366.2028	-1705.9661	0.0000	0.0000
7804.7284	6134.4503	305.2040	-1670.2781	6196.7785
307.4916	23.6201	-4.8094	511540.4688	-17.4169
-17.4220				
[38421]ENERGY: 9570000	3232.8774	5332.8011	5461.9198	
299.3216	-14377.2241	-1696.8789	0.0000	0.0000
7879.6516	6132.4685	308.1339	-1747.1831	6195.5900
307.7215	0.0595	76.5258	511540.4688	-18.9709
-18.9404				
[38471]ENERGY: 9580000	3295.6455	5261.6694	5439.5384	
320.4710	-14337.8857	-1702.6480	0.0000	0.0000
7856.5383	6133.3288	307.2301	-1723.2095	6195.3964
307.7810	-17.9715	-95.4535	511540.4688	-21.2216

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-21.2417
 [38507]ENERGY: 9590000 3285.0236 5322.0912 5479.6497
 297.5682 -14437.4116 -1696.5652 0.0000 0.0000
 7879.4926 6129.8486 308.1277 -1749.6440 6196.6767
 307.4428 101.8894 102.8899 511540.4688 -17.7557
 -17.7982
 [38560]ENERGY: 9600000 3196.8417 5292.5515 5441.3758
 329.8793 -14382.9658 -1610.0258 0.0000 0.0000
 7865.6223 6133.2791 307.5853 -1732.3433 6195.4419
 307.5196 145.2261 168.1447 511540.4688 -19.2597
 -19.2175
 [38596]ENERGY: 9610000 3289.3911 5295.3227 5481.5977
 314.7608 -14412.4454 -1686.5622 0.0000 0.0000
 7850.9317 6132.9963 307.0108 -1717.9353 6196.9142
 307.5762 155.1345 35.8130 511540.4688 -16.5958
 -16.5916
 [38646]ENERGY: 9620000 3194.0118 5278.5741 5398.9610
 325.1981 -14248.6633 -1776.7957 0.0000 0.0000
 7962.8163 6134.1023 311.3861 -1828.7140 6196.8578
 307.6230 48.3444 -104.0927 511540.4688 -17.5080
 -17.5342
 [38682]ENERGY: 9630000 3353.2844 5335.1069 5441.5790
 299.3631 -14307.8240 -1773.4887 0.0000 0.0000
 7787.0660 6135.0867 304.5133 -1651.9793 6196.1300
 307.7543 -209.9053 -229.5033 511540.4688 -21.6547
 -21.6334
 [38732]ENERGY: 9640000 3380.2584 5294.4443 5494.5797
 345.6032 -14451.4989 -1767.1122 0.0000 0.0000
 7834.7551 6131.0296 306.3782 -1703.7255 6196.0367
 307.6344 -283.3722 -297.4211 511540.4688 -24.6857
 -24.6792
 [38768]ENERGY: 9650000 3303.7072 5337.3097 5461.6735
 311.6011 -14329.9584 -1753.7909 0.0000 0.0000
 7804.8173 6135.3596 305.2075 -1669.4577 6196.5546
 307.3814 35.6319 19.8987 511540.4688 -19.1532
 -19.1711
 [38818]ENERGY: 9660000 3308.6497 5317.0268 5456.2473
 332.3205 -14374.5442 -1720.6594 0.0000 0.0000
 7817.0280 6136.0688 305.6850 -1680.9592 6197.0571
 307.5154 98.6506 -5.8678 511540.4688 -21.9426
 -21.9265
 [38854]ENERGY: 9670000 3199.6888 5346.5554 5493.4092
 314.5197 -14373.5294 -1735.1015 0.0000 0.0000
 7885.5982 6131.1404 308.3664 -1754.4578 6196.3851
 307.5073 -38.6982 -36.4215 511540.4688 -20.1386
 -20.1459
 [38904]ENERGY: 9680000 3299.2214 5319.8721 5454.0792
 336.4419 -14423.3326 -1708.6419 0.0000 0.0000
 7854.5904 6132.2304 307.1539 -1722.3600 6196.7879
 307.5818 73.6829 114.1449 511540.4688 -19.4805
 -19.4604
 [38940]ENERGY: 9690000 3335.5617 5329.2300 5436.5720
 333.5858 -14342.4872 -1808.8167 0.0000 0.0000
 7850.7479 6134.3935 307.0036 -1716.3544 6197.4505

Supplementary Text 6

307.8010	-372.0382	-304.3765	511540.4688	-18.8203
-18.8232				
[38993]ENERGY: 9700000	3276.9924	5304.4034	5427.5284	
330.8324	-14304.1769	-1669.4182	0.0000	0.0000
7768.3857	6134.5473	303.7828	-1633.8384	6197.2601
307.7437	-35.3937	-0.8679	511540.4688	-23.7785
-23.7899				
[39029]ENERGY: 9710000	3261.5540	5281.9446	5477.3621	
336.5118	-14296.1830	-1799.5524	0.0000	0.0000
7873.6468	6135.2840	307.8991	-1738.3629	6197.7441
307.3863	-62.6939	-88.5736	511540.4688	-18.3419
-18.3317				
[39079]ENERGY: 9720000	3252.7837	5356.6398	5440.5940	
330.4467	-14307.5966	-1756.4257	0.0000	0.0000
7817.2977	6133.7397	305.6955	-1683.5580	6197.2364
307.3823	-2.6516	54.8870	511540.4688	-20.1945
-20.2073				
[39115]ENERGY: 9730000	3274.3248	5319.2522	5448.0805	
327.8218	-14266.7703	-1795.9076	0.0000	0.0000
7827.2402	6134.0417	306.0844	-1693.1986	6197.0754
307.3324	-176.2592	-110.9795	511540.4688	-20.5148
-20.5291				
[39165]ENERGY: 9740000	3333.1088	5287.7989	5436.6237	
323.1925	-14386.6706	-1646.9812	0.0000	0.0000
7789.8751	6136.9472	304.6232	-1652.9279	6196.5227
307.6510	-130.5890	-146.6053	511540.4688	-16.5142
-16.5084				
[39201]ENERGY: 9750000	3285.3069	5239.3301	5481.9213	
342.9980	-14389.8075	-1731.2697	0.0000	0.0000
7902.8566	6131.3356	309.0413	-1771.5210	6197.4535
307.6759	-30.8471	-44.3701	511540.4688	-14.5707
-14.5569				
[39251]ENERGY: 9760000	3163.0285	5304.0698	5495.4973	
302.6502	-14418.9978	-1689.3072	0.0000	0.0000
7979.1161	6136.0569	312.0235	-1843.0591	6197.7930
307.6393	68.9372	17.8115	511540.4688	-12.2234
-12.2541				
[39287]ENERGY: 9770000	3305.2330	5316.4715	5440.4601	
316.7301	-14423.6077	-1703.4811	0.0000	0.0000
7882.2850	6134.0910	308.2369	-1748.1941	6198.3839
307.8242	-101.7939	-55.3556	511540.4688	-13.5543
-13.5289				
[39337]ENERGY: 9780000	3286.2112	5284.1032	5452.7756	
312.8710	-14336.7353	-1728.2265	0.0000	0.0000
7867.1657	6138.1649	307.6456	-1729.0007	6198.6850
307.7634	-115.4131	-142.0771	511540.4688	-12.4617
-12.4437				
[39373]ENERGY: 9790000	3314.1938	5313.1813	5442.3793	
318.9636	-14379.9588	-1691.9368	0.0000	0.0000
7819.2280	6136.0505	305.7710	-1683.1775	6198.7508
307.6809	217.8606	83.4797	511540.4688	-15.9247
-15.9528				
[39426]ENERGY: 9800000	3294.8122	5368.7854	5394.8191	
325.2471	-14344.9786	-1728.5794	0.0000	0.0000

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7829.0750	6139.1808	306.1561	-1689.8942	6199.5352
307.7340	5.3279	12.7924	511540.4688	-17.6241
-17.6226				
[39462]ENERGY: 9810000	3286.2460	5294.5511	5393.4009	
309.0122	-14352.2274	-1699.5052	0.0000	0.0000
7900.9366	6132.4141	308.9662	-1768.5225	6198.8115
307.7481	21.9049	-135.3792	511540.4688	-14.5194
-14.5081				
[39512]ENERGY: 9820000	3118.8066	5423.6963	5436.6662	
318.7173	-14407.6903	-1729.3005	0.0000	0.0000
7970.7736	6131.6692	311.6972	-1839.1044	6198.7584
307.6920	91.8928	83.3867	511540.4688	-9.0537
-9.0718				
[39548]ENERGY: 9830000	3267.7113	5339.5029	5455.4300	
317.8703	-14327.6512	-1769.5558	0.0000	0.0000
7853.3593	6136.6668	307.1057	-1716.6925	6198.2640
307.4608	-123.4138	-147.7022	511540.4688	-18.4717
-18.4707				
[39598]ENERGY: 9840000	3226.7116	5343.3586	5474.1866	
341.9377	-14471.2793	-1661.3034	0.0000	0.0000
7879.8421	6133.4539	308.1413	-1746.3882	6199.2027
307.4517	-48.8542	-64.0722	511540.4688	-12.4734
-12.4731				
[39634]ENERGY: 9850000	3254.4559	5338.1556	5430.8708	
307.8221	-14293.6540	-1674.5582	0.0000	0.0000
7777.6555	6140.7477	304.1453	-1636.9078	6201.9811
307.5065	128.2004	13.1589	511540.4688	-13.6048
-13.5975				
[39684]ENERGY: 9860000	3313.9813	5297.2381	5430.6254	
299.4085	-14379.6328	-1674.9512	0.0000	0.0000
7853.4467	6140.1159	307.1092	-1713.3308	6202.3252
307.4829	-38.9455	-36.5737	511540.4688	-12.6450
-12.6338				
[39720]ENERGY: 9870000	3180.1284	5280.8707	5494.3149	
334.6166	-14300.8216	-1710.8807	0.0000	0.0000
7859.2022	6137.4304	307.3342	-1721.7717	6202.5528
307.5007	257.0650	107.6377	511540.4688	-13.2992
-13.3192				
[39770]ENERGY: 9880000	3284.5320	5242.6180	5450.6813	
309.8499	-14318.3392	-1742.6944	0.0000	0.0000
7912.1801	6138.8278	309.4059	-1773.3523	6202.8335
307.3204	19.3309	4.2389	511540.4688	-12.1161
-12.1113				
[39806]ENERGY: 9890000	3294.6827	5275.6645	5473.7062	
320.9579	-14445.0970	-1689.0460	0.0000	0.0000
7910.2408	6141.1090	309.3301	-1769.1318	6202.8201
307.5656	76.6588	79.8610	511540.4688	-12.5260
-12.5107				
[39859]ENERGY: 9900000	3254.1648	5297.4182	5501.8762	
332.8024	-14341.6454	-1739.2191	0.0000	0.0000
7834.7939	6140.1911	306.3797	-1694.6028	6203.6822
307.4405	-17.0522	-48.1992	511540.4688	-8.9403
-8.9520				
[39895]ENERGY: 9910000	3155.5488	5361.8460	5364.4159	

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316.4572	-14270.3711	-1689.7919	0.0000	0.0000
7900.2969	6138.4019	308.9412	-1761.8950	6203.7312
307.5026	27.0999	25.8103	511540.4688	-15.4289
-15.4232				
[39945]ENERGY: 9920000	3269.3981	5172.8039	5434.4729	
314.4013	-14339.8798	-1719.3981	0.0000	0.0000
8006.8575	6138.6558	313.1083	-1868.2017	6203.4555
307.3898	-7.1545	-29.3806	511540.4688	-13.9719
-13.9760				
[39981]ENERGY: 9930000	3237.7846	5297.6955	5465.2039	
345.0559	-14381.7247	-1681.2297	0.0000	0.0000
7855.8417	6138.6272	307.2028	-1717.2145	6202.5956
307.5113	219.5050	167.1770	511540.4688	-15.3471
-15.3389				
[40031]ENERGY: 9940000	3193.1349	5379.2533	5526.0669	
322.0517	-14366.8133	-1767.8389	0.0000	0.0000
7854.3655	6140.2199	307.1451	-1714.1455	6204.0161
307.6087	-44.1337	-8.4313	511540.4688	-14.9536
-14.9513				
[40067]ENERGY: 9950000	3160.3474	5293.1349	5507.9227	
325.7819	-14344.9964	-1654.3187	0.0000	0.0000
7852.3121	6140.1839	307.0648	-1712.1282	6204.0457
307.4243	95.1921	74.5281	511540.4688	-13.4878
-13.4802				
[40117]ENERGY: 9960000	3300.5388	5331.6889	5503.2155	
306.9971	-14406.4474	-1714.7636	0.0000	0.0000
7819.9102	6141.1395	305.7977	-1678.7707	6203.2378
307.1898	69.1421	-62.9680	511540.4688	-16.3069
-16.3256				
[40153]ENERGY: 9970000	3249.9267	5340.4633	5474.2514	
342.6233	-14447.9400	-1646.7497	0.0000	0.0000
7828.3273	6140.9024	306.1269	-1687.4249	6204.0301
307.0164	184.3305	85.3423	511540.4688	-18.1400
-18.1288				
[40203]ENERGY: 9980000	3256.2339	5352.1589	5467.4315	
304.7646	-14375.0382	-1772.4827	0.0000	0.0000
7905.3722	6138.4402	309.1397	-1766.9320	6203.1766
306.9952	-309.5442	-190.1213	511540.4688	-12.8357
-12.8414				
[40239]ENERGY: 9990000	3257.9410	5310.6951	5461.7967	
318.2240	-14417.0681	-1706.3648	0.0000	0.0000
7913.4669	6138.6908	309.4562	-1774.7761	6203.4784
307.2411	-71.8259	-205.4141	511540.4688	-12.5390
-12.5418				
[40292]ENERGY: 10000000	3291.0531	5334.3926	5401.7287	
320.4149	-14481.0015	-1684.4437	0.0000	0.0000
7955.0259	6137.1699	311.0814	-1817.8559	6203.5289
307.4629	-175.2098	-73.2942	511540.4688	-13.3965
-13.3746				
[40328]ENERGY: 10010000	3242.7823	5386.0860	5453.8510	
303.9347	-14422.1585	-1717.4411	0.0000	0.0000
7893.6864	6140.7407	308.6827	-1752.9457	6203.0552
307.7465	-23.7022	89.4588	511540.4688	-13.2943
-13.3147				

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[40378]ENERGY: 10020000	3292.3219	5332.8653	5501.3294	
317.2695	-14390.4632	-1738.9724	0.0000	0.0000
7824.6020	6138.9524	305.9812	-1685.6496	6202.7879
307.5971	-419.8545	-373.3456	511540.4688	-11.6946
-11.7139				
[40414]ENERGY: 10030000	3231.0893	5324.5896	5450.1573	
342.5051	-14361.3594	-1706.2147	0.0000	0.0000
7859.9090	6140.6761	307.3619	-1719.2329	6204.5986
307.3423	32.3841	65.3371	511540.4688	-13.4248
-13.4127				
[40464]ENERGY: 10040000	3223.9443	5259.1573	5436.8012	
315.4442	-14391.3442	-1580.8124	0.0000	0.0000
7882.5192	6145.7096	308.2460	-1736.8096	6204.4999
307.4683	177.0693	147.9133	511540.4688	-15.0240
-15.0267				
[40500]ENERGY: 10050000	3180.8846	5291.7553	5433.4507	
310.4978	-14408.9639	-1588.1591	0.0000	0.0000
7920.1742	6139.6396	309.7185	-1780.5346	6205.0537
307.4785	18.5702	-55.1722	511540.4688	-18.2297
-18.2317				
[40550]ENERGY: 10060000	3240.5322	5260.0606	5461.2739	
330.0755	-14425.7329	-1691.2335	0.0000	0.0000
7967.9236	6142.8993	311.5858	-1825.0243	6205.3872
307.5222	30.5594	-61.0951	511540.4688	-9.8819
-9.8585				
[40586]ENERGY: 10070000	3283.6482	5403.6878	5475.6743	
337.3823	-14334.7483	-1780.5354	0.0000	0.0000
7758.2696	6143.3785	303.3873	-1614.8911	6206.7972
307.4413	88.4471	101.8524	511540.4688	-14.2527
-14.2713				
[40636]ENERGY: 10080000	3287.6139	5273.9192	5486.3939	
323.6977	-14333.0587	-1727.0696	0.0000	0.0000
7830.8473	6142.3437	306.2254	-1688.5036	6206.5686
307.6611	-162.6022	-202.3219	511540.4688	-15.4696
-15.4537				
[40672]ENERGY: 10090000	3256.6958	5449.4829	5443.9560	
322.3827	-14418.8455	-1706.1917	0.0000	0.0000
7791.3759	6138.8561	304.6819	-1652.5198	6206.0329
307.6478	44.9464	-11.6100	511540.4688	-15.2175
-15.2423				
[40725]ENERGY: 10100000	3321.6468	5355.9258	5472.1718	
338.8660	-14388.6325	-1687.3307	0.0000	0.0000
7732.5141	6145.1613	302.3801	-1587.3528	6207.0291
307.5793	152.8001	78.2007	511540.4688	-14.7076
-14.7025				
[40761]ENERGY: 10110000	3262.8147	5329.4539	5523.3869	
327.7983	-14353.0163	-1785.2968	0.0000	0.0000
7840.5831	6145.7238	306.6061	-1694.8593	6208.2348
307.7130	-190.0576	-91.8330	511540.4688	-17.2999
-17.3130				
[40811]ENERGY: 10120000	3283.2472	5415.2550	5466.9046	
326.4939	-14406.5092	-1762.7077	0.0000	0.0000
7818.2514	6140.9352	305.7328	-1677.3161	6207.6794
307.6202	-139.4893	-175.0269	511540.4688	-10.8157

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-10.7796
[40847]ENERGY: 10130000 3262.2382 5307.6840 5443.8494
320.1649 -14317.7080 -1742.9957 0.0000 0.0000
7870.5445 6143.7771 307.7778 -1726.7674 6207.8484
307.7490 -39.1511 -50.8969 511540.4688 -20.5322
-20.5480
[40897]ENERGY: 10140000 3301.9026 5282.3910 5440.8668
328.0620 -14375.1055 -1713.9029 0.0000 0.0000
7881.6586 6145.8726 308.2124 -1735.7860 6208.1100
307.8782 74.0146 93.4552 511540.4688 -13.2344
-13.2376
[40933]ENERGY: 10150000 3213.1586 5309.6420 5456.3555
318.5697 -14323.4739 -1692.1131 0.0000 0.0000
7862.5164 6144.6552 307.4638 -1717.8612 6208.4522
307.7878 54.8310 26.2821 511540.4688 -13.4339
-13.4285
[40983]ENERGY: 10160000 3178.3824 5428.3340 5513.5307
323.8414 -14345.0156 -1756.5484 0.0000 0.0000
7801.8329 6144.3575 305.0908 -1657.4754 6208.3161
307.8127 191.1526 37.0635 511540.4688 -12.0465
-12.0564
[41019]ENERGY: 10170000 3221.3911 5295.3367 5442.2924
307.6778 -14230.4915 -1799.3267 0.0000 0.0000
7904.1619 6141.0418 309.0924 -1763.1201 6208.1037
307.7868 -204.0310 -163.1666 511540.4688 -13.1362
-13.1117
[41069]ENERGY: 10180000 3244.4659 5399.4951 5472.1574
307.9513 -14333.4715 -1789.3857 0.0000 0.0000
7840.8712 6142.0836 306.6174 -1698.7875 6209.3525
307.9138 -155.6890 -103.3250 511540.4688 -13.7554
-13.7657
[41105]ENERGY: 10190000 3307.4611 5403.3715 5470.7549
312.5260 -14463.5012 -1702.4888 0.0000 0.0000
7818.0745 6146.1980 305.7259 -1671.8765 6209.7662
308.0376 -17.3599 -127.1290 511540.4688 -9.4475
-9.4662
[41158]ENERGY: 10200000 3214.9914 5504.1755 5457.5642
307.1487 -14433.8145 -1695.2347 0.0000 0.0000
7792.6129 6147.4434 304.7302 -1645.1695 6209.3530
308.0868 -185.5439 -178.4854 511540.4688 -13.3081
-13.2855
[41194]ENERGY: 10210000 3274.5773 5294.6521 5476.8559
320.1240 -14408.2682 -1683.8174 0.0000 0.0000
7871.7230 6145.8467 307.8238 -1725.8763 6209.8913
307.9969 -86.5074 -94.4228 511540.4688 -13.6509
-13.6562
[41244]ENERGY: 10220000 3233.7341 5342.2952 5447.0725
311.5418 -14406.4590 -1712.3924 0.0000 0.0000
7928.2510 6144.0432 310.0344 -1784.2078 6209.8754
307.9278 -50.8308 -26.0746 511540.4688 -12.7158
-12.7027
[41280]ENERGY: 10230000 3249.5072 5444.6874 5428.5798
331.6559 -14339.1619 -1742.4094 0.0000 0.0000
7773.4947 6146.3536 303.9826 -1627.1411 6211.2889

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308.0146	83.3172	31.2034	511540.4688	-10.9212
-10.9390				
[41330]ENERGY: 10240000	3291.3308	5269.7053	5463.4749	
351.3068	-14365.1176	-1747.1466	0.0000	0.0000
7884.8556	6148.4094	308.3374	-1736.4463	6211.9258
307.9289	-59.6943	-33.8577	511540.4688	-15.3952
-15.3933				
[41366]ENERGY: 10250000	3251.4374	5401.6357	5432.1483	
332.2351	-14434.7449	-1687.0673	0.0000	0.0000
7851.6428	6147.2871	307.0386	-1704.3557	6211.6131
307.9700	-18.1435	-80.5485	511540.4688	-14.4369
-14.4352				
[41416]ENERGY: 10260000	3279.7006	5354.6135	5456.4811	
319.5933	-14425.7744	-1725.6545	0.0000	0.0000
7886.0107	6144.9703	308.3826	-1741.0404	6210.6745
308.0067	-91.0827	-127.7002	511540.4688	-11.7116
-11.7224				
[41452]ENERGY: 10270000	3211.2536	5337.1543	5465.0458	
329.3348	-14470.2067	-1677.0362	0.0000	0.0000
7948.3346	6143.8802	310.8197	-1804.4544	6212.2364
308.0416	2.5523	-20.9409	511540.4688	-12.5149
-12.5124				
[41502]ENERGY: 10280000	3275.8962	5383.9943	5448.7860	
324.2394	-14432.9702	-1701.9786	0.0000	0.0000
7855.7472	6153.7144	307.1991	-1702.0329	6214.2862
308.0790	-44.5453	-117.2532	511540.4688	-11.7931
-11.7821				
[41538]ENERGY: 10290000	3298.4013	5358.7304	5448.0606	
306.6417	-14328.1972	-1775.7766	0.0000	0.0000
7842.9824	6150.8426	306.6999	-1692.1398	6214.3576
307.8574	-158.1134	-84.8001	511540.4688	-20.5669
-20.5764				
[41591]ENERGY: 10300000	3278.9758	5323.3787	5491.8766	
340.9707	-14386.2357	-1690.9705	0.0000	0.0000
7794.1531	6152.1487	304.7905	-1642.0044	6215.0686
307.9557	-24.7982	-45.3930	511540.4688	-14.0998
-14.0809				
[41627]ENERGY: 10310000	3199.0439	5336.2345	5453.9920	
331.0578	-14320.6782	-1739.0384	0.0000	0.0000
7888.5688	6149.1803	308.4826	-1739.3885	6215.3738
308.0222	80.1015	25.2876	511540.4688	-15.1392
-15.1568				
[41677]ENERGY: 10320000	3284.9116	5240.6701	5473.2795	
296.0001	-14304.6735	-1751.3471	0.0000	0.0000
7910.6116	6149.4522	309.3446	-1761.1594	6215.1103
308.0880	-255.1813	-217.4171	511540.4688	-15.4575
-15.4800				
[41713]ENERGY: 10330000	3344.5258	5326.8653	5445.4453	
325.4048	-14352.6063	-1770.7158	0.0000	0.0000
7834.9486	6153.8676	306.3858	-1681.0810	6216.2725
308.3119	-251.2653	-243.3860	511540.4688	-14.1666
-14.1509				
[41763]ENERGY: 10340000	3262.0846	5332.2817	5425.9842	
330.5417	-14443.8160	-1713.5812	0.0000	0.0000

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7957.0717	6150.5667	311.1614	-1806.5050	6214.9775
308.2367	-22.1245	29.9514	511540.4688	-13.0568
-13.0671				
[41799]ENERGY: 10350000	3246.6623	5383.5710	5462.6279	
324.4964	-14326.3220	-1759.8434	0.0000	0.0000
7824.4451	6155.6372	305.9750	-1668.8079	6218.3152
307.9794	31.9266	-91.3946	511540.4688	-14.5930
-14.6016				
[41849]ENERGY: 10360000	3290.6525	5353.2084	5461.7976	
316.6568	-14354.0319	-1712.7795	0.0000	0.0000
7799.6732	6155.1771	305.0063	-1644.4961	6217.3815
308.0055	33.9437	79.3182	511540.4688	-15.2491
-15.2382				
[41885]ENERGY: 10370000	3292.8285	5313.7497	5479.0234	
343.2606	-14409.2075	-1723.9695	0.0000	0.0000
7857.2279	6152.9131	307.2570	-1704.3148	6215.0850
308.0975	-73.0143	-56.8639	511540.4688	-13.9880
-13.9538				
[41935]ENERGY: 10380000	3297.1099	5304.5988	5437.7629	
339.0388	-14397.3912	-1734.3901	0.0000	0.0000
7905.4170	6152.1462	309.1415	-1753.2708	6216.1304
308.1973	46.5758	-37.8568	511540.4688	-15.5831
-15.6085				
[41971]ENERGY: 10390000	3281.9616	5298.9226	5500.1234	
322.1436	-14405.8031	-1723.4377	0.0000	0.0000
7875.3273	6149.2377	307.9648	-1726.0896	6215.8147
308.1298	3.5124	-51.6278	511540.4688	-13.0282
-13.0115				
[42024]ENERGY: 10400000	3320.9553	5282.7986	5439.2451	
315.9814	-14410.9116	-1666.7843	0.0000	0.0000
7868.7249	6150.0094	307.7066	-1718.7155	6215.2788
307.8801	30.5049	-27.4410	511540.4688	-15.5841
-15.6017				
[42060]ENERGY: 10410000	3239.5013	5454.4112	5448.3394	
310.5255	-14402.1323	-1681.7671	0.0000	0.0000
7786.2612	6155.1392	304.4819	-1631.1220	6217.5181
308.0529	25.0484	80.0426	511540.4688	-14.5043
-14.5059				
[42110]ENERGY: 10420000	3270.9212	5403.6476	5438.5861	
294.9044	-14419.8818	-1706.9866	0.0000	0.0000
7873.1000	6154.2908	307.8777	-1718.8091	6217.2558
308.1642	-94.6387	-164.1744	511540.4688	-16.0153
-16.0122				
[42146]ENERGY: 10430000	3222.5291	5285.7385	5460.6087	
335.1573	-14358.8684	-1720.2899	0.0000	0.0000
7927.5025	6152.3779	310.0051	-1775.1246	6218.2565
308.0100	155.2186	114.4652	511540.4688	-13.9624
-13.9397				
[42196]ENERGY: 10440000	3323.9923	5353.5799	5459.8918	
326.1325	-14457.2690	-1710.9019	0.0000	0.0000
7860.0342	6155.4598	307.3668	-1704.5743	6217.7259
307.9596	-107.2666	-56.8857	511540.4688	-15.4031
-15.4062				
[42232]ENERGY: 10450000	3304.8418	5261.3579	5455.1059	

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331.6628	-14352.8317	-1706.6557	0.0000	0.0000
7861.1961	6154.6771	307.4122	-1706.5190	6217.3879
307.8440	-255.2227	-198.8429	511540.4688	-11.9010
-11.9087				
[42282]ENERGY: 10460000	3235.5502	5383.3565	5532.7798	
337.9860	-14427.6429	-1752.5077	0.0000	0.0000
7847.0627	6156.5846	306.8595	-1690.4781	6218.6028
307.9322	310.0440	150.6363	511540.4688	-15.7847
-15.7988				
[42318]ENERGY: 10470000	3223.6398	5366.2349	5451.7380	
310.2803	-14369.2219	-1717.6623	0.0000	0.0000
7888.2832	6153.2919	308.4714	-1734.9913	6217.9010
308.0314	114.1981	78.6926	511540.4688	-12.2202
-12.2198				
[42368]ENERGY: 10480000	3331.5420	5342.3308	5382.2502	
317.0873	-14393.2329	-1716.5595	0.0000	0.0000
7889.2646	6152.6826	308.5098	-1736.5820	6217.5216
307.8775	-288.3625	-213.9520	511540.4688	-14.1276
-14.1046				
[42404]ENERGY: 10490000	3268.5857	5337.2390	5489.7950	
307.2707	-14415.6320	-1708.8497	0.0000	0.0000
7875.2852	6153.6939	307.9631	-1721.5913	6216.8116
307.9822	58.2037	-21.8217	511540.4688	-15.2827
-15.2836				
[42457]ENERGY: 10500000	3173.6428	5352.6436	5470.7327	
324.3003	-14366.8685	-1651.0481	0.0000	0.0000
7849.1111	6152.5139	306.9396	-1696.5972	6216.2185
308.0354	305.8322	215.2341	511540.4688	-16.5634
-16.5626				
[42493]ENERGY: 10510000	3220.5353	5389.6778	5480.4798	
335.0806	-14409.0794	-1695.0215	0.0000	0.0000
7831.1431	6152.8157	306.2370	-1678.3275	6216.2117
307.9319	66.0146	14.9274	511540.4688	-12.7675
-12.7877				
[42543]ENERGY: 10520000	3224.8439	5302.6955	5461.9057	
294.8941	-14327.7262	-1674.6048	0.0000	0.0000
7868.3592	6150.3674	307.6923	-1717.9918	6214.9832
307.8353	-28.8261	-87.1134	511540.4688	-17.3039
-17.3061				
[42579]ENERGY: 10530000	3296.9075	5339.5879	5478.9524	
339.4420	-14354.9594	-1742.9752	0.0000	0.0000
7797.7032	6154.6584	304.9293	-1643.0449	6214.7990
307.8556	-84.5518	-233.0852	511540.4688	-16.0135
-16.0180				
[42629]ENERGY: 10540000	3261.7898	5313.3200	5503.3762	
342.7664	-14350.7872	-1735.1423	0.0000	0.0000
7819.7064	6155.0293	305.7897	-1664.6771	6215.9073
307.7178	13.8262	105.4283	511540.4688	-18.8687
-18.8641				
[42665]ENERGY: 10550000	3247.6409	5348.1472	5460.8734	
309.6413	-14369.0209	-1673.3061	0.0000	0.0000
7827.1079	6151.0838	306.0792	-1676.0241	6214.6654
308.0736	-31.5759	-32.1713	511540.4688	-11.7900
-11.7858				

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[42715]ENERGY: 10560000	3267.9561	5269.7104	5417.8392
332.7591	-14345.1107	-1752.4442	0.0000
7963.8003	6154.5102	311.4245	-1809.2900
307.9891	99.6892	3.8447	511540.4688
-16.8672			-16.8857
[42751]ENERGY: 10570000	3258.8474	5330.9776	5452.5198
299.1411	-14394.9953	-1720.6735	0.0000
7924.7615	6150.5787	309.8979	-1774.1828
308.0659	-62.9977	-13.2875	511540.4688
-16.3972			-16.3943
[42801]ENERGY: 10580000	3280.7965	5295.5214	5419.3932
333.3827	-14448.3163	-1669.4472	0.0000
7940.3453	6151.6755	310.5073	-1788.6697
308.0193	258.0559	258.4885	511540.4688
-16.1905			-16.1714
[42837]ENERGY: 10590000	3298.9195	5344.9418	5394.7165
342.9838	-14277.1599	-1761.7360	0.0000
7812.4545	6155.1202	305.5062	-1657.3343
307.9726	-183.3165	-213.0445	511540.4688
-16.4560			-16.4571
[42890]ENERGY: 10600000	3268.8826	5349.0437	5426.5781
333.5354	-14398.3777	-1675.9823	0.0000
7848.9047	6152.5846	306.9315	-1696.3201
307.9292	113.3081	147.4974	511540.4688
-16.0094			-16.0203
[42926]ENERGY: 10610000	3289.0189	5220.4833	5482.5115
322.7130	-14319.5271	-1712.6880	0.0000
7873.1709	6155.6825	307.8805	-1717.4884
307.9343	28.8508	-6.7775	511540.4688
-15.2366			-15.2189
[42976]ENERGY: 10620000	3153.6309	5276.7019	5437.7841
334.2061	-14309.2117	-1659.5424	0.0000
7919.5596	6153.1284	309.6945	-1766.4312
308.0892	265.7694	134.5569	511540.4688
-14.9364			-14.9553
[43012]ENERGY: 10630000	3204.2394	5288.9925	5448.2357
328.7116	-14370.4779	-1688.2353	0.0000
7943.3004	6154.7664	310.6229	-1788.5340
307.9566	172.4365	104.6356	511540.4688
-13.7729			-13.7563
[43062]ENERGY: 10640000	3202.4354	5409.1379	5404.2583
315.7186	-14347.1942	-1676.6001	0.0000
7847.1359	6154.8918	306.8624	-1692.2441
308.0852	292.4253	220.5339	511540.4688
-15.9015			-15.9020
[43098]ENERGY: 10650000	3243.1666	5343.6514	5426.5745
329.7465	-14395.1069	-1673.8051	0.0000
7881.7385	6155.9654	308.2155	-1725.7730
308.0445	198.0429	153.6244	511540.4688
-16.1089			-16.1229
[43148]ENERGY: 10660000	3252.9459	5412.9843	5474.3859
322.5881	-14405.6810	-1717.5071	0.0000
7815.0570	6154.7730	305.6079	-1660.2840
308.1379	-104.9451	-182.5242	511540.4688
			-14.9139

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-14.9217
 [43184]ENERGY: 10670000 3353.8959 5247.2749 5412.2339
 299.7346 -14251.0875 -1786.6514 0.0000 0.0000
 7880.6902 6156.0906 308.1745 -1724.5996 6220.1775
 308.1293 -91.8326 -42.7378 511540.4688 -14.5735
 -14.5744
 [43234]ENERGY: 10680000 3252.8588 5289.4044 5402.3051
 315.7891 -14275.3284 -1730.0313 0.0000 0.0000
 7900.5612 6155.5589 308.9516 -1745.0023 6218.8763
 308.1419 134.3302 7.7408 511540.4688 -17.5567
 -17.5456
 [43270]ENERGY: 10690000 3236.3298 5349.2816 5434.6031
 313.5202 -14356.1520 -1749.3504 0.0000 0.0000
 7927.7688 6156.0010 310.0155 -1771.7677 6219.8617
 308.0812 146.1047 36.9159 511540.4688 -10.1255
 -10.1474
 [43323]ENERGY: 10700000 3242.2289 5366.3343 5449.7759
 322.2697 -14441.9054 -1710.3720 0.0000 0.0000
 7925.3341 6153.6656 309.9203 -1771.6685 6220.0175
 308.2065 174.8943 13.6156 511540.4688 -15.5065
 -15.4773
 [43359]ENERGY: 10710000 3305.5845 5278.8415 5514.6484
 309.7817 -14341.6836 -1774.8079 0.0000 0.0000
 7863.5461 6155.9108 307.5041 -1707.6353 6219.2788
 308.1982 -228.7269 -284.3541 511540.4688 -22.3267
 -22.3556
 [43409]ENERGY: 10720000 3271.7766 5379.4429 5452.0897
 319.2707 -14327.8173 -1763.3477 0.0000 0.0000
 7825.1927 6156.6077 306.0043 -1668.5850 6220.5147
 308.2562 -60.4807 -41.2294 511540.4688 -11.9714
 -11.9711
 [43445]ENERGY: 10730000 3325.1268 5331.0385 5412.1498
 331.4267 -14391.7598 -1705.2658 0.0000 0.0000
 7856.9742 6159.6905 307.2471 -1697.2837 6220.2039
 308.2841 -118.3314 -116.8968 511540.4688 -15.5046
 -15.4938
 [43495]ENERGY: 10740000 3319.1789 5262.4296 5512.7453
 332.6225 -14467.5779 -1694.8747 0.0000 0.0000
 7892.1585 6156.6821 308.6230 -1735.4764 6220.2198
 308.2571 211.8481 229.1036 511540.4688 -15.4114
 -15.3944
 [43531]ENERGY: 10750000 3282.9241 5381.0768 5435.7420
 323.4271 -14392.0053 -1699.4824 0.0000 0.0000
 7826.7161 6158.3985 306.0639 -1668.3176 6220.3045
 308.3169 58.3549 -8.6986 511540.4688 -16.2473
 -16.2598
 [43581]ENERGY: 10760000 3157.1088 5353.4055 5469.9386
 305.0474 -14368.0336 -1727.5235 0.0000 0.0000
 7964.4397 6154.3829 311.4495 -1810.0569 6219.9245
 308.4097 47.8965 18.8745 511540.4688 -16.5172
 -16.5123
 [43617]ENERGY: 10770000 3250.1902 5361.3378 5474.7736
 331.3980 -14434.0334 -1689.2661 0.0000 0.0000
 7863.0309 6157.4310 307.4839 -1705.5999 6220.6856

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308.4174	-177.7605	-163.5046	511540.4688	-14.8304
-14.8320				
[43667]ENERGY: 10780000	3300.2447	5346.6233	5495.3760	
330.0337	-14489.9730	-1698.8093	0.0000	0.0000
7873.1625	6156.6577	307.8801	-1716.5047	6220.3170
308.3448	-94.0523	-105.4148	511540.4688	-13.9035
-13.9030				
[43703]ENERGY: 10790000	3264.6523	5344.7771	5441.9540	
325.3112	-14391.1862	-1692.3174	0.0000	0.0000
7864.2352	6157.4262	307.5310	-1706.8090	6220.3514
308.4118	99.9210	51.4105	511540.4688	-17.0230
-17.0129				
[43756]ENERGY: 10800000	3260.6842	5191.8201	5462.6117	
303.0404	-14306.3855	-1672.1584	0.0000	0.0000
7919.4670	6159.0795	309.6909	-1760.3875	6220.4836
308.2212	-34.3096	-138.8264	511540.4688	-17.0411
-17.0573				
[43792]ENERGY: 10810000	3230.6930	5351.7201	5454.3551	
319.5896	-14388.0969	-1632.3203	0.0000	0.0000
7824.3319	6160.2725	305.9706	-1664.0595	6220.9964
308.2421	-27.6697	-57.7780	511540.4688	-15.2553
-15.2574				
[43842]ENERGY: 10820000	3289.2866	5260.8809	5461.3921	
334.1423	-14348.5746	-1669.4308	0.0000	0.0000
7831.4815	6159.1780	306.2502	-1672.3036	6221.6414
308.2698	-95.9529	-86.5034	511540.4688	-15.4912
-15.5040				
[43878]ENERGY: 10830000	3299.3419	5334.5365	5473.1754	
335.9656	-14401.9408	-1715.5708	0.0000	0.0000
7833.8918	6159.3996	306.3445	-1674.4923	6221.0987
308.3614	18.8702	-74.0954	511540.4688	-18.8827
-18.8862				
[43928]ENERGY: 10840000	3352.6117	5333.0409	5399.5133	
312.0108	-14408.9712	-1751.3719	0.0000	0.0000
7922.0836	6158.9173	309.7932	-1763.1663	6222.0132
308.3728	123.8822	58.9494	511540.4688	-11.9272
-11.9290				
[43964]ENERGY: 10850000	3208.2984	5366.7956	5491.4014	
313.5538	-14397.6919	-1705.7724	0.0000	0.0000
7881.5532	6158.1382	308.2083	-1723.4150	6221.9271
308.1665	52.4350	25.5482	511540.4688	-14.3302
-14.3229				
[44014]ENERGY: 10860000	3308.8027	5309.3886	5466.1023	
299.3083	-14461.1757	-1710.0154	0.0000	0.0000
7946.4154	6158.8261	310.7447	-1787.5893	6221.9834
308.1502	-178.6270	-134.2023	511540.4688	-14.6152
-14.5937				
[44050]ENERGY: 10870000	3310.5192	5279.1007	5448.4326	
318.6282	-14393.7689	-1686.8024	0.0000	0.0000
7885.9536	6162.0631	308.3803	-1723.8905	6223.0885
308.2007	-10.6967	-24.1551	511540.4688	-13.8051
-13.8133				
[44100]ENERGY: 10880000	3302.4946	5384.2245	5456.8714	
343.9262	-14451.4287	-1705.8312	0.0000	0.0000

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7829.5060	6159.7628	306.1730	-1669.7432	6222.0708
308.1007	54.6893	42.3457	511540.4688	-16.7323
-16.7256				
[44136]ENERGY: 10890000	3248.6259	5352.7297	5431.5660	
305.3852	-14416.7183	-1721.9977	0.0000	0.0000
7958.7281	6158.3189	311.2262	-1800.4092	6222.9957
308.2183	-127.6622	-71.6280	511540.4688	-15.2320
-15.2402				
[44189]ENERGY: 10900000	3283.2408	5309.2677	5424.8886	
319.1603	-14362.8708	-1727.7888	0.0000	0.0000
7913.7675	6159.6651	309.4680	-1754.1023	6223.4390
308.4378	-118.5118	-188.5428	511540.4688	-14.4828
-14.4706				
[44225]ENERGY: 10910000	3201.7715	5412.8143	5445.3949	
312.6818	-14516.2371	-1646.1362	0.0000	0.0000
7947.3475	6157.6367	310.7811	-1789.7108	6223.6994
308.2633	66.8570	31.6442	511540.4688	-14.4592
-14.4746				
[44275]ENERGY: 10920000	3291.6612	5275.5629	5477.9305	
331.6051	-14412.2619	-1743.5571	0.0000	0.0000
7937.6755	6158.6163	310.4029	-1779.0592	6224.1279
308.2291	116.7002	10.2402	511540.4688	-16.7277
-16.7070				
[44311]ENERGY: 10930000	3188.7472	5334.0705	5485.0975	
327.1586	-14311.0831	-1731.9167	0.0000	0.0000
7869.7974	6161.8714	307.7485	-1707.9260	6224.3064
308.2600	190.8601	145.8439	511540.4688	-13.4871
-13.4934				
[44361]ENERGY: 10940000	3289.2718	5331.0957	5461.2427	
311.6920	-14385.8762	-1725.7651	0.0000	0.0000
7880.4601	6162.1209	308.1655	-1718.3392	6225.8892
308.5124	-211.5557	-66.0049	511540.4688	-13.5984
-13.5971				
[44397]ENERGY: 10950000	3263.0739	5386.3029	5432.9191	
317.2701	-14344.4113	-1753.7397	0.0000	0.0000
7860.3956	6161.8106	307.3809	-1698.5850	6225.6969
308.5162	57.8104	-21.2568	511540.4688	-16.7434
-16.7442				
[44447]ENERGY: 10960000	3204.3548	5378.7732	5479.9874	
304.7901	-14262.9401	-1769.4022	0.0000	0.0000
7829.8762	6165.4394	306.1874	-1664.4368	6226.6773
308.3942	185.5733	5.2523	511540.4688	-15.8728
-15.8932				
[44483]ENERGY: 10970000	3215.2930	5309.0644	5486.9073	
328.7931	-14389.0928	-1765.7410	0.0000	0.0000
7970.9889	6156.2129	311.7056	-1814.7760	6225.8882
308.4103	219.0224	127.0493	511540.4688	-15.7289
-15.7180				
[44533]ENERGY: 10980000	3306.5929	5412.2298	5425.8823	
318.6167	-14409.1077	-1769.0758	0.0000	0.0000
7875.1993	6160.3373	307.9598	-1714.8620	6226.0703
308.4412	-57.9536	-136.3472	511540.4688	-12.9599
-12.9725				
[44569]ENERGY: 10990000	3198.0773	5398.2162	5489.1174	

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325.9869	-14422.0445	-1723.3449	0.0000	0.0000
7897.0992	6163.1077	308.8162	-1733.9915	6226.5902
308.5305	89.1492	41.2023	511540.4688	-16.5385
-16.5292				
[44622]ENERGY: 11000000	3277.3743	5343.4959	5416.0465	
326.7226	-14327.9902	-1795.1666	0.0000	0.0000
7924.7994	6165.2818	309.8994	-1759.5176	6226.4324
308.4407	66.6178	19.2754	511540.4688	-20.2341
-20.2372				
[268]ENERGY: 11010000	3249.1400	5331.7286	5448.6366	
332.8110	-14358.8280	-1716.7647	0.0000	0.0000
7876.1513	6162.8749	307.9970	-1713.2764	6226.5272
308.4357	-24.0556	-22.5812	511540.4688	-13.3994
-13.3997				
[307]ENERGY: 11020000	3258.6197	5342.5401	5456.3713	
334.2784	-14396.0908	-1705.1842	0.0000	0.0000
7873.7815	6164.3159	307.9043	-1709.4656	6225.5669
308.4174	88.9598	108.5173	511540.4688	-15.9513
-15.9421				
[359]ENERGY: 11030000	3251.7775	5359.5856	5460.2914	
300.6926	-14437.3193	-1697.2369	0.0000	0.0000
7926.2126	6164.0035	309.9547	-1762.2091	6227.1145
308.2601	-11.5122	-34.1313	511540.4688	-20.5427
-20.5588				
[397]ENERGY: 11040000	3291.7795	5353.4501	5455.0129	
329.0559	-14473.7127	-1660.6686	0.0000	0.0000
7865.9131	6160.8303	307.5967	-1705.0829	6225.5678
308.2739	143.7704	182.7055	511540.4688	-18.0119
-18.0129				
[449]ENERGY: 11050000	3243.2609	5360.1763	5435.1948	
315.8221	-14342.7871	-1759.6009	0.0000	0.0000
7909.3841	6161.4502	309.2966	-1747.9339	6226.1999
308.4004	54.9039	84.4520	511540.4688	-18.4357
-18.4045				
[487]ENERGY: 11060000	3340.6738	5290.9771	5381.2740	
311.5701	-14316.9374	-1800.5117	0.0000	0.0000
7954.9063	6161.9522	311.0767	-1792.9541	6225.5743
308.5833	-397.3912	-252.2644	511540.4688	-10.9434
-10.9320				
[538]ENERGY: 11070000	3237.8276	5373.5960	5443.0012	
331.2168	-14358.9634	-1743.5798	0.0000	0.0000
7882.5698	6165.6682	308.2480	-1716.9016	6226.9988
308.3582	197.5438	116.4608	511540.4688	-17.2271
-17.2700				
[575]ENERGY: 11080000	3306.9764	5312.4558	5419.6285	
339.9862	-14363.0770	-1680.5626	0.0000	0.0000
7833.8182	6169.2255	306.3416	-1664.5928	6227.4137
308.4137	101.5456	148.6654	511540.4688	-14.0087
-13.9775				
[626]ENERGY: 11090000	3254.9603	5392.0187	5418.8855	
357.0776	-14404.7019	-1749.3609	0.0000	0.0000
7894.2634	6163.1428	308.7053	-1731.1206	6227.1860
308.4192	234.4900	180.0654	511540.4688	-16.7801
-16.8049				

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[666]ENERGY: 11100000	3282.7263	5308.7767	5471.5876	
354.3714	-14313.1980	-1785.5748	0.0000	0.0000
7845.8965	6164.5858	306.8139	-1681.3107	6226.7603
308.3743	-143.1947	-265.2030	511540.4688	-15.5219
-15.5032				
[717]ENERGY: 11110000	3236.1701	5300.0284	5455.9927	
316.7941	-14405.7430	-1729.7427	0.0000	0.0000
7985.3935	6158.8932	312.2689	-1826.5003	6225.4336
308.3709	0.1709	-102.1721	511540.4688	-17.7989
-17.8129				
[753]ENERGY: 11120000	3211.1288	5293.1053	5457.4905	
346.5104	-14223.2619	-1718.2877	0.0000	0.0000
7798.0754	6164.7607	304.9439	-1633.3147	6225.3908
308.3951	170.8905	154.5131	511540.4688	-13.4747
-13.4530				
[803]ENERGY: 11130000	3333.5539	5356.2936	5478.1910	
315.1471	-14413.0347	-1735.0279	0.0000	0.0000
7828.9816	6164.1047	306.1524	-1664.8769	6226.9765
308.5886	-56.8652	-100.0888	511540.4688	-16.1244
-16.1616				
[839]ENERGY: 11140000	3232.5619	5281.4038	5453.9236	
327.8073	-14330.2307	-1750.4332	0.0000	0.0000
7947.3406	6162.3735	310.7809	-1784.9672	6226.2356
308.6025	76.7919	58.8559	511540.4688	-14.6452
-14.6320				
[889]ENERGY: 11150000	3245.0386	5242.3351	5438.1613	
340.6538	-14231.2398	-1754.6023	0.0000	0.0000
7881.3510	6161.6978	308.2004	-1719.6532	6225.5489
308.3432	-116.7788	-174.5995	511540.4688	-12.9172
-12.9103				
[925]ENERGY: 11160000	3282.2801	5362.8756	5460.6627	
327.8390	-14464.5003	-1702.7218	0.0000	0.0000
7897.2596	6163.6949	308.8225	-1733.5647	6226.3429
308.5492	-93.9929	-15.8546	511540.4688	-20.0483
-20.0372				
[975]ENERGY: 11170000	3248.9927	5266.2809	5438.2874	
341.0713	-14290.9510	-1725.2980	0.0000	0.0000
7886.8970	6165.2803	308.4172	-1721.6167	6226.2798
308.6812	152.0896	-12.6789	511540.4688	-10.5082
-10.4943				
[1011]ENERGY: 11180000	3257.7062	5328.6904	5505.9111	
328.3507	-14362.4882	-1737.9260	0.0000	0.0000
7845.8761	6166.1203	306.8131	-1679.7558	6226.8384
308.7039	-36.2437	-171.7911	511540.4688	-18.6122
-18.6467				
[1061]ENERGY: 11190000	3280.6911	5442.8487	5468.7745	
312.0999	-14485.9792	-1740.6650	0.0000	0.0000
7885.0370	6162.8071	308.3445	-1722.2299	6226.7000
308.6219	176.9733	49.0152	511540.4688	-14.0933
-14.1075				
[1100]ENERGY: 11200000	3253.3252	5397.6845	5431.2068	
306.5942	-14375.2735	-1769.1719	0.0000	0.0000
7921.0273	6165.3925	309.7519	-1755.6347	6227.0699
308.6381	-156.8775	-31.1324	511540.4688	-14.4980

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-14.4627
 [1150]ENERGY: 11210000 3283.8421 5323.1849 5450.5674
 314.0403 -14363.4291 -1652.5110 0.0000 0.0000
 7809.1440 6164.8387 305.3767 -1644.3053 6225.7417
 308.5662 216.8679 153.5203 511540.4688 -16.3380
 -16.3587
 [1186]ENERGY: 11220000 3289.4411 5336.0203 5421.3013
 300.7201 -14228.9211 -1767.1205 0.0000 0.0000
 7814.9885 6166.4297 305.6052 -1648.5587 6226.9813
 308.5869 -17.1564 -44.4025 511540.4688 -15.6077
 -15.5907
 [1236]ENERGY: 11230000 3307.5731 5490.9508 5410.5652
 326.6778 -14385.5384 -1813.4528 0.0000 0.0000
 7826.5207 6163.2965 306.0562 -1663.2242 6226.3792
 308.5334 -98.6058 -92.0933 511540.4688 -18.5682
 -18.5709
 [1272]ENERGY: 11240000 3242.0212 5298.3999 5437.0329
 328.6584 -14405.9022 -1727.1276 0.0000 0.0000
 7987.3809 6160.4636 312.3467 -1826.9173 6227.1161
 308.5825 36.9001 -1.5926 511540.4688 -15.8891
 -15.9133
 [1322]ENERGY: 11250000 3288.3917 5305.1640 5473.0028
 326.9545 -14360.4322 -1729.2971 0.0000 0.0000
 7858.9190 6162.7027 307.3231 -1696.2163 6226.0055
 308.4455 35.4619 -17.3640 511540.4688 -14.9706
 -14.9373
 [1358]ENERGY: 11260000 3236.4472 5257.6358 5472.1709
 333.0197 -14376.2868 -1683.0567 0.0000 0.0000
 7925.1047 6165.0348 309.9113 -1760.0699 6226.7844
 308.5372 89.1295 61.6720 511540.4688 -15.6664
 -15.6740
 [1408]ENERGY: 11270000 3187.0212 5352.3944 5476.7221
 339.8023 -14335.2312 -1717.4114 0.0000 0.0000
 7857.2266 6160.5239 307.2570 -1696.7027 6226.1630
 308.3853 97.4032 97.3096 511540.4688 -15.2012
 -15.2152
 [1444]ENERGY: 11280000 3246.6923 5387.1652 5476.1759
 339.5339 -14524.5933 -1620.5350 0.0000 0.0000
 7861.5398 6165.9789 307.4256 -1695.5609 6227.9163
 308.3750 198.6856 224.6670 511540.4688 -18.7447
 -18.7388
 [1494]ENERGY: 11290000 3322.9945 5389.2728 5443.5785
 311.6873 -14369.0911 -1755.4594 0.0000 0.0000
 7820.1900 6163.1726 305.8087 -1657.0174 6228.0440
 308.5670 44.8421 -60.7007 511540.4688 -15.8113
 -15.8156
 [1533]ENERGY: 11300000 3200.3031 5366.8530 5412.0989
 312.4286 -14366.2410 -1703.2540 0.0000 0.0000
 7943.4339 6165.6225 310.6281 -1777.8114 6228.6388
 308.5360 134.9444 50.2074 511540.4688 -17.8339
 -17.8296
 [1583]ENERGY: 11310000 3287.3590 5395.5061 5467.5767
 311.0096 -14336.5337 -1797.6589 0.0000 0.0000
 7840.1252 6167.3840 306.5882 -1672.7412 6230.3676

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308.5525	62.4783	-79.3698	511540.4688	-13.6759
-13.6561				
[1619]ENERGY: 11320000	3248.3635	5343.1878	5475.6371	
318.7826	-14446.5601	-1670.3862	0.0000	0.0000
7897.6285	6166.6532	308.8369	-1730.9754	6229.7157
308.6008	83.1055	35.0537	511540.4688	-17.9101
-17.9293				
[1669]ENERGY: 11330000	3305.6419	5327.5190	5432.9279	
326.9725	-14511.6808	-1680.8907	0.0000	0.0000
7964.5556	6165.0454	311.4541	-1799.5102	6229.2563
308.5308	270.2835	152.4854	511540.4688	-15.8350
-15.8168				
[1705]ENERGY: 11340000	3307.3902	5331.0373	5481.2455	
330.0167	-14381.7089	-1691.7671	0.0000	0.0000
7792.9142	6169.1279	304.7420	-1623.7863	6230.5033
308.4826	-30.6068	-119.3097	511540.4688	-12.4994
-12.5242				
[1755]ENERGY: 11350000	3318.5609	5209.0284	5437.1471	
326.9806	-14308.4168	-1725.3327	0.0000	0.0000
7906.0693	6164.0369	309.1670	-1742.0324	6229.6453
308.4339	-40.7946	-87.2003	511540.4688	-12.7922
-12.7911				
[1791]ENERGY: 11360000	3149.2661	5364.8786	5446.5448	
298.2892	-14288.1137	-1774.0771	0.0000	0.0000
7969.3087	6166.0966	311.6399	-1803.2121	6230.6513
308.3274	94.1670	135.3351	511540.4688	-13.8965
-13.9072				
[1841]ENERGY: 11370000	3265.8759	5348.3952	5468.7124	
329.0919	-14337.7067	-1716.4442	0.0000	0.0000
7809.9898	6167.9142	305.4098	-1642.0756	6231.1338
308.5673	112.0854	45.9530	511540.4688	-15.2750
-15.2489				
[1877]ENERGY: 11380000	3202.1731	5378.6403	5449.7695	
338.6100	-14435.8400	-1684.2362	0.0000	0.0000
7918.4150	6167.5317	309.6497	-1750.8833	6229.8000
308.5943	191.7274	35.2723	511540.4688	-18.0674
-18.0924				
[1927]ENERGY: 11390000	3264.5513	5328.8170	5449.5655	
325.6635	-14350.8619	-1745.3279	0.0000	0.0000
7895.8906	6168.2980	308.7689	-1727.5926	6231.1115
308.7836	37.4524	85.7410	511540.4688	-15.6766
-15.6491				
[1966]ENERGY: 11400000	3236.5200	5301.8713	5409.0942	
333.5648	-14385.7592	-1729.3136	0.0000	0.0000
8000.8084	6166.7860	312.8717	-1834.0225	6230.1929
308.9120	104.6339	79.6440	511540.4688	-13.0468
-13.0716				
[2016]ENERGY: 11410000	3281.4645	5276.8146	5449.7524	
304.4299	-14340.0458	-1723.2090	0.0000	0.0000
7918.6178	6167.8245	309.6577	-1750.7934	6230.3480
308.6078	1.4010	20.2397	511540.4688	-17.0244
-17.0100				
[2052]ENERGY: 11420000	3247.3684	5422.7340	5409.6712	
324.5387	-14357.3686	-1714.3325	0.0000	0.0000

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7834.5968	6167.2080	306.3720	-1667.3887	6230.0068
308.6700	-36.7808	-16.0089	511540.4688	-12.1982
-12.2019				
[2102]ENERGY: 11430000	3181.1933	5327.8992	5455.6804	
325.4426	-14374.9462	-1713.6076	0.0000	0.0000
7963.4695	6165.1312	311.4116	-1798.3383	6230.7734
308.6668	169.8191	132.4729	511540.4688	-16.6060
-16.6233				
[2138]ENERGY: 11440000	3287.3752	5395.0947	5456.3232	
325.2377	-14324.7500	-1800.3886	0.0000	0.0000
7827.4885	6166.3808	306.0941	-1661.1077	6231.0513
308.7394	-184.4532	-318.1371	511540.4688	-16.5174
-16.4743				
[2188]ENERGY: 11450000	3277.4371	5338.6399	5405.6423	
322.3503	-14408.1344	-1678.4810	0.0000	0.0000
7909.3555	6166.8096	309.2955	-1742.5458	6230.7599
308.4968	36.5214	-3.9625	511540.4688	-19.5667
-19.5920				
[2224]ENERGY: 11460000	3298.8264	5313.4530	5449.8031	
317.4833	-14379.3989	-1685.0001	0.0000	0.0000
7853.8029	6168.9698	307.1231	-1684.8331	6231.0371
308.3600	-4.5133	1.5833	511540.4688	-15.9758
-15.9715				
[2274]ENERGY: 11470000	3209.3921	5338.6262	5425.3437	
319.7942	-14375.8962	-1680.9238	0.0000	0.0000
7930.5704	6166.9065	310.1251	-1763.6639	6230.1176
308.5929	90.0605	36.1853	511540.4688	-21.6960
-21.7041				
[2310]ENERGY: 11480000	3287.0431	5370.0845	5452.9397	
317.1461	-14349.1874	-1766.2803	0.0000	0.0000
7855.5869	6167.3325	307.1928	-1688.2544	6231.6630
308.6497	-157.2666	-228.2025	511540.4688	-18.0997
-18.0859				
[2360]ENERGY: 11490000	3234.1762	5338.6611	5391.9811	
316.2976	-14358.5457	-1708.8839	0.0000	0.0000
7955.4061	6169.0925	311.0963	-1786.3135	6231.3604
308.2739	-143.1092	-117.1587	511540.4688	-15.4765
-15.4766				
[2399]ENERGY: 11500000	3275.8856	5282.7933	5502.3880	
327.3258	-14364.1361	-1730.2023	0.0000	0.0000
7874.1371	6168.1914	307.9183	-1705.9457	6232.5455
308.5184	150.3462	1.9399	511540.4688	-19.4550
-19.4685				
[2449]ENERGY: 11510000	3224.9887	5387.5042	5436.0598	
331.7085	-14351.5204	-1724.4359	0.0000	0.0000
7867.6660	6171.9709	307.6652	-1695.6951	6232.1943
308.5956	-9.1781	3.8951	511540.4688	-17.6164
-17.6249				
[2485]ENERGY: 11520000	3232.0964	5371.0615	5449.4856	
295.0178	-14366.9025	-1708.0406	0.0000	0.0000
7895.1722	6167.8906	308.7408	-1727.2817	6231.4376
308.5712	128.3588	53.9812	511540.4688	-19.7113
-19.7111				
[2535]ENERGY: 11530000	3258.2467	5387.4283	5440.6005	

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333.6179	-14402.0943	-1726.5963	0.0000	0.0000
7874.8813	6166.0841	307.9474	-1708.7972	6231.2311
308.4944	-109.2344	-114.9267	511540.4688	-15.8511
-15.8204				
[2571]ENERGY: 11540000	3265.0473	5408.5943	5425.4330	
312.5120	-14408.4198	-1740.5219	0.0000	0.0000
7905.3983	6168.0433	309.1407	-1737.3550	6231.3454
308.5561	8.5722	-38.6257	511540.4688	-16.8069
-16.8294				
[2621]ENERGY: 11550000	3237.2854	5314.1362	5482.4305	
316.3550	-14360.8651	-1716.7858	0.0000	0.0000
7895.2481	6167.8044	308.7438	-1727.4437	6229.7425
308.7137	-162.4433	-82.9273	511540.4688	-16.6392
-16.6419				
[2657]ENERGY: 11560000	3249.2356	5325.4356	5442.0056	
344.1628	-14292.4363	-1725.5135	0.0000	0.0000
7823.8111	6166.7009	305.9503	-1657.1102	6231.2977
308.7812	-31.7805	31.3969	511540.4688	-17.7718
-17.7594				
[2707]ENERGY: 11570000	3343.6167	5330.0742	5443.4110	
313.4765	-14416.1852	-1758.6545	0.0000	0.0000
7911.2260	6166.9645	309.3686	-1744.2615	6231.1568
308.7023	-24.2685	-43.2746	511540.4688	-18.1069
-18.1102				
[2743]ENERGY: 11580000	3306.2344	5289.5484	5447.8844	
315.4341	-14367.9996	-1710.8227	0.0000	0.0000
7890.1284	6170.4074	308.5436	-1719.7210	6230.5057
308.7026	-25.9566	-58.1202	511540.4688	-19.2388
-19.2596				
[2793]ENERGY: 11590000	3281.3752	5297.2538	5404.9086	
337.4062	-14357.4614	-1744.5748	0.0000	0.0000
7950.5069	6169.4145	310.9047	-1781.0925	6230.9513
308.7004	-80.9535	-12.3299	511540.4688	-17.2690
-17.2594				
[2832]ENERGY: 11600000	3253.2543	5344.8525	5455.7554	
320.0763	-14395.0136	-1741.7055	0.0000	0.0000
7929.2798	6166.4993	310.0746	-1762.7806	6231.2033
308.7035	79.8668	-21.0588	511540.4688	-18.9616
-18.9623				
[2882]ENERGY: 11610000	3244.6750	5379.4173	5423.0963	
325.5939	-14336.9517	-1782.4664	0.0000	0.0000
7914.8875	6168.2519	309.5118	-1746.6356	6232.4300
308.7631	-40.8219	-120.8374	511540.4688	-15.8980
-15.8689				
[2918]ENERGY: 11620000	3310.3642	5307.6959	5452.9397	
325.5188	-14352.8425	-1683.5626	0.0000	0.0000
7808.9058	6169.0193	305.3674	-1639.8865	6231.9393
308.8895	-239.6746	-241.7359	511540.4688	-15.5376
-15.5684				
[2968]ENERGY: 11630000	3301.0556	5257.5103	5444.3195	
343.5067	-14296.1501	-1794.6458	0.0000	0.0000
7910.5079	6166.1039	309.3405	-1744.4040	6232.3646
308.6108	-98.0521	-95.7482	511540.4688	-20.0299
-20.0219				

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[3004]ENERGY: 11640000	3271.3541	5384.3397	5463.1125	
314.7923	-14367.7749	-1723.9053	0.0000	0.0000
7828.0962	6170.0146	306.1178	-1658.0816	6231.3205
308.5211	-21.1536	-95.7281	511540.4688	-17.8262
-17.8092				
[3054]ENERGY: 11650000	3204.1001	5436.6995	5478.2572	
321.1437	-14395.5079	-1775.0830	0.0000	0.0000
7898.5081	6168.1176	308.8713	-1730.3905	6231.1328
308.5903	-39.7341	-35.2737	511540.4688	-17.5682
-17.5782				
[3090]ENERGY: 11660000	3290.4094	5293.4925	5460.3058	
341.9887	-14406.3782	-1655.2864	0.0000	0.0000
7844.1968	6168.7286	306.7474	-1675.4683	6231.6429
308.8054	-12.4960	5.4320	511540.4688	-17.6061
-17.6115				
[3140]ENERGY: 11670000	3261.7874	5256.2921	5423.6163	
315.5060	-14319.0702	-1712.0336	0.0000	0.0000
7944.2068	6170.3047	310.6583	-1773.9020	6233.3037
308.7714	91.9007	18.3824	511540.4688	-16.9167
-16.9480				
[3176]ENERGY: 11680000	3204.7350	5324.4362	5454.7684	
323.6391	-14371.6530	-1687.4417	0.0000	0.0000
7915.3978	6163.8819	309.5318	-1751.5159	6231.8294
308.6399	-22.7523	28.5613	511540.4688	-15.6218
-15.5995				
[3226]ENERGY: 11690000	3362.3970	5313.7589	5491.8308	
326.1635	-14367.9600	-1762.1077	0.0000	0.0000
7810.1119	6174.1944	305.4145	-1635.9175	6233.7886
308.6876	-88.7420	-189.8748	511540.4688	-18.3244
-18.3116				
[3265]ENERGY: 11700000	3324.6219	5298.5927	5461.0898	
320.0381	-14351.2594	-1767.2545	0.0000	0.0000
7886.2580	6172.0866	308.3922	-1714.1714	6233.1906
308.7816	104.6667	132.8069	511540.4688	-16.1348
-16.1367				
[3315]ENERGY: 11710000	3288.7683	5315.1666	5456.0039	
338.1116	-14379.3886	-1717.5179	0.0000	0.0000
7868.5942	6169.7381	307.7015	-1698.8561	6232.3836
308.6818	-24.1921	-75.5374	511540.4688	-21.1705
-21.1686				
[3351]ENERGY: 11720000	3274.3529	5366.0917	5478.8129	
328.7389	-14471.2236	-1656.2205	0.0000	0.0000
7846.6982	6167.2506	306.8453	-1679.4477	6231.6834
308.7426	127.2803	144.9498	511540.4688	-15.9728
-15.9941				
[3401]ENERGY: 11730000	3311.3494	5364.0273	5456.0009	
313.5512	-14331.8345	-1763.1208	0.0000	0.0000
7819.9737	6169.9472	305.8002	-1650.0265	6232.6200
308.6731	-71.7496	-91.2850	511540.4688	-16.9476
-16.9339				
[3437]ENERGY: 11740000	3324.3823	5284.6830	5433.0459	
302.5221	-14376.7173	-1710.9692	0.0000	0.0000
7914.1735	6171.1204	309.4839	-1743.0532	6232.7842
308.5401	-50.9750	-106.8280	511540.4688	-17.9431

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-17.9295
 [3487]ENERGY: 11750000 3279.3559 5358.3768 5512.1819
 308.6586 -14311.0376 -1787.5208 0.0000 0.0000
 7811.0587 6171.0735 305.4516 -1639.9852 6233.0482
 308.7188 -124.0537 -100.2774 511540.4688 -17.7330
 -17.7519
 [3523]ENERGY: 11760000 3250.0465 5352.5281 5469.0915
 342.1592 -14352.1836 -1741.9145 0.0000 0.0000
 7850.6916 6170.4188 307.0014 -1680.2728 6232.5514
 308.6739 69.0759 -52.4980 511540.4688 -21.1019
 -21.0863
 [3573]ENERGY: 11770000 3232.6696 5271.7299 5430.2394
 322.0222 -14281.9194 -1726.7327 0.0000 0.0000
 7922.7660 6170.7750 309.8199 -1751.9909 6232.8702
 308.4990 -1.0776 -44.5095 511540.4688 -17.2805
 -17.2723
 [3609]ENERGY: 11780000 3306.3474 5332.5201 5490.1832
 324.3004 -14360.2284 -1782.2765 0.0000 0.0000
 7861.0060 6171.8522 307.4048 -1689.1539 6233.0321
 308.5152 -269.0003 -185.1403 511540.4688 -17.2827
 -17.2929
 [3659]ENERGY: 11790000 3156.1997 5409.0842 5461.6818
 329.0797 -14324.0049 -1713.0241 0.0000 0.0000
 7845.7751 6164.7915 306.8092 -1680.9836 6234.4934
 308.4657 260.7497 199.1925 511540.4688 -15.2282
 -15.2200
 [3698]ENERGY: 11800000 3316.4172 5368.2067 5452.6426
 340.6054 -14418.7854 -1753.0525 0.0000 0.0000
 7866.5886 6172.6226 307.6231 -1693.9659 6233.9118
 308.3541 -78.6658 -87.7452 511540.4688 -15.7937
 -15.7995
 [3748]ENERGY: 11810000 3240.1419 5356.1367 5433.9625
 313.2437 -14336.3396 -1712.8632 0.0000 0.0000
 7876.3970 6170.6791 308.0066 -1705.7179 6232.6290
 308.3992 -59.2724 -37.6672 511540.4688 -19.5642
 -19.5682
 [3784]ENERGY: 11820000 3223.2268 5363.2434 5412.3179
 331.5787 -14262.7057 -1777.4051 0.0000 0.0000
 7880.7764 6171.0323 308.1779 -1709.7440 6234.3491
 308.4859 43.0712 37.2871 511540.4688 -14.6037
 -14.6072
 [3834]ENERGY: 11830000 3253.8428 5341.8365 5494.4804
 330.7029 -14458.0267 -1690.8004 0.0000 0.0000
 7899.1879 6171.2235 308.8979 -1727.9644 6234.9577
 308.3907 -94.1610 -92.5118 511540.4688 -15.7360
 -15.7352
 [3870]ENERGY: 11840000 3226.1870 5386.5667 5468.6134
 311.2222 -14329.4438 -1708.2996 0.0000 0.0000
 7818.3043 6173.1501 305.7349 -1645.1541 6235.0155
 308.4423 -101.4649 -103.3511 511540.4688 -14.2701
 -14.2677
 [3920]ENERGY: 11850000 3200.8837 5181.8712 5471.9168
 309.8000 -14280.4284 -1659.1945 0.0000 0.0000
 7941.7328 6166.5816 310.5616 -1775.1512 6232.8561

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308.4237	173.0606	119.2381	511540.4688	-15.5080
-15.5084				
[3956]ENERGY: 11860000	3230.8313	5422.9363	5432.3258	
320.4548	-14415.6450	-1678.7129	0.0000	0.0000
7858.3842	6170.5745	307.3022	-1687.8097	6233.1806
308.2500	100.9210	85.1819	511540.4688	-16.8754
-16.9069				
[4006]ENERGY: 11870000	3284.9022	5288.7906	5479.0467	
313.2516	-14447.7617	-1651.8652	0.0000	0.0000
7900.2619	6166.6261	308.9399	-1733.6357	6234.4538
308.5075	110.9484	40.0031	511540.4688	-16.1512
-16.1107				
[4042]ENERGY: 11880000	3258.9961	5366.7352	5431.5381	
339.6655	-14388.6337	-1699.7450	0.0000	0.0000
7863.3605	6171.9167	307.4968	-1691.4438	6234.9615
308.8543	48.9686	49.9251	511540.4688	-17.2987
-17.3007				
[4092]ENERGY: 11890000	3276.9864	5347.7690	5434.2062	
322.0408	-14365.8119	-1720.0116	0.0000	0.0000
7874.1294	6169.3083	307.9180	-1704.8211	6234.7072
308.5706	-15.3847	-31.8458	511540.4688	-18.9076
-18.9019				
[4131]ENERGY: 11900000	3262.0405	5320.7913	5494.4684	
339.3284	-14383.2525	-1701.7140	0.0000	0.0000
7840.0077	6171.6697	306.5836	-1668.3380	6234.6695
308.9116	32.1007	109.9277	511540.4688	-11.2704
-11.2849				
[4181]ENERGY: 11910000	3254.3719	5299.5657	5476.1136	
330.4087	-14333.6680	-1700.4878	0.0000	0.0000
7848.4514	6174.7555	306.9138	-1673.6959	6236.1272
308.5814	-73.6539	-92.7964	511540.4688	-15.7584
-15.7419				
[4217]ENERGY: 11920000	3293.5786	5374.5893	5443.1487	
304.5312	-14365.6163	-1731.7267	0.0000	0.0000
7856.4890	6174.9939	307.2281	-1681.4952	6235.7111
308.7402	-106.4826	-153.0310	511540.4688	-17.7768
-17.7798				
[4267]ENERGY: 11930000	3314.2674	5308.5642	5446.4377	
290.5970	-14304.8749	-1806.3695	0.0000	0.0000
7923.8704	6172.4921	309.8631	-1751.3782	6235.8720
308.7166	-75.8751	-124.0108	511540.4688	-14.4060
-14.4138				
[4303]ENERGY: 11940000	3273.8470	5317.6959	5465.3050	
329.5442	-14411.1866	-1706.6212	0.0000	0.0000
7902.9109	6171.4952	309.0435	-1731.4157	6235.3243
308.6995	114.1227	-28.9692	511540.4688	-14.6926
-14.7023				
[4353]ENERGY: 11950000	3378.4175	5261.4660	5476.3553	
296.0504	-14394.4470	-1694.3286	0.0000	0.0000
7851.8564	6175.3699	307.0470	-1676.4865	6234.5129
308.6242	75.5151	22.0832	511540.4688	-16.1250
-16.1253				
[4389]ENERGY: 11960000	3320.0454	5270.6751	5468.3064	
315.8915	-14424.3141	-1710.8360	0.0000	0.0000

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7929.3015	6169.0699	310.0755	-1760.2316	6236.1519
308.5927	-17.6044	-126.1369	511540.4688	-13.8006
-13.8034				
[4439]ENERGY: 11970000	3249.4702	5384.6747	5417.4446	
325.9220	-14288.6066	-1753.8684	0.0000	0.0000
7838.5460	6173.5826	306.5265	-1664.9634	6235.1479
308.6229	-111.1313	-0.0980	511540.4688	-15.4655
-15.4306				
[4475]ENERGY: 11980000	3209.7306	5326.7782	5452.4733	
319.7185	-14307.4928	-1741.6053	0.0000	0.0000
7911.0258	6170.6282	309.3608	-1740.3976	6236.1016
308.7377	-12.9870	17.0887	511540.4688	-16.4499
-16.4819				
[4525]ENERGY: 11990000	3304.7763	5350.2340	5478.0442	
317.7195	-14404.9203	-1729.8984	0.0000	0.0000
7850.6294	6166.5847	306.9990	-1684.0447	6235.1959
308.6110	-7.4606	-75.2663	511540.4688	-18.2370
-18.2231				
[4564]ENERGY: 12000000	3271.6873	5295.6104	5452.0315	
313.1627	-14344.6415	-1753.0522	0.0000	0.0000
7938.8719	6173.6702	310.4497	-1765.2017	6235.8370
308.6664	42.5231	-4.9783	511540.4688	-16.3224
-16.3226				
[4614]ENERGY: 12010000	3290.6318	5339.6379	5465.1453	
315.0076	-14409.8057	-1708.0461	0.0000	0.0000
7876.6109	6169.1817	308.0150	-1707.4292	6235.5252
308.8811	13.3296	-61.4501	511540.4688	-17.6559
-17.6679				
[4650]ENERGY: 12020000	3313.8284	5426.0869	5424.4142	
329.9317	-14489.4743	-1648.5716	0.0000	0.0000
7818.8356	6175.0508	305.7557	-1643.7847	6236.5801
308.7610	157.2436	90.0753	511540.4688	-16.1796
-16.1756				
[4700]ENERGY: 12030000	3290.7285	5341.0180	5489.0582	
344.9661	-14404.5350	-1719.2885	0.0000	0.0000
7831.9266	6173.8740	306.2676	-1658.0526	6236.6105
308.7816	-73.8369	-56.7305	511540.4688	-11.7445
-11.7465				
[4736]ENERGY: 12040000	3238.3265	5357.9282	5464.3161	
315.8663	-14333.5623	-1742.9095	0.0000	0.0000
7870.2558	6170.2210	307.7665	-1700.0348	6236.9803
308.7338	89.4117	-31.1899	511540.4688	-16.4077
-16.4015				
[4786]ENERGY: 12050000	3253.1212	5423.4383	5487.7372	
327.6158	-14395.8751	-1696.1582	0.0000	0.0000
7780.6192	6180.4984	304.2612	-1600.1208	6237.9835
308.6988	275.0514	116.6630	511540.4688	-18.5590
-18.5681				
[4822]ENERGY: 12060000	3193.9563	5337.2049	5474.2631	
341.6835	-14401.5868	-1671.3476	0.0000	0.0000
7896.1237	6170.2971	308.7780	-1725.8266	6236.9711
308.6996	-39.4127	-11.3214	511540.4688	-19.1725
-19.1684				
[4872]ENERGY: 12070000	3250.2829	5292.8981	5454.1332	

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349.2148	-14338.5955	-1741.0011	0.0000	0.0000
7905.2834	6172.2157	309.1362	-1733.0677	6237.0082
308.6415	133.3163	28.6960	511540.4688	-20.8400
-20.7937				
[4908]ENERGY: 12080000	3249.7996	5336.0831	5376.8834	
337.9972	-14288.1810	-1754.3579	0.0000	0.0000
7914.0556	6172.2800	309.4793	-1741.7757	6237.7495
308.6769	-27.2543	-79.4303	511540.4688	-20.3261
-20.3688				
[4958]ENERGY: 12090000	3213.7962	5275.8853	5444.4984	
323.8718	-14356.7518	-1720.5019	0.0000	0.0000
7989.7137	6170.5116	312.4379	-1819.2021	6237.5444
308.6078	112.3765	-29.8480	511540.4688	-20.5468
-20.5623				
[4997]ENERGY: 12100000	3198.7187	5370.9456	5429.9745	
310.5105	-14330.8382	-1712.0369	0.0000	0.0000
7909.7976	6177.0718	309.3128	-1732.7258	6237.9664
308.8539	-74.6866	-72.9286	511540.4688	-16.5984
-16.5726				
[5047]ENERGY: 12110000	3224.9816	5331.6383	5515.2810	
329.3289	-14370.7131	-1765.1142	0.0000	0.0000
7910.6215	6176.0240	309.3450	-1734.5975	6238.3734
308.6865	-62.2267	-33.2240	511540.4688	-18.9654
-18.9556				
[5083]ENERGY: 12120000	3311.5878	5364.4539	5435.5258	
301.0123	-14368.6188	-1737.4981	0.0000	0.0000
7868.8673	6175.3302	307.7122	-1693.5371	6237.8897
308.6983	-15.2336	-125.2395	511540.4688	-19.4444
-19.4656				
[5133]ENERGY: 12130000	3353.3969	5411.8338	5389.1642	
302.3936	-14411.5193	-1734.6270	0.0000	0.0000
7864.2228	6174.8649	307.5306	-1689.3579	6238.9511
308.5938	0.3592	-49.4062	511540.4688	-15.0213
-15.0294				
[5169]ENERGY: 12140000	3325.4275	5303.6189	5474.6425	
328.9304	-14398.2826	-1782.5213	0.0000	0.0000
7924.4033	6176.2187	309.8839	-1748.1846	6237.3588
308.5697	-196.1735	-139.3871	511540.4688	-23.7452
-23.7269				
[5219]ENERGY: 12150000	3322.2788	5327.6230	5476.6618	
318.7749	-14358.8188	-1757.6587	0.0000	0.0000
7849.3666	6178.2276	306.9496	-1671.1391	6237.5319
308.5412	-145.4873	-69.3319	511540.4688	-16.2716
-16.2721				
[5255]ENERGY: 12160000	3202.7264	5386.1325	5456.5461	
323.2339	-14426.6350	-1733.3993	0.0000	0.0000
7960.7101	6169.3147	311.3037	-1791.3954	6237.4369
308.6756	70.7833	-3.8766	511540.4688	-19.0377
-19.0746				
[5305]ENERGY: 12170000	3281.4428	5322.9419	5406.3835	
301.8382	-14279.4481	-1713.3498	0.0000	0.0000
7858.9221	6178.7305	307.3233	-1680.1915	6237.3797
308.5837	52.6089	103.8918	511540.4688	-20.5634
-20.5270				

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[5341]ENERGY: 12180000	3241.0651	5373.2862	5524.0632	
319.3029	-14393.1452	-1766.4109	0.0000	0.0000
7878.2668	6176.4280	308.0797	-1701.8388	6238.1112
308.7519	36.0774	3.2058	511540.4688	-13.4949
-13.5174				
[5391]ENERGY: 12190000	3307.5766	5347.9018	5452.3257	
336.9674	-14398.0107	-1717.7425	0.0000	0.0000
7848.5844	6177.6027	306.9190	-1670.9817	6238.1666
308.8502	14.9135	77.3482	511540.4688	-20.9992
-20.9987				
[5430]ENERGY: 12200000	3240.1615	5294.7877	5442.6211	
321.0414	-14260.2106	-1698.2423	0.0000	0.0000
7836.8009	6176.9597	306.4582	-1659.8412	6237.5157
308.7678	37.3769	47.5452	511540.4688	-19.8831
-19.8690				
[5480]ENERGY: 12210000	3295.6224	5423.2444	5453.4961	
323.2139	-14382.1323	-1737.6570	0.0000	0.0000
7800.8836	6176.6711	305.0537	-1624.2125	6237.8214
308.8973	118.6801	58.7854	511540.4688	-16.9679
-16.9699				
[5516]ENERGY: 12220000	3290.7937	5360.9002	5489.3535	
305.0143	-14446.3354	-1691.6950	0.0000	0.0000
7867.0899	6175.1212	307.6427	-1691.9687	6238.3927
308.7195	-95.4265	-2.5130	511540.4688	-19.7960
-19.8058				
[5566]ENERGY: 12230000	3181.1944	5374.7817	5437.7439	
329.8109	-14382.8847	-1688.9765	0.0000	0.0000
7921.6751	6173.3449	309.7772	-1748.3302	6238.6401
308.8443	196.1046	138.5509	511540.4688	-19.4602
-19.4425				
[5602]ENERGY: 12240000	3231.1769	5337.0472	5415.2310	
318.6147	-14338.1593	-1720.1030	0.0000	0.0000
7930.3387	6174.1462	310.1160	-1756.1925	6238.0458
308.8855	-163.3919	-85.0076	511540.4688	-12.9846
-12.9975				
[5652]ENERGY: 12250000	3256.0000	5391.3571	5521.1362	
320.8856	-14439.6750	-1704.2224	0.0000	0.0000
7827.1686	6172.6501	306.0815	-1654.5185	6237.6274
308.7260	-61.7002	-106.0764	511540.4688	-19.8271
-19.8342				
[5688]ENERGY: 12260000	3277.0819	5308.7277	5457.6459	
339.0541	-14346.2268	-1766.0666	0.0000	0.0000
7904.6230	6174.8393	309.1104	-1729.7837	6238.0264
308.6800	-227.5907	-154.3129	511540.4688	-15.6856
-15.6571				
[5738]ENERGY: 12270000	3292.1298	5348.5501	5412.1808	
341.6855	-14298.4172	-1739.3484	0.0000	0.0000
7818.8527	6175.6333	305.7564	-1643.2195	6237.5035
308.7696	33.5310	-30.5965	511540.4688	-15.7787
-15.7940				
[5774]ENERGY: 12280000	3262.9648	5376.1676	5428.6547	
311.7520	-14375.1284	-1702.8088	0.0000	0.0000
7872.2989	6173.9008	307.8464	-1698.3981	6238.0134
308.5548	-206.8291	-121.1057	511540.4688	-18.0234

Supplementary Text 6

-18.0041
 [5824]ENERGY: 12290000 3227.4434 5345.3039 5445.3510
 325.4155 -14425.9091 -1714.1327 0.0000 0.0000
 7967.7926 6171.2645 311.5807 -1796.5281 6237.3548
 308.6548 28.9084 -18.6553 511540.4688 -20.4554
 -20.4923
 [5863]ENERGY: 12300000 3335.6413 5445.6677 5419.3782
 338.2025 -14500.1792 -1668.8402 0.0000 0.0000
 7807.9340 6177.8043 305.3294 -1630.1297 6237.5017
 308.4750 -26.0297 -98.5851 511540.4688 -14.7718
 -14.7620
 [5913]ENERGY: 12310000 3243.8798 5234.0732 5482.3185
 330.6990 -14285.0638 -1756.6941 0.0000 0.0000
 7925.4683 6174.6807 309.9256 -1750.7875 6238.0616
 308.4982 -255.7085 -195.0960 511540.4688 -11.4642
 -11.4369
 [5949]ENERGY: 12320000 3314.9937 5327.3766 5401.2426
 335.9826 -14337.0820 -1733.3657 0.0000 0.0000
 7869.1639 6178.3116 307.7238 -1690.8523 6238.5242
 308.5837 62.5562 78.4094 511540.4688 -20.9754
 -20.9858
 [5999]ENERGY: 12330000 3319.0338 5320.0711 5396.6177
 300.0379 -14390.1012 -1674.8633 0.0000 0.0000
 7905.8633 6176.6592 309.1589 -1729.2041 6238.5900
 308.8326 -133.7382 -168.5937 511540.4688 -14.6655
 -14.6758
 [6035]ENERGY: 12340000 3293.9266 5277.5188 5421.2602
 318.3401 -14331.3089 -1749.3242 0.0000 0.0000
 7942.6436 6173.0561 310.5972 -1769.5875 6238.8557
 308.7284 -58.3613 -74.7851 511540.4688 -15.6851
 -15.6797
 [6085]ENERGY: 12350000 3299.8475 5218.6206 5424.8713
 314.7597 -14199.8264 -1806.2635 0.0000 0.0000
 7921.8427 6173.8519 309.7838 -1747.9908 6238.7706
 308.9698 -104.5076 -235.6943 511540.4688 -14.4180
 -14.4349
 [6121]ENERGY: 12360000 3245.6774 5289.1589 5458.9134
 341.4063 -14349.6560 -1737.1334 0.0000 0.0000
 7926.1469 6174.5134 309.9521 -1751.6335 6238.3273
 308.5603 26.5127 -40.9436 511540.4688 -20.3296
 -20.3109
 [6171]ENERGY: 12370000 3176.8836 5319.8336 5421.7745
 327.0963 -14331.7957 -1723.1856 0.0000 0.0000
 7978.8405 6169.4472 312.0127 -1809.3933 6238.3300
 308.6440 158.4403 87.3371 511540.4688 -19.4697
 -19.4676
 [6207]ENERGY: 12380000 3193.5772 5416.6921 5459.1340
 297.8183 -14366.0837 -1741.7890 0.0000 0.0000
 7915.2617 6174.6106 309.5264 -1740.6510 6238.9555
 308.9324 11.7108 3.1501 511540.4688 -17.9320
 -17.9291
 [6257]ENERGY: 12390000 3304.7706 5343.5183 5445.1505
 329.2144 -14347.6319 -1722.9600 0.0000 0.0000
 7825.2030 6177.2650 306.0047 -1647.9380 6239.1347

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308.8268	36.4272	-35.3788	511540.4688	-12.7726
-12.7917				
[6296]ENERGY: 12400000	3275.1953	5392.2704	5453.8312	
308.9483	-14347.7526	-1774.5754	0.0000	0.0000
7867.7273	6175.6444	307.6676	-1692.0828	6239.7785
308.7968	-152.7960	-266.3310	511540.4688	-17.0122
-17.0055				
[6346]ENERGY: 12410000	3185.2599	5396.1309	5459.4274	
337.2548	-14411.2033	-1679.7036	0.0000	0.0000
7886.8478	6174.0139	308.4153	-1712.8339	6239.0997
308.6042	200.1393	155.9477	511540.4688	-13.9082
-13.9235				
[6382]ENERGY: 12420000	3316.7608	5239.1823	5434.1635	
317.1342	-14339.8044	-1734.9875	0.0000	0.0000
7942.5054	6174.9543	310.5918	-1767.5511	6239.6601
308.5911	112.5779	44.6716	511540.4688	-19.3817
-19.3485				
[6432]ENERGY: 12430000	3229.7406	5349.0779	5478.4593	
321.9167	-14355.9530	-1697.8481	0.0000	0.0000
7850.2106	6175.6040	306.9826	-1674.6066	6240.6640
308.7117	150.5393	27.3729	511540.4688	-17.0624
-17.0687				
[6468]ENERGY: 12440000	3351.8464	5276.2239	5481.2677	
323.9099	-14405.0728	-1699.1631	0.0000	0.0000
7850.9597	6179.9716	307.0119	-1670.9880	6240.3042
308.6318	31.3886	-71.6896	511540.4688	-19.4223
-19.4581				
[6518]ENERGY: 12450000	3340.9125	5265.6184	5421.0360	
312.3685	-14355.2050	-1752.7440	0.0000	0.0000
7943.9320	6175.9184	310.6476	-1768.0136	6240.9865
308.7173	-98.9260	-77.9948	511540.4688	-13.5888
-13.5466				
[6554]ENERGY: 12460000	3229.3198	5377.6852	5456.1297	
323.3910	-14446.9784	-1763.9075	0.0000	0.0000
7999.0996	6174.7394	312.8049	-1824.3601	6239.9200
308.6631	-105.3653	-82.9705	511540.4688	-21.3178
-21.3114				
[6604]ENERGY: 12470000	3257.6060	5313.8196	5470.3196	
308.4480	-14391.5140	-1661.0931	0.0000	0.0000
7880.4184	6178.0045	308.1639	-1702.4139	6239.7039
308.8386	180.1279	70.1184	511540.4688	-17.0008
-17.0393				
[6640]ENERGY: 12480000	3212.0776	5351.9852	5425.7924	
320.1856	-14374.5709	-1698.6927	0.0000	0.0000
7939.2574	6176.0346	310.4648	-1763.2228	6240.5546
308.7711	145.6174	74.4160	511540.4688	-16.3296
-16.3263				
[6690]ENERGY: 12490000	3262.1761	5274.1550	5482.4446	
332.5754	-14363.6834	-1748.8752	0.0000	0.0000
7934.6030	6173.3956	310.2828	-1761.2074	6241.2177
308.7476	116.5102	74.9269	511540.4688	-12.6877
-12.6839				
[6729]ENERGY: 12500000	3246.0994	5291.6578	5478.8175	
315.5910	-14420.6229	-1700.4312	0.0000	0.0000

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7964.0411	6175.1527	311.4339	-1788.8884	6240.6951
308.6174	-21.1200	26.1928	511540.4688	-18.4679
-18.4602				
[6779]ENERGY: 12510000	3319.2733	5328.2229	5491.0526	
320.7774	-14385.6947	-1752.9820	0.0000	0.0000
7858.5562	6179.2057	307.3090	-1679.3505	6241.8177
308.6845	-51.3230	-132.2556	511540.4688	-17.3295
-17.3053				
[6815]ENERGY: 12520000	3264.7316	5313.2846	5392.4707	
332.0378	-14331.4671	-1690.5347	0.0000	0.0000
7894.9285	6175.4513	308.7313	-1719.4772	6239.9764
308.6338	-104.0779	-37.2950	511540.4688	-20.6522
-20.6919				
[6865]ENERGY: 12530000	3286.5372	5258.3455	5427.7880	
314.7008	-14323.6339	-1735.6924	0.0000	0.0000
7946.1979	6174.2432	310.7362	-1771.9547	6240.0198
308.7626	125.4475	-15.0795	511540.4688	-19.5067
-19.4801				
[6901]ENERGY: 12540000	3295.3561	5337.5638	5458.7325	
325.2630	-14322.0489	-1778.6397	0.0000	0.0000
7863.3042	6179.5310	307.4946	-1683.7732	6240.9120
308.7681	-82.8542	-47.7465	511540.4688	-15.3887
-15.3897				
[6951]ENERGY: 12550000	3230.7470	5327.1191	5499.2808	
313.1159	-14414.8142	-1707.7333	0.0000	0.0000
7929.7697	6177.4851	310.0938	-1752.2846	6241.0352
308.6860	-77.6768	-55.3388	511540.4688	-18.5116
-18.5316				
[6987]ENERGY: 12560000	3350.4434	5277.8092	5469.1760	
329.7558	-14300.2365	-1776.8859	0.0000	0.0000
7830.3672	6180.4292	306.2066	-1649.9380	6240.8377
308.7781	-254.4588	-237.5636	511540.4688	-13.2578
-13.2476				
[7037]ENERGY: 12570000	3187.6970	5252.6257	5482.9078	
320.7589	-14283.9996	-1682.7536	0.0000	0.0000
7901.2372	6178.4734	308.9780	-1722.7638	6239.3025
308.8733	-46.7474	113.6923	511540.4688	-16.2524
-16.2463				
[7073]ENERGY: 12580000	3297.0453	5340.9994	5436.2570	
317.5502	-14431.7190	-1642.3326	0.0000	0.0000
7860.2290	6178.0293	307.3744	-1682.1997	6241.7580
308.7899	73.5653	12.0134	511540.4688	-12.4593
-12.4634				
[7123]ENERGY: 12590000	3287.0233	5283.1590	5485.3031	
335.4099	-14344.3710	-1717.9060	0.0000	0.0000
7849.8556	6178.4739	306.9687	-1671.3817	6239.9639
308.8514	37.9883	51.6727	511540.4688	-15.8500
-15.8401				
[7162]ENERGY: 12600000	3344.5061	5366.6670	5452.3839	
343.3640	-14477.1775	-1676.8416	0.0000	0.0000
7826.6184	6179.5203	306.0600	-1647.0980	6240.6059
308.8359	-129.1756	7.2629	511540.4688	-15.8749
-15.8827				
[7212]ENERGY: 12610000	3203.9573	5391.6573	5479.7753	

Supplementary Text 6

329.6340	-14410.2029	-1749.6528	0.0000	0.0000
7928.5710	6173.7391	310.0469	-1754.8319	6240.6219
308.8289	-23.1633	-83.0419	511540.4688	-12.7816
-12.7891				
[7248]ENERGY: 12620000	3236.9346	5245.2203	5418.3413	
327.5861	-14310.7865	-1667.9503	0.0000	0.0000
7930.2184	6179.5639	310.1113	-1750.6545	6242.4915
308.6943	169.4711	16.9316	511540.4688	-14.9818
-14.9787				
[7298]ENERGY: 12630000	3249.1089	5361.9369	5450.3685	
319.9925	-14311.2206	-1720.3435	0.0000	0.0000
7833.2067	6183.0493	306.3177	-1650.1574	6241.4220
308.5744	198.1484	31.0866	511540.4688	-17.0223
-17.0375				
[7334]ENERGY: 12640000	3324.7624	5333.9786	5424.9891	
329.2035	-14371.2046	-1756.4614	0.0000	0.0000
7892.8023	6178.0698	308.6482	-1714.7324	6241.5163
308.6298	-253.5543	-206.7366	511540.4688	-18.5688
-18.5669				
[7384]ENERGY: 12650000	3254.5087	5451.0248	5429.4713	
303.4300	-14335.0068	-1754.7687	0.0000	0.0000
7832.3831	6181.0423	306.2855	-1651.3408	6242.7869
308.7859	-87.2744	-80.0061	511540.4688	-16.1846
-16.1512				
[7420]ENERGY: 12660000	3275.9291	5281.0527	5450.4468	
328.6016	-14408.8014	-1682.9842	0.0000	0.0000
7933.5672	6177.8118	310.2423	-1755.7554	6241.5476
308.8719	100.1543	83.3565	511540.4688	-12.3350
-12.3478				
[7470]ENERGY: 12670000	3295.2988	5396.7917	5451.4991	
336.7188	-14411.7227	-1748.1423	0.0000	0.0000
7856.3413	6176.7846	307.2223	-1679.5566	6241.5394
308.7377	-188.2662	-234.8477	511540.4688	-17.1195
-17.1351				
[7506]ENERGY: 12680000	3305.1633	5364.0328	5457.5429	
328.1869	-14432.4598	-1659.2178	0.0000	0.0000
7817.6488	6180.8972	305.7093	-1636.7516	6241.5937
308.8441	-11.2558	-8.4797	511540.4688	-15.1727
-15.1676				
[7556]ENERGY: 12690000	3231.6274	5343.0706	5460.2403	
353.1679	-14387.0838	-1687.7613	0.0000	0.0000
7865.2449	6178.5061	307.5705	-1686.7388	6241.8750
308.9389	264.3761	129.4509	511540.4688	-19.8379
-19.8471				
[7595]ENERGY: 12700000	3201.8186	5324.4590	5466.3549	
337.0855	-14380.8318	-1686.6051	0.0000	0.0000
7913.2824	6175.5635	309.4490	-1737.7189	6241.6730
309.0123	14.4705	45.6179	511540.4688	-17.8525
-17.8767				
[7645]ENERGY: 12710000	3318.0654	5397.7641	5490.9228	
346.5978	-14534.4069	-1724.6378	0.0000	0.0000
7884.9298	6179.2353	308.3403	-1705.6945	6242.0581
308.9737	-199.3610	-89.6346	511540.4688	-17.8538
-17.7970				

Supplementary Text 6

[7681]ENERGY: 12720000	3283.8166	5424.1596	5411.8031	
308.3580	-14374.5927	-1735.9772	0.0000	0.0000
7861.4960	6179.0633	307.4239	-1682.4326	6244.1829
308.8188	118.9720	53.6109	511540.4688	-18.3958
-18.4257				
[7731]ENERGY: 12730000	3251.8434	5296.6409	5437.4304	
303.9817	-14413.3136	-1608.9960	0.0000	0.0000
7914.0563	6181.6430	309.4793	-1732.4133	6244.2770
309.0167	238.7029	279.8512	511540.4688	-19.3809
-19.3700				
[7767]ENERGY: 12740000	3302.0351	5327.5803	5433.1552	
338.3922	-14429.3047	-1677.6132	0.0000	0.0000
7885.6845	6179.9295	308.3698	-1705.7550	6243.3983
308.8082	110.6558	48.8019	511540.4688	-21.1381
-21.1422				
[7817]ENERGY: 12750000	3355.8983	5296.5061	5399.0761	
328.3848	-14427.1000	-1677.5492	0.0000	0.0000
7905.1676	6180.3836	309.1317	-1724.7840	6243.5492
308.8946	48.9943	-15.6326	511540.4688	-22.1204
-22.1314				
[7853]ENERGY: 12760000	3235.2848	5323.4235	5479.6881	
345.8794	-14345.6668	-1718.8214	0.0000	0.0000
7862.9954	6182.7830	307.4826	-1680.2124	6244.5357
309.1499	-66.1155	-62.4341	511540.4688	-14.5742
-14.5592				
[7903]ENERGY: 12770000	3306.4368	5415.1160	5479.7730	
327.6854	-14405.8844	-1756.1615	0.0000	0.0000
7817.6865	6184.6518	305.7108	-1633.0347	6244.8882
309.0859	-8.0103	-53.4055	511540.4688	-23.0497
-23.0476				
[7939]ENERGY: 12780000	3286.7529	5313.8808	5435.9938	
320.7603	-14348.7254	-1752.3088	0.0000	0.0000
7923.6228	6179.9762	309.8534	-1743.6466	6245.0388
308.8517	-145.8158	-103.4721	511540.4688	-15.5473
-15.5404				
[7989]ENERGY: 12790000	3266.5397	5320.4000	5464.7243	
307.5662	-14345.7143	-1725.7482	0.0000	0.0000
7892.0171	6179.7849	308.6175	-1712.2322	6245.5901
308.7762	27.9265	-1.2484	511540.4688	-16.4856
-16.4933				
[8028]ENERGY: 12800000	3277.9731	5398.6267	5404.4703	
334.9941	-14411.4215	-1710.9957	0.0000	0.0000
7887.1843	6180.8313	308.4285	-1706.3529	6245.1739
308.6668	-103.1412	-111.1501	511540.4688	-16.1524
-16.1580				
[8078]ENERGY: 12810000	3208.7553	5389.1977	5444.5754	
302.0284	-14350.5115	-1682.4620	0.0000	0.0000
7871.4641	6183.0475	307.8137	-1688.4166	6245.1801
308.8722	179.4655	129.1969	511540.4688	-17.5045
-17.5010				
[8114]ENERGY: 12820000	3206.5577	5302.8125	5436.4313	
322.2481	-14309.9944	-1710.4009	0.0000	0.0000
7934.1437	6181.7981	310.2648	-1752.3456	6245.2102
308.8847	192.6534	189.5969	511540.4688	-16.7391

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-16.7460
 [8164]ENERGY: 12830000 3259.4655 5440.2787 5449.1036
 299.4907 -14366.4066 -1736.0244 0.0000 0.0000
 7835.8879 6181.7955 306.4225 -1654.0924 6245.9981
 308.9091 16.9313 52.8944 511540.4688 -17.8135
 -17.7893
 [8200]ENERGY: 12840000 3233.5614 5440.2762 5368.2403
 357.8915 -14353.8075 -1732.5000 0.0000 0.0000
 7869.5129 6183.1747 307.7374 -1686.3382 6245.8750
 308.7147 146.5044 -6.4306 511540.4688 -18.7059
 -18.7190
 [8250]ENERGY: 12850000 3255.2771 5383.1063 5447.3580
 315.8758 -14307.3434 -1830.3943 0.0000 0.0000
 7918.3742 6182.2538 309.6481 -1736.1203 6246.1088
 308.5945 -59.6883 -151.5708 511540.4688 -12.4890
 -12.5001
 [8286]ENERGY: 12860000 3294.1057 5389.6953 5407.6363
 297.3801 -14351.9756 -1733.8944 0.0000 0.0000
 7880.9106 6183.8579 308.1831 -1697.0526 6245.3584
 308.6914 -75.6666 -89.5073 511540.4688 -17.0803
 -17.0586
 [8336]ENERGY: 12870000 3265.2774 5290.8317 5454.4955
 330.7366 -14366.9835 -1694.9167 0.0000 0.0000
 7900.9981 6180.4391 308.9687 -1720.5590 6246.3444
 308.8210 -7.4336 -100.1991 511540.4688 -13.5970
 -13.6280
 [8372]ENERGY: 12880000 3302.9289 5363.4584 5417.1221
 316.5754 -14498.4558 -1663.6426 0.0000 0.0000
 7945.1299 6183.1163 310.6944 -1762.0136 6247.4243
 308.8720 107.7431 44.4459 511540.4688 -13.7334
 -13.7329
 [8422]ENERGY: 12890000 3244.2521 5380.3226 5474.2586
 306.5553 -14442.9147 -1718.3157 0.0000 0.0000
 7937.7636 6181.9217 310.4064 -1755.8418 6246.6727
 308.7071 41.5874 -16.3328 511540.4688 -19.9797
 -19.9389
 [8461]ENERGY: 12900000 3261.4352 5309.5705 5427.0128
 347.5859 -14352.5498 -1674.2891 0.0000 0.0000
 7866.0615 6184.8271 307.6025 -1681.2344 6245.8086
 308.6881 18.5636 -73.7127 511540.4688 -16.3386
 -16.3669
 [8511]ENERGY: 12910000 3246.9712 5278.0980 5479.6139
 348.3387 -14316.0214 -1726.7036 0.0000 0.0000
 7871.3632 6181.6602 307.8098 -1689.7031 6246.7260
 308.8765 -5.8141 -16.8227 511540.4688 -18.0126
 -17.9967
 [8547]ENERGY: 12920000 3320.0581 5358.0392 5479.7740
 323.7298 -14543.0357 -1642.3598 0.0000 0.0000
 7886.6710 6182.8765 308.4084 -1703.7945 6245.5740
 308.7791 -17.3272 146.5948 511540.4688 -15.4171
 -15.4140
 [8597]ENERGY: 12930000 3236.2573 5406.7765 5485.5199
 329.5422 -14441.2731 -1631.3094 0.0000 0.0000
 7799.3423 6184.8557 304.9934 -1614.4866 6246.4112

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308.7428	345.8971	293.3449	511540.4688	-16.0348
-16.0634				
[8633]ENERGY: 12940000	3256.9482	5331.4726	5427.2667	
327.9983	-14354.6896	-1669.5923	0.0000	0.0000
7863.9015	6183.3055	307.5180	-1680.5960	6246.8469
308.9329	-2.3639	-94.1983	511540.4688	-14.8318
-14.8298				
[8683]ENERGY: 12950000	3253.3240	5443.3159	5450.0883	
337.0845	-14301.5668	-1822.0149	0.0000	0.0000
7823.8055	6184.0365	305.9500	-1639.7690	6247.5617
308.9733	-334.4582	-250.6407	511540.4688	-14.2020
-14.1834				
[8719]ENERGY: 12960000	3247.3785	5394.8673	5461.3277	
338.0594	-14357.8140	-1753.0654	0.0000	0.0000
7856.7125	6187.4660	307.2369	-1669.2465	6247.9987
309.0565	24.9882	-24.9809	511540.4688	-11.9150
-11.9286				
[8769]ENERGY: 12970000	3260.4950	5263.2880	5464.3162	
295.8803	-14333.5453	-1684.1979	0.0000	0.0000
7917.7212	6183.9576	309.6226	-1733.7637	6246.8957
308.9239	-93.0672	-49.2096	511540.4688	-15.3700
-15.3554				
[8805]ENERGY: 12980000	3283.4075	5296.0654	5447.1647	
327.2815	-14339.5573	-1728.9367	0.0000	0.0000
7898.0882	6183.5133	308.8549	-1714.5749	6246.7870
308.9985	-60.7418	-2.2558	511540.4688	-11.8794
-11.8778				
[8855]ENERGY: 12990000	3289.9186	5457.3884	5395.7942	
337.8182	-14452.5313	-1720.3594	0.0000	0.0000
7874.2793	6182.3081	307.9238	-1691.9712	6248.3154
309.1249	-68.6930	-78.1943	511540.4688	-12.0007
-12.0144				
[8894]ENERGY: 13000000	3273.1683	5463.8807	5434.5188	
307.3344	-14459.3818	-1748.4318	0.0000	0.0000
7914.0893	6185.1779	309.4806	-1728.9114	6249.1934
308.9285	40.0229	-79.4341	511540.4688	-15.4609
-15.4753				
[8944]ENERGY: 13010000	3291.3904	5333.9309	5416.5591	
349.0685	-14362.1254	-1725.3570	0.0000	0.0000
7880.1320	6183.5984	308.1527	-1696.5336	6248.2643
308.9763	-26.6411	56.3684	511540.4688	-15.1441
-15.1249				
[8980]ENERGY: 13020000	3236.1205	5425.4485	5470.6160	
328.8491	-14388.2757	-1737.1401	0.0000	0.0000
7848.5926	6184.2110	306.9193	-1664.3816	6249.4813
309.1742	12.2174	74.3711	511540.4688	-11.1025
-11.1205				
[9030]ENERGY: 13030000	3269.4958	5300.7914	5434.7422	
317.7295	-14445.1921	-1644.5257	0.0000	0.0000
7952.1378	6185.1789	310.9685	-1766.9589	6248.9590
308.8928	-71.3157	-69.9795	511540.4688	-16.2253
-16.2184				
[9066]ENERGY: 13040000	3219.0841	5354.3105	5529.9156	
314.2086	-14371.6652	-1673.6174	0.0000	0.0000

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7812.9210	6185.1571	305.5244	-1627.7639	6249.5294
308.9165	294.1176	211.4465	511540.4688	-16.9303
-16.9292				
[9116]ENERGY: 13050000	3331.1612	5303.9491	5436.2843	
327.8328	-14386.4365	-1762.1810	0.0000	0.0000
7937.8104	6188.4202	310.4082	-1749.3902	6250.0324
308.8980	-123.7033	-152.0937	511540.4688	-22.0011
-21.9949				
[9152]ENERGY: 13060000	3279.5214	5300.4580	5453.8228	
312.6367	-14314.4059	-1697.2511	0.0000	0.0000
7853.4600	6188.2419	307.1097	-1665.2181	6249.3963
308.8751	-244.9099	-176.8813	511540.4688	-21.1768
-21.1841				
[9202]ENERGY: 13070000	3244.2150	5376.1633	5385.6666	
327.0836	-14436.5873	-1691.9074	0.0000	0.0000
7982.6098	6187.2436	312.1601	-1795.3662	6249.7917
308.8158	-59.0330	-89.6742	511540.4688	-23.6302
-23.6231				
[9238]ENERGY: 13080000	3214.8338	5260.1709	5434.6317	
297.9058	-14285.5704	-1657.8135	0.0000	0.0000
7920.2995	6184.4577	309.7234	-1735.8418	6249.1616
308.9997	217.0000	151.4179	511540.4688	-20.2971
-20.2897				
[9288]ENERGY: 13090000	3250.3341	5352.1184	5462.3806	
308.3723	-14415.7634	-1717.6770	0.0000	0.0000
7943.9668	6183.7317	310.6489	-1760.2351	6249.9194
308.8521	92.3560	52.5118	511540.4688	-27.0559
-27.0356				
[9327]ENERGY: 13100000	3356.7322	5406.6068	5401.3641	
327.8843	-14414.5179	-1717.8590	0.0000	0.0000
7832.0650	6192.2757	306.2730	-1639.7894	6249.8313
309.1033	-226.4904	-108.0722	511540.4688	-20.1581
-20.1550				
[9377]ENERGY: 13110000	3368.8320	5433.7411	5436.1465	
311.6000	-14374.8902	-1759.5098	0.0000	0.0000
7773.9101	6189.8297	303.9989	-1584.0805	6251.0966
309.1903	-246.0613	-187.4225	511540.4688	-21.6242
-21.6565				
[9413]ENERGY: 13120000	3333.5901	5332.7315	5408.7439	
306.2115	-14401.7558	-1627.6099	0.0000	0.0000
7837.2500	6189.1611	306.4758	-1648.0889	6251.2722
308.9474	133.1781	114.6108	511540.4688	-22.7132
-22.7218				
[9463]ENERGY: 13130000	3242.9638	5332.5073	5396.3957	
309.3326	-14328.9811	-1736.9208	0.0000	0.0000
7971.2297	6186.5273	311.7151	-1784.7024	6252.0682
309.0180	-96.7273	-109.7469	511540.4688	-20.9136
-20.8985				
[9499]ENERGY: 13140000	3269.8584	5389.2697	5359.7047	
328.6398	-14383.9124	-1636.3950	0.0000	0.0000
7860.8917	6188.0567	307.4003	-1672.8350	6250.8568
308.9816	-41.0850	-38.6685	511540.4688	-18.2934
-18.2784				
[9549]ENERGY: 13150000	3311.0463	5440.3557	5418.9043	

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321.9441	-14348.1413	-1764.2514	0.0000	0.0000
7810.4546	6190.3124	305.4279	-1620.1423	6252.2295
308.9214	47.7806	-135.4874	511540.4688	-23.7704
-23.7908				
[9585]ENERGY: 13160000	3276.1191	5349.3639	5369.8298	
324.9492	-14388.1484	-1718.4683	0.0000	0.0000
7970.5386	6184.1840	311.6880	-1786.3546	6250.8824
308.7233	-138.7833	-198.4270	511540.4688	-23.3840
-23.3683				
[9635]ENERGY: 13170000	3303.1147	5468.9051	5419.2940	
322.2400	-14453.3520	-1721.4459	0.0000	0.0000
7845.9810	6184.7368	306.8172	-1661.2441	6250.3186
308.7680	-114.4544	51.8267	511540.4688	-22.5634
-22.5776				
[9671]ENERGY: 13180000	3310.6398	5401.1862	5431.6634	
310.5295	-14409.4509	-1744.6720	0.0000	0.0000
7887.1393	6187.0354	308.4267	-1700.1039	6249.7326
309.0786	-68.2658	-74.2775	511540.4688	-13.7833
-13.7845				
[9721]ENERGY: 13190000	3246.7208	5378.7640	5417.3576	
308.9421	-14312.1176	-1684.6287	0.0000	0.0000
7835.6618	6190.7000	306.4137	-1644.9617	6253.0078
308.9732	220.1561	22.9269	511540.4688	-16.4754
-16.4880				
[9760]ENERGY: 13200000	3241.2844	5392.2088	5421.5166	
323.8713	-14352.5405	-1771.0781	0.0000	0.0000
7931.5682	6186.8308	310.1641	-1744.7375	6252.9508
309.0511	74.4030	91.8930	511540.4688	-16.3799
-16.3503				
[9810]ENERGY: 13210000	3277.7741	5391.9683	5401.5535	
322.0722	-14384.3623	-1767.7281	0.0000	0.0000
7949.9956	6191.2733	310.8847	-1758.7223	6253.2077
309.1266	56.7412	34.7705	511540.4688	-17.9717
-17.9904				
[9846]ENERGY: 13220000	3255.7326	5383.0657	5443.6819	
324.8404	-14263.9454	-1806.6732	0.0000	0.0000
7859.4945	6196.1966	307.3457	-1663.2979	6253.5184
309.0510	-76.5465	-53.2187	511540.4688	-19.0387
-19.0380				
[9896]ENERGY: 13230000	3236.7281	5411.4998	5417.3348	
342.1143	-14368.5717	-1733.6357	0.0000	0.0000
7885.6002	6191.0697	308.3665	-1694.5305	6253.5567
309.0417	-65.5963	-20.2189	511540.4688	-18.2903
-18.2576				
[9932]ENERGY: 13240000	3199.2901	5416.9159	5410.3331	
328.0464	-14376.3261	-1715.7241	0.0000	0.0000
7925.3158	6187.8511	309.9196	-1737.4647	6253.0764
309.1219	110.5102	154.4966	511540.4688	-18.5887
-18.6133				
[9982]ENERGY: 13250000	3203.8646	5403.8685	5473.2206	
327.9582	-14348.5502	-1758.5504	0.0000	0.0000
7887.6749	6189.4863	308.4476	-1698.1887	6254.5060
309.0335	-37.0815	10.4397	511540.4688	-13.3125
-13.3392				

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[10018]ENERGY: 13260000	3283.9713	5376.6961	5382.5780
300.2396	-14338.0473	-1730.0177	0.0000
7916.7250	6192.1449	309.5837	-1724.5801
308.8686	5.9622	-177.6180	511540.4688
-15.9892			-15.9962
[10068]ENERGY: 13270000	3277.1536	5302.1226	5448.8288
353.9570	-14347.4134	-1764.4541	0.0000
7923.7867	6193.9811	309.8598	-1729.8056
309.0679	-5.8108	-96.1088	511540.4688
-16.0955			-16.1098
[10104]ENERGY: 13280000	3285.3981	5291.4762	5439.1718
288.2942	-14306.4959	-1761.5791	0.0000
7953.0688	6189.3341	311.0049	-1763.7347
309.0505	-48.1988	-82.7824	511540.4688
-19.9491			-19.9328
[10154]ENERGY: 13290000	3268.1520	5353.4264	5443.0366
325.2513	-14362.6090	-1723.8072	0.0000
7889.1638	6192.6140	308.5059	-1696.5498
308.9772	-22.0658	56.9667	511540.4688
-17.8722			-17.8987
[10193]ENERGY: 13300000	3204.8401	5309.2186	5502.0105
319.5650	-14319.2213	-1805.0227	0.0000
7977.9077	6189.2979	311.9762	-1788.6098
309.0125	121.7015	13.2647	511540.4688
-17.0741			-17.0544
[10243]ENERGY: 13310000	3338.5042	5312.9203	5444.0782
321.9289	-14340.7175	-1723.8485	0.0000
7839.6392	6192.5047	306.5692	-1647.1345
308.9661	-239.0425	-129.1730	511540.4688
-18.8062			-18.8090
[10279]ENERGY: 13320000	3272.5413	5276.3863	5443.9359
316.1451	-14311.9414	-1793.6598	0.0000
7988.2036	6191.6108	312.3788	-1796.5927
309.0156	126.5214	-91.6789	511540.4688
-20.3645			-20.3507
[10329]ENERGY: 13330000	3301.7960	5464.1129	5432.4850
305.4801	-14352.8749	-1690.6704	0.0000
7734.2671	6194.5958	302.4486	-1539.6713
309.1916	-1.7217	4.3833	511540.4688
-19.7077			-19.7456
[10365]ENERGY: 13340000	3217.4453	5355.5961	5445.6957
340.9011	-14377.6644	-1703.7948	0.0000
7915.5030	6193.6820	309.5359	-1721.8211
309.0385	59.4149	19.0131	511540.4688
-15.1778			-15.1654
[10415]ENERGY: 13350000	3334.8352	5324.1627	5446.5890
313.7564	-14328.5030	-1719.4666	0.0000
7825.9898	6197.3633	306.0355	-1628.6265
309.0420	142.7148	109.2486	511540.4688
-17.0578			-17.0579
[10451]ENERGY: 13360000	3260.4485	5339.7440	5431.5257
349.3103	-14287.0676	-1758.7367	0.0000
7863.8269	6199.0511	307.5151	-1664.7758
308.9415	-61.1013	-134.3592	511540.4688
			-18.0629

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-18.0616
[10501]ENERGY: 13370000 3320.2269 5290.0687 5423.3679
325.4871 -14328.1398 -1772.3410 0.0000 0.0000
7934.8819 6193.5516 310.2937 -1741.3302 6257.0364
308.9535 209.6189 107.8601 511540.4688 -15.6961
-15.7113
[10537]ENERGY: 13380000 3195.1126 5234.9564 5431.6143
338.5291 -14347.9175 -1691.5745 0.0000 0.0000
8028.5325 6189.2530 313.9559 -1839.2795 6257.6324
309.1847 40.7910 -26.5209 511540.4688 -17.7242
-17.7151
[10587]ENERGY: 13390000 3189.7103 5327.9133 5431.6293
341.2333 -14295.4902 -1725.3546 0.0000 0.0000
7921.6346 6191.2759 309.7756 -1730.3587 6257.9909
309.0978 -15.5045 16.3797 511540.4688 -12.9711
-12.9451
[10626]ENERGY: 13400000 3302.7814 5366.3378 5408.5587
322.5893 -14328.9519 -1718.2594 0.0000 0.0000
7841.5455 6194.6014 306.6438 -1646.9441 6257.4267
308.8482 5.0913 -16.5383 511540.4688 -17.7239
-17.7432
[10676]ENERGY: 13410000 3263.7071 5367.6324 5430.7155
325.0176 -14349.2403 -1759.6403 0.0000 0.0000
7914.1173 6192.3092 309.4817 -1721.8081 6257.6592
309.0911 -108.0995 -125.0204 511540.4688 -13.4351
-13.4377
[10712]ENERGY: 13420000 3245.9088 5378.5125 5433.5091
332.3069 -14403.4992 -1687.7986 0.0000 0.0000
7895.9680 6194.9075 308.7720 -1701.0605 6258.1218
308.9728 -38.9463 -51.5904 511540.4688 -16.2554
-16.2656
[10762]ENERGY: 13430000 3258.0481 5394.4792 5452.7125
325.4278 -14434.9442 -1714.1968 0.0000 0.0000
7913.5805 6195.1071 309.4607 -1718.4734 6257.9411
308.9609 52.4486 30.9044 511540.4688 -14.2456
-14.2311
[10798]ENERGY: 13440000 3258.5216 5471.6477 5438.2186
342.8946 -14398.3866 -1731.9522 0.0000 0.0000
7812.2527 6193.1963 305.4983 -1619.0563 6258.0627
309.0808 16.4059 -36.6122 511540.4688 -14.0532
-14.0480
[10848]ENERGY: 13450000 3302.5142 5313.2156 5478.0931
299.0285 -14356.9049 -1701.5096 0.0000 0.0000
7860.6470 6195.0838 307.3907 -1665.5631 6258.0289
308.8436 210.0724 78.6020 511540.4688 -19.3062
-19.3374
[10884]ENERGY: 13460000 3273.0504 5246.7739 5447.8670
333.7425 -14333.7935 -1705.2209 0.0000 0.0000
7933.5632 6195.9825 310.2421 -1737.5807 6258.6248
308.8616 25.6209 80.6450 511540.4688 -12.4899
-12.4698
[10934]ENERGY: 13470000 3255.2642 5373.6764 5421.4437
325.9197 -14387.6992 -1668.3562 0.0000 0.0000
7876.4253 6196.6739 308.0077 -1679.7514 6258.1262

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308.9384	67.1736	-94.0797	511540.4688	-12.6847
-12.7123				
[10970]ENERGY: 13480000	3249.7252	5421.0800	5450.2337	
316.7013	-14429.6429	-1720.5529	0.0000	0.0000
7907.1205	6194.6648	309.2081	-1712.4557	6258.0805
308.8820	34.8574	-82.7609	511540.4688	-18.1891
-18.1682				
[11020]ENERGY: 13490000	3271.2422	5443.1528	5491.6125	
313.5288	-14432.0386	-1721.6671	0.0000	0.0000
7830.1233	6195.9538	306.1971	-1634.1695	6257.6136
309.0162	-60.0533	-79.6609	511540.4688	-15.4009
-15.3799				
[11059]ENERGY: 13500000	3226.3166	5396.7629	5458.7289	
314.5537	-14377.6625	-1720.8902	0.0000	0.0000
7892.4123	6190.2218	308.6329	-1702.1905	6258.3669
309.0202	201.1535	75.5953	511540.4688	-17.6241
-17.6537				
[11109]ENERGY: 13510000	3218.7827	5344.9719	5462.3356	
323.0132	-14360.8367	-1679.3089	0.0000	0.0000
7884.1000	6193.0578	308.3079	-1691.0422	6256.3137
309.0669	-78.6560	-84.2032	511540.4688	-15.2165
-15.2056				
[11145]ENERGY: 13520000	3238.0640	5370.1322	5481.3602	
339.2075	-14417.2973	-1684.3770	0.0000	0.0000
7866.8499	6193.9395	307.6333	-1672.9104	6257.4093
309.0746	114.8044	109.7969	511540.4688	-18.3811
-18.3612				
[11195]ENERGY: 13530000	3303.0050	5376.3135	5424.4234	
304.9683	-14387.4233	-1795.0690	0.0000	0.0000
7968.6192	6194.8371	311.6130	-1773.7821	6257.3785
309.0612	-12.3053	-109.3357	511540.4688	-15.7903
-15.8113				
[11231]ENERGY: 13540000	3272.4423	5443.1060	5433.6543	
334.3152	-14378.7433	-1785.5041	0.0000	0.0000
7872.8181	6192.0886	307.8667	-1680.7295	6258.1008
309.0647	9.1115	-62.7001	511540.4688	-18.5950
-18.6022				
[11281]ENERGY: 13550000	3271.2650	5310.5562	5441.0124	
317.1483	-14423.7276	-1653.0199	0.0000	0.0000
7929.8799	6193.1144	310.0981	-1736.7655	6256.6645
309.1093	-36.9428	13.0521	511540.4688	-15.4779
-15.4582				
[11317]ENERGY: 13560000	3207.7417	5334.5352	5474.7571	
321.5041	-14326.2957	-1786.6092	0.0000	0.0000
7966.0557	6191.6889	311.5127	-1774.3668	6257.3356
309.0215	67.5621	35.5883	511540.4688	-16.3168
-16.3331				
[11367]ENERGY: 13570000	3256.1708	5385.3130	5450.6548	
313.3571	-14320.5299	-1756.5674	0.0000	0.0000
7864.9202	6193.3186	307.5578	-1671.6016	6257.3346
309.1405	238.1745	158.3454	511540.4688	-13.8682
-13.8681				
[11403]ENERGY: 13580000	3247.0710	5258.2465	5438.1288	
319.4367	-14370.5475	-1668.9333	0.0000	0.0000

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7972.8364	6196.2385	311.7779	-1776.5979	6256.9010
308.7959	147.3219	87.8730	511540.4688	-14.2545
-14.2428				
[11453]ENERGY: 13590000	3234.2756	5452.7354	5455.8857	
313.9573	-14433.6565	-1762.9837	0.0000	0.0000
7927.4179	6187.6318	310.0018	-1739.7861	6256.6176
309.0941	-61.0409	-136.6125	511540.4688	-18.9226
-18.9262				
[11492]ENERGY: 13600000	3306.6098	5393.4500	5458.2049	
328.7318	-14425.5364	-1713.4700	0.0000	0.0000
7847.4596	6195.4498	306.8750	-1652.0098	6257.4902
309.2872	-62.8375	-39.6787	511540.4688	-16.9599
-16.9510				
[11542]ENERGY: 13610000	3304.9838	5322.6480	5431.8575	
345.6933	-14364.1610	-1747.9640	0.0000	0.0000
7900.1090	6193.1666	308.9339	-1706.9424	6258.4142
309.1604	75.4568	-42.0086	511540.4688	-20.6891
-20.6767				
[11578]ENERGY: 13620000	3304.5605	5383.9440	5422.8593	
310.1798	-14308.3697	-1697.7866	0.0000	0.0000
7783.9398	6199.3271	304.3911	-1584.6128	6258.3582
308.9458	121.1097	38.4691	511540.4688	-17.6942
-17.7267				
[11628]ENERGY: 13630000	3345.1345	5320.2035	5409.8853	
325.6741	-14317.6900	-1750.9150	0.0000	0.0000
7865.0420	6197.3345	307.5626	-1667.7075	6258.6766
309.1927	-328.2054	-262.1751	511540.4688	-13.1744
-13.1604				
[11664]ENERGY: 13640000	3250.3331	5296.4245	5434.5208	
334.9905	-14325.7995	-1728.0607	0.0000	0.0000
7933.8497	6196.2585	310.2533	-1737.5912	6260.4372
309.2038	103.0357	32.6224	511540.4688	-18.0993
-18.0834				
[11714]ENERGY: 13650000	3282.1323	5340.5350	5422.4098	
331.1050	-14436.7963	-1666.6771	0.0000	0.0000
7920.9726	6193.6813	309.7498	-1727.2913	6260.0623
308.9420	-69.7013	-48.5746	511540.4688	-22.5646
-22.5983				
[11750]ENERGY: 13660000	3321.4807	5349.0405	5467.0476	
333.9259	-14415.6525	-1675.8790	0.0000	0.0000
7818.3685	6198.3317	305.7374	-1620.0368	6261.3507
309.1295	130.7114	66.4683	511540.4688	-19.6628
-19.6573				
[11800]ENERGY: 13670000	3229.1330	5376.5301	5448.5015	
317.1708	-14393.8792	-1715.1605	0.0000	0.0000
7932.8956	6195.1914	310.2160	-1737.7043	6260.9459
309.0670	46.2950	13.6643	511540.4688	-14.8398
-14.8293				
[11836]ENERGY: 13680000	3293.1217	5373.9866	5409.8561	
355.7572	-14424.1623	-1778.0040	0.0000	0.0000
7968.7002	6199.2553	311.6161	-1769.4449	6262.7330
308.9317	-2.8690	-145.7440	511540.4688	-20.4023
-20.4365				
[11886]ENERGY: 13690000	3223.8259	5292.2233	5469.4703	

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302.8026	-14345.0649	-1630.9385	0.0000	0.0000
7886.2745	6198.5931	308.3929	-1687.6814	6261.7411
308.9547	155.9735	164.7895	511540.4688	-18.4418
-18.4000				
[11925]ENERGY: 13700000	3341.3964	5400.5512	5455.6971	
326.5281	-14414.0251	-1738.3017	0.0000	0.0000
7821.6391	6193.4852	305.8653	-1628.1539	6261.6336
308.9595	-159.7281	-162.5605	511540.4688	-14.3063
-14.2935				
[11975]ENERGY: 13710000	3304.4796	5291.0605	5471.0618	
310.7340	-14370.8437	-1696.5797	0.0000	0.0000
7890.3677	6200.2802	308.5530	-1690.0876	6263.2008
308.9317	126.8212	55.8279	511540.4688	-19.3991
-19.4272				
[12011]ENERGY: 13720000	3334.5238	5233.0479	5470.7026	
300.8606	-14233.1536	-1787.4006	0.0000	0.0000
7882.6364	6201.2170	308.2506	-1681.4194	6262.9593
309.0890	96.0054	-2.8759	511540.4688	-14.4847
-14.4723				
[12061]ENERGY: 13730000	3207.3468	5383.2232	5438.3035	
321.6546	-14325.3936	-1748.8808	0.0000	0.0000
7920.2808	6196.5344	309.7227	-1723.7464	6263.0845
308.9989	212.0326	87.9208	511540.4688	-15.9377
-15.9475				
[12097]ENERGY: 13740000	3280.1236	5481.5952	5424.7434	
316.4594	-14358.8477	-1812.0213	0.0000	0.0000
7865.3252	6197.3778	307.5737	-1667.9475	6264.0261
309.0953	-16.4954	-33.8664	511540.4688	-12.6683
-12.6512				
[12147]ENERGY: 13750000	3256.0639	5350.6329	5464.7062	
312.1126	-14334.4593	-1722.1088	0.0000	0.0000
7873.9043	6200.8517	307.9092	-1673.0526	6263.7629
309.2530	60.7051	-71.4846	511540.4688	-12.3276
-12.3266				
[12183]ENERGY: 13760000	3274.8676	5325.7593	5465.0865	
326.0807	-14452.8658	-1652.5659	0.0000	0.0000
7913.9155	6200.2779	309.4738	-1713.6376	6263.4306
309.1591	170.1654	108.1952	511540.4688	-17.9124
-17.9376				
[12233]ENERGY: 13770000	3423.4457	5379.3759	5399.0278	
325.4402	-14449.4764	-1762.2863	0.0000	0.0000
7888.1032	6203.6300	308.4644	-1684.4732	6264.2956
309.2336	99.5744	-64.7452	511540.4688	-14.5003
-14.5084				
[12269]ENERGY: 13780000	3230.4619	5424.9932	5451.9446	
329.0621	-14417.3608	-1745.7056	0.0000	0.0000
7926.4022	6199.7976	309.9621	-1726.6046	6263.9633
309.2079	28.2100	-85.5037	511540.4688	-16.8757
-16.8646				
[12319]ENERGY: 13790000	3305.9333	5341.9188	5507.5365	
355.2592	-14468.3446	-1743.1561	0.0000	0.0000
7904.7923	6203.9394	309.1170	-1700.8529	6264.7498
309.3583	239.4449	167.3659	511540.4688	-11.5158
-11.5081				

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[12358]ENERGY: 13800000	3274.8971	5321.6895	5424.7260
342.3285	-14339.7519	-1740.6686	0.0000
7914.8683	6198.0890	309.5110	-1716.7793
309.3672	-125.2163	-110.0706	511540.4688
-15.8611			-15.8662
[12408]ENERGY: 13810000	3292.8216	5298.1104	5487.9997
321.0214	-14385.8498	-1696.5243	0.0000
7885.2976	6202.8766	308.3547	-1682.4211
309.3172	-97.0767	-72.4952	511540.4688
-15.2937			-15.2998
[12444]ENERGY: 13820000	3266.3270	5289.2437	5441.6593
336.1584	-14279.9239	-1759.2814	0.0000
7907.1577	6201.3409	309.2095	-1705.8168
309.3121	-92.9132	-131.4232	511540.4688
-14.0379			-14.0066
[12494]ENERGY: 13830000	3237.0361	5267.4139	5422.1254
315.2389	-14301.0476	-1717.6323	0.0000
7978.4584	6201.5929	311.9977	-1776.8656
309.3681	-25.0851	-108.4558	511540.4688
-15.2230			-15.2519
[12530]ENERGY: 13840000	3268.2712	5377.0373	5410.7622
302.4205	-14373.5992	-1777.0012	0.0000
7990.6335	6198.5244	312.4738	-1792.1091
309.4436	-105.5795	-122.7738	511540.4688
-11.6975			-11.6930
[12580]ENERGY: 13850000	3292.5357	5287.9199	5438.5116
310.4432	-14333.4532	-1756.4149	0.0000
7963.7236	6203.2660	311.4215	-1760.4576
309.3096	241.1342	49.8853	511540.4688
-17.5948			-17.5808
[12616]ENERGY: 13860000	3296.3599	5283.6616	5457.6466
326.1150	-14464.0221	-1637.1650	0.0000
7940.3415	6202.9375	310.5072	-1737.4040
309.2506	261.8477	254.9817	511540.4688
-13.5831			-13.5945
[12666]ENERGY: 13870000	3237.8178	5438.9955	5406.0673
318.4064	-14384.2820	-1674.2877	0.0000
7858.4631	6201.1806	307.3053	-1657.2825
309.2284	110.1420	110.4227	511540.4688
-18.2861			-18.2778
[12702]ENERGY: 13880000	3266.4547	5362.1867	5465.8485
314.3743	-14386.0917	-1745.3730	0.0000
7926.6082	6204.0078	309.9701	-1722.6005
309.3821	113.3975	-1.5779	511540.4688
-13.0251			-13.0405
[12752]ENERGY: 13890000	3306.2696	5376.7196	5430.9315
331.0341	-14421.9596	-1714.9542	0.0000
7892.0878	6200.1287	308.6202	-1691.9592
309.5117	-211.3120	-150.4667	511540.4688
-18.5992			-18.6093
[12791]ENERGY: 13900000	3336.1509	5393.7699	5392.7006
331.3130	-14391.9481	-1744.6032	0.0000
7883.6937	6201.0768	308.2920	-1682.6169
309.5324	-104.0964	-52.0141	511540.4688
			-13.2996

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-13.3345
 [12841]ENERGY: 13910000 3229.8258 5437.4647 5458.8040
 319.5662 -14336.6992 -1787.1401 0.0000 0.0000
 7881.6996 6203.5211 308.2140 -1678.1785 6265.6195
 309.3023 123.9742 16.3841 511540.4688 -15.2126
 -15.1927
 [12877]ENERGY: 13920000 3298.5747 5354.3419 5453.9053
 325.7933 -14367.0903 -1738.6244 0.0000 0.0000
 7877.4741 6204.3746 308.0487 -1673.0995 6265.9692
 309.3892 -130.1745 -160.5236 511540.4688 -11.2939
 -11.3138
 [12927]ENERGY: 13930000 3307.7108 5278.4255 5485.4543
 316.2034 -14332.5404 -1718.5701 0.0000 0.0000
 7865.7944 6202.4780 307.5920 -1663.3164 6265.9319
 309.5892 -58.4978 -165.2744 511540.4688 -16.2288
 -16.1949
 [12963]ENERGY: 13940000 3291.7010 5382.4713 5448.6336
 302.4091 -14340.4017 -1768.5824 0.0000 0.0000
 7884.6311 6200.8620 308.3286 -1683.7691 6265.9166
 309.4954 -14.0560 -63.8452 511540.4688 -17.4473
 -17.4672
 [13013]ENERGY: 13950000 3386.8119 5440.8611 5428.0049
 326.3620 -14355.6159 -1809.0793 0.0000 0.0000
 7785.0460 6202.3908 304.4343 -1582.6553 6265.1159
 309.5314 -143.5326 -129.3783 511540.4688 -13.7530
 -13.7416
 [13049]ENERGY: 13960000 3220.0242 5449.6733 5416.3927
 312.9828 -14440.2125 -1688.5271 0.0000 0.0000
 7931.9379 6202.2713 310.1786 -1729.6666 6266.8015
 309.6556 134.6705 119.8043 511540.4688 -14.2640
 -14.2729
 [13099]ENERGY: 13970000 3206.6225 5323.9679 5460.7184
 312.7014 -14356.1282 -1704.0520 0.0000 0.0000
 7956.2276 6200.0576 311.1284 -1756.1700 6266.0310
 309.5997 -22.5701 18.3117 511540.4688 -18.6242
 -18.6357
 [13135]ENERGY: 13980000 3278.1441 5422.4855 5447.7133
 323.1044 -14396.5858 -1725.1407 0.0000 0.0000
 7850.9855 6200.7063 307.0129 -1650.2791 6266.1987
 309.5089 -24.1168 -21.3334 511540.4688 -11.2980
 -11.2955
 [13185]ENERGY: 13990000 3280.7723 5283.8779 5485.0012
 346.7864 -14415.8469 -1676.8903 0.0000 0.0000
 7900.0019 6203.7024 308.9297 -1696.2995 6266.4149
 309.5729 40.8151 -40.5277 511540.4688 -19.2414
 -19.2305
 [13224]ENERGY: 14000000 3305.4618 5375.9509 5398.1831
 297.4546 -14293.7916 -1760.8284 0.0000 0.0000
 7883.6297 6206.0602 308.2895 -1677.5695 6266.8490
 309.3863 23.2841 -17.2702 511540.4688 -17.9866
 -17.9876
 [13274]ENERGY: 14010000 3239.4520 5347.7773 5452.5839
 320.7563 -14373.0298 -1735.8944 0.0000 0.0000
 7950.1673 6201.8126 310.8914 -1748.3547 6267.0001

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309.4061	185.8528	112.9694	511540.4688	-12.9143
-12.9244				
[13310]ENERGY: 14020000	3256.1527	5354.1845	5403.0317	
309.5921	-14348.4820	-1746.7306	0.0000	0.0000
7974.3483	6202.0967	311.8370	-1772.2516	6266.7042
309.5861	-83.7582	-95.9907	511540.4688	-13.9276
-13.9103				
[13360]ENERGY: 14030000	3299.2581	5222.2201	5427.4935	
336.7159	-14379.7576	-1690.0974	0.0000	0.0000
7986.9354	6202.7680	312.3292	-1784.1674	6266.8798
309.6435	26.6622	-82.2924	511540.4688	-14.5844
-14.5963				
[13396]ENERGY: 14040000	3260.6337	5218.7557	5429.0363	
322.2543	-14313.6996	-1716.2535	0.0000	0.0000
8001.0358	6201.7628	312.8806	-1799.2731	6266.7206
309.4237	16.9437	-32.4719	511540.4688	-16.1787
-16.1743				
[13446]ENERGY: 14050000	3238.2299	5273.0190	5436.0171	
309.4364	-14322.0490	-1708.2716	0.0000	0.0000
7980.0583	6206.4402	312.0603	-1773.6181	6266.4814
309.5134	182.6383	121.5574	511540.4688	-10.8650
-10.8569				
[13482]ENERGY: 14060000	3247.0713	5295.4200	5488.0517	
336.0239	-14404.8401	-1633.3149	0.0000	0.0000
7873.6173	6202.0293	307.8979	-1671.5880	6266.1754
309.3537	11.6605	67.0346	511540.4688	-14.0738
-14.0735				
[13532]ENERGY: 14070000	3225.7497	5397.3266	5390.6355	
308.9924	-14396.7478	-1682.3273	0.0000	0.0000
7958.7476	6202.3768	311.2269	-1756.3708	6266.4225
309.3199	-91.0880	-93.4415	511540.4688	-18.3355
-18.3444				
[13568]ENERGY: 14080000	3237.4451	5403.2409	5443.8579	
309.8937	-14352.1060	-1702.7759	0.0000	0.0000
7864.0018	6203.5576	307.5219	-1660.4443	6267.2352
309.4507	-83.3626	-78.7385	511540.4688	-11.0419
-11.0131				
[13618]ENERGY: 14090000	3249.1656	5303.5546	5470.0549	
336.4251	-14348.3116	-1750.0325	0.0000	0.0000
7943.7165	6204.5726	310.6392	-1739.1439	6268.5493
309.4084	-50.2538	-39.1789	511540.4688	-16.2027
-16.2284				
[13657]ENERGY: 14100000	3281.3006	5330.7401	5435.2693	
325.2906	-14390.8423	-1699.7264	0.0000	0.0000
7924.6972	6206.7290	309.8954	-1717.9682	6267.7875
309.6086	289.4324	142.4397	511540.4688	-12.6172
-12.6284				
[13707]ENERGY: 14110000	3304.5145	5312.6353	5488.4309	
327.7427	-14472.1104	-1723.5457	0.0000	0.0000
7970.8360	6208.5032	311.6997	-1762.3328	6269.0276
309.5944	115.9217	93.2756	511540.4688	-16.2103
-16.1857				
[13743]ENERGY: 14120000	3375.2894	5336.9300	5409.0378	
334.8900	-14398.5575	-1713.4085	0.0000	0.0000

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7866.3669	6210.5481	307.6144	-1655.8188	6268.0791
309.6192	-87.8783	-40.8662	511540.4688	-17.4501
-17.4482				
[13793]ENERGY: 14130000	3277.0255	5344.0755	5455.0595	
327.3300	-14384.4604	-1782.5747	0.0000	0.0000
7969.4408	6205.8962	311.6451	-1763.5446	6270.2257
309.5242	-80.3530	-95.9472	511540.4688	-16.1776
-16.2014				
[13829]ENERGY: 14140000	3258.3546	5450.8372	5447.1705	
327.3167	-14395.8706	-1723.3642	0.0000	0.0000
7844.9108	6209.3551	306.7754	-1635.5557	6271.4878
309.5902	-20.7691	36.7954	511540.4688	-18.1449
-18.1364				
[13879]ENERGY: 14150000	3340.1305	5349.2851	5436.4091	
311.3519	-14317.9847	-1793.4806	0.0000	0.0000
7884.3976	6210.1087	308.3195	-1674.2888	6271.2227
309.5069	-43.4036	-125.2853	511540.4688	-16.5282
-16.5285				
[13915]ENERGY: 14160000	3192.6687	5381.0072	5409.5452	
319.5603	-14406.6421	-1694.9811	0.0000	0.0000
8000.3655	6201.5237	312.8544	-1798.8418	6270.7529
309.6772	184.1516	70.6965	511540.4688	-18.5703
-18.5581				
[13965]ENERGY: 14170000	3281.0459	5329.6975	5453.6785	
313.1596	-14393.9818	-1701.3129	0.0000	0.0000
7924.0833	6206.3702	309.8714	-1717.7131	6270.2586
309.7499	142.4763	106.5021	511540.4688	-15.0011
-15.0126				
[14001]ENERGY: 14180000	3332.4171	5364.9186	5469.2386	
314.1956	-14384.9202	-1731.2096	0.0000	0.0000
7846.9627	6211.6027	306.8556	-1635.3600	6271.5166
309.6329	13.2414	-26.9085	511540.4688	-14.6682
-14.6783				
[14051]ENERGY: 14190000	3266.8753	5446.6316	5452.0867	
324.8742	-14343.6879	-1828.1316	0.0000	0.0000
7890.5581	6209.2065	308.5604	-1681.3516	6271.2647
309.5838	-35.3043	-105.9246	511540.4688	-13.4202
-13.4363				
[14090]ENERGY: 14200000	3231.4162	5327.8369	5397.7535	
327.8152	-14344.7978	-1702.7745	0.0000	0.0000
7970.2549	6207.5044	311.6769	-1762.7505	6270.4890
309.5709	-167.4715	-94.8971	511540.4688	-14.5860
-14.5633				
[14140]ENERGY: 14210000	3280.3384	5367.2556	5406.4667	
318.2164	-14358.1326	-1713.7131	0.0000	0.0000
7906.8917	6207.3231	309.1991	-1699.5686	6270.8080
309.6543	-176.8656	-50.5780	511540.4688	-13.0180
-13.0010				
[14176]ENERGY: 14220000	3339.6216	5414.7241	5410.0109	
322.8518	-14467.0028	-1669.6756	0.0000	0.0000
7859.7151	6210.2451	307.3543	-1649.4700	6270.3429
309.6082	1.4621	114.7680	511540.4688	-19.0820
-19.1016				
[14226]ENERGY: 14230000	3217.2656	5372.2062	5438.8897	

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319.4323	-14373.6267	-1691.3949	0.0000	0.0000
7924.9811	6207.7534	309.9065	-1717.2277	6271.1232
309.7448	262.8980	208.7453	511540.4688	-16.4287
-16.4432				
[14262]ENERGY: 14240000	3245.6874	5504.0994	5420.4625	
321.7935	-14482.2829	-1745.1188	0.0000	0.0000
7941.4404	6206.0815	310.5502	-1735.3589	6271.4364
309.5223	76.5379	-90.4138	511540.4688	-13.6278
-13.6071				
[14312]ENERGY: 14250000	3252.1022	5439.7421	5445.1456	
315.9775	-14442.8955	-1757.3381	0.0000	0.0000
7955.9063	6208.6402	311.1158	-1747.2662	6272.2011
309.7707	127.9012	42.9822	511540.4688	-17.1917
-17.1902				
[14348]ENERGY: 14260000	3278.6368	5405.7354	5476.0131	
322.2794	-14426.8995	-1731.6615	0.0000	0.0000
7883.4783	6207.5820	308.2835	-1675.8963	6271.3645
309.8410	38.7616	62.2136	511540.4688	-15.9331
-15.9312				
[14398]ENERGY: 14270000	3251.2225	5402.7114	5424.0700	
329.5703	-14325.7462	-1780.7137	0.0000	0.0000
7907.9046	6209.0189	309.2387	-1698.8857	6273.2928
309.7189	-96.8969	-148.8104	511540.4688	-13.5310
-13.5485				
[14434]ENERGY: 14280000	3271.9498	5356.6032	5454.5560	
314.6200	-14359.2857	-1738.3260	0.0000	0.0000
7909.4418	6209.5591	309.2988	-1699.8827	6272.5006
309.5631	39.2914	-50.1239	511540.4688	-19.5203
-19.5258				
[14484]ENERGY: 14290000	3265.9341	5360.7542	5456.6220	
305.9415	-14360.7674	-1687.1653	0.0000	0.0000
7867.7963	6209.1153	307.6703	-1658.6810	6272.6396
309.6999	-4.3754	-85.2649	511540.4688	-13.4769
-13.4689				
[14523]ENERGY: 14300000	3283.1667	5409.6275	5461.8445	
322.1014	-14482.7136	-1733.9428	0.0000	0.0000
7947.9363	6208.0201	310.8042	-1739.9162	6272.8383
309.5101	167.5815	16.7835	511540.4688	-14.2571
-14.2434				
[14573]ENERGY: 14310000	3288.1116	5305.4925	5432.2624	
321.2550	-14398.7392	-1740.0733	0.0000	0.0000
8000.0415	6208.3505	312.8417	-1791.6910	6272.3209
309.4866	-111.8219	-100.6126	511540.4688	-17.3921
-17.4029				
[14609]ENERGY: 14320000	3151.7122	5362.1222	5419.5420	
325.1019	-14389.9068	-1628.1304	0.0000	0.0000
7967.5853	6208.0264	311.5725	-1759.5588	6271.9190
309.6630	195.4718	158.9229	511540.4688	-12.5272
-12.5215				
[14659]ENERGY: 14330000	3216.2780	5270.6042	5451.0494	
331.4196	-14305.2896	-1768.9886	0.0000	0.0000
8011.1588	6206.2318	313.2765	-1804.9270	6273.5850
309.7670	14.8849	-44.5487	511540.4688	-16.0080
-16.0228				

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[14695]ENERGY: 14340000	3205.2466	5254.6619	5494.6304	
326.5062	-14277.0511	-1717.7460	0.0000	0.0000
7922.6603	6208.9083	309.8158	-1713.7521	6272.2157
309.6237	226.0356	150.5896	511540.4688	-14.2828
-14.2796				
[14745]ENERGY: 14350000	3286.9795	5390.3568	5448.1074	
337.6648	-14387.5258	-1816.7097	0.0000	0.0000
7948.5667	6207.4396	310.8288	-1741.1271	6274.3080
309.6369	129.0383	-45.1919	511540.4688	-17.1851
-17.1909				
[14781]ENERGY: 14360000	3335.2444	5360.7181	5445.9914	
324.7698	-14369.8304	-1761.1802	0.0000	0.0000
7878.8441	6214.5572	308.1023	-1664.2869	6273.1001
309.6660	26.1931	20.7455	511540.4688	-19.6681
-19.6573				
[14831]ENERGY: 14370000	3329.7887	5390.4389	5448.6811	
320.6316	-14363.7726	-1799.9084	0.0000	0.0000
7883.7258	6209.5850	308.2932	-1674.1407	6273.0016
309.5555	-150.9843	-214.2177	511540.4688	-13.4160
-13.3922				
[14867]ENERGY: 14380000	3220.3199	5390.4813	5489.1668	
317.7435	-14375.2149	-1749.0889	0.0000	0.0000
7915.9996	6209.4074	309.5553	-1706.5922	6272.8455
309.4373	41.8644	-46.0099	511540.4688	-17.2956
-17.3114				
[14917]ENERGY: 14390000	3330.2532	5397.0881	5433.2763	
341.8349	-14372.3633	-1765.7156	0.0000	0.0000
7845.2172	6209.5908	306.7873	-1635.6264	6272.9495
309.5731	-205.7485	-144.1444	511540.4688	-11.7927
-11.7890				
[14956]ENERGY: 14400000	3314.4650	5438.5796	5357.8222	
342.2805	-14359.4935	-1760.6378	0.0000	0.0000
7875.5776	6208.5936	307.9746	-1666.9840	6273.3433
309.6436	-114.5475	-70.7390	511540.4688	-18.8841
-18.8843				
[15006]ENERGY: 14410000	3205.4190	5360.3008	5482.4433	
326.4488	-14398.2818	-1685.1014	0.0000	0.0000
7915.5147	6206.7435	309.5363	-1708.7712	6272.1697
309.7670	194.3994	142.5159	511540.4688	-13.8469
-13.8529				
[15042]ENERGY: 14420000	3336.9739	5380.0626	5406.1787	
333.1275	-14371.7046	-1739.3340	0.0000	0.0000
7867.8229	6213.1269	307.6713	-1654.6960	6273.7576
309.7677	-62.3187	-82.4316	511540.4688	-11.1611
-11.1524				
[15092]ENERGY: 14430000	3341.5724	5368.0801	5430.9877	
318.4484	-14432.3792	-1766.9706	0.0000	0.0000
7947.4024	6207.1412	310.7833	-1740.2612	6272.9834
309.7677	-132.4250	-114.1407	511540.4688	-17.6835
-17.6822				
[15128]ENERGY: 14440000	3275.7686	5337.9119	5492.3753	
311.3306	-14434.2334	-1655.9973	0.0000	0.0000
7883.6047	6210.7605	308.2885	-1672.8442	6272.6312
309.8724	-6.9881	87.3518	511540.4688	-8.7614

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-8.7570
 [15178]ENERGY: 14450000 3326.8566 5405.7597 5500.5255
 307.8100 -14432.7075 -1709.1468 0.0000 0.0000
 7810.5739 6209.6713 305.4326 -1600.9026 6272.5479
 309.7253 -238.6573 -249.1926 511540.4688 -12.3356
 -12.3509
 [15214]ENERGY: 14460000 3231.4433 5426.6638 5419.7108
 303.5326 -14296.9379 -1739.1546 0.0000 0.0000
 7867.3457 6212.6038 307.6527 -1654.7419 6272.4433
 309.8211 137.2981 -40.9370 511540.4688 -12.5045
 -12.5142
 [15264]ENERGY: 14470000 3272.5948 5305.6995 5419.3976
 330.8369 -14400.0848 -1731.9057 0.0000 0.0000
 8008.8090 6205.3473 313.1846 -1803.4617 6271.4883
 309.7967 37.5496 6.0797 511540.4688 -9.9258
 -9.9160
 [15300]ENERGY: 14480000 3282.5105 5281.9351 5444.4634
 341.0085 -14320.1968 -1691.5079 0.0000 0.0000
 7868.5218 6206.7345 307.6987 -1661.7872 6273.7763
 309.7788 43.7952 -147.0392 511540.4688 -13.5464
 -13.5488
 [15350]ENERGY: 14490000 3283.9532 5341.4846 5468.1237
 338.1057 -14416.1404 -1784.2176 0.0000 0.0000
 7980.1491 6211.4583 312.0639 -1768.6908 6275.3014
 309.6356 -33.7645 -76.9007 511540.4688 -11.1116
 -11.1014
 [15389]ENERGY: 14500000 3342.6898 5405.1618 5500.4090
 313.5198 -14498.6404 -1753.1679 0.0000 0.0000
 7899.3280 6209.3000 308.9033 -1690.0281 6274.0232
 309.6053 -46.4492 -13.5797 511540.4688 -14.5609
 -14.5601
 [15439]ENERGY: 14510000 3311.7495 5376.3025 5482.7594
 313.6440 -14366.0407 -1743.2284 0.0000 0.0000
 7836.1529 6211.3394 306.4329 -1624.8136 6274.3146
 309.8029 -167.3734 -173.5721 511540.4688 -14.1860
 -14.2002
 [15475]ENERGY: 14520000 3346.4491 5266.5110 5462.9505
 313.6191 -14384.2323 -1728.7885 0.0000 0.0000
 7932.3772 6208.8862 310.1957 -1723.4910 6273.0437
 309.8727 -116.9579 -150.4552 511540.4688 -12.3576
 -12.3535
 [15525]ENERGY: 14530000 3342.7428 5358.3258 5411.3321
 313.8278 -14451.4271 -1722.4960 0.0000 0.0000
 7960.8835 6213.1890 311.3105 -1747.6945 6274.7374
 309.8986 77.1252 -95.4956 511540.4688 -14.4539
 -14.4377
 [15561]ENERGY: 14540000 3177.7327 5435.5409 5432.5924
 301.4717 -14393.8473 -1740.2669 0.0000 0.0000
 7992.0801 6205.3037 312.5304 -1786.7764 6273.9685
 309.6070 60.1196 8.3255 511540.4688 -10.2214
 -10.2365
 [15611]ENERGY: 14550000 3234.0094 5350.8504 5446.7266
 320.3275 -14372.7608 -1748.3834 0.0000 0.0000
 7978.2987 6209.0685 311.9915 -1769.2302 6274.4195

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309.8398	-18.4739	-24.9277	511540.4688	-13.5502
-13.5604				
[15647]ENERGY: 14560000	3293.7127	5403.1355	5465.7016	
331.6725	-14325.8332	-1801.2188	0.0000	0.0000
7844.0253	6211.1956	306.7407	-1632.8297	6276.0022
309.9456	33.4692	-29.4089	511540.4688	-11.8773
-11.8742				
[15697]ENERGY: 14570000	3277.1620	5389.5590	5417.9003	
322.3342	-14363.5766	-1770.2318	0.0000	0.0000
7937.4038	6210.5509	310.3923	-1726.8529	6275.1724
309.7156	42.6887	-96.4976	511540.4688	-16.9072
-16.9332				
[15733]ENERGY: 14580000	3251.2160	5368.0074	5435.9942	
321.3476	-14369.5436	-1721.7492	0.0000	0.0000
7924.5761	6209.8484	309.8907	-1714.7276	6274.5202
309.7482	178.9285	-38.8502	511540.4688	-10.7684
-10.7570				
[15783]ENERGY: 14590000	3336.9176	5249.9477	5468.0213	
330.2883	-14373.5659	-1716.4460	0.0000	0.0000
7911.4685	6206.6315	309.3781	-1704.8370	6273.6818
309.7861	-228.7839	-117.8317	511540.4688	-15.2212
-15.1801				
[15822]ENERGY: 14600000	3258.4861	5363.6468	5373.9275	
319.0636	-14376.9094	-1644.8692	0.0000	0.0000
7919.6969	6213.0424	309.6999	-1706.6546	6274.2523
309.8977	249.1465	288.2131	511540.4688	-16.0318
-16.0366				
[15872]ENERGY: 14610000	3193.7539	5442.1730	5393.1287	
341.0840	-14350.7615	-1722.5851	0.0000	0.0000
7912.2695	6209.0626	309.4094	-1703.2070	6275.2468
309.9145	-84.1155	-11.9754	511540.4688	-12.0745
-12.0747				
[15908]ENERGY: 14620000	3298.7024	5373.4638	5470.7334	
314.5157	-14460.5579	-1720.9191	0.0000	0.0000
7934.9577	6210.8959	310.2966	-1724.0618	6275.1429
309.7947	97.2120	-16.9992	511540.4688	-15.0715
-15.0899				
[15958]ENERGY: 14630000	3207.0342	5381.2040	5435.0143	
308.6070	-14426.5086	-1700.9365	0.0000	0.0000
8004.1021	6208.5165	313.0005	-1795.5856	6275.5343
309.8904	175.8199	58.0391	511540.4688	-12.8304
-12.8096				
[15994]ENERGY: 14640000	3294.4717	5326.7746	5466.9154	
324.4778	-14365.7975	-1706.7233	0.0000	0.0000
7877.0897	6217.2083	308.0337	-1659.8814	6275.9229
309.8961	101.0176	56.4550	511540.4688	-8.3966
-8.4062				
[16044]ENERGY: 14650000	3287.9193	5423.4738	5430.8963	
331.9391	-14447.3321	-1777.0687	0.0000	0.0000
7961.5719	6211.3996	311.3374	-1750.1723	6276.9442
309.9607	-166.7165	-158.7077	511540.4688	-13.1697
-13.1833				
[16080]ENERGY: 14660000	3243.0934	5407.0362	5428.1813	
324.2536	-14381.4022	-1753.0459	0.0000	0.0000

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7945.7703	6213.8867	310.7195	-1731.8837	6277.2744
309.9151	24.0135	56.5836	511540.4688	-15.1302
-15.1053				
[16130]ENERGY: 14670000	3238.5303	5388.2761	5392.1761	
321.1484	-14386.5635	-1710.5670	0.0000	0.0000
7969.6257	6212.6261	311.6523	-1756.9997	6277.4973
309.8382	17.6182	30.8780	511540.4688	-14.1693
-14.1962				
[16166]ENERGY: 14680000	3243.4217	5196.1260	5489.6561	
305.5880	-14320.4426	-1631.9045	0.0000	0.0000
7930.2230	6212.6677	310.1115	-1717.5553	6277.7806
309.8983	93.5183	71.3620	511540.4688	-14.1776
-14.1663				
[16216]ENERGY: 14690000	3236.3675	5352.2492	5475.2868	
321.5728	-14376.2225	-1737.0955	0.0000	0.0000
7944.1702	6216.3286	310.6569	-1727.8416	6278.6652
309.5994	231.7676	92.7593	511540.4688	-12.9887
-12.9827				
[16255]ENERGY: 14700000	3290.5706	5516.8945	5415.3263	
307.4847	-14468.8981	-1743.8075	0.0000	0.0000
7897.0806	6214.6511	308.8155	-1682.4295	6277.7095
309.5644	-166.7192	-190.2810	511540.4688	-14.3325
-14.3349				
[16305]ENERGY: 14710000	3304.4244	5246.8359	5489.3362	
331.1249	-14377.9332	-1745.6011	0.0000	0.0000
7964.0146	6212.2017	311.4329	-1751.8129	6278.7918
309.6671	93.8059	-47.7912	511540.4688	-7.7486
-7.7771				
[16341]ENERGY: 14720000	3241.5208	5345.4468	5475.4243	
306.3421	-14416.3580	-1671.0364	0.0000	0.0000
7935.1800	6216.5195	310.3053	-1718.6605	6278.3969
309.4740	170.5524	43.1774	511540.4688	-13.5087
-13.4983				
[16391]ENERGY: 14730000	3310.3123	5327.3165	5437.2794	
305.0714	-14381.1244	-1739.2920	0.0000	0.0000
7955.4540	6215.0172	311.0982	-1740.4368	6278.6059
309.6032	8.9516	17.8746	511540.4688	-14.8262
-14.8207				
[16427]ENERGY: 14740000	3221.1695	5274.6680	5452.2705	
327.7432	-14320.9505	-1693.1929	0.0000	0.0000
7948.5365	6210.2444	310.8276	-1738.2921	6276.6687
309.7392	126.7985	54.2946	511540.4688	-13.8122
-13.8205				
[16477]ENERGY: 14750000	3307.5291	5432.6263	5443.0381	
323.6123	-14426.4166	-1698.7144	0.0000	0.0000
7833.9491	6215.6239	306.3467	-1618.3252	6278.2034
309.8293	-87.6254	28.8231	511540.4688	-13.1715
-13.1605				
[16513]ENERGY: 14760000	3226.9124	5452.6220	5442.1529	
312.6742	-14405.7344	-1712.1803	0.0000	0.0000
7901.9133	6218.3601	309.0044	-1683.5531	6278.3509
309.9048	114.0134	14.4030	511540.4688	-15.5554
-15.5538				
[16563]ENERGY: 14770000	3236.2633	5459.1210	5465.4446	

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327.8973	-14441.2049	-1726.0580	0.0000	0.0000
7894.7374	6216.2007	308.7238	-1678.5367	6279.3347
309.6651	-142.0577	-114.7015	511540.4688	-13.7751
-13.7898				
[16599]ENERGY: 14780000	3300.9373	5314.8658	5405.4717	
308.7611	-14303.8857	-1761.8501	0.0000	0.0000
7953.2191	6217.5192	311.0108	-1735.6999	6279.3930
309.6153	2.5556	36.6366	511540.4688	-16.9231
-16.9258				
[16649]ENERGY: 14790000	3221.8287	5429.5905	5422.7423	
309.1211	-14329.0624	-1751.8371	0.0000	0.0000
7910.1622	6212.5454	309.3270	-1697.6168	6279.4551
309.7149	-69.2111	-108.6791	511540.4688	-14.0623
-14.0277				
[16688]ENERGY: 14800000	3287.6503	5373.7246	5422.4591	
310.6404	-14345.0114	-1703.0161	0.0000	0.0000
7869.7112	6216.1581	307.7452	-1653.5531	6279.3039
309.7747	148.1713	44.0630	511540.4688	-12.6765
-12.6974				
[16738]ENERGY: 14810000	3266.5073	5385.5691	5452.8160	
324.6718	-14334.4005	-1682.4877	0.0000	0.0000
7809.8788	6222.5547	305.4054	-1587.3241	6280.0579
309.6804	68.9507	78.3655	511540.4688	-17.2614
-17.2671				
[16774]ENERGY: 14820000	3215.9174	5242.6106	5439.3544	
328.9807	-14326.3304	-1729.1016	0.0000	0.0000
8042.2401	6213.6712	314.4919	-1828.5688	6280.0686
309.7988	-6.2949	-81.4126	511540.4688	-15.1031
-15.1034				
[16824]ENERGY: 14830000	3249.2662	5436.9073	5436.4071	
333.6078	-14457.7043	-1717.1904	0.0000	0.0000
7938.9354	6220.2291	310.4522	-1718.7064	6280.5185
310.0190	-109.6975	-86.5153	511540.4688	-15.3429
-15.3501				
[16860]ENERGY: 14840000	3223.7544	5382.4983	5493.6093	
328.1283	-14448.4096	-1693.6379	0.0000	0.0000
7931.0858	6217.0286	310.1452	-1714.0572	6280.6599
310.0537	201.3127	140.7162	511540.4688	-15.2788
-15.2628				
[16910]ENERGY: 14850000	3270.8715	5355.3156	5501.4783	
314.6053	-14392.9180	-1692.4779	0.0000	0.0000
7859.1595	6216.0343	307.3326	-1643.1252	6281.6244
309.9185	60.8525	32.4681	511540.4688	-22.5780
-22.5679				
[16946]ENERGY: 14860000	3340.8037	5328.4898	5398.0272	
319.9717	-14368.3697	-1745.2679	0.0000	0.0000
7946.5522	6220.2070	310.7500	-1726.3452	6281.4261
309.7941	-140.6023	-95.8752	511540.4688	-14.9295
-14.9513				
[16996]ENERGY: 14870000	3290.9928	5308.7710	5457.2798	
329.3516	-14383.2026	-1733.2001	0.0000	0.0000
7946.4915	6216.4840	310.7477	-1730.0074	6281.6037
309.7794	106.7071	33.1161	511540.4688	-16.6610
-16.6526				

Supplementary Text 6

[17032]ENERGY: 14880000	3218.6738	5458.5544	5474.5407
352.9934	-14481.7350	-1734.9168	0.0000
7930.8857	6218.9961	310.1374	-1711.8896
309.7293	8.6879	25.0925	511540.4688
-12.5261			-12.5306
[17082]ENERGY: 14890000	3316.2834	5283.8432	5471.9621
324.4624	-14380.1607	-1707.3998	0.0000
7910.8490	6219.8396	309.3539	-1691.0095
309.5539	-47.5403	8.7613	511540.4688
-14.7077			-14.7117
[17121]ENERGY: 14900000	3303.4026	5302.4579	5457.0676
331.5832	-14325.4149	-1766.1329	0.0000
7912.1918	6215.1552	309.4064	-1697.0365
309.6901	-92.2315	-43.6706	511540.4688
-15.0655			-15.0586
[17171]ENERGY: 14910000	3256.7457	5375.0015	5483.2407
313.2001	-14455.1066	-1720.8321	0.0000
7964.8076	6217.0568	311.4639	-1747.7508
309.6921	91.3608	70.0321	511540.4688
-18.7414			-18.7369
[17207]ENERGY: 14920000	3358.8835	5364.6710	5424.8476
323.5538	-14407.3173	-1696.3178	0.0000
7847.9058	6216.2266	306.8925	-1631.6792
309.6821	10.7730	-116.7635	511540.4688
-16.0287			-16.0271
[17257]ENERGY: 14930000	3283.8768	5416.5509	5406.7167
344.7388	-14480.1889	-1766.3379	0.0000
8006.0189	6211.3753	313.0755	-1794.6436
309.5856	7.1728	-7.7918	511540.4688
-13.6859			-13.6855
[17293]ENERGY: 14940000	3211.5254	5428.9048	5492.4119
348.0288	-14402.2965	-1730.6169	0.0000
7868.4199	6216.3774	307.6947	-1652.0425
309.5594	179.6704	84.2584	511540.4688
-11.5976			-11.6035
[17343]ENERGY: 14950000	3274.1224	5388.0364	5462.1229
342.0135	-14287.6556	-1751.5920	0.0000
7791.1273	6218.1748	304.6722	-1572.9524
309.5106	78.5696	-49.6578	511540.4688
-12.6221			-12.6223
[17379]ENERGY: 14960000	3247.1806	5390.3578	5462.6836
315.5619	-14405.5404	-1787.6604	0.0000
7993.3965	6215.9796	312.5819	-1777.4170
309.6704	100.0889	-35.3191	511540.4688
-14.9725			-14.9559
[17429]ENERGY: 14970000	3366.4340	5359.1712	5493.6550
323.0526	-14482.2774	-1711.1552	0.0000
7869.8384	6218.7187	307.7502	-1651.1197
309.7099	-311.3127	-287.8406	511540.4688
-11.2579			-11.2837
[17465]ENERGY: 14980000	3339.5121	5283.5727	5444.3767
318.4445	-14346.3254	-1770.9465	0.0000
7950.7019	6219.3359	310.9123	-1731.3660
309.7370	-64.0712	35.6213	511540.4688
			-11.9351

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-11.9340
 [17515]ENERGY: 14990000 3305.1300 5343.1257 5438.8922
 342.3233 -14381.4151 -1710.2533 0.0000 0.0000
 7883.0197 6220.8225 308.2656 -1662.1972 6283.1820
 309.7782 -120.3534 -214.3940 511540.4688 -15.0296
 -15.0190
 [17554]ENERGY: 15000000 3258.7505 5390.5012 5471.7117
 324.3753 -14373.1542 -1745.2216 0.0000 0.0000
 7888.0812 6215.0440 308.4635 -1673.0372 6282.2943
 309.8488 -149.0256 -118.9459 511540.4688 -17.1462
 -17.1623
 [17604]ENERGY: 15010000 3277.9179 5375.8589 5473.2270
 314.5050 -14366.8624 -1765.0700 0.0000 0.0000
 7908.6844 6218.2609 309.2692 -1690.4235 6284.0867
 309.9432 -242.3821 -290.0283 511540.4688 -10.6653
 -10.6740
 [17640]ENERGY: 15020000 3256.0785 5455.7218 5498.6458
 310.3563 -14419.1401 -1744.4450 0.0000 0.0000
 7861.7423 6218.9597 307.4336 -1642.7826 6283.1644
 309.7602 -101.1150 40.2863 511540.4688 -11.5737
 -11.5582
 [17690]ENERGY: 15030000 3286.7896 5293.3970 5436.3802
 309.3074 -14357.7313 -1697.7259 0.0000 0.0000
 7947.2072 6217.6242 310.7757 -1729.5830 6283.1639
 309.7279 253.7352 193.3756 511540.4688 -17.3947
 -17.4132
 [17726]ENERGY: 15040000 3308.9782 5275.7568 5441.1360
 327.9207 -14369.2244 -1718.9771 0.0000 0.0000
 7951.7096 6217.2998 310.9517 -1734.4098 6284.1117
 309.7101 -141.4062 -138.2751 511540.4688 -12.4937
 -12.4964
 [17776]ENERGY: 15050000 3265.1203 5278.0083 5467.5630
 326.9181 -14358.7686 -1685.5009 0.0000 0.0000
 7924.3166 6217.6568 309.8805 -1706.6597 6284.0323
 309.8234 -159.4077 -79.1647 511540.4688 -14.3246
 -14.3035
 [17812]ENERGY: 15060000 3155.0549 5395.0477 5455.0696
 335.0463 -14370.0788 -1750.6383 0.0000 0.0000
 7996.5203 6216.0217 312.7040 -1780.4986 6283.7151
 309.6028 57.7464 53.9272 511540.4688 -15.7704
 -15.7713
 [17862]ENERGY: 15070000 3228.2643 5483.1965 5423.8443
 315.6092 -14338.4934 -1796.3814 0.0000 0.0000
 7906.7809 6222.8204 309.1948 -1683.9605 6285.6421
 309.5685 154.2176 -30.6424 511540.4688 -10.8508
 -10.8756
 [17898]ENERGY: 15080000 3269.3059 5360.2112 5458.2455
 333.2862 -14476.0186 -1641.9847 0.0000 0.0000
 7914.8634 6217.9091 309.5109 -1696.9544 6283.4367
 309.5358 -15.5441 -12.8138 511540.4688 -11.2416
 -11.2249
 [17948]ENERGY: 15090000 3143.0728 5353.0048 5463.7407
 297.1495 -14299.1447 -1676.3361 0.0000 0.0000
 7936.7679 6218.2549 310.3674 -1718.5130 6284.9034

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309.6251	44.1288	-33.4584	511540.4688	-12.4548
-12.4615				
[17987]ENERGY: 15100000	3245.3584	5370.9870	5461.2991	
331.1613	-14437.2928	-1693.2365	0.0000	0.0000
7939.7582	6218.0347	310.4844	-1721.7235	6283.4472
309.9256	75.6538	33.8641	511540.4688	-10.3408
-10.3439				
[18037]ENERGY: 15110000	3304.8049	5384.0728	5408.9789	
336.8062	-14442.2856	-1664.2375	0.0000	0.0000
7895.5540	6223.6937	308.7558	-1671.8603	6284.2494
309.9028	79.1670	-10.4846	511540.4688	-12.6364
-12.5972				
[18073]ENERGY: 15120000	3302.8817	5267.5870	5451.1075	
313.2182	-14406.5662	-1709.5150	0.0000	0.0000
8000.1277	6218.8410	312.8451	-1781.2867	6284.7037
309.8575	-77.2491	-33.2209	511540.4688	-13.0920
-13.1211				
[18123]ENERGY: 15130000	3262.3130	5387.2583	5430.7836	
339.7181	-14532.2781	-1666.3405	0.0000	0.0000
7996.8858	6218.3401	312.7183	-1778.5457	6284.3763
309.8621	91.6183	108.2024	511540.4688	-12.2523
-12.2677				
[18159]ENERGY: 15140000	3333.3740	5341.7343	5427.5869	
343.7699	-14389.0487	-1691.3831	0.0000	0.0000
7853.6341	6219.6674	307.1165	-1633.9667	6283.8309
309.8132	65.7855	106.6011	511540.4688	-10.2520
-10.2407				
[18209]ENERGY: 15150000	3344.7757	5296.0133	5441.6516	
318.6892	-14415.8076	-1712.4347	0.0000	0.0000
7948.0791	6220.9665	310.8098	-1727.1126	6284.8971
309.9611	29.2557	-49.2826	511540.4688	-7.2587
-7.2599				
[18245]ENERGY: 15160000	3218.3063	5398.6640	5459.5121	
332.3290	-14278.3553	-1739.6864	0.0000	0.0000
7831.0225	6221.7922	306.2323	-1609.2303	6284.5514
309.9757	226.7464	135.0201	511540.4688	-9.8983
-9.9061				
[18295]ENERGY: 15170000	3315.9090	5393.0532	5436.7939	
354.0519	-14381.5213	-1717.8401	0.0000	0.0000
7825.5773	6226.0239	306.0193	-1599.5534	6285.4504
309.9217	7.1364	-134.1672	511540.4688	-12.4984
-12.4960				
[18331]ENERGY: 15180000	3276.8266	5354.6164	5449.6035	
330.8426	-14404.7775	-1738.5052	0.0000	0.0000
7951.9027	6220.5091	310.9593	-1731.3936	6285.1465
310.0341	-46.2327	-93.7348	511540.4688	-9.1367
-9.1353				
[18381]ENERGY: 15190000	3313.0279	5351.9496	5416.1104	
339.5553	-14468.2976	-1696.5902	0.0000	0.0000
7963.7064	6219.4617	311.4209	-1744.2447	6285.5322
309.7603	208.2555	209.2078	511540.4688	-17.6393
-17.6137				
[18420]ENERGY: 15200000	3325.7851	5434.2535	5477.1587	
309.1787	-14372.9408	-1736.0189	0.0000	0.0000

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7786.6806	6224.0969	304.4983	-1562.5838	6285.8007
309.7965	-160.8632	-119.8170	511540.4688	-10.8262
-10.8210				
[18470]ENERGY: 15210000	3286.9071	5352.3255	5417.0202	
321.2542	-14276.5929	-1755.8332	0.0000	0.0000
7878.8343	6223.9153	308.1019	-1654.9190	6285.6117
309.6865	-183.8179	-88.7255	511540.4688	-10.0411
-10.0446				
[18506]ENERGY: 15220000	3281.7571	5366.4887	5499.2860	
311.2140	-14411.0512	-1696.7104	0.0000	0.0000
7871.2830	6222.2672	307.8066	-1649.0157	6285.5104
309.7032	52.0124	37.2041	511540.4688	-11.3950
-11.4323				
[18556]ENERGY: 15230000	3288.8555	5450.1563	5467.6909	
317.0693	-14370.5123	-1737.1715	0.0000	0.0000
7808.0194	6224.1077	305.3327	-1583.9117	6285.3542
309.7614	-54.8798	-46.6735	511540.4688	-14.8914
-14.8749				
[18592]ENERGY: 15240000	3245.4064	5326.1688	5510.3025	
349.0302	-14500.1082	-1656.5871	0.0000	0.0000
7945.8279	6220.0405	310.7217	-1725.7874	6286.2091
309.7616	-134.0934	-151.6466	511540.4688	-12.4873
-12.4918				
[18642]ENERGY: 15250000	3197.4543	5366.3793	5450.8201	
329.9478	-14415.5772	-1666.3381	0.0000	0.0000
7957.4711	6220.1572	311.1770	-1737.3139	6286.0416
309.5482	125.8222	153.4340	511540.4688	-8.4200
-8.4211				
[18678]ENERGY: 15260000	3358.0318	5392.7877	5375.7866	
327.6598	-14340.7898	-1777.5035	0.0000	0.0000
7887.5844	6223.5571	308.4441	-1664.0273	6286.8273
309.6724	-260.8594	-185.6907	511540.4688	-13.4193
-13.4048				
[18728]ENERGY: 15270000	3237.2234	5264.8781	5479.0233	
324.4265	-14437.2532	-1635.0350	0.0000	0.0000
7986.4411	6219.7041	312.3099	-1766.7370	6286.6027
310.0978	146.3284	68.3499	511540.4688	-9.6139
-9.6277				
[18764]ENERGY: 15280000	3350.5202	5427.0941	5442.9593	
317.3117	-14371.2621	-1791.2788	0.0000	0.0000
7849.1674	6224.5117	306.9418	-1624.6556	6288.0826
309.9809	-233.4919	-169.5770	511540.4688	-15.8493
-15.8588				
[18814]ENERGY: 15290000	3296.7409	5344.0448	5459.3977	
323.8304	-14350.4773	-1747.5210	0.0000	0.0000
7898.7774	6224.7928	308.8818	-1673.9846	6287.5024
310.0067	16.1992	-101.0066	511540.4688	-11.7966
-11.7713				
[18853]ENERGY: 15300000	3296.0313	5431.9800	5465.1039	
335.8448	-14437.6665	-1755.6944	0.0000	0.0000
7887.4145	6223.0136	308.4375	-1664.4009	6286.8795
309.9963	7.5723	-27.1299	511540.4688	-16.5547
-16.5531				
[18903]ENERGY: 15310000	3333.7231	5354.5605	5488.9840	

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329.3113	-14498.0901	-1652.6888	0.0000	0.0000
7869.2976	6225.0975	307.7290	-1644.2001	6285.7708
309.9042	-168.6256	-91.2510	511540.4688	-10.0115
-10.0177				
[18939]ENERGY: 15320000	3283.8347	5217.1664	5449.7708	
310.0478	-14329.7141	-1703.5575	0.0000	0.0000
7992.3390	6219.8871	312.5405	-1772.4519	6287.7719
309.9338	341.8599	260.6695	511540.4688	-15.6803
-15.6946				
[18989]ENERGY: 15330000	3288.8381	5328.3297	5436.6595	
309.7596	-14361.6193	-1676.8480	0.0000	0.0000
7896.2865	6221.4062	308.7844	-1674.8803	6286.3522
309.8560	124.1530	85.5227	511540.4688	-8.5752
-8.5552				
[19025]ENERGY: 15340000	3302.7698	5445.2413	5497.1236	
343.5862	-14541.5880	-1721.8239	0.0000	0.0000
7894.9321	6220.2412	308.7314	-1674.6909	6286.3657
309.8497	-44.0680	-93.7323	511540.4688	-12.1175
-12.1296				
[19075]ENERGY: 15350000	3348.4972	5391.6160	5448.0264	
347.5175	-14475.0650	-1646.6044	0.0000	0.0000
7810.9003	6224.8881	305.4454	-1586.0123	6285.5352
309.8213	55.7870	12.9249	511540.4688	-12.4316
-12.4319				
[19111]ENERGY: 15360000	3307.4155	5340.7917	5416.9281	
348.7945	-14326.5434	-1739.6421	0.0000	0.0000
7878.6316	6226.3759	308.0940	-1652.2557	6287.0521
309.8388	-21.5854	-145.0229	511540.4688	-9.7283
-9.7222				
[19161]ENERGY: 15370000	3244.9244	5371.1192	5476.6287	
308.0158	-14389.0475	-1706.5612	0.0000	0.0000
7919.7254	6224.8047	309.7010	-1694.9207	6285.7286
309.9051	145.8759	116.4662	511540.4688	-9.7531
-9.7457				
[19197]ENERGY: 15380000	3204.4228	5318.2479	5445.9366	
323.1728	-14357.3704	-1744.3680	0.0000	0.0000
8029.6053	6219.6470	313.9978	-1809.9582	6286.3306
309.9369	108.8196	89.3418	511540.4688	-12.5912
-12.6088				
[19247]ENERGY: 15390000	3241.6767	5374.2815	5475.3488	
305.5380	-14471.9928	-1694.3223	0.0000	0.0000
7989.2389	6219.7688	312.4193	-1769.4701	6285.7765
309.7478	-134.8656	-132.8696	511540.4688	-15.9813
-15.9746				
[19286]ENERGY: 15400000	3293.4414	5303.2761	5449.4944	
322.3468	-14342.4310	-1702.0539	0.0000	0.0000
7898.2408	6222.3145	308.8608	-1675.9263	6285.9792
309.9184	-101.8035	-166.9447	511540.4688	-16.2455
-16.2501				
[19336]ENERGY: 15410000	3240.5982	5408.6527	5458.0427	
338.2554	-14408.3488	-1708.8744	0.0000	0.0000
7893.8634	6222.1893	308.6897	-1671.6741	6286.5554
309.9821	-8.1456	-7.8253	511540.4688	-14.0863
-14.0782				

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[19372]ENERGY: 15420000	3217.1272	5531.4196	5426.8034
326.6336	-14376.6049	-1758.6362	0.0000
7855.8611	6222.6040	307.2036	-1633.2572
310.1932	-104.8699	-93.5892	511540.4688
-13.1347			-13.1455
[19422]ENERGY: 15430000	3204.8260	5425.9326	5493.9626
302.6877	-14374.8424	-1812.5798	0.0000
7977.1921	6217.1787	311.9482	-1760.0134
309.7528	-58.6672	-123.9199	511540.4688
-12.7104			-12.7033
[19458]ENERGY: 15440000	3271.3587	5357.4188	5385.3756
326.6320	-14352.4872	-1684.9875	0.0000
7920.5504	6223.8609	309.7332	-1696.6895
309.9031	-84.2007	-53.4581	511540.4688
-14.1782			-14.1793
[19508]ENERGY: 15450000	3299.5297	5401.5200	5416.9578
325.3038	-14407.2430	-1730.2944	0.0000
7911.4480	6217.2219	309.3773	-1694.2261
309.8850	113.2734	69.5077	511540.4688
-10.2696			-10.2588
[19544]ENERGY: 15460000	3318.8298	5342.3089	5373.9838
322.6764	-14387.3135	-1708.0189	0.0000
7958.1358	6220.6023	311.2030	-1737.5335
309.8537	53.4333	-85.8714	511540.4688
-16.9038			-16.8927
[19594]ENERGY: 15470000	3287.2046	5266.3421	5476.2596
327.9473	-14374.9430	-1728.0416	0.0000
7965.2188	6219.9877	311.4800	-1745.2311
310.1803	-109.3135	-124.0460	511540.4688
-14.3681			-14.3939
[19630]ENERGY: 15480000	3136.6595	5394.9134	5440.7804
324.5796	-14367.2380	-1767.1709	0.0000
8054.8252	6217.3493	314.9841	-1837.4759
310.0816	58.9165	-15.1466	511540.4688
-15.4231			-15.4137
[19680]ENERGY: 15490000	3270.8930	5471.5597	5480.6648
344.7065	-14378.5657	-1754.4708	0.0000
7791.6988	6226.4862	304.6945	-1565.2126
309.9175	-118.9882	-69.6472	511540.4688
-12.0750			-12.0927
[19719]ENERGY: 15500000	3273.8748	5471.5874	5448.8247
328.1305	-14480.6362	-1697.0660	0.0000
7877.2596	6221.9747	308.0404	-1655.2849
309.8777	192.2229	50.7730	511540.4688
-16.8138			-16.8269
[19769]ENERGY: 15510000	3292.7503	5292.6491	5464.7124
346.9173	-14304.8083	-1758.5808	0.0000
7886.8197	6220.4597	308.4142	-1666.3599
310.0476	-85.1608	-70.8444	511540.4688
-14.3663			-14.3440
[19805]ENERGY: 15520000	3277.6994	5350.9335	5455.2709
313.5917	-14380.8229	-1730.5994	0.0000
7935.7019	6221.7750	310.3257	-1713.9269
309.9656	89.9790	68.0657	511540.4688
			-16.5495

Supplementary Text 6

-16.5631
 [19855]ENERGY: 15530000 3279.3581 5384.1827 5478.2286
 309.7731 -14370.8105 -1750.6895 0.0000 0.0000
 7894.4718 6224.5143 308.7134 -1669.9575 6285.3426
 309.7923 309.1316 274.4000 511540.4688 -11.8909
 -11.8877
 [19891]ENERGY: 15540000 3274.5905 5396.7215 5453.3728
 353.8761 -14316.4289 -1767.4623 0.0000 0.0000
 7827.8195 6222.4892 306.1070 -1605.3303 6285.2121
 309.7937 49.5278 -58.2825 511540.4688 -14.6287
 -14.6527
 [19941]ENERGY: 15550000 3213.2640 5379.7821 5424.1097
 341.0864 -14379.2513 -1723.9066 0.0000 0.0000
 7962.8475 6217.9319 311.3873 -1744.9156 6284.3112
 309.8715 156.1322 43.9754 511540.4688 -13.6207
 -13.5890
 [19977]ENERGY: 15560000 3275.7181 5298.7459 5479.8188
 363.2500 -14368.4854 -1719.0261 0.0000 0.0000
 7892.0865 6222.1077 308.6202 -1669.9788 6285.6107
 310.1170 -106.2680 -141.5904 511540.4688 -9.9818
 -10.0006
 [20027]ENERGY: 15570000 3214.2276 5345.1602 5471.8841
 284.5479 -14321.8853 -1688.8358 0.0000 0.0000
 7915.8930 6220.9917 309.5511 -1694.9014 6282.9563
 309.9693 93.0820 2.7416 511540.4688 -13.5210
 -13.4917
 [20063]ENERGY: 15580000 3328.9589 5335.2814 5452.7987
 323.8268 -14289.1063 -1825.5863 0.0000 0.0000
 7896.2906 6222.4639 308.7846 -1673.8267 6284.4473
 309.7986 -239.2682 -123.7123 511540.4688 -17.5177
 -17.5273
 [20113]ENERGY: 15590000 3267.8612 5542.8073 5416.5807
 320.6411 -14465.9707 -1767.9935 0.0000 0.0000
 7907.4479 6221.3740 309.2209 -1686.0739 6284.0503
 309.7764 156.6147 79.0894 511540.4688 -13.7845
 -13.8134
 [20152]ENERGY: 15600000 3243.9770 5421.0320 5435.6526
 328.9720 -14435.1231 -1695.1994 0.0000 0.0000
 7921.5966 6220.9077 309.7742 -1700.6889 6284.4529
 309.9997 260.2392 187.1508 511540.4688 -14.9517
 -14.9506
 [20202]ENERGY: 15610000 3221.6362 5397.8212 5496.9466
 305.8662 -14412.3699 -1643.8486 0.0000 0.0000
 7855.3142 6221.3657 307.1822 -1633.9485 6285.4982
 309.8900 116.9347 74.1954 511540.4688 -12.7780
 -12.7534
 [20238]ENERGY: 15620000 3276.7828 5361.3421 5466.8699
 342.8578 -14438.1026 -1686.1974 0.0000 0.0000
 7896.6561 6220.2087 308.7989 -1676.4474 6285.7723
 309.6898 249.6057 210.9944 511540.4688 -15.0635
 -15.0628
 [20288]ENERGY: 15630000 3288.8018 5456.6095 5434.6171
 310.0899 -14373.2600 -1725.0485 0.0000 0.0000
 7830.1153 6221.9251 306.1968 -1608.1902 6285.8748

Supplementary Text 6

309.8665	-183.1219	-175.1682	511540.4688	-15.4098
-15.4232				
[20324]ENERGY: 15640000	3253.1814	5333.6582	5484.5098	
334.6150	-14416.2837	-1730.4846	0.0000	0.0000
7965.9300	6225.1261	311.5078	-1740.8039	6287.8366
309.8074	-59.8849	20.8978	511540.4688	-10.8349
-10.8340				
[20374]ENERGY: 15650000	3254.4649	5294.2853	5447.0937	
340.5118	-14370.5624	-1724.2550	0.0000	0.0000
7982.1028	6223.6411	312.1403	-1758.4617	6287.5322
309.8860	-5.4118	17.7653	511540.4688	-16.3767
-16.3658				
[20410]ENERGY: 15660000	3173.7566	5419.8932	5482.8594	
313.7068	-14376.6570	-1701.9498	0.0000	0.0000
7910.1030	6221.7123	309.3247	-1688.3907	6287.4995
310.1512	32.8698	18.4167	511540.4688	-9.2508
-9.2620				
[20460]ENERGY: 15670000	3331.5170	5312.5161	5471.9554	
322.2738	-14412.9690	-1726.5254	0.0000	0.0000
7923.5473	6222.3153	309.8504	-1701.2320	6286.7166
310.1299	65.6053	33.6075	511540.4688	-12.4189
-12.4206				
[20496]ENERGY: 15680000	3254.4787	5384.6345	5413.8790	
324.7114	-14409.8449	-1728.2516	0.0000	0.0000
7981.2852	6220.8923	312.1083	-1760.3929	6287.9140
310.0346	-13.6789	-38.1177	511540.4688	-14.9909
-14.9612				
[20546]ENERGY: 15690000	3271.6374	5384.1378	5426.8052	
329.3687	-14414.9945	-1749.9552	0.0000	0.0000
7976.3611	6223.3605	311.9157	-1753.0006	6286.9232
309.9308	7.9361	40.0754	511540.4688	-10.7798
-10.7950				
[20585]ENERGY: 15700000	3333.4308	5329.0985	5443.5167	
312.4971	-14418.0126	-1739.7681	0.0000	0.0000
7961.5843	6222.3466	311.3379	-1739.2377	6288.3304
310.0935	82.2963	-105.8313	511540.4688	-15.9352
-15.9569				
[20635]ENERGY: 15710000	3244.3242	5403.6743	5469.2056	
335.6424	-14504.0590	-1626.9825	0.0000	0.0000
7901.1097	6222.9147	308.9730	-1678.1950	6287.2410
309.9948	113.3659	30.4126	511540.4688	-10.0384
-10.0224				
[20671]ENERGY: 15720000	3295.3272	5390.0154	5445.0795	
331.2902	-14423.5106	-1724.2369	0.0000	0.0000
7908.5483	6222.5132	309.2639	-1686.0351	6287.9301
309.9425	-42.9401	-94.3797	511540.4688	-11.8713
-11.8776				
[20721]ENERGY: 15730000	3286.6049	5356.4226	5462.6398	
311.9611	-14311.4219	-1771.2762	0.0000	0.0000
7892.0279	6226.9583	308.6179	-1665.0696	6288.4940
309.9313	-113.1330	-69.3803	511540.4688	-20.4680
-20.4589				
[20757]ENERGY: 15740000	3265.0266	5347.2652	5472.6808	
325.1370	-14373.0152	-1683.7788	0.0000	0.0000

Supplementary Text 6

7874.9111	6228.2268	307.9485	-1646.6843	6289.1125
309.9674	-212.8902	-159.9462	511540.4688	-13.5592
-13.5499				
[20807]ENERGY: 15750000	3282.5765	5342.9517	5406.6706	
316.3270	-14355.3335	-1714.0861	0.0000	0.0000
7943.8220	6222.9282	310.6433	-1720.8938	6289.2920
309.9358	263.0330	176.8333	511540.4688	-19.1398
-19.1274				
[20843]ENERGY: 15760000	3361.1970	5342.9601	5457.7116	
314.5305	-14440.0608	-1717.1287	0.0000	0.0000
7904.9036	6224.1132	309.1214	-1680.7904	6287.8693
309.9204	-142.6267	-120.3305	511540.4688	-11.6410
-11.6582				
[20893]ENERGY: 15770000	3295.7794	5398.7406	5464.9603	
326.0002	-14375.6787	-1759.9059	0.0000	0.0000
7875.4871	6225.3830	307.9710	-1650.1040	6288.5849
310.0516	-149.5169	-83.8490	511540.4688	-15.9107
-15.9106				
[20929]ENERGY: 15780000	3277.4384	5353.3234	5495.5964	
303.3137	-14447.4210	-1679.3192	0.0000	0.0000
7922.5684	6225.5002	309.8122	-1697.0682	6288.1566
309.8605	-179.6648	-114.3089	511540.4688	-15.3443
-15.3325				
[20979]ENERGY: 15790000	3252.5901	5334.7918	5440.4170	
339.6176	-14392.9335	-1751.1282	0.0000	0.0000
7997.7716	6221.1264	312.7530	-1776.6451	6288.5283
309.9679	149.7189	183.5352	511540.4688	-14.3307
-14.3596				
[21018]ENERGY: 15800000	3273.2724	5245.6633	5467.0985	
332.4811	-14380.8657	-1754.0102	0.0000	0.0000
8037.5265	6221.1659	314.3076	-1816.3606	6288.1552
310.1332	43.5517	-100.9067	511540.4688	-16.2060
-16.1926				
[21068]ENERGY: 15810000	3365.9760	5457.5470	5427.5689	
303.8845	-14407.7244	-1744.8569	0.0000	0.0000
7823.1013	6225.4964	305.9225	-1597.6050	6288.2721
309.9293	107.9791	29.8495	511540.4688	-11.2729
-11.2945				
[21104]ENERGY: 15820000	3246.7562	5383.6805	5474.3493	
321.1267	-14415.1657	-1738.9459	0.0000	0.0000
7952.3231	6224.1242	310.9757	-1728.1989	6288.0417
310.0195	-132.3357	-120.8904	511540.4688	-16.1151
-16.0840				
[21154]ENERGY: 15830000	3288.6187	5298.4165	5463.5876	
317.9051	-14417.4878	-1668.4146	0.0000	0.0000
7942.3288	6224.9542	310.5849	-1717.3745	6288.3441
310.0460	18.9850	-27.2324	511540.4688	-12.5358
-12.5715				
[21190]ENERGY: 15840000	3271.4241	5383.4918	5447.3416	
339.6693	-14409.5202	-1704.1790	0.0000	0.0000
7897.0257	6225.2533	308.8133	-1671.7724	6288.7533
310.0190	28.7108	-97.2538	511540.4688	-11.2551
-11.2350				
[21240]ENERGY: 15850000	3230.7579	5382.4439	5485.4210	

Supplementary Text 6

325.6390	-14363.1982	-1776.1708	0.0000	0.0000
7939.1335	6224.0263	310.4599	-1715.1073	6289.2679
309.9719	-0.0811	-67.1757	511540.4688	-16.4293
-16.4449				
[21276]ENERGY: 15860000	3307.8627	5334.8381	5403.7273	
305.9566	-14396.4871	-1670.8889	0.0000	0.0000
7940.0887	6225.0973	310.4973	-1714.9914	6288.8603
310.0758	204.0769	192.5066	511540.4688	-11.0437
-11.0355				
[21326]ENERGY: 15870000	3251.9544	5390.3736	5480.5257	
328.8498	-14406.6540	-1678.9351	0.0000	0.0000
7857.2329	6223.3474	307.2572	-1633.8856	6288.1319
310.1575	147.1498	70.5288	511540.4688	-12.4439
-12.4306				
[21362]ENERGY: 15880000	3256.4133	5454.0712	5444.2938	
358.5456	-14465.1723	-1711.7190	0.0000	0.0000
7891.0461	6227.4787	308.5795	-1663.5674	6288.7869
310.2540	-71.7367	-111.8265	511540.4688	-14.6472
-14.6405				
[21412]ENERGY: 15890000	3206.8890	5383.1151	5413.8871	
327.3458	-14395.1699	-1682.4875	0.0000	0.0000
7972.8147	6226.3944	311.7770	-1746.4203	6289.0357
310.1233	229.4026	85.4802	511540.4688	-12.0891
-12.0950				
[21451]ENERGY: 15900000	3210.3945	5304.7290	5449.6441	
336.1397	-14327.7887	-1771.1734	0.0000	0.0000
8019.6743	6221.6194	313.6095	-1798.0549	6288.4271
310.2352	135.8377	148.4652	511540.4688	-9.4412
-9.4544				
[21501]ENERGY: 15910000	3348.2216	5393.0860	5463.2054	
327.5010	-14408.1363	-1720.5711	0.0000	0.0000
7826.2869	6229.5934	306.0471	-1596.6935	6290.4082
310.0246	-171.2745	-154.8294	511540.4688	-15.6957
-15.6813				
[21537]ENERGY: 15920000	3294.2820	5407.1714	5459.2669	
339.5923	-14432.0346	-1753.8095	0.0000	0.0000
7909.7580	6224.2264	309.3112	-1685.5315	6289.9686
310.1094	24.8684	-20.5332	511540.4688	-13.2991
-13.3285				
[21587]ENERGY: 15930000	3368.5826	5327.2841	5396.7028	
322.1627	-14380.7496	-1724.4899	0.0000	0.0000
7916.4324	6225.9251	309.5722	-1690.5073	6289.9362
309.9897	-165.7181	-103.8572	511540.4688	-15.8165
-15.7806				
[21623]ENERGY: 15940000	3257.9056	5379.9778	5417.4736	
314.9355	-14255.3879	-1800.6188	0.0000	0.0000
7915.8330	6230.1188	309.5488	-1685.7142	6290.2821
309.9499	3.4391	-158.3102	511540.4688	-15.6294
-15.6284				
[21673]ENERGY: 15950000	3307.0488	5334.1854	5468.4847	
315.7108	-14364.6133	-1722.9470	0.0000	0.0000
7891.6889	6229.5583	308.6046	-1662.1307	6289.7851
310.0307	8.7634	-49.8228	511540.4688	-13.6187
-13.6279				

Supplementary Text 6

[21709]ENERGY: 15960000	3285.2657	5362.7383	5446.4456
355.9589	-14497.8981	-1685.7603	0.0000
7955.7624	6222.5126	311.1102	-1733.2498
310.0761	41.5940	-10.9101	511540.4688
-12.9114			-12.9185
[21759]ENERGY: 15970000	3274.0384	5400.9112	5464.7464
323.8062	-14390.7891	-1765.6782	0.0000
7921.1293	6228.1643	309.7559	-1692.9650
310.2219	-78.7921	-99.9262	511540.4688
-9.8678			-9.8561
[21795]ENERGY: 15980000	3257.7154	5371.6567	5434.7907
331.0665	-14486.5704	-1635.2465	0.0000
7952.1381	6225.5506	310.9685	-1726.5875
310.1427	-30.3108	112.8377	511540.4688
-14.4316			-14.4466
[21845]ENERGY: 15990000	3217.5559	5342.8970	5427.8068
313.0780	-14376.9931	-1670.2230	0.0000
7970.3387	6224.4602	311.6802	-1745.8785
310.0160	33.1794	131.6130	511540.4688
-9.2573			-9.2614
[21884]ENERGY: 16000000	3207.6387	5380.6752	5470.7101
321.7231	-14457.8130	-1715.3678	0.0000
8013.5006	6221.0669	313.3681	-1792.4337
310.0659	148.0621	78.9647	511540.4688
-13.2589			-13.2537
[21934]ENERGY: 16010000	3340.5920	5378.0842	5485.7306
345.8847	-14439.1670	-1679.5039	0.0000
7801.1473	6232.7681	305.0640	-1568.3792
309.9323	-5.8998	-14.0630	511540.4688
-17.6854			-17.6930
[21970]ENERGY: 16020000	3282.4687	5347.8273	5412.6220
333.6556	-14331.2741	-1782.8676	0.0000
7965.1511	6227.5831	311.4774	-1737.5680
309.8192	-11.8985	-73.9524	511540.4688
-10.7812			-10.7629
[22020]ENERGY: 16030000	3260.6163	5356.9550	5491.1894
353.1484	-14383.3289	-1752.8589	0.0000
7902.6591	6228.3804	309.0336	-1674.2787
309.9341	17.6756	-67.0749	511540.4688
-13.4906			-13.4899
[22056]ENERGY: 16040000	3256.9889	5318.7627	5428.1432
320.0914	-14300.9944	-1765.8430	0.0000
7968.5580	6225.7069	311.6106	-1742.8511
309.9197	-44.3920	-185.5568	511540.4688
-10.8434			-10.8505
[22106]ENERGY: 16050000	3297.7544	5359.9191	5429.6676
327.5381	-14382.8894	-1758.6794	0.0000
7954.5960	6227.9063	311.0646	-1726.6897
309.9004	-28.2896	-114.5660	511540.4688
-12.0718			-12.0634
[22142]ENERGY: 16060000	3209.4308	5433.1115	5430.9059
336.4324	-14448.0751	-1662.8273	0.0000
7930.1040	6229.0822	310.1068	-1701.0219
309.8727	16.4862	13.2297	511540.4688
			-8.2953

Supplementary Text 6

-8.3122

[22192]ENERGY: 16070000 3285.5180 5471.9001 5458.1500
325.3213 -14493.5248 -1707.9695 0.0000 0.0000
7888.3949 6227.7899 308.4758 -1660.6050 6292.5474
310.1005 -87.4982 -22.6680 511540.4688 -10.2804
-10.2528

[22228]ENERGY: 16080000 3251.2018 5354.7492 5440.2701
341.1743 -14388.1902 -1726.5398 0.0000 0.0000
7957.1024 6229.7678 311.1626 -1727.3346 6293.2912
310.0727 -111.9997 -79.2591 511540.4688 -12.0283
-12.0395

[22278]ENERGY: 16090000 3207.3385 5408.7423 5478.0730
324.6985 -14310.9925 -1768.0156 0.0000 0.0000
7892.1423 6231.9864 308.6223 -1660.1559 6293.7740
310.1255 158.6458 53.4356 511540.4688 -12.7129
-12.7190

[22317]ENERGY: 16100000 3270.8794 5440.8691 5455.2112
336.8962 -14432.4323 -1788.8453 0.0000 0.0000
7948.4093 6230.9877 310.8227 -1717.4216 6294.9858
310.0688 6.7564 -163.3296 511540.4688 -11.6204
-11.6254

[22367]ENERGY: 16110000 3309.9815 5432.8744 5410.9721
324.3986 -14324.8846 -1736.4543 0.0000 0.0000
7822.0698 6238.9577 305.8822 -1583.1122 6294.8352
310.2961 -19.4250 -79.3191 511540.4688 -13.4220
-13.4079

[22403]ENERGY: 16120000 3355.6251 5399.9797 5411.2083
347.4172 -14431.8848 -1785.5277 0.0000 0.0000
7933.7206 6230.5384 310.2483 -1703.1822 6294.1719
310.1346 -55.3076 -110.2667 511540.4688 -7.2171
-7.2047

[22453]ENERGY: 16130000 3377.6291 5448.5039 5431.6594
315.1218 -14411.7481 -1788.2788 0.0000 0.0000
7856.4768 6229.3640 307.2276 -1627.1128 6295.3923
310.1601 -254.1149 -337.7079 511540.4688 -15.6059
-15.6247

[22489]ENERGY: 16140000 3275.7031 5427.7051 5395.7943
330.5952 -14363.7939 -1760.7675 0.0000 0.0000
7924.0043 6229.2407 309.8683 -1694.7636 6295.4678
310.1988 -73.7138 -10.3311 511540.4688 -12.4180
-12.4267

[22539]ENERGY: 16150000 3306.3012 5331.6897 5426.6541
329.8068 -14355.8270 -1738.7490 0.0000 0.0000
7934.3067 6234.1825 310.2712 -1700.1242 6296.8342
310.0454 -115.1973 -152.6738 511540.4688 -12.0525
-12.0447

[22575]ENERGY: 16160000 3298.0804 5450.1095 5400.3729
344.0576 -14398.9511 -1796.6099 0.0000 0.0000
7935.7295 6232.7889 310.3268 -1702.9406 6296.7232
310.1399 -139.9725 -87.0474 511540.4688 -13.0553
-13.0274

[22625]ENERGY: 16170000 3286.5678 5394.4277 5443.5180
345.9933 -14447.6107 -1716.1423 0.0000 0.0000
7924.9341 6231.6880 309.9047 -1693.2462 6297.5077

Supplementary Text 6

310.2219	136.8021	142.1915	511540.4688	-9.7542
-9.7664				
[22661]ENERGY: 16180000	3318.8147	5510.4032	5424.2867	
318.6574	-14478.1206	-1675.3841	0.0000	0.0000
7812.9430	6231.6004	305.5253	-1581.3427	6297.4283
310.1199	66.1033	101.0597	511540.4688	-14.5942
-14.5885				
[22711]ENERGY: 16190000	3310.7221	5388.3889	5394.1518	
325.4624	-14375.8847	-1781.9392	0.0000	0.0000
7971.3495	6232.2510	311.7197	-1739.0986	6296.1868
310.0558	-150.9141	-204.3823	511540.4688	-14.4066
-14.4404				
[22750]ENERGY: 16200000	3200.6325	5414.9605	5425.6677	
303.6684	-14381.9638	-1665.9759	0.0000	0.0000
7934.1370	6231.1263	310.2646	-1703.0107	6295.0799
310.2736	121.4981	-15.8022	511540.4688	-13.8591
-13.8615				
[22800]ENERGY: 16210000	3246.6969	5381.9811	5481.9056	
306.1597	-14383.2741	-1754.9910	0.0000	0.0000
7952.7169	6231.1950	310.9911	-1721.5219	6297.3358
310.1427	5.2344	-117.5853	511540.4688	-13.2848
-13.2745				
[22836]ENERGY: 16220000	3261.9435	5390.7726	5443.7171	
333.9207	-14375.5574	-1704.7903	0.0000	0.0000
7884.6751	6234.6813	308.3303	-1649.9938	6296.9583
310.2494	159.9688	82.7407	511540.4688	-14.9998
-15.0001				
[22886]ENERGY: 16230000	3325.3706	5362.7381	5462.0273	
332.0266	-14441.4111	-1716.2953	0.0000	0.0000
7906.0853	6230.5414	309.1676	-1675.5439	6296.3064
310.0096	6.7122	19.9012	511540.4688	-13.3770
-13.3625				
[22922]ENERGY: 16240000	3353.8988	5301.7313	5423.2591	
328.1192	-14383.1785	-1708.9785	0.0000	0.0000
7919.7749	6234.6263	309.7029	-1685.1486	6296.6290
310.0929	172.4155	156.7677	511540.4688	-12.0810
-12.0734				
[22972]ENERGY: 16250000	3364.8937	5376.8916	5470.3402	
323.0742	-14443.6156	-1815.1019	0.0000	0.0000
7953.7398	6230.2221	311.0311	-1723.5178	6297.6169
310.0754	-69.7337	-79.4773	511540.4688	-16.1900
-16.2023				
[23008]ENERGY: 16260000	3327.7359	5402.1270	5457.6497	
316.7598	-14399.8493	-1748.1797	0.0000	0.0000
7879.0990	6235.3424	308.1123	-1643.7566	6298.8316
310.2327	-16.6852	-78.4476	511540.4688	-13.1214
-13.1347				
[23058]ENERGY: 16270000	3328.0492	5380.5718	5410.2881	
300.4225	-14356.8232	-1786.1474	0.0000	0.0000
7953.4758	6229.8368	311.0208	-1723.6390	6297.1554
310.1708	-164.9351	-291.4803	511540.4688	-18.9363
-18.9545				
[23094]ENERGY: 16280000	3319.2677	5429.8719	5444.3935	
324.4683	-14344.9695	-1770.0196	0.0000	0.0000

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7834.0966	6237.1088	306.3525	-1596.9878	6297.1865
310.2245	-145.4665	-180.8863	511540.4688	-14.8266
-14.8220				
[23144]ENERGY: 16290000	3319.8975	5470.3100	5438.5368	
323.7693	-14406.7810	-1792.4685	0.0000	0.0000
7878.1149	6231.3790	308.0738	-1646.7359	6297.3062
310.2953	-2.9202	-57.3953	511540.4688	-11.9528
-11.9306				
[23183]ENERGY: 16300000	3246.3131	5379.3647	5489.1937	
314.0062	-14404.8764	-1727.7388	0.0000	0.0000
7937.7679	6234.0304	310.4065	-1703.7375	6296.3682
310.3045	-89.3568	-195.6157	511540.4688	-14.5033
-14.4994				
[23233]ENERGY: 16310000	3338.9824	5494.4639	5438.5329	
321.4916	-14457.8347	-1728.3598	0.0000	0.0000
7828.6219	6235.8982	306.1384	-1592.7237	6297.2730
310.2504	75.0909	-34.1130	511540.4688	-10.3981
-10.3952				
[23269]ENERGY: 16320000	3242.5756	5447.7328	5439.4475	
334.8038	-14448.4018	-1707.0608	0.0000	0.0000
7921.2876	6230.3845	309.7621	-1690.9030	6295.9596
310.2617	-75.9624	42.3141	511540.4688	-12.6955
-12.6696				
[23319]ENERGY: 16330000	3287.5210	5436.1430	5425.1224	
310.5839	-14395.6744	-1721.2219	0.0000	0.0000
7889.8710	6232.3451	308.5335	-1657.5260	6296.8863
310.1168	-70.4473	-52.9124	511540.4688	-12.2837
-12.2922				
[23355]ENERGY: 16340000	3365.2790	5333.0018	5447.1819	
288.7601	-14398.0622	-1750.4819	0.0000	0.0000
7948.0888	6233.7674	310.8101	-1714.3214	6296.8181
310.0554	-295.3764	-246.4255	511540.4688	-12.6205
-12.6206				
[23405]ENERGY: 16350000	3200.2951	5406.1956	5472.5964	
323.8428	-14422.7970	-1708.5219	0.0000	0.0000
7962.4012	6234.0122	311.3698	-1728.3890	6296.1089
310.1489	96.8154	-14.6745	511540.4688	-11.0835
-11.1089				
[23441]ENERGY: 16360000	3306.6448	5391.5103	5479.0158	
310.4136	-14446.7866	-1737.1428	0.0000	0.0000
7931.0240	6234.6792	310.1428	-1696.3448	6296.1567
310.1982	-91.7914	-75.6544	511540.4688	-10.0208
-9.9956				
[23491]ENERGY: 16370000	3263.5194	5366.6832	5430.8374	
301.4444	-14415.2662	-1648.8060	0.0000	0.0000
7933.5010	6231.9132	310.2397	-1701.5878	6296.2462
310.2435	117.3891	87.0628	511540.4688	-14.7643
-14.7788				
[23527]ENERGY: 16380000	3347.6598	5325.3879	5489.8535	
338.1017	-14459.2611	-1730.9576	0.0000	0.0000
7922.2519	6233.0361	309.7998	-1689.2158	6295.8614
310.4173	-113.1824	-74.9915	511540.4688	-12.1706
-12.1758				
[23577]ENERGY: 16390000	3280.7887	5363.9913	5414.5231	

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304.7390	-14466.5885	-1653.5707	0.0000	0.0000
7990.0287	6233.9117	312.4502	-1756.1171	6296.2131
310.4826	-115.4394	-36.9903	511540.4688	-12.3166
-12.3093				
[23616]ENERGY: 16400000	3377.7087	5356.1227	5417.7505	
316.4663	-14356.1900	-1737.6640	0.0000	0.0000
7859.7591	6233.9534	307.3560	-1625.8058	6297.2991
310.5399	-70.0886	-14.7916	511540.4688	-11.7621
-11.7483				
[23666]ENERGY: 16410000	3277.3121	5406.8885	5515.7795	
312.0256	-14486.8765	-1678.0105	0.0000	0.0000
7889.2319	6236.3505	308.5085	-1652.8813	6296.7734
310.6289	30.2264	1.4162	511540.4688	-9.1295
-9.1535				
[23702]ENERGY: 16420000	3250.6301	5459.2125	5457.3594	
312.7813	-14355.0596	-1785.2015	0.0000	0.0000
7894.9732	6234.6954	308.7330	-1660.2778	6297.8808
310.6069	-180.0249	-180.7482	511540.4688	-18.3841
-18.3803				
[23752]ENERGY: 16430000	3254.9102	5377.1893	5474.5356	
331.4398	-14455.8209	-1676.3260	0.0000	0.0000
7928.0103	6233.9383	310.0250	-1694.0720	6296.7863
310.5263	244.4820	118.2622	511540.4688	-11.7614
-11.7756				
[23788]ENERGY: 16440000	3347.7380	5438.2783	5440.1745	
309.9368	-14296.8552	-1796.0386	0.0000	0.0000
7794.0102	6237.2441	304.7849	-1556.7661	6297.0998
310.3852	0.7961	-84.9913	511540.4688	-9.2370
-9.2073				
[23838]ENERGY: 16450000	3243.3870	5445.2368	5476.7865	
311.6249	-14445.4294	-1683.1854	0.0000	0.0000
7884.5654	6232.9858	308.3261	-1651.5796	6297.0723
310.3923	31.4151	37.8789	511540.4688	-12.0675
-12.0904				
[23874]ENERGY: 16460000	3295.5702	5361.9076	5457.4616	
305.7920	-14360.2156	-1716.7855	0.0000	0.0000
7891.3938	6235.1241	308.5931	-1656.2697	6297.7732
310.4269	41.8043	44.9907	511540.4688	-14.5176
-14.4807				
[23924]ENERGY: 16470000	3307.5187	5393.9044	5473.1932	
350.1706	-14401.8867	-1726.8928	0.0000	0.0000
7840.1302	6236.1377	306.5884	-1603.9925	6297.3232
310.6820	-79.8760	39.5551	511540.4688	-10.0845
-10.1231				
[23960]ENERGY: 16480000	3294.8555	5427.6446	5426.0415	
327.3677	-14372.2414	-1773.0620	0.0000	0.0000
7906.8061	6237.4120	309.1958	-1669.3941	6299.3461
310.5869	188.1132	74.1875	511540.4688	-14.5947
-14.5844				
[24010]ENERGY: 16490000	3322.3263	5373.6626	5506.8185	
331.1341	-14413.6333	-1686.0843	0.0000	0.0000
7800.0639	6234.2878	305.0216	-1565.7761	6298.5431
310.6021	236.9522	116.0523	511540.4688	-9.2963
-9.2901				

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[24049]ENERGY: 16500000	3357.6404	5427.4424	5469.1162
342.3489	-14440.6353	-1765.5530	0.0000
7847.6355	6237.9951	306.8819	-1609.6404
310.7559	-155.1723	-199.6807	511540.4688
-13.3841			-13.3822
[24099]ENERGY: 16510000	3222.4675	5371.3379	5459.5162
344.5958	-14420.1982	-1698.0815	0.0000
7951.9903	6231.6281	310.9627	-1720.3623
310.6702	92.0029	88.5218	511540.4688
-16.2544			-16.2370
[24135]ENERGY: 16520000	3252.6901	5464.6500	5465.9591
335.4417	-14445.7734	-1756.4896	0.0000
7919.8528	6236.3307	309.7060	-1683.5221
310.7380	42.9660	-60.3580	511540.4688
-8.0819			-8.0901
[24185]ENERGY: 16530000	3287.8674	5450.0372	5471.3690
317.2229	-14436.0865	-1685.3917	0.0000
7831.0468	6236.0651	306.2332	-1594.9817
310.6531	-44.4772	-93.8199	511540.4688
-15.9135			-15.9100
[24221]ENERGY: 16540000	3366.5635	5297.9350	5507.6204
348.3329	-14399.3408	-1773.5438	0.0000
7887.9230	6235.4902	308.4574	-1652.4328
310.5338	-133.7822	-120.8906	511540.4688
-15.5198			-15.5287
[24271]ENERGY: 16550000	3309.9894	5366.5139	5432.7986
328.7547	-14399.0249	-1754.4839	0.0000
7949.5228	6234.0706	310.8662	-1715.4522
310.4578	-30.2052	-121.6182	511540.4688
-21.2418			-21.2390
[24307]ENERGY: 16560000	3342.0007	5380.1848	5498.9722
344.7877	-14402.6245	-1802.9979	0.0000
7876.1287	6236.4517	307.9961	-1639.6771
310.5418	-57.6097	8.2490	511540.4688
-13.9727			-13.9891
[24357]ENERGY: 16570000	3262.7905	5317.6760	5488.7916
324.9481	-14382.9087	-1756.3270	0.0000
7980.6772	6235.6477	312.0845	-1745.0295
310.5275	94.2564	40.6828	511540.4688
-18.5475			-18.5443
[24393]ENERGY: 16580000	3325.4338	5443.4679	5442.4598
306.5522	-14353.2908	-1818.9053	0.0000
7893.7318	6239.4493	308.6845	-1654.2825
310.3240	-222.9135	-231.3171	511540.4688
-13.0960			-13.1050
[24443]ENERGY: 16590000	3222.3604	5436.7149	5437.7932
332.0543	-14440.4108	-1710.3193	0.0000
7962.2715	6240.4642	311.3648	-1721.8074
310.3531	73.3750	154.0892	511540.4688
-16.1177			-16.0992
[24482]ENERGY: 16600000	3252.8778	5326.3832	5491.6223
318.8291	-14327.3807	-1766.6386	0.0000
7943.4941	6239.1872	310.6305	-1704.3070
310.5767	-44.2649	-129.3380	511540.4688
			-12.5271

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-12.5363
 [24532]ENERGY: 16610000 3348.9234 5338.7293 5445.1898
 347.7237 -14443.1378 -1734.8815 0.0000 0.0000
 7934.4337 6236.9805 310.2762 -1697.4531 6300.9780
 310.5851 1.0601 44.9168 511540.4688 -14.9588
 -14.9599
 [24568]ENERGY: 16620000 3270.3227 5328.0850 5474.7376
 289.8796 -14451.1646 -1699.6875 0.0000 0.0000
 8020.3677 6232.5405 313.6366 -1787.8271 6299.4242
 310.7339 155.6899 196.3861 511540.4688 -15.1722
 -15.1608
 [24618]ENERGY: 16630000 3335.1433 5381.9102 5461.1966
 325.5266 -14414.5656 -1734.9059 0.0000 0.0000
 7883.1057 6237.4110 308.2690 -1645.6947 6300.1232
 310.6465 -242.7964 -241.6925 511540.4688 -10.4642
 -10.4396
 [24654]ENERGY: 16640000 3293.5794 5368.1464 5483.5025
 345.5880 -14399.3351 -1738.8174 0.0000 0.0000
 7888.2371 6240.9008 308.4696 -1647.3363 6300.4181
 310.5647 97.0724 -22.7292 511540.4688 -14.2871
 -14.3051
 [24704]ENERGY: 16650000 3285.1149 5401.9825 5491.9192
 340.0045 -14437.3669 -1790.1820 0.0000 0.0000
 7946.0433 6237.5155 310.7301 -1708.5278 6301.3275
 310.5959 22.7144 -83.6049 511540.4688 -13.8284
 -13.8431
 [24740]ENERGY: 16660000 3326.4459 5307.7213 5485.9539
 342.6864 -14414.3961 -1713.7705 0.0000 0.0000
 7904.4887 6239.1295 309.1052 -1665.3591 6301.1522
 310.4192 -41.0522 -46.5447 511540.4688 -13.7193
 -13.7145
 [24790]ENERGY: 16670000 3292.5392 5372.8020 5429.9781
 333.5543 -14374.4150 -1731.0027 0.0000 0.0000
 7913.2937 6236.7496 309.4495 -1676.5442 6301.9559
 310.5264 165.8006 67.7995 511540.4688 -13.5239
 -13.5273
 [24826]ENERGY: 16680000 3285.9578 5428.6411 5421.7431
 313.6121 -14412.0110 -1745.9187 0.0000 0.0000
 7948.2611 6240.2855 310.8169 -1707.9756 6301.5344
 310.5155 73.5600 182.8991 511540.4688 -18.8417
 -18.8565
 [24876]ENERGY: 16690000 3288.9636 5377.1743 5449.1079
 324.1565 -14347.5167 -1772.6950 0.0000 0.0000
 7918.0887 6237.2794 309.6370 -1680.8093 6301.9890
 310.7335 107.1698 -10.7855 511540.4688 -14.8908
 -14.8886
 [24915]ENERGY: 16700000 3211.4811 5491.5913 5479.4290
 347.4069 -14513.4466 -1717.0257 0.0000 0.0000
 7937.8400 6237.2761 310.4094 -1700.5639 6300.5672
 310.5574 127.6341 81.2575 511540.4688 -11.8699
 -11.8491
 [24965]ENERGY: 16710000 3288.4694 5426.4127 5471.3576
 314.7035 -14343.5936 -1829.0244 0.0000 0.0000
 7910.2976 6238.6228 309.3323 -1671.6748 6302.8469

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310.4803	-321.4938	-327.0906	511540.4688	-16.0251
-16.0281				
[25001]ENERGY: 16720000	3265.1773	5463.2705	5451.3516	
336.9787	-14415.7731	-1754.5607	0.0000	0.0000
7889.1776	6235.6218	308.5064	-1653.5558	6301.0438
310.4596	17.6248	40.6143	511540.4688	-14.5476
-14.5605				
[25051]ENERGY: 16730000	3326.3403	5309.2836	5457.6565	
337.6708	-14417.1097	-1695.1623	0.0000	0.0000
7918.4134	6237.0926	309.6497	-1681.3208	6300.5422
310.3649	-132.6205	-133.4430	511540.4688	-9.7197
-9.7061				
[25087]ENERGY: 16740000	3241.3326	5445.3063	5439.9072	
330.0337	-14363.4921	-1765.8591	0.0000	0.0000
7909.7941	6237.0227	309.3126	-1672.7714	6301.3943
310.5873	-83.5864	-78.2371	511540.4688	-11.3958
-11.3997				
[25137]ENERGY: 16750000	3283.7289	5333.0202	5511.9352	
339.6526	-14445.6038	-1742.2287	0.0000	0.0000
7955.7865	6236.2910	311.1112	-1719.4955	6302.0416
310.5935	0.3674	-23.6799	511540.4688	-9.2968
-9.2661				
[25173]ENERGY: 16760000	3270.6945	5410.5085	5430.8984	
322.7949	-14396.6711	-1724.5163	0.0000	0.0000
7921.6038	6235.3128	309.7744	-1686.2910	6300.8300
310.4910	305.4789	253.0389	511540.4688	-9.4506
-9.4875				
[25223]ENERGY: 16770000	3285.8295	5336.5359	5483.0802	
325.4249	-14370.7009	-1802.8884	0.0000	0.0000
7980.6301	6237.9113	312.0827	-1742.7188	6301.5984
310.5033	-140.4264	-162.1209	511540.4688	-11.6664
-11.6662				
[25259]ENERGY: 16780000	3319.2357	5322.4293	5436.1417	
334.8410	-14383.2855	-1754.5160	0.0000	0.0000
7962.0051	6236.8514	311.3543	-1725.1537	6301.5277
310.6061	-73.8817	-52.1142	511540.4688	-13.4224
-13.4021				
[25309]ENERGY: 16790000	3290.7167	5431.5335	5484.5465	
313.8586	-14401.3078	-1807.9567	0.0000	0.0000
7926.6254	6238.0162	309.9708	-1688.6092	6301.7209
310.6225	-130.6160	-217.4617	511540.4688	-10.2692
-10.3019				
[25348]ENERGY: 16800000	3274.7643	5393.2409	5463.3339	
347.9933	-14435.2490	-1732.7679	0.0000	0.0000
7927.7891	6239.1045	310.0163	-1688.6846	6302.3125
310.8188	-162.0399	-149.9100	511540.4688	-10.8573
-10.8352				
[25398]ENERGY: 16810000	3296.3128	5477.2269	5440.3963	
338.2099	-14455.8375	-1717.5131	0.0000	0.0000
7859.8686	6238.6639	307.3603	-1621.2047	6302.8707
310.7377	-59.7339	-58.1445	511540.4688	-6.9802
-7.0007				
[25434]ENERGY: 16820000	3252.5587	5433.3109	5418.4979	
333.2685	-14413.5931	-1696.0556	0.0000	0.0000

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7910.6308	6238.6180	309.3453	-1672.0128	6303.1041
310.8861	32.6248	18.3863	511540.4688	-13.7118
-13.7004				
[25484]ENERGY: 16830000	3309.3877	5364.7338	5436.2232	
320.1558	-14341.4681	-1713.6338	0.0000	0.0000
7865.6371	6241.0357	307.5859	-1624.6014	6302.9987
310.8057	-55.7434	63.7184	511540.4688	-14.0217
-14.0007				
[25520]ENERGY: 16840000	3362.2473	5360.7293	5415.6757	
333.6943	-14438.4184	-1844.8495	0.0000	0.0000
8045.1251	6234.2038	314.6047	-1810.9213	6302.5650
310.4177	-269.3591	-270.0285	511540.4688	-14.3264
-14.3508				
[25570]ENERGY: 16850000	3266.9312	5409.2892	5435.9628	
301.4239	-14424.1397	-1720.0201	0.0000	0.0000
7965.7853	6235.2326	311.5022	-1730.5527	6301.1365
310.4449	44.8978	146.9230	511540.4688	-12.5580
-12.5790				
[25606]ENERGY: 16860000	3314.8170	5377.5457	5411.1224	
333.9641	-14298.2656	-1746.8177	0.0000	0.0000
7846.5317	6238.8977	306.8387	-1607.6340	6302.6172
310.4055	50.1998	-85.3615	511540.4688	-15.4295
-15.4255				
[25656]ENERGY: 16870000	3287.1302	5472.3252	5435.0935	
343.3988	-14465.4106	-1680.2732	0.0000	0.0000
7850.2849	6242.5489	306.9855	-1607.7360	6302.8642
310.3805	72.7795	-4.3712	511540.4688	-12.5527
-12.5283				
[25692]ENERGY: 16880000	3257.6533	5444.9384	5438.5846	
286.3882	-14386.6302	-1736.2522	0.0000	0.0000
7935.1253	6239.8072	310.3032	-1695.3181	6302.9904
310.5008	-38.1189	-61.5735	511540.4688	-13.1676
-13.1658				
[25742]ENERGY: 16890000	3201.0435	5389.5701	5455.3394	
333.7233	-14411.3053	-1721.2048	0.0000	0.0000
7990.3754	6237.5415	312.4638	-1752.8339	6301.9213
310.6743	263.5110	238.8863	511540.4688	-10.1571
-10.1518				
[25781]ENERGY: 16900000	3198.7583	5392.6601	5468.9952	
322.2762	-14442.3877	-1686.5732	0.0000	0.0000
7984.0292	6237.7581	312.2156	-1746.2711	6301.5769
310.4511	288.5207	244.6447	511540.4688	-12.6809
-12.6952				
[25831]ENERGY: 16910000	3316.0478	5377.4588	5464.9697	
318.4632	-14448.4640	-1699.1522	0.0000	0.0000
7910.8771	6240.2002	309.3550	-1670.6768	6302.7644
310.4792	45.1725	20.7627	511540.4688	-16.3989
-16.3929				
[25867]ENERGY: 16920000	3218.6893	5459.3292	5485.6357	
332.0533	-14452.0891	-1688.8539	0.0000	0.0000
7885.8164	6240.5808	308.3750	-1645.2356	6303.2046
310.3892	67.7934	19.1160	511540.4688	-16.7969
-16.8030				
[25917]ENERGY: 16930000	3244.4536	5343.8626	5466.0735	

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308.9661	-14327.8917	-1734.0521	0.0000	0.0000
7937.7571	6239.1691	310.4061	-1698.5880	6302.4192
310.4735	-64.8343	-114.4169	511540.4688	-12.2937
-12.2887				
[25953]ENERGY: 16940000	3288.8545	5261.5608	5465.4735	
326.3983	-14343.2448	-1735.9612	0.0000	0.0000
7974.2512	6237.3324	311.8332	-1736.9188	6301.5953
310.3853	-40.0585	-39.8210	511540.4688	-9.7326
-9.7179				
[26003]ENERGY: 16950000	3239.6647	5337.1342	5506.2089	
314.6105	-14424.7523	-1721.2798	0.0000	0.0000
7986.5194	6238.1056	312.3130	-1748.4138	6301.7171
310.4456	19.2320	15.2980	511540.4688	-5.5879
-5.5860				
[26039]ENERGY: 16960000	3220.5307	5357.7755	5477.1943	
339.1587	-14375.6728	-1742.5566	0.0000	0.0000
7962.7240	6239.1539	311.3824	-1723.5701	6303.5001
310.3827	105.7533	36.9561	511540.4688	-10.8467
-10.8559				
[26089]ENERGY: 16970000	3238.8686	5402.6357	5445.3481	
333.4719	-14482.2988	-1682.9256	0.0000	0.0000
7979.5201	6234.6199	312.0393	-1744.9001	6301.6264
310.4387	89.2308	66.3133	511540.4688	-10.0396
-10.0413				
[26125]ENERGY: 16980000	3301.1518	5332.2090	5437.5378	
323.9899	-14404.6967	-1698.5538	0.0000	0.0000
7948.6112	6240.2492	310.8306	-1708.3621	6302.0107
310.4445	121.4248	51.3894	511540.4688	-7.4428
-7.4539				
[26175]ENERGY: 16990000	3271.1209	5407.6064	5481.7220	
322.5949	-14438.4221	-1698.6954	0.0000	0.0000
7893.2726	6239.1992	308.6665	-1654.0734	6303.2190
310.3957	185.4130	87.5445	511540.4688	-11.5080
-11.5036				
[26214]ENERGY: 17000000	3288.7340	5373.4413	5427.1143	
317.2906	-14437.9819	-1677.8347	0.0000	0.0000
7947.0013	6237.7648	310.7676	-1709.2365	6302.0276
310.4427	-94.4568	-83.0060	511540.4688	-8.5626
-8.5442				
[26264]ENERGY: 17010000	3204.2656	5281.2234	5427.6022	
310.1218	-14319.8394	-1736.5081	0.0000	0.0000
8069.8585	6236.7241	315.5719	-1833.1344	6301.4926
310.5140	175.7288	164.0338	511540.4688	-6.5222
-6.5262				
[26300]ENERGY: 17020000	3257.9892	5376.8637	5461.7094	
319.3894	-14422.2801	-1712.1906	0.0000	0.0000
7955.8076	6237.2886	311.1120	-1718.5190	6302.6714
310.5107	74.4817	36.3756	511540.4688	-10.6234
-10.6263				
[26350]ENERGY: 17030000	3352.4341	5422.3101	5446.3455	
329.3428	-14465.2538	-1808.3767	0.0000	0.0000
7958.5355	6235.3375	311.2187	-1723.1979	6301.8059
310.5792	-217.8080	-229.2440	511540.4688	-10.0537
-10.0964				

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[26386]ENERGY: 17040000	3298.4325	5266.8903	5490.2580	
329.1856	-14322.5308	-1737.6231	0.0000	0.0000
7913.3098	6237.9223	309.4501	-1675.3875	6301.1615
310.4297	-23.0561	-80.0694	511540.4688	-11.8877
-11.8447				
[26436]ENERGY: 17050000	3180.2836	5418.9243	5483.1127	
306.8388	-14436.8395	-1686.9481	0.0000	0.0000
7973.5497	6238.9216	311.8058	-1734.6281	6301.3329
310.3892	41.5147	56.4952	511540.4688	-10.8974
-10.8913				
[26472]ENERGY: 17060000	3295.0908	5304.9753	5476.4705	
319.8623	-14354.8423	-1712.4895	0.0000	0.0000
7908.3788	6237.4458	309.2573	-1670.9329	6301.1896
310.4801	100.6945	6.1871	511540.4688	-9.9069
-9.9197				
[26522]ENERGY: 17070000	3288.8626	5431.9730	5438.1130	
317.4790	-14450.5339	-1758.4587	0.0000	0.0000
7972.1038	6239.5387	311.7492	-1732.5651	6301.6440
310.4366	-13.4736	-141.4579	511540.4688	-11.2686
-11.2553				
[26558]ENERGY: 17080000	3285.9983	5337.0206	5473.7347	
300.6975	-14398.6896	-1709.1006	0.0000	0.0000
7948.9860	6238.6470	310.8452	-1710.3390	6300.6186
310.7236	159.7408	201.9556	511540.4688	-11.7050
-11.7109				
[26608]ENERGY: 17090000	3244.6234	5479.8611	5460.6762	
333.6443	-14461.0237	-1701.3637	0.0000	0.0000
7882.3741	6238.7918	308.2404	-1643.5823	6301.3829
310.4539	103.7106	108.5297	511540.4688	-10.8289
-10.8413				
[26647]ENERGY: 17100000	3264.0039	5379.2392	5491.1860	
332.7930	-14389.3960	-1775.6104	0.0000	0.0000
7931.8018	6234.0174	310.1732	-1697.7844	6301.2257
310.4471	8.3252	-35.1015	511540.4688	-12.8358
-12.8188				
[26697]ENERGY: 17110000	3224.0836	5343.1867	5469.0866	
340.7729	-14363.7686	-1721.8452	0.0000	0.0000
7945.9617	6237.4778	310.7270	-1708.4839	6301.1936
310.5480	119.0481	130.1151	511540.4688	-9.4795
-9.5139				
[26733]ENERGY: 17120000	3185.0652	5369.6853	5467.9915	
316.3293	-14390.5185	-1714.1708	0.0000	0.0000
8001.6458	6236.0278	312.9045	-1765.6180	6300.8656
310.4257	-103.2194	-117.6752	511540.4688	-12.9198
-12.9108				
[26783]ENERGY: 17130000	3230.5805	5389.9253	5434.4145	
349.0170	-14349.2834	-1697.2736	0.0000	0.0000
7879.3939	6236.7742	308.1238	-1642.6197	6300.4765
310.3672	33.3362	-72.9660	511540.4688	-7.6543
-7.6317				
[26819]ENERGY: 17140000	3237.5331	5326.0988	5463.8429	
342.1573	-14394.9695	-1733.6846	0.0000	0.0000
7994.5424	6235.5204	312.6267	-1759.0220	6300.8495
310.3230	220.3730	48.5208	511540.4688	-9.3406

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-9.3580
 [26869]ENERGY: 17150000 3338.2043 5342.2230 5386.3179
 323.4700 -14372.5149 -1779.6457 0.0000 0.0000
 7994.0950 6232.1495 312.6092 -1761.9455 6299.2231
 310.4263 75.8779 -12.1682 511540.4688 -10.4718
 -10.4608
 [26905]ENERGY: 17160000 3296.5412 5293.7840 5486.0083
 319.8065 -14337.6249 -1693.9295 0.0000 0.0000
 7875.1063 6239.6920 307.9562 -1635.4143 6299.4257
 310.5625 134.6670 24.9002 511540.4688 -10.6543
 -10.6713
 [26955]ENERGY: 17170000 3282.6519 5303.7775 5454.7648
 329.6333 -14367.3288 -1712.9781 0.0000 0.0000
 7945.2163 6235.7368 310.6978 -1709.4795 6301.0256
 310.3185 -96.2281 -39.7950 511540.4688 -11.4402
 -11.4297
 [26991]ENERGY: 17180000 3317.5729 5342.8548 5446.0039
 342.2818 -14349.6056 -1766.2065 0.0000 0.0000
 7904.3115 6237.2128 309.0982 -1667.0987 6300.2359
 310.4691 -300.8976 -267.5973 511540.4688 -10.1025
 -10.1072
 [27041]ENERGY: 17190000 3274.2504 5410.5301 5450.2761
 315.5901 -14348.8304 -1783.1248 0.0000 0.0000
 7919.8275 6238.5190 309.7050 -1681.3085 6301.8610
 310.3777 -69.3431 -159.2384 511540.4688 -7.4884
 -7.4611
 [27080]ENERGY: 17200000 3278.1590 5435.6373 5488.7804
 328.9866 -14421.9652 -1766.5324 0.0000 0.0000
 7892.4789 6235.5447 308.6355 -1656.9343 6300.7127
 310.4006 -5.7985 85.3973 511540.4688 -10.4828
 -10.5025
 [27130]ENERGY: 17210000 3215.8583 5425.2528 5431.4778
 319.9564 -14354.6508 -1745.5523 0.0000 0.0000
 7944.1671 6236.5094 310.6568 -1707.6578 6301.7186
 310.5815 121.8166 26.2590 511540.4688 -10.4453
 -10.4592
 [27166]ENERGY: 17220000 3339.0482 5415.9890 5415.6636
 321.1687 -14432.5040 -1702.8415 0.0000 0.0000
 7882.5483 6239.0722 308.2472 -1643.4761 6301.1760
 310.4199 43.0967 -3.0240 511540.4688 -9.7946
 -9.7847
 [27216]ENERGY: 17230000 3300.1288 5350.1663 5500.7845
 348.8034 -14461.6099 -1716.7673 0.0000 0.0000
 7918.9542 6240.4599 309.6708 -1678.4943 6300.0233
 310.4978 58.9951 -10.7863 511540.4688 -11.5033
 -11.5176
 [27252]ENERGY: 17240000 3273.5723 5293.2883 5512.1139
 331.9499 -14393.8871 -1718.6839 0.0000 0.0000
 7936.8846 6235.2379 310.3720 -1701.6466 6301.0529
 310.4276 -41.8764 -127.2451 511540.4688 -6.1363
 -6.1275
 [27302]ENERGY: 17250000 3243.2172 5325.0274 5423.7172
 318.8255 -14370.0099 -1691.3168 0.0000 0.0000
 7988.0634 6237.5239 312.3733 -1750.5395 6301.4711

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310.4677	167.6669	101.4408	511540.4688	-8.4963
-8.4859				
[27338]ENERGY: 17260000	3258.1703	5284.2126	5457.0858	
320.5339	-14362.8926	-1729.6271	0.0000	0.0000
8007.1546	6234.6374	313.1199	-1772.5172	6300.7347
310.1503	-12.5408	-57.8735	511540.4688	-2.5930
-2.5964				
[27388]ENERGY: 17270000	3311.3444	5230.4137	5492.8185	
360.3649	-14376.8442	-1705.7529	0.0000	0.0000
7920.6775	6233.0218	309.7382	-1687.6556	6301.6054
310.2620	-5.7570	-33.2007	511540.4688	-7.0990
-7.0793				
[27424]ENERGY: 17280000	3247.4702	5408.9621	5444.1369	
325.5614	-14383.0347	-1778.5309	0.0000	0.0000
7971.5709	6236.1360	311.7284	-1735.4349	6300.8527
310.2090	-234.2527	-92.5168	511540.4688	-8.7295
-8.7408				
[27474]ENERGY: 17290000	3176.7823	5384.5801	5486.2808	
335.5242	-14379.1158	-1712.6654	0.0000	0.0000
7946.2431	6237.6293	310.7380	-1708.6138	6300.0203
310.2505	14.0184	-122.5981	511540.4688	-3.8075
-3.8046				
[27513]ENERGY: 17300000	3235.0367	5435.5696	5472.6277	
335.5056	-14356.8005	-1743.0861	0.0000	0.0000
7857.8148	6236.6677	307.2800	-1621.1471	6300.5743
310.2150	85.3652	0.3397	511540.4688	-9.3354
-9.3662				
[27563]ENERGY: 17310000	3240.3135	5361.2660	5478.7765	
315.2919	-14359.6838	-1797.6026	0.0000	0.0000
7996.8795	6235.2409	312.7181	-1761.6386	6300.7950
310.2899	-40.3556	33.6345	511540.4688	-8.8316
-8.8103				
[27599]ENERGY: 17320000	3265.2978	5383.2949	5445.4770	
335.5600	-14422.7732	-1685.9049	0.0000	0.0000
7918.8743	6239.8258	309.6677	-1679.0485	6302.1440
310.5551	246.9575	194.6944	511540.4688	-1.9411
-1.9503				
[27649]ENERGY: 17330000	3181.1966	5423.3237	5430.6734	
334.3497	-14363.5036	-1735.4675	0.0000	0.0000
7966.6122	6237.1846	311.5345	-1729.4276	6302.6555
310.4790	-2.7493	82.1238	511540.4688	-4.6363
-4.5950				
[27685]ENERGY: 17340000	3262.4012	5463.6322	5451.4216	
326.8239	-14384.6313	-1770.7381	0.0000	0.0000
7893.7868	6242.6963	308.6867	-1651.0905	6304.0421
310.4590	105.5493	-92.9463	511540.4688	-6.7963
-6.8624				
[27735]ENERGY: 17350000	3259.8421	5259.5005	5499.2836	
322.0326	-14374.0667	-1740.4112	0.0000	0.0000
8012.6023	6238.7833	313.3329	-1773.8191	6301.9201
310.5138	272.6125	175.1538	511540.4688	-2.7710
-2.7393				
[27771]ENERGY: 17360000	3281.3616	5345.4594	5499.7755	
336.5330	-14493.1767	-1713.1124	0.0000	0.0000

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7977.8244	6234.6648	311.9729	-1743.1596	6302.9811
310.5285	137.9663	66.2612	511540.4688	-7.0741
-7.0743				
[27821]ENERGY: 17370000	3297.3049	5266.1979	5501.8483	
314.8481	-14429.2581	-1733.1708	0.0000	0.0000
8021.1941	6238.9645	313.6689	-1782.2296	6303.9877
310.4579	-53.0293	-32.2177	511540.4688	-10.7626
-10.7628				
[27857]ENERGY: 17380000	3277.3756	5341.4577	5473.6379	
326.5594	-14348.9416	-1784.4768	0.0000	0.0000
7953.4064	6239.0186	311.0181	-1714.3878	6303.7591
310.4077	-209.3542	-137.8337	511540.4688	-6.5160
-6.4897				
[27907]ENERGY: 17390000	3266.3653	5371.9430	5445.3714	
336.5151	-14421.2496	-1705.6020	0.0000	0.0000
7946.0498	6239.3929	310.7304	-1706.6569	6302.8721
310.4761	79.7812	51.8523	511540.4688	-6.2625
-6.2607				
[27946]ENERGY: 17400000	3384.2412	5351.6510	5446.8178	
330.7234	-14410.0075	-1740.3118	0.0000	0.0000
7873.1011	6236.2152	307.8777	-1636.8859	6302.4540
310.4254	-3.3063	-45.5278	511540.4688	-3.6603
-3.6993				
[27996]ENERGY: 17410000	3259.0484	5374.8613	5463.7863	
313.4040	-14436.1771	-1725.9835	0.0000	0.0000
7988.6434	6237.5828	312.3960	-1751.0606	6303.6738
310.4365	-50.4188	-31.5645	511540.4688	-6.1274
-6.1192				
[28032]ENERGY: 17420000	3355.9935	5321.1221	5489.9738	
325.1295	-14431.6998	-1769.1304	0.0000	0.0000
7952.0488	6243.4376	310.9650	-1708.6112	6304.2934
310.4073	-120.7079	-21.4461	511540.4688	-6.4156
-6.3923				
[28082]ENERGY: 17430000	3251.7065	5265.3001	5468.7694	
359.0941	-14380.7477	-1696.0602	0.0000	0.0000
7971.3192	6239.3814	311.7186	-1731.9378	6303.1248
310.4618	202.4102	180.9605	511540.4688	-5.1472
-5.1467				
[28118]ENERGY: 17440000	3305.4707	5351.2128	5510.5200	
304.7434	-14395.3728	-1708.7372	0.0000	0.0000
7878.1268	6245.9636	308.0743	-1632.1631	6305.3943
310.4649	171.9607	82.8846	511540.4688	-6.0469
-6.0774				
[28168]ENERGY: 17450000	3282.3391	5500.2756	5426.3871	
330.3893	-14479.2864	-1728.3117	0.0000	0.0000
7908.5948	6240.3879	309.2657	-1668.2069	6305.4497
310.4647	19.5064	46.9214	511540.4688	-6.6166
-6.6122				
[28204]ENERGY: 17460000	3220.5441	5376.2809	5453.0147	
323.6677	-14366.6248	-1662.1263	0.0000	0.0000
7894.8972	6239.6535	308.7301	-1655.2437	6304.5217
310.3706	34.9072	129.8070	511540.4688	-3.9776
-3.9591				
[28254]ENERGY: 17470000	3195.4576	5343.5118	5476.3486	

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335.5189	-14399.4051	-1636.0592	0.0000	0.0000
7927.4835	6242.8561	310.0044	-1684.6274	6306.2962
310.6554	170.1925	117.2427	511540.4688	-6.4111
-6.4260				
[28290]ENERGY: 17480000	3313.2618	5384.1215	5460.5354	
328.6562	-14437.1822	-1735.1938	0.0000	0.0000
7929.3202	6243.5190	310.0762	-1685.8012	6306.6528
310.5374	91.4980	8.0601	511540.4688	-9.7490
-9.7326				
[28340]ENERGY: 17490000	3217.7447	5324.4729	5499.4093	
330.7929	-14485.3753	-1657.4295	0.0000	0.0000
8010.0914	6239.7063	313.2347	-1770.3850	6307.1349
310.6802	150.4069	88.1488	511540.4688	-2.8038
-2.8152				
[28379]ENERGY: 17500000	3343.2164	5389.8903	5477.9356	
324.6240	-14350.3639	-1837.2185	0.0000	0.0000
7897.2719	6245.3558	308.8229	-1651.9160	6308.3849
310.6132	-70.0394	-66.1144	511540.4688	-7.7557
-7.7544				
[28429]ENERGY: 17510000	3286.5170	5438.8946	5378.7870	
309.4462	-14324.1490	-1776.1306	0.0000	0.0000
7929.9240	6243.2892	310.0998	-1686.6348	6308.4071
310.6392	-66.1399	-122.3541	511540.4688	-2.1194
-2.1151				
[28465]ENERGY: 17520000	3263.3188	5437.5144	5458.1033	
325.3581	-14432.7483	-1659.7599	0.0000	0.0000
7852.2476	6244.0340	307.0623	-1608.2136	6305.3159
310.7495	-19.8581	22.5873	511540.4688	-4.3510
-4.3470				
[28515]ENERGY: 17530000	3247.5647	5368.0216	5458.8363	
318.5455	-14381.5207	-1739.6721	0.0000	0.0000
7970.3933	6242.1686	311.6824	-1728.2247	6306.1673
310.8424	-92.0118	-50.2210	511540.4688	-6.4308
-6.4378				
[28551]ENERGY: 17540000	3325.3270	5332.3904	5472.2772	
331.4233	-14373.7262	-1782.8059	0.0000	0.0000
7936.3688	6241.2547	310.3518	-1695.1142	6307.0757
310.5992	-197.2693	-188.9700	511540.4688	-4.1936
-4.2154				
[28601]ENERGY: 17550000	3338.3490	5374.5998	5507.8610	
335.4658	-14380.8105	-1809.5143	0.0000	0.0000
7881.7073	6247.6582	308.2143	-1634.0491	6307.9271
310.8120	-166.6271	-39.6030	511540.4688	-8.0229
-7.9989				
[28637]ENERGY: 17560000	3206.0436	5379.0302	5480.7016	
328.2833	-14423.2298	-1706.3188	0.0000	0.0000
7977.1503	6241.6605	311.9466	-1735.4898	6307.3599
310.7228	161.8871	-28.2571	511540.4688	-0.9962
-1.0288				
[28687]ENERGY: 17570000	3259.8015	5430.4677	5413.7190	
294.6411	-14379.3682	-1756.8438	0.0000	0.0000
7983.1900	6245.6074	312.1828	-1737.5826	6309.3081
310.7338	4.6263	-90.1318	511540.4688	-3.6208
-3.6107				

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[28723]ENERGY: 17580000	3239.0492	5403.5173	5434.4889
341.8754	-14388.4603	-1771.4954	0.0000
7982.9372	6241.9122	312.1729	-1741.0250
310.6428	-112.8563	-139.3795	511540.4688
-5.3905			-5.4050
[28773]ENERGY: 17590000	3238.8232	5414.0373	5472.7469
328.5773	-14369.4833	-1724.9399	0.0000
7882.5876	6242.3491	308.2487	-1640.2385
310.4778	69.7871	90.7356	511540.4688
-4.5070			-4.5056
[28812]ENERGY: 17600000	3300.5926	5345.4588	5435.9102
336.2407	-14415.9057	-1754.0948	0.0000
7995.6962	6243.8981	312.6718	-1751.7981
310.6592	45.2167	-43.5464	511540.4688
2.7949			2.8025
[28862]ENERGY: 17610000	3237.8805	5346.0676	5493.0947
337.5098	-14376.9294	-1715.8212	0.0000
7921.0765	6242.8785	309.7538	-1678.1980
310.8716	122.5489	41.7077	511540.4688
-10.1833			-10.1802
[28898]ENERGY: 17620000	3254.8818	5378.8748	5478.7379
302.9955	-14372.8579	-1680.8844	0.0000
7881.3681	6243.1159	308.2010	-1638.2522
310.6261	60.8097	-66.2180	511540.4688
-6.0113			-6.0108
[28948]ENERGY: 17630000	3299.7135	5443.8042	5492.7856
338.6658	-14478.7350	-1725.0870	0.0000
7877.4178	6248.5650	308.0465	-1628.8528
310.6390	-63.1710	4.2946	511540.4688
-6.7806			-6.7946
[28984]ENERGY: 17640000	3246.5164	5357.2464	5424.6146
326.0940	-14281.1826	-1747.3368	0.0000
7916.7710	6242.7230	309.5855	-1674.0480
310.6767	-62.1785	-14.0874	511540.4688
-7.0970			-7.1128
[29034]ENERGY: 17650000	3247.7216	5331.0500	5441.0620
337.0254	-14302.2526	-1735.0340	0.0000
7925.9413	6245.5137	309.9441	-1680.4276
310.8865	72.0538	18.1306	511540.4688
-5.1986			-5.2045
[29070]ENERGY: 17660000	3246.1951	5348.6110	5453.1366
323.1318	-14249.0768	-1768.4897	0.0000
7891.9594	6245.4674	308.6152	-1646.4920
310.5493	90.8258	86.1621	511540.4688
-9.7309			-9.7079
[29120]ENERGY: 17670000	3234.1894	5254.6080	5493.7758
319.6994	-14341.2578	-1726.7916	0.0000
8008.4089	6242.6321	313.1690	-1765.7768
310.6243	188.3238	198.4238	511540.4688
-10.3395			-10.3354
[29156]ENERGY: 17680000	3246.1073	5338.5362	5457.3934
311.7495	-14340.9846	-1709.1269	0.0000
7939.4540	6243.1290	310.4725	-1696.3250
310.6761	52.5248	45.4195	511540.4688
			-11.3076

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-11.2942
 [29206]ENERGY: 17690000 3279.7342 5377.6428 5425.2527
 329.0051 -14443.7692 -1719.8376 0.0000 0.0000
 7996.3266 6244.3546 312.6965 -1751.9720 6307.6695
 310.8384 201.5016 90.2702 511540.4688 -8.7105
 -8.7287
 [29245]ENERGY: 17700000 3296.3942 5420.8969 5437.1647
 324.2139 -14368.5947 -1843.8196 0.0000 0.0000
 7976.7828 6243.0382 311.9322 -1733.7446 6307.2394
 310.8335 -185.4794 -152.9722 511540.4688 -9.7775
 -9.7699
 [29295]ENERGY: 17710000 3276.3384 5414.2527 5420.0701
 336.2511 -14422.2680 -1726.3129 0.0000 0.0000
 7945.9416 6244.2730 310.7262 -1701.6686 6306.5006
 310.7202 61.9923 54.2417 511540.4688 -14.1802
 -14.1593
 [29331]ENERGY: 17720000 3288.6761 5343.6005 5451.1234
 343.7254 -14465.2537 -1671.7498 0.0000 0.0000
 7954.5655 6244.6874 311.0634 -1709.8780 6308.0216
 310.6193 162.6125 98.1463 511540.4688 -6.2902
 -6.3182
 [29381]ENERGY: 17730000 3274.8244 5328.7396 5476.1336
 327.2065 -14383.6009 -1818.8688 0.0000 0.0000
 8040.4561 6244.8905 314.4222 -1795.5656 6308.2294
 310.6178 -123.1154 -46.3730 511540.4688 -13.2418
 -13.2235
 [29417]ENERGY: 17740000 3266.1789 5435.5650 5416.2199
 318.8717 -14396.6748 -1746.3433 0.0000 0.0000
 7951.8443 6245.6617 310.9570 -1706.1826 6308.9915
 310.5510 -35.3545 5.0337 511540.4688 -10.9065
 -10.9279
 [29467]ENERGY: 17750000 3264.7231 5502.1730 5459.9355
 322.7505 -14440.6458 -1780.2546 0.0000 0.0000
 7911.9823 6240.6639 309.3982 -1671.3184 6307.9011
 310.8657 204.2209 218.0472 511540.4688 -8.1707
 -8.1534
 [29503]ENERGY: 17760000 3350.8143 5311.0858 5429.0432
 343.2368 -14358.9498 -1817.7951 0.0000 0.0000
 7983.8965 6241.3317 312.2104 -1742.5648 6308.2000
 310.6061 -34.0510 -186.0687 511540.4688 -11.5052
 -11.5272
 [29553]ENERGY: 17770000 3254.4491 5342.3802 5506.4652
 324.0801 -14443.5162 -1713.2973 0.0000 0.0000
 7973.7846 6244.3457 311.8150 -1729.4389 6307.3380
 310.7968 81.1793 47.5368 511540.4688 -9.4631
 -9.4358
 [29589]ENERGY: 17780000 3285.2199 5519.2304 5465.8086
 323.5792 -14519.5465 -1730.6451 0.0000 0.0000
 7899.6876 6243.3341 308.9174 -1656.3535 6307.1828
 310.8703 83.2179 58.0990 511540.4688 -10.0836
 -10.1016
 [29639]ENERGY: 17790000 3295.1468 5387.3043 5456.8564
 321.3651 -14422.4290 -1700.8233 0.0000 0.0000
 7905.8547 6243.2749 309.1586 -1662.5797 6307.3711

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310.9056	36.9252	3.4193	511540.4688	-9.5500
-9.5390				
[29678]ENERGY: 17800000	3253.0290	5322.7453	5479.3316	
327.9417	-14369.4273	-1756.1474	0.0000	0.0000
7990.1179	6247.5908	312.4537	-1742.5271	6309.9108
310.9757	69.2065	32.2010	511540.4688	-5.5292
-5.5514				
[29728]ENERGY: 17810000	3316.1874	5309.3515	5477.6935	
322.5083	-14409.3734	-1655.6009	0.0000	0.0000
7887.4631	6248.2294	308.4394	-1639.2337	6309.2176
311.0317	47.0421	9.8780	511540.4688	-9.2963
-9.2786				
[29764]ENERGY: 17820000	3303.1653	5414.1805	5464.7007	
334.6155	-14417.0672	-1770.9411	0.0000	0.0000
7919.0145	6247.6682	309.6732	-1671.3462	6308.2146
310.9933	-169.1235	-117.5812	511540.4688	-5.8870
-5.8651				
[29814]ENERGY: 17830000	3270.4303	5444.6427	5480.9814	
328.1703	-14474.2285	-1827.7248	0.0000	0.0000
8018.6598	6240.9312	313.5698	-1777.7287	6307.5952
310.8975	-114.3095	-17.8803	511540.4688	-8.0403
-8.0304				
[29850]ENERGY: 17840000	3301.7494	5483.3176	5431.3358	
337.1259	-14324.7136	-1849.6843	0.0000	0.0000
7866.9860	6246.1168	307.6386	-1620.8693	6309.1792
310.8121	-177.7034	-196.1756	511540.4688	-5.6346
-5.6671				
[29900]ENERGY: 17850000	3247.8985	5297.0849	5477.5944	
351.9873	-14354.5409	-1769.0912	0.0000	0.0000
7991.2335	6242.1664	312.4973	-1749.0671	6309.5349
310.8239	41.5854	30.5501	511540.4688	-3.9084
-3.9223				
[29936]ENERGY: 17860000	3331.3977	5344.3489	5515.0242	
356.2766	-14432.5579	-1736.2573	0.0000	0.0000
7870.0731	6248.3052	307.7593	-1621.7679	6309.6050
310.6891	-165.2362	-67.6178	511540.4688	-8.5002
-8.4905				
[29986]ENERGY: 17870000	3193.7196	5384.4276	5507.4024	
340.0659	-14442.3419	-1747.7696	0.0000	0.0000
8008.5028	6244.0069	313.1726	-1764.4959	6309.7180
310.8339	167.4750	83.6670	511540.4688	-3.6930
-3.6718				
[30022]ENERGY: 17880000	3218.4927	5320.2251	5516.4058	
333.2996	-14418.1734	-1751.4680	0.0000	0.0000
8022.9124	6241.6942	313.7361	-1781.2182	6309.4148
310.7998	341.8186	205.8206	511540.4688	-10.2475
-10.2544				
[30072]ENERGY: 17890000	3309.8527	5457.7443	5489.3097	
348.0294	-14421.6448	-1832.2145	0.0000	0.0000
7897.7345	6248.8112	308.8410	-1648.9233	6310.5438
310.9627	-132.0716	-82.7171	511540.4688	-4.4126
-4.4224				
[30111]ENERGY: 17900000	3229.4883	5306.3200	5502.1805	
340.3892	-14379.6507	-1752.2494	0.0000	0.0000

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7998.1796	6244.6575	312.7689	-1753.5221	6310.4635
310.9340	2.2786	-0.5472	511540.4688	-0.1646
-0.1540				
[30161]ENERGY: 17910000	3244.6478	5451.3705	5494.8838	
333.1268	-14439.9431	-1778.3189	0.0000	0.0000
7942.2275	6247.9944	310.5809	-1694.2331	6310.6447
311.0296	15.6088	-164.6960	511540.4688	-5.3901
-5.4035				
[30197]ENERGY: 17920000	3274.5485	5453.3966	5460.4287	
324.5337	-14393.7393	-1780.2976	0.0000	0.0000
7909.7566	6248.6272	309.3112	-1661.1294	6310.1570
311.0070	-2.9185	32.8287	511540.4688	-6.5598
-6.5476				
[30247]ENERGY: 17930000	3296.3141	5414.1273	5463.1745	
327.7741	-14390.8411	-1750.1653	0.0000	0.0000
7883.6403	6244.0239	308.2899	-1639.6163	6310.6764
310.9918	-11.2510	-123.1319	511540.4688	-8.3415
-8.3559				
[30283]ENERGY: 17940000	3255.7543	5452.8727	5411.0942	
328.9706	-14407.8733	-1781.8802	0.0000	0.0000
7988.0359	6246.9742	312.3723	-1741.0617	6311.0604
311.0828	68.7596	134.5346	511540.4688	-9.6653
-9.6486				
[30333]ENERGY: 17950000	3317.5292	5357.4251	5454.6047	
321.9476	-14426.3965	-1749.5783	0.0000	0.0000
7974.3792	6249.9110	311.8382	-1724.4682	6311.1347
311.1049	-224.9336	-141.1068	511540.4688	-3.6870
-3.7088				
[30369]ENERGY: 17960000	3263.0188	5404.9037	5463.0511	
315.0044	-14377.6602	-1743.2086	0.0000	0.0000
7923.9839	6249.0930	309.8675	-1674.8909	6311.7576
311.1321	228.6018	198.2453	511540.4688	-8.2294
-8.2295				
[30419]ENERGY: 17970000	3341.7076	5352.9680	5511.1899	
328.5897	-14435.5387	-1764.7788	0.0000	0.0000
7914.6999	6248.8376	309.5045	-1665.8622	6310.5257
311.0582	-47.8761	-110.2972	511540.4688	-7.6195
-7.6009				
[30455]ENERGY: 17980000	3234.2928	5430.6268	5492.9601	
322.3908	-14406.8480	-1762.4030	0.0000	0.0000
7936.9443	6247.9638	310.3743	-1688.9805	6311.9918
310.8426	-78.6418	-10.3184	511540.4688	-5.4412
-5.4386				
[30505]ENERGY: 17990000	3277.0281	5380.7720	5505.4475	
356.7793	-14495.0020	-1735.5776	0.0000	0.0000
7958.6139	6248.0612	311.2217	-1710.5527	6312.3252
311.0388	251.9196	130.4654	511540.4688	-6.3643
-6.3642				
[30544]ENERGY: 18000000	3190.7451	5506.6251	5501.2052	
330.6656	-14464.0164	-1706.7502	0.0000	0.0000
7892.4363	6250.9108	308.6338	-1641.5255	6312.0162
311.0533	272.2339	78.6677	511540.4688	-3.6207
-3.6314				
[30594]ENERGY: 18010000	3282.7770	5386.7230	5461.9413	

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328.9208	-14365.5870	-1847.4222	0.0000	0.0000
8002.1176	6249.4705	312.9229	-1752.6472	6312.9993
311.0016	38.7110	-66.6810	511540.4688	-10.0638
-10.0558				
[30630]ENERGY: 18020000	3286.4957	5478.1144	5456.9744	
318.1460	-14539.3073	-1660.0980	0.0000	0.0000
7907.1398	6247.4651	309.2088	-1659.6748	6311.8551
310.8990	-22.8525	-39.6833	511540.4688	-7.7369
-7.7305				
[30680]ENERGY: 18030000	3225.5459	5355.2747	5422.5141	
338.3119	-14411.2440	-1633.2923	0.0000	0.0000
7950.6582	6247.7684	310.9106	-1702.8898	6312.9067
310.7406	257.9958	157.0609	511540.4688	-3.4515
-3.4519				
[30716]ENERGY: 18040000	3270.6241	5337.6878	5478.2236	
331.2534	-14426.5804	-1718.0980	0.0000	0.0000
7976.8285	6249.9389	311.9340	-1726.8896	6312.9903
310.7528	31.7160	75.8992	511540.4688	-3.3924
-3.4043				
[30766]ENERGY: 18050000	3289.9209	5361.4647	5452.6223	
308.4136	-14383.8297	-1767.9214	0.0000	0.0000
7989.0917	6249.7621	312.4136	-1739.3296	6312.7039
310.8221	-25.3770	-2.8757	511540.4688	-4.4780
-4.4870				
[30802]ENERGY: 18060000	3192.7051	5507.3543	5526.1963	
322.7807	-14415.8060	-1750.7909	0.0000	0.0000
7867.2658	6249.7053	307.6495	-1617.5605	6313.2053
310.9158	-72.5384	-130.7554	511540.4688	-3.4077
-3.4053				
[30852]ENERGY: 18070000	3312.6213	5383.9141	5475.9932	
303.6089	-14484.9309	-1669.8316	0.0000	0.0000
7928.1013	6249.4764	310.0285	-1678.6249	6312.7423
310.8999	-102.7433	-19.6329	511540.4688	-9.7604
-9.7191				
[30888]ENERGY: 18080000	3274.5990	5416.9607	5480.6097	
340.1343	-14408.8088	-1755.8600	0.0000	0.0000
7903.8454	6251.4803	309.0800	-1652.3651	6312.9705
310.8110	146.1825	53.5122	511540.4688	-5.5916
-5.6237				
[30938]ENERGY: 18090000	3318.0000	5378.2167	5444.5137	
336.4354	-14337.3014	-1770.2244	0.0000	0.0000
7879.6019	6249.2420	308.1320	-1630.3600	6312.7686
310.7751	93.2455	-87.7250	511540.4688	-6.7535
-6.7661				
[30977]ENERGY: 18100000	3290.2640	5396.9985	5514.4391	
307.3428	-14409.5526	-1763.2978	0.0000	0.0000
7914.4040	6250.5979	309.4929	-1663.8061	6312.2005
310.9835	59.9343	-2.9883	511540.4688	-7.2128
-7.2126				
[31027]ENERGY: 18110000	3250.6788	5491.1682	5502.2086	
328.1868	-14447.0151	-1730.3379	0.0000	0.0000
7855.6270	6250.5165	307.1944	-1605.1105	6312.9602
310.6164	79.2551	-12.6557	511540.4688	-7.8168
-7.8095				

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[31063]ENERGY: 18120000	3295.9586	5363.9107	5463.1851
342.7515	-14441.5648	-1739.0149	0.0000
7962.9673	6248.1936	311.3920	-1714.7737
310.9088	70.4056	50.4533	511540.4688
-3.3413			-3.3497
[31113]ENERGY: 18130000	3223.9507	5435.4380	5487.2109
346.1296	-14537.1565	-1708.7375	0.0000
8000.3368	6247.1720	312.8533	-1753.1649
310.9866	40.7330	31.8014	511540.4688
-7.6205			-7.6315
[31149]ENERGY: 18140000	3370.9701	5374.3057	5489.1175
334.7818	-14505.4834	-1701.9377	0.0000
7885.4687	6247.2227	308.3614	-1638.2460
310.9140	4.9286	-37.2497	511540.4688
-9.9742			-9.9564
[31199]ENERGY: 18150000	3258.9331	5392.7507	5442.2412
323.0660	-14452.4722	-1720.0703	0.0000
8003.2007	6247.6492	312.9653	-1755.5515
311.0335	127.6009	47.1193	511540.4688
-5.7551			-5.7512
[31235]ENERGY: 18160000	3411.3613	5306.1946	5481.6747
322.9800	-14447.0962	-1719.2731	0.0000
7892.5625	6248.4038	308.6388	-1644.1587
310.9457	-47.2564	-91.6777	511540.4688
-10.4570			-10.4702
[31285]ENERGY: 18170000	3335.8405	5435.6508	5488.8011
317.6794	-14482.3109	-1735.6939	0.0000
7889.9053	6249.8723	308.5349	-1640.0330
310.9892	45.6532	18.2497	511540.4688
-10.4091			-10.4104
[31321]ENERGY: 18180000	3216.2471	5468.8030	5525.7047
328.1832	-14540.7653	-1710.5580	0.0000
7962.3537	6249.9685	311.3680	-1712.3852
310.9613	230.7678	62.3606	511540.4688
-7.0154			-6.9826
[31371]ENERGY: 18190000	3246.4608	5438.6017	5495.2380
341.4413	-14457.3819	-1741.4566	0.0000
7927.5469	6250.4502	310.0068	-1677.0967
311.3717	103.7090	42.0840	511540.4688
-7.1531			-7.1909
[31410]ENERGY: 18200000	3397.2785	5332.1975	5478.5097
333.3534	-14466.5636	-1823.0607	0.0000
7998.1230	6249.8377	312.7667	-1748.2852
311.5435	-130.8255	-138.8109	511540.4688
-6.4377			-6.4398
[31460]ENERGY: 18210000	3290.1056	5360.4219	5491.2116
327.6880	-14519.2938	-1709.0481	0.0000
8006.4309	6247.5161	313.0916	-1758.9147
311.8660	328.3736	252.0112	511540.4688
-7.6722			-7.6452
[31496]ENERGY: 18220000	3306.0052	5434.0541	5487.2809
325.9785	-14444.8551	-1786.5282	0.0000
7932.0273	6253.9626	310.1820	-1678.0646
311.9803	-152.5711	-113.3504	511540.4688
			-7.3182

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-7.3018

[31546]ENERGY: 18230000	3297.0557	5427.3677	5480.9010
331.1300	-14506.7856	-1761.8231	0.0000
7987.1770	6255.0227	312.3387	-1732.1543
311.7926	144.9439	85.2507	511540.4688
-11.3595			-11.3638

[31582]ENERGY: 18240000	3304.1506	5465.2779	5465.5248
326.4395	-14571.3190	-1722.4277	0.0000
7984.8472	6252.4934	312.2476	-1732.3539
311.9419	29.8304	21.2290	511540.4688
-4.6190			-4.6056

[31632]ENERGY: 18250000	3303.1447	5383.9702	5440.2456
314.5769	-14518.0021	-1731.6695	0.0000
8056.9484	6249.2143	315.0671	-1807.7341
311.9156	134.2600	34.9411	511540.4688
-8.7040			-8.7157

[31668]ENERGY: 18260000	3292.8995	5408.7900	5483.1694
332.5478	-14575.0446	-1736.2016	0.0000
8045.2587	6251.4192	314.6100	-1793.8396
311.7456	19.5420	106.0206	511540.4688
-6.8896			-6.8948

[31718]ENERGY: 18270000	3249.4755	5417.2229	5541.9042
307.3579	-14532.6666	-1748.0339	0.0000
8017.5417	6252.8018	313.5261	-1764.7399
311.9646	57.4561	15.8252	511540.4688
-12.9310			-12.9402

[31754]ENERGY: 18280000	3312.4752	5391.1449	5476.7020
322.0442	-14428.7799	-1749.3498	0.0000
7931.5944	6255.8310	310.1651	-1675.7634
311.7855	100.0614	17.0083	511540.4688
-2.4015			-2.3764

[31804]ENERGY: 18290000	3240.3370	5433.4425	5427.8606
309.7260	-14371.4586	-1797.5800	0.0000
8013.0606	6255.3882	313.3509	-1757.6724
311.8648	28.6435	-24.8926	511540.4688
-8.7732			-8.7788

[31843]ENERGY: 18300000	3243.2078	5450.5653	5494.5317
304.6646	-14530.4505	-1729.6654	0.0000
8021.8530	6254.7063	313.6947	-1767.1466
311.7970	222.9468	149.1392	511540.4688
-0.3509			-0.3546

[31893]ENERGY: 18310000	3334.9864	5406.8867	5451.3952
331.1387	-14447.8299	-1744.1848	0.0000
7923.0214	6255.4137	309.8299	-1667.6076
311.8477	150.8570	63.1619	511540.4688
-7.0433			-7.0339

[31929]ENERGY: 18320000	3278.0740	5382.7417	5495.3124
345.7475	-14534.3972	-1701.2169	0.0000
7990.4649	6256.7265	312.4673	-1733.7384
311.5853	-16.7281	-30.3410	511540.4688
-14.2471			-14.2536

[31979]ENERGY: 18330000	3280.5399	5394.4075	5536.6141
305.1122	-14496.6674	-1755.9877	0.0000
7989.7939	6253.8126	312.4410	-1735.9813
			6319.3633

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311.8180	10.3902	-25.5231	511540.4688	-11.0529
-11.0788				
[32015]ENERGY: 18340000	3230.5906	5439.6883	5462.0899	
319.4904	-14486.0425	-1725.9762	0.0000	0.0000
8014.7551	6254.5956	313.4171	-1760.1594	6318.9818
312.1370	-9.4191	-19.7000	511540.4688	-15.1700
-15.1200				
[32065]ENERGY: 18350000	3323.6301	5471.3785	5500.0191	
324.9891	-14479.0500	-1740.2518	0.0000	0.0000
7855.6472	6256.3622	307.1952	-1599.2850	6320.3756
311.9892	-24.0456	-45.0583	511540.4688	-9.2356
-9.2753				
[32101]ENERGY: 18360000	3303.2258	5416.4922	5516.4708	
318.6180	-14560.4830	-1689.8714	0.0000	0.0000
7951.4885	6255.9409	310.9431	-1695.5476	6320.2607
311.9673	121.6292	33.9773	511540.4688	-16.0984
-16.0921				
[32151]ENERGY: 18370000	3241.0494	5322.1254	5484.5598	
326.2260	-14452.5759	-1740.8090	0.0000	0.0000
8072.9222	6253.4979	315.6917	-1819.4243	6319.0840
311.7833	248.4168	223.3756	511540.4688	-15.2955
-15.3096				
[32187]ENERGY: 18380000	3265.1963	5417.0332	5430.3453	
333.8546	-14401.4465	-1758.9445	0.0000	0.0000
7971.3536	6257.3919	311.7199	-1713.9617	6319.9429
311.8562	-12.0967	1.6883	511540.4688	-14.8738
-14.8492				
[32237]ENERGY: 18390000	3354.7696	5425.0758	5523.5073	
326.8490	-14563.6089	-1766.3774	0.0000	0.0000
7958.0782	6258.2935	311.2008	-1699.7846	6319.5058
311.8685	78.4428	41.2471	511540.4688	-17.0954
-17.1154				
[32276]ENERGY: 18400000	3246.1676	5387.6965	5513.4931	
347.6298	-14431.5703	-1795.1057	0.0000	0.0000
7988.4566	6256.7675	312.3887	-1731.6891	6320.1286
311.8973	-113.6601	-105.3620	511540.4688	-10.0643
-10.0526				
[32326]ENERGY: 18410000	3240.8539	5418.4171	5520.6607	
351.5913	-14437.2740	-1773.0603	0.0000	0.0000
7936.4363	6257.6250	310.3545	-1678.8113	6320.2302
312.0244	53.6274	-86.3821	511540.4688	-12.5405
-12.5608				
[32362]ENERGY: 18420000	3254.2403	5392.8911	5459.6322	
324.4460	-14532.8761	-1683.2196	0.0000	0.0000
8038.6666	6253.7805	314.3522	-1784.8861	6319.3076
312.0238	11.6919	-12.2564	511540.4688	-19.8663
-19.8445				
[32412]ENERGY: 18430000	3271.5316	5386.1205	5528.6033	
355.2885	-14449.8330	-1722.6147	0.0000	0.0000
7891.6632	6260.7594	308.6036	-1630.9038	6322.2155
312.1095	188.7172	126.9199	511540.4688	-17.4588
-17.4653				
[32448]ENERGY: 18440000	3284.6558	5450.8084	5450.4128	
315.1292	-14545.6301	-1723.9275	0.0000	0.0000

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8023.5883	6255.0370	313.7625	-1768.5514	6320.9094
312.0462	86.0726	38.4626	511540.4688	-17.4394
-17.4216				
[32498]ENERGY: 18450000	3325.6433	5462.9680	5476.9399	
349.8683	-14577.0309	-1690.0774	0.0000	0.0000
7911.2322	6259.5435	309.3689	-1651.6888	6320.3672
312.1071	82.6869	94.1077	511540.4688	-18.8958
-18.9156				
[32534]ENERGY: 18460000	3267.1374	5540.6109	5459.9851	
311.8238	-14484.7226	-1738.1045	0.0000	0.0000
7898.2157	6254.9457	308.8598	-1643.2700	6319.5559
312.1041	-94.7104	25.5683	511540.4688	-18.0376
-18.0035				
[32584]ENERGY: 18470000	3296.0525	5464.1304	5458.2702	
329.9413	-14580.6850	-1724.5755	0.0000	0.0000
8013.8361	6256.9701	313.3812	-1756.8660	6321.3925
312.1842	64.4808	-56.7914	511540.4688	-16.3587
-16.3766				
[32620]ENERGY: 18480000	3286.6908	5519.2391	5510.7265	
352.6487	-14537.1787	-1730.2299	0.0000	0.0000
7859.5571	6261.4536	307.3481	-1598.1034	6322.7499
312.0921	252.8033	207.7496	511540.4688	-11.0551
-11.0615				
[32670]ENERGY: 18490000	3314.0699	5359.6022	5502.3279	
356.8719	-14532.5086	-1736.5169	0.0000	0.0000
7994.7043	6258.5508	312.6330	-1736.1534	6323.0210
311.9090	-24.4775	-112.1540	511540.4688	-7.1808
-7.1807				
[32709]ENERGY: 18500000	3285.8031	5503.6242	5455.6287	
320.2102	-14524.2291	-1706.1422	0.0000	0.0000
7925.6380	6260.5328	309.9322	-1665.1053	6322.9395
311.9685	227.2218	80.2517	511540.4688	-13.8046
-13.7921				
[32759]ENERGY: 18510000	3349.1232	5386.3967	5509.1094	
323.0495	-14470.3727	-1738.8090	0.0000	0.0000
7904.1284	6262.6256	309.0911	-1641.5028	6323.2271
311.9922	-52.1116	-72.4442	511540.4688	-18.6780
-18.6952				
[32795]ENERGY: 18520000	3301.5931	5434.7619	5483.9777	
331.3684	-14557.8848	-1702.7746	0.0000	0.0000
7969.2247	6260.2662	311.6367	-1708.9584	6322.2542
311.9415	58.5993	-37.9011	511540.4688	-9.5039
-9.4942				
[32845]ENERGY: 18530000	3229.8815	5443.4161	5504.0022	
322.1601	-14484.5010	-1654.4934	0.0000	0.0000
7902.1915	6262.6570	309.0153	-1639.5345	6322.4857
312.0298	55.2784	30.2285	511540.4688	-12.2221
-12.2275				
[32881]ENERGY: 18540000	3348.1335	5431.7248	5503.6273	
349.2924	-14526.4202	-1746.9508	0.0000	0.0000
7903.9179	6263.3248	309.0828	-1640.5930	6321.9134
311.8701	-27.3196	-139.5731	511540.4688	-11.6250
-11.6182				
[32931]ENERGY: 18550000	3321.9662	5305.9279	5548.5364	

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334.9355	-14474.2378	-1785.8140	0.0000	0.0000
8002.4805	6253.7946	312.9371	-1748.6859	6322.8781
311.7140	-57.3410	-21.8566	511540.4688	-11.7341
-11.7171				
[32967]ENERGY: 18560000	3328.1979	5440.4572	5542.7823	
326.1248	-14501.3934	-1752.3621	0.0000	0.0000
7876.8012	6260.6079	308.0224	-1616.1933	6323.3688
311.7454	53.6021	20.7177	511540.4688	-13.4301
-13.4473				
[33017]ENERGY: 18570000	3309.3930	5435.3979	5483.1643	
331.3634	-14477.6898	-1785.0656	0.0000	0.0000
7964.7741	6261.3374	311.4626	-1703.4367	6324.7429
311.8679	-79.1768	-204.8586	511540.4688	-13.1247
-13.1369				
[33053]ENERGY: 18580000	3275.4819	5493.3126	5529.0520	
344.2885	-14532.8090	-1769.0282	0.0000	0.0000
7921.5366	6261.8345	309.7718	-1659.7021	6324.5917
311.9364	30.8134	121.6444	511540.4688	-10.0472
-10.0186				
[33103]ENERGY: 18590000	3264.2713	5442.3716	5476.0951	
313.9900	-14447.5690	-1680.5395	0.0000	0.0000
7898.0564	6266.6758	308.8536	-1631.3806	6326.2968
311.8736	330.1584	176.9410	511540.4688	-9.3140
-9.3536				
[33142]ENERGY: 18600000	3314.9490	5421.0806	5482.6750	
351.6953	-14485.0075	-1756.1024	0.0000	0.0000
7933.5100	6262.8000	310.2400	-1670.7100	6326.2293
311.9713	26.1118	-16.7763	511540.4688	-13.7760
-13.7554				
[33192]ENERGY: 18610000	3356.4244	5370.5876	5499.7653	
321.8150	-14596.1771	-1694.8050	0.0000	0.0000
8004.4377	6262.0479	313.0137	-1742.3897	6327.0318
312.1300	165.6787	105.1525	511540.4688	-10.1663
-10.1506				
[33228]ENERGY: 18620000	3275.1276	5435.5014	5517.2182	
328.9026	-14466.4170	-1764.9608	0.0000	0.0000
7939.4134	6264.7853	310.4709	-1674.6280	6326.8269
312.0269	-149.4775	-189.1304	511540.4688	-16.9283
-16.9361				
[33278]ENERGY: 18630000	3222.4654	5468.1431	5490.2342	
356.7478	-14475.8372	-1734.3821	0.0000	0.0000
7932.6068	6259.9780	310.2047	-1672.6289	6326.9727
312.1501	-197.9371	-144.6106	511540.4688	-7.2567
-7.2726				
[33314]ENERGY: 18640000	3255.1627	5415.2510	5507.6781	
315.0119	-14496.4542	-1748.5468	0.0000	0.0000
8014.8635	6262.9662	313.4214	-1751.8973	6326.8415
312.0168	132.8885	210.7379	511540.4688	-8.1646
-8.1381				
[33364]ENERGY: 18650000	3267.7107	5492.3699	5512.5530	
294.7125	-14485.3818	-1715.0312	0.0000	0.0000
7897.7132	6264.6462	308.8402	-1633.0670	6327.3859
312.0498	-176.6486	-111.5959	511540.4688	-7.8238
-7.8395				

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[33400]ENERGY: 18660000	3289.6014	5364.2160	5493.7293	
323.6721	-14458.1323	-1693.1278	0.0000	0.0000
7945.3211	6265.2798	310.7019	-1680.0413	6329.1416
312.1255	222.6781	78.7672	511540.4688	-13.1080
-13.1205				
[33450]ENERGY: 18670000	3337.5417	5474.6365	5448.6568	
325.4520	-14464.3104	-1753.6810	0.0000	0.0000
7895.6013	6263.8969	308.7576	-1631.7045	6329.7151
312.2643	-1.0859	-42.3998	511540.4688	-9.5510
-9.5494				
[33486]ENERGY: 18680000	3307.4175	5440.8675	5555.3208	
348.8607	-14555.3172	-1756.8638	0.0000	0.0000
7925.1477	6265.4331	309.9130	-1659.7146	6330.1332
312.2139	-93.4994	-52.0744	511540.4688	-12.7346
-12.7157				
[33536]ENERGY: 18690000	3383.6633	5466.0000	5461.2365	
335.1010	-14495.3374	-1867.0358	0.0000	0.0000
7983.4455	6267.0731	312.1928	-1716.3724	6330.6310
312.2070	-248.6163	-141.3744	511540.4688	-16.8272
-16.8510				
[33575]ENERGY: 18700000	3236.3238	5452.0824	5509.5267	
307.7933	-14464.4287	-1740.6714	0.0000	0.0000
7963.6134	6264.2394	311.4172	-1699.3740	6330.2745
311.9917	-91.5087	-6.6490	511540.4688	-15.7680
-15.7389				
[33625]ENERGY: 18710000	3276.3447	5403.8274	5493.7062	
317.7361	-14448.8949	-1707.8005	0.0000	0.0000
7931.3286	6266.2476	310.1547	-1665.0809	6329.8619
311.9907	-39.9556	85.4800	511540.4688	-20.2215
-20.2464				
[33661]ENERGY: 18720000	3379.8916	5365.2583	5535.2437	
314.7474	-14470.0027	-1725.9782	0.0000	0.0000
7871.2116	6270.3717	307.8039	-1600.8400	6331.9270
312.3124	7.2275	-49.4284	511540.4688	-13.4567
-13.4603				
[33711]ENERGY: 18730000	3327.4042	5440.2042	5477.6198	
338.6304	-14525.2509	-1739.3608	0.0000	0.0000
7947.7970	6267.0439	310.7987	-1680.7531	6332.9161
312.0917	-143.9895	-111.9702	511540.4688	-12.9066
-12.8939				
[33747]ENERGY: 18740000	3392.7898	5377.1261	5486.0327	
337.9579	-14488.6710	-1723.7781	0.0000	0.0000
7884.2371	6265.6945	308.3132	-1618.5426	6331.8226
312.3346	-130.5871	-135.1653	511540.4688	-14.3325
-14.3308				
[33797]ENERGY: 18750000	3229.7147	5411.4327	5484.0848	
322.6467	-14467.5642	-1689.2672	0.0000	0.0000
7974.7223	6265.7698	311.8516	-1708.9525	6331.1896
312.3674	190.1629	223.1561	511540.4688	-18.4058
-18.4095				
[33833]ENERGY: 18760000	3311.2294	5429.1393	5498.5577	
350.8217	-14490.4674	-1711.8427	0.0000	0.0000
7880.1762	6267.6142	308.1544	-1612.5619	6332.3634
312.2676	21.8402	16.1952	511540.4688	-18.0856

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-18.0785
 [33883]ENERGY: 18770000 3272.9222 5473.4882 5500.7209
 320.1075 -14519.9949 -1697.0905 0.0000 0.0000
 7917.9765 6268.1298 309.6326 -1649.8466 6332.7725
 312.2704 121.4018 112.5330 511540.4688 -17.1218
 -17.1322
 [33919]ENERGY: 18780000 3336.9937 5398.6715 5507.7274
 334.6612 -14522.5467 -1761.2580 0.0000 0.0000
 7976.0172 6270.2664 311.9023 -1705.7508 6333.1824
 312.2771 -130.1232 -85.3133 511540.4688 -19.6694
 -19.6642
 [33969]ENERGY: 18790000 3387.8205 5323.1921 5549.3542
 317.8420 -14434.5030 -1789.0760 0.0000 0.0000
 7916.2794 6270.9093 309.5662 -1645.3702 6332.8715
 312.2650 -66.3661 -3.4344 511540.4688 -22.1600
 -22.1753
 [34008]ENERGY: 18800000 3300.6542 5410.6652 5520.0817
 334.0939 -14522.2243 -1756.0511 0.0000 0.0000
 7982.5196 6269.7393 312.1566 -1712.7803 6334.2656
 312.1162 249.2711 85.5895 511540.4688 -20.0442
 -20.0503
 [34058]ENERGY: 18810000 3322.8879 5402.6057 5528.0371
 349.1598 -14549.3843 -1739.8565 0.0000 0.0000
 7955.5983 6269.0480 311.1038 -1686.5503 6334.1506
 312.4232 -70.3095 -31.4614 511540.4688 -12.7266
 -12.6986
 [34094]ENERGY: 18820000 3252.7004 5387.9346 5439.6396
 339.0220 -14466.3865 -1715.1158 0.0000 0.0000
 8026.6470 6264.4413 313.8822 -1762.2058 6334.2089
 312.3595 59.4637 30.2790 511540.4688 -14.1813
 -14.2092
 [34144]ENERGY: 18830000 3168.7049 5436.0552 5540.2695
 321.7423 -14516.5917 -1765.5532 0.0000 0.0000
 8081.1403 6265.7673 316.0131 -1815.3731 6333.1580
 312.2746 90.5604 -10.2896 511540.4688 -17.0542
 -17.0304
 [34180]ENERGY: 18840000 3385.7213 5363.5231 5472.1361
 323.3332 -14444.9507 -1763.4313 0.0000 0.0000
 7934.8591 6271.1908 310.2928 -1663.6683 6334.0306
 312.1446 -216.2525 -218.5611 511540.4688 -18.7896
 -18.8140
 [34230]ENERGY: 18850000 3383.1852 5396.1860 5540.2586
 313.3268 -14488.2836 -1796.5351 0.0000 0.0000
 7920.2586 6268.3966 309.7218 -1651.8620 6332.9382
 312.2004 135.3300 14.2495 511540.4688 -20.2072
 -20.1959
 [34266]ENERGY: 18860000 3276.0861 5344.0877 5556.0710
 335.8007 -14482.1994 -1769.6518 0.0000 0.0000
 8010.4636 6270.6578 313.2493 -1739.8058 6333.5835
 312.2981 184.3535 84.2982 511540.4688 -19.5533
 -19.5478
 [34316]ENERGY: 18870000 3247.0719 5336.9670 5572.0648
 338.0869 -14493.5466 -1726.9514 0.0000 0.0000
 7994.3126 6268.0053 312.6177 -1726.3073 6332.4542

Supplementary Text 6

312.1806	63.4643	-27.7155	511540.4688	-20.5050
-20.4967				
[34352]ENERGY: 18880000	3349.4856	5389.7401	5531.8747	
336.9949	-14467.8272	-1769.0192	0.0000	0.0000
7898.4840	6269.7330	308.8703	-1628.7510	6334.9028
312.0694	-177.8308	-217.4994	511540.4688	-17.7860
-17.7868				
[34402]ENERGY: 18890000	3314.8275	5398.0998	5507.4354	
330.8006	-14517.7155	-1706.6314	0.0000	0.0000
7944.8271	6271.6434	310.6826	-1673.1837	6334.3093
312.1490	-24.4877	-47.9010	511540.4688	-21.1121
-21.1218				
[34441]ENERGY: 18900000	3260.1243	5396.0528	5489.4613	
325.3588	-14447.4814	-1689.2987	0.0000	0.0000
7937.9600	6272.1770	310.4140	-1665.7829	6334.7909
312.3181	256.5011	163.0970	511540.4688	-17.4115
-17.4181				
[34491]ENERGY: 18910000	3344.5252	5416.7596	5502.0865	
329.7433	-14610.7322	-1668.2433	0.0000	0.0000
7959.7057	6273.8448	311.2644	-1685.8609	6334.9986
312.3533	-117.5563	-31.4535	511540.4688	-21.7656
-21.7351				
[34527]ENERGY: 18920000	3344.7187	5443.3365	5494.1947	
334.0727	-14456.0703	-1838.9931	0.0000	0.0000
7949.8174	6271.0766	310.8777	-1678.7408	6335.8594
312.2391	-148.0041	-191.5330	511540.4688	-22.0837
-22.1112				
[34577]ENERGY: 18930000	3231.4800	5477.5196	5487.7107	
328.4751	-14471.7076	-1704.7187	0.0000	0.0000
7922.0975	6270.8566	309.7937	-1651.2409	6335.2631
312.3879	-22.0956	-6.4288	511540.4688	-20.9113
-20.9172				
[34613]ENERGY: 18940000	3247.1533	5437.4851	5545.3065	
309.8454	-14430.0396	-1845.2133	0.0000	0.0000
8009.8512	6274.3888	313.2254	-1735.4625	6336.4537
312.2421	7.9768	-50.5525	511540.4688	-19.9235
-19.8925				
[34663]ENERGY: 18950000	3234.9575	5477.8173	5510.3801	
322.3012	-14515.2345	-1750.9915	0.0000	0.0000
7993.2562	6272.4864	312.5764	-1720.7699	6335.5767
312.1272	-27.1162	55.8385	511540.4688	-23.6063
-23.6131				
[34699]ENERGY: 18960000	3242.7329	5463.2380	5547.9801	
345.6511	-14471.4478	-1803.2353	0.0000	0.0000
7945.7880	6270.7068	310.7202	-1675.0812	6335.3250
312.2218	-115.6354	-34.0118	511540.4688	-21.4912
-21.5065				
[34749]ENERGY: 18970000	3251.9201	5284.6807	5496.6905	
316.7344	-14389.8253	-1739.9554	0.0000	0.0000
8051.7656	6272.0105	314.8644	-1779.7551	6335.0989
312.3708	52.0235	0.0231	511540.4688	-18.8790
-18.8928				
[34785]ENERGY: 18980000	3176.6010	5433.9569	5491.6161	
331.6690	-14464.0532	-1713.8148	0.0000	0.0000

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8012.0649	6268.0397	313.3119	-1744.0252	6336.2619
312.5193	179.6567	86.9394	511540.4688	-22.2691
-22.2510				
[34835]ENERGY: 18990000	3331.9179	5348.3810	5512.8696	
298.6427	-14520.6415	-1766.2938	0.0000	0.0000
8067.3147	6272.1906	315.4725	-1795.1241	6336.0425
312.5596	-93.2068	-148.3865	511540.4688	-16.4056
-16.4242				
[34874]ENERGY: 19000000	3250.4510	5405.9051	5484.2569	
336.2402	-14475.4244	-1776.7465	0.0000	0.0000
8043.7611	6268.4434	314.5514	-1775.3178	6335.1531
312.5550	-254.7963	-291.0894	511540.4688	-20.7468
-20.7303				
[34924]ENERGY: 19010000	3260.0126	5461.7772	5517.5418	
324.4290	-14426.2545	-1825.0488	0.0000	0.0000
7957.9998	6270.4571	311.1977	-1687.5428	6337.0646
312.6140	-410.2070	-384.6288	511540.4688	-20.6324
-20.6136				
[34960]ENERGY: 19020000	3278.9052	5399.7841	5508.9083	
328.7105	-14501.9152	-1698.5989	0.0000	0.0000
7958.7504	6274.5443	311.2271	-1684.2061	6336.9167
312.4681	170.6390	123.3560	511540.4688	-18.7951
-18.8087				
[35010]ENERGY: 19030000	3190.2842	5407.2336	5486.0245	
337.8895	-14479.3795	-1692.0580	0.0000	0.0000
8022.8839	6272.8781	313.7350	-1750.0058	6337.4062
312.4488	3.9521	-99.6136	511540.4688	-18.2055
-18.2266				
[35046]ENERGY: 19040000	3310.5741	5393.1002	5493.2010	
320.0869	-14408.9866	-1801.9503	0.0000	0.0000
7970.0939	6276.1194	311.6706	-1693.9746	6337.3985
312.5428	39.7018	-29.8419	511540.4688	-22.2858
-22.2589				
[35096]ENERGY: 19050000	3327.8088	5363.5714	5465.1123	
333.0725	-14494.8916	-1762.8174	0.0000	0.0000
8037.2052	6269.0612	314.2950	-1768.1440	6337.0850
312.2224	-53.4578	-131.2234	511540.4688	-20.6470
-20.6517				
[35132]ENERGY: 19060000	3383.8658	5465.8617	5544.8223	
338.2031	-14550.2857	-1741.6023	0.0000	0.0000
7834.9047	6275.7696	306.3841	-1559.1351	6338.0512
312.3099	-0.9688	-29.5567	511540.4688	-18.3999
-18.3883				
[35182]ENERGY: 19070000	3300.2157	5478.6759	5452.1207	
343.6547	-14640.2079	-1675.9864	0.0000	0.0000
8014.2453	6272.7179	313.3972	-1741.5274	6338.3764
312.3352	-20.3547	-42.2013	511540.4688	-21.3707
-21.3939				
[35218]ENERGY: 19080000	3224.6383	5446.8103	5511.6612	
310.6846	-14536.2201	-1747.1220	0.0000	0.0000
8057.6635	6268.1158	315.0951	-1789.5476	6338.1065
312.5427	-71.1166	-96.6608	511540.4688	-21.6930
-21.6866				
[35268]ENERGY: 19090000	3258.5656	5356.8183	5505.1667	

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344.2663	-14470.8303	-1830.8428	0.0000	0.0000
8107.8514	6270.9951	317.0577	-1836.8563	6339.0937
312.4627	30.7370	-103.9081	511540.4688	-18.8676
-18.8711				
[35307]ENERGY: 19100000	3285.2216	5406.6664	5495.9281	
332.2512	-14532.1444	-1699.8313	0.0000	0.0000
7987.1356	6275.2271	312.3371	-1711.9085	6337.5467
312.6424	-23.4119	-104.1394	511540.4688	-19.1777
-19.1782				
[35357]ENERGY: 19110000	3310.1551	5393.2824	5453.9517	
324.2313	-14475.8343	-1752.6666	0.0000	0.0000
8020.2679	6273.3875	313.6327	-1746.8804	6337.5729
312.8486	115.2574	106.7532	511540.4688	-14.6338
-14.6206				
[35393]ENERGY: 19120000	3269.9669	5509.1494	5508.4959	
315.3390	-14569.8164	-1761.8654	0.0000	0.0000
7999.4551	6270.7245	312.8188	-1728.7305	6337.8377
312.8248	-1.0040	-42.0199	511540.4688	-16.8913
-16.9005				
[35443]ENERGY: 19130000	3319.2888	5414.3417	5513.4509	
327.1060	-14536.3483	-1720.1248	0.0000	0.0000
7955.6355	6273.3498	311.1052	-1682.2857	6337.7849
312.6041	57.7096	-0.0736	511540.4688	-14.2012
-14.2309				
[35479]ENERGY: 19140000	3320.9864	5414.8829	5463.9028	
340.7973	-14536.8718	-1723.1770	0.0000	0.0000
7989.6236	6270.1443	312.4344	-1719.4793	6336.6359
312.8575	-46.8984	-92.9387	511540.4688	-18.4385
-18.4098				
[35529]ENERGY: 19150000	3317.5662	5415.9019	5470.9024	
326.8647	-14412.3710	-1831.7030	0.0000	0.0000
7986.6973	6273.8585	312.3199	-1712.8388	6338.1298
312.9933	-46.7131	-46.2283	511540.4688	-14.8481
-14.8340				
[35565]ENERGY: 19160000	3295.4401	5485.4140	5504.1747	
326.3021	-14543.8931	-1784.5077	0.0000	0.0000
7987.6554	6270.5854	312.3574	-1717.0700	6338.3036
313.0096	-13.6331	-42.8763	511540.4688	-17.3365
-17.3482				
[35615]ENERGY: 19170000	3286.1840	5469.2213	5453.3297	
300.4907	-14546.3872	-1735.8293	0.0000	0.0000
8047.3191	6274.3283	314.6905	-1772.9909	6338.7535
312.8406	-75.3601	-23.9111	511540.4688	-11.7398
-11.7430				
[35651]ENERGY: 19180000	3280.9257	5385.3026	5514.2518	
348.9234	-14496.6187	-1811.3083	0.0000	0.0000
8049.3713	6270.8478	314.7708	-1778.5236	6339.0625
312.8447	-123.5408	-68.2527	511540.4688	-13.7958
-13.7870				
[35701]ENERGY: 19190000	3345.3521	5473.0541	5465.1502	
309.8840	-14495.6702	-1769.0646	0.0000	0.0000
7946.7115	6275.4171	310.7563	-1671.2943	6339.0165
312.9412	-1.7196	-34.5368	511540.4688	-14.5623
-14.5782				

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[35740]ENERGY: 19200000	3341.5141	5402.9324	5492.6058
320.4917	-14479.6236	-1741.5915	0.0000
7937.7475	6274.0763	310.4057	-1663.6711
312.8803	-162.7575	-182.7522	511540.4688
-18.9215			-18.9457
[35790]ENERGY: 19210000	3282.6366	5360.8115	5492.5449
299.2371	-14567.9441	-1707.5146	0.0000
8109.3374	6269.1088	317.1158	-1840.2286
312.7799	-51.3278	-48.1277	511540.4688
-17.4366			-17.4216
[35826]ENERGY: 19220000	3326.0238	5370.7298	5508.5460
332.5398	-14458.6253	-1743.6311	0.0000
7940.1728	6275.7558	310.5006	-1664.4170
312.6775	26.4004	-94.4379	511540.4688
-16.7372			-16.7134
[35876]ENERGY: 19230000	3339.3736	5453.5273	5508.4472
333.9255	-14574.1933	-1802.8322	0.0000
8013.1774	6271.4254	313.3554	-1741.7520
312.7808	-200.1752	-167.1522	511540.4688
-18.5478			-18.5824
[35912]ENERGY: 19240000	3269.0404	5410.3016	5506.1748
323.8922	-14552.3058	-1679.4255	0.0000
7997.0369	6274.7145	312.7243	-1722.3224
312.7226	-68.2972	37.5808	511540.4688
-9.7173			-9.7050
[35962]ENERGY: 19250000	3333.0101	5345.6749	5484.7862
323.8367	-14506.0168	-1750.8338	0.0000
8039.9667	6270.4240	314.4030	-1769.5427
312.8209	21.8593	30.1964	511540.4688
-14.1558			-14.1613
[35998]ENERGY: 19260000	3375.8352	5411.9104	5501.9801
335.0428	-14596.0127	-1734.7252	0.0000
7980.1609	6274.1915	312.0643	-1705.9695
313.0045	-34.3261	-13.1655	511540.4688
-13.9847			-13.9898
[36048]ENERGY: 19270000	3343.4393	5395.0218	5482.5191
325.3715	-14470.8491	-1725.3778	0.0000
7927.9510	6278.0757	310.0226	-1649.8753
312.8578	130.4134	142.5603	511540.4688
-15.6006			-15.5969
[36084]ENERGY: 19280000	3296.6757	5446.7291	5500.0555
299.6604	-14545.7611	-1748.5692	0.0000
8026.2323	6275.0226	313.8659	-1751.2097
312.7840	226.4179	121.9703	511540.4688
-9.7125			-9.7207
[36134]ENERGY: 19290000	3342.6976	5372.4630	5524.1263
332.5330	-14517.9308	-1731.7985	0.0000
7951.1946	6273.2854	310.9316	-1677.9093
312.6577	24.6212	-64.5170	511540.4688
-12.6245			-12.6222
[36173]ENERGY: 19300000	3333.7441	5423.4904	5461.5852
330.7218	-14439.0358	-1834.3634	0.0000
7999.3359	6275.4781	312.8142	-1723.8578
312.7751	-10.0955	-46.9603	511540.4688
			-12.1207

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-12.1309
 [36223]ENERGY: 19310000 3264.9610 5421.5025 5518.4652
 348.5467 -14503.9808 -1766.3870 0.0000 0.0000
 7991.3151 6274.4227 312.5005 -1716.8925 6338.9466
 312.9235 147.4654 9.3542 511540.4688 -11.6335
 -11.6239
 [36259]ENERGY: 19320000 3287.8844 5453.0378 5478.4270
 347.8641 -14442.9818 -1789.1449 0.0000 0.0000
 7940.2044 6275.2912 310.5018 -1664.9132 6339.8177
 312.9197 -86.7478 -115.2956 511540.4688 -11.8022
 -11.8066
 [36309]ENERGY: 19330000 3293.7475 5446.8718 5508.2985
 317.0487 -14442.0883 -1832.2266 0.0000 0.0000
 7984.5541 6276.2057 312.2361 -1708.3483 6340.0932
 312.8600 8.9809 37.5778 511540.4688 -11.2054
 -11.1874
 [36345]ENERGY: 19340000 3287.4152 5345.7780 5466.0066
 343.1691 -14404.8606 -1804.9094 0.0000 0.0000
 8045.0251 6277.6240 314.6008 -1767.4012 6340.8964
 312.7051 -84.4511 -137.2181 511540.4688 -11.6904
 -11.7277
 [36395]ENERGY: 19350000 3264.2644 5468.5521 5542.1054
 333.5265 -14445.1103 -1836.6800 0.0000 0.0000
 7948.2340 6274.8921 310.8158 -1673.3419 6340.8616
 312.8275 -105.8341 -185.9291 511540.4688 -7.1298
 -7.1232
 [36431]ENERGY: 19360000 3311.2950 5495.1603 5516.5584
 345.2803 -14549.7583 -1792.0271 0.0000 0.0000
 7952.3552 6278.8638 310.9770 -1673.4914 6340.0898
 312.7551 3.8139 19.6182 511540.4688 -12.3899
 -12.3712
 [36481]ENERGY: 19370000 3291.2395 5481.7436 5503.0360
 337.5004 -14506.2885 -1750.4408 0.0000 0.0000
 7920.0557 6276.8458 309.7139 -1643.2099 6338.9824
 312.8272 94.2892 -25.7765 511540.4688 -9.4712
 -9.4870
 [36517]ENERGY: 19380000 3254.4463 5425.4166 5527.7950
 315.0160 -14482.8394 -1760.5890 0.0000 0.0000
 7992.7540 6271.9996 312.5568 -1720.7544 6338.7023
 312.8753 -9.6635 12.8805 511540.4688 -9.4028
 -9.3957
 [36567]ENERGY: 19390000 3308.3246 5458.2366 5538.1910
 329.4144 -14474.1177 -1812.1399 0.0000 0.0000
 7927.9288 6275.8378 310.0218 -1652.0910 6339.6038
 312.9941 58.7034 -10.4027 511540.4688 -11.4577
 -11.4619
 [36606]ENERGY: 19400000 3265.0125 5384.1508 5463.9895
 328.9893 -14519.9494 -1671.4903 0.0000 0.0000
 8024.1485 6274.8509 313.7844 -1749.2976 6338.3818
 312.8980 87.6009 104.9093 511540.4688 -12.8287
 -12.8205
 [36656]ENERGY: 19410000 3269.9944 5355.3531 5504.5322
 315.8511 -14428.8816 -1772.2602 0.0000 0.0000
 8031.0048 6275.5938 314.0526 -1755.4110 6339.1324

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312.9531	-52.8102	-81.9747	511540.4688	-8.9147
-8.9215				
[36692]ENERGY: 19420000	3292.4797	5422.5678	5533.6384	
336.9204	-14577.5244	-1734.4771	0.0000	0.0000
7999.5951	6273.2000	312.8243	-1726.3951	6338.3677
313.0721	178.1092	91.4844	511540.4688	-12.3061
-12.3109				
[36742]ENERGY: 19430000	3257.6723	5408.6551	5553.3443	
328.7334	-14464.2475	-1794.3038	0.0000	0.0000
7984.3721	6274.2258	312.2290	-1710.1462	6339.4018
312.9542	16.6739	-37.9264	511540.4688	-15.5364
-15.5334				
[36778]ENERGY: 19440000	3278.3168	5445.2260	5444.6232	
330.4331	-14482.9052	-1761.5596	0.0000	0.0000
8019.0117	6273.1461	313.5836	-1745.8656	6338.5735
312.9320	235.2552	88.4667	511540.4688	-3.9250
-3.9424				
[36828]ENERGY: 19450000	3305.5838	5434.9055	5469.4610	
323.3534	-14459.7540	-1884.5335	0.0000	0.0000
8080.2421	6269.2582	315.9780	-1810.9838	6340.6740
312.8231	-49.0039	55.6601	511540.4688	-15.4818
-15.4400				
[36864]ENERGY: 19460000	3299.0995	5362.0352	5515.6678	
325.9355	-14510.1254	-1757.9370	0.0000	0.0000
8033.6617	6268.3375	314.1565	-1765.3242	6339.6900
312.8640	135.1028	49.4972	511540.4688	-10.3258
-10.3545				
[36914]ENERGY: 19470000	3294.7329	5388.4475	5470.4718	
315.0857	-14446.2864	-1816.0245	0.0000	0.0000
8067.4503	6273.8773	315.4778	-1793.5729	6340.3094
312.8173	-159.1642	-100.3429	511540.4688	-10.0495
-10.0519				
[36950]ENERGY: 19480000	3259.7491	5366.9096	5479.9594	
348.4955	-14485.4961	-1708.2623	0.0000	0.0000
8017.5071	6278.8623	313.5247	-1738.6448	6340.6586
312.9205	207.9216	98.2389	511540.4688	-7.6425
-7.6440				
[37000]ENERGY: 19490000	3185.6887	5350.8683	5543.1174	
313.1165	-14463.1966	-1683.8201	0.0000	0.0000
8029.8663	6275.6404	314.0080	-1754.2259	6339.7554
313.0316	142.6191	56.8887	511540.4688	-7.8236
-7.8223				
[37039]ENERGY: 19500000	3321.2303	5338.9123	5502.1106	
332.9028	-14513.9372	-1765.2776	0.0000	0.0000
8061.1092	6277.0505	315.2298	-1784.0587	6340.1752
312.9971	15.3384	16.3890	511540.4688	-9.1771
-9.1627				
[37089]ENERGY: 19510000	3295.0835	5403.1678	5484.9515	
305.5352	-14560.8932	-1735.3245	0.0000	0.0000
8083.3646	6275.8849	316.1001	-1807.4798	6340.6190
313.1131	75.4226	54.2235	511540.4688	-8.9108
-8.9035				
[37125]ENERGY: 19520000	3320.1213	5397.8866	5471.2717	
323.5609	-14468.1176	-1690.8394	0.0000	0.0000

Supplementary Text 6

7926.8907	6280.7741	309.9812	-1646.1166	6341.3411
313.2459	65.2881	103.8221	511540.4688	-7.1934
-7.1861				
[37175]ENERGY: 19530000	3252.2219	5458.9779	5474.0781	
341.9569	-14500.3528	-1732.6398	0.0000	0.0000
7983.2681	6277.5103	312.1858	-1705.7578	6341.4114
313.0831	-80.0249	6.1189	511540.4688	-9.1222
-9.1232				
[37211]ENERGY: 19540000	3228.3590	5368.9013	5462.2040	
329.3424	-14504.1121	-1680.9370	0.0000	0.0000
8072.9480	6276.7054	315.6928	-1796.2425	6342.1887
313.3083	183.5685	97.3307	511540.4688	-7.0938
-7.1073				
[37261]ENERGY: 19550000	3265.3876	5469.6448	5507.9257	
354.9694	-14542.0434	-1721.1135	0.0000	0.0000
7940.1205	6274.8911	310.4985	-1665.2294	6340.8932
313.2251	14.4080	-42.3275	511540.4688	-12.2419
-12.2440				
[37297]ENERGY: 19560000	3253.0213	5369.2434	5486.6397	
322.2446	-14539.6352	-1705.3244	0.0000	0.0000
8087.2557	6273.4451	316.2523	-1813.8106	6341.1394
313.3217	146.0244	76.6321	511540.4688	-4.8415
-4.8442				
[37347]ENERGY: 19570000	3282.2877	5425.8070	5447.8982	
308.1144	-14484.5238	-1776.0490	0.0000	0.0000
8069.2759	6272.8104	315.5492	-1796.4654	6341.0537
313.2716	2.8819	-13.8681	511540.4688	-12.0853
-12.0709				
[37383]ENERGY: 19580000	3307.7981	5397.8395	5424.0188	
312.6772	-14508.1914	-1712.7565	0.0000	0.0000
8054.0620	6275.4476	314.9542	-1778.6144	6341.3242
313.4193	-43.3858	112.2257	511540.4688	-5.5303
-5.5406				
[37433]ENERGY: 19590000	3340.9030	5409.3134	5490.8849	
338.1472	-14534.2995	-1785.3002	0.0000	0.0000
8018.8342	6278.4830	313.5766	-1740.3511	6341.6916
313.2856	-71.5379	-63.0084	511540.4688	-9.6151
-9.6090				
[37472]ENERGY: 19600000	3208.5520	5418.6733	5452.4167	
319.0451	-14481.2244	-1703.6432	0.0000	0.0000
8061.7131	6275.5326	315.2534	-1786.1806	6342.3217
313.2211	176.7461	37.4657	511540.4688	-6.7871
-6.8152				
[37522]ENERGY: 19610000	3273.8003	5396.6360	5503.4644	
331.6778	-14457.5284	-1770.0999	0.0000	0.0000
8000.1768	6278.1270	312.8470	-1722.0498	6341.9634
313.3381	-142.5698	-250.0814	511540.4688	-9.1928
-9.1817				
[37558]ENERGY: 19620000	3265.5740	5394.6030	5463.4709	
300.0607	-14438.6004	-1816.6591	0.0000	0.0000
8105.2823	6273.7314	316.9572	-1831.5509	6341.3679
313.3908	-203.9543	-109.4073	511540.4688	-11.6472
-11.6379				
[37608]ENERGY: 19630000	3309.0410	5415.3600	5488.3405	

Supplementary Text 6

343.9572	-14508.1345	-1772.1928	0.0000	0.0000
8002.8416	6279.2129	312.9512	-1723.6286	6342.1939
313.2801	61.9989	-46.1482	511540.4688	-6.7869
-6.7884				
[37644]ENERGY: 19640000	3328.3277	5454.4764	5452.1852	
316.4285	-14539.4635	-1750.7490	0.0000	0.0000
8012.4200	6273.6253	313.3258	-1738.7946	6341.6209
313.3107	-112.8846	-63.6989	511540.4688	-6.2525
-6.2573				
[37694]ENERGY: 19650000	3220.1929	5413.9695	5494.0053	
325.2934	-14452.1462	-1714.3431	0.0000	0.0000
7991.8874	6278.8591	312.5229	-1713.0283	6341.9837
313.2836	-128.4037	-83.3408	511540.4688	-6.4967
-6.4715				
[37730]ENERGY: 19660000	3299.7982	5430.6115	5501.7664	
353.4649	-14546.4381	-1786.2099	0.0000	0.0000
8022.7062	6275.6993	313.7280	-1747.0069	6342.6070
313.2248	-93.6826	-144.3482	511540.4688	-8.9828
-8.9743				
[37780]ENERGY: 19670000	3316.6900	5408.8159	5439.7758	
327.3549	-14436.0237	-1800.8149	0.0000	0.0000
8019.8083	6275.6062	313.6147	-1744.2021	6341.1835
313.1927	-31.9553	-18.5514	511540.4688	-6.9663
-6.9872				
[37816]ENERGY: 19680000	3397.1901	5393.4828	5507.6585	
310.4354	-14468.1638	-1732.9303	0.0000	0.0000
7872.5536	6280.2262	307.8563	-1592.3273	6341.8812
313.0741	33.5031	111.0854	511540.4688	-9.3689
-9.3771				
[37866]ENERGY: 19690000	3314.2520	5449.7816	5434.2014	
326.6309	-14583.7120	-1692.5991	0.0000	0.0000
8028.7474	6277.3024	313.9643	-1751.4451	6342.7849
313.2677	186.9702	111.5709	511540.4688	-6.7132
-6.7177				
[37905]ENERGY: 19700000	3267.5534	5430.0676	5439.7517	
334.8203	-14436.9195	-1729.9296	0.0000	0.0000
7970.8348	6276.1786	311.6996	-1694.6562	6342.2699
313.1153	-168.7134	-109.2283	511540.4688	-10.1901
-10.1764				
[37955]ENERGY: 19710000	3344.4597	5411.5363	5508.1089	
348.4748	-14495.1944	-1734.3484	0.0000	0.0000
7898.0193	6281.0561	308.8522	-1616.9632	6342.6847
313.1594	74.1125	46.0778	511540.4688	-10.6648
-10.6740				
[37991]ENERGY: 19720000	3359.8772	5409.0731	5494.3497	
341.3469	-14443.7701	-1736.2423	0.0000	0.0000
7856.4216	6281.0562	307.2255	-1575.3655	6344.3555
313.1275	11.3069	45.5886	511540.4688	-7.5492
-7.5590				
[38041]ENERGY: 19730000	3251.6429	5448.4910	5481.9240	
327.5517	-14468.5051	-1760.1379	0.0000	0.0000
7998.9021	6279.8687	312.7972	-1719.0335	6343.6197
313.2718	-55.2248	-13.6354	511540.4688	-7.5870
-7.5771				

Supplementary Text 6

[38077]ENERGY: 19740000	3290.6718	5428.6461	5479.2757
327.5151	-14539.6491	-1685.9273	0.0000
7978.5512	6279.0837	312.0014	-1699.4675
313.0439	322.0595	197.4161	511540.4688
-10.8841			-10.8676
[38127]ENERGY: 19750000	3421.4653	5386.1328	5495.1431
320.6825	-14598.5357	-1755.6100	0.0000
8010.7060	6279.9839	313.2588	-1730.7220
313.3769	-7.1669	-43.8233	511540.4688
-11.1927			-11.2035
[38163]ENERGY: 19760000	3348.0350	5433.9049	5495.9519
313.0079	-14541.5506	-1732.3790	0.0000
7964.6465	6281.6167	311.4576	-1683.0298
313.3155	134.1117	1.6592	511540.4688
-7.7706			-7.7567
[38213]ENERGY: 19770000	3339.4812	5434.1579	5432.6414
348.4336	-14448.5044	-1700.8032	0.0000
7878.4242	6283.8306	308.0859	-1594.5935
313.2486	53.0417	-33.0350	511540.4688
-9.9047			-9.8980
[38249]ENERGY: 19780000	3298.3313	5361.3762	5430.9579
319.5976	-14527.8544	-1699.3204	0.0000
8094.9284	6278.0166	316.5523	-1816.9118
313.1707	116.4069	66.0934	511540.4688
-9.7344			-9.7597
[38299]ENERGY: 19790000	3321.9172	5392.7372	5478.8182
330.8436	-14523.3532	-1727.4559	0.0000
8006.5084	6280.0155	313.0946	-1726.4929
313.3934	-14.4298	-3.1936	511540.4688
-9.3486			-9.3508
[38338]ENERGY: 19800000	3240.0579	5425.0041	5471.6620
325.7426	-14492.9452	-1734.8176	0.0000
8048.0622	6282.7659	314.7196	-1765.2962
313.1742	-31.9915	-57.2793	511540.4688
-11.6003			-11.5986
[38388]ENERGY: 19810000	3278.8474	5475.9397	5480.1033
333.7345	-14476.7739	-1744.6109	0.0000
7940.8516	6288.0918	310.5271	-1652.7598
313.1133	132.5600	50.7229	511540.4688
-8.1925			-8.1969
[38424]ENERGY: 19820000	3266.5447	5362.0415	5437.5639
322.1917	-14399.4708	-1725.6651	0.0000
8020.3856	6283.5914	313.6373	-1736.7941
313.1311	290.2345	177.7850	511540.4688
-12.2241			-12.2070
[38474]ENERGY: 19830000	3262.3069	5434.6990	5452.1268
331.7101	-14540.0720	-1667.7448	0.0000
8009.0751	6282.1011	313.1950	-1726.9739
313.0322	105.3354	144.7432	511540.4688
-8.6908			-8.7169
[38510]ENERGY: 19840000	3234.0132	5431.6690	5392.1474
315.6961	-14477.4749	-1698.6708	0.0000
8085.6295	6283.0095	316.1887	-1802.6200
313.1057	33.1267	1.0263	511540.4688
			-9.6398

Supplementary Text 6

-9.6730
 [38560]ENERGY: 19850000 3266.3101 5422.9977 5457.6613
 313.4761 -14522.4486 -1760.6811 0.0000 0.0000
 8099.3563 6276.6719 316.7255 -1822.6845 6347.3462
 312.8957 -192.3175 -202.4579 511540.4688 -9.3761
 -9.3535
 [38596]ENERGY: 19860000 3363.4815 5385.3501 5467.4367
 330.6980 -14501.1324 -1757.1668 0.0000 0.0000
 7995.9053 6284.5724 312.6800 -1711.3329 6349.1180
 313.2722 -20.3090 -74.9329 511540.4688 -5.9894
 -5.9785
 [38646]ENERGY: 19870000 3291.2985 5360.9779 5512.6636
 357.4143 -14480.7152 -1741.0189 0.0000 0.0000
 7984.6796 6285.3000 312.2410 -1699.3796 6347.8297
 313.1938 -76.5125 -48.4054 511540.4688 -7.4797
 -7.4769
 [38682]ENERGY: 19880000 3338.1678 5426.2753 5515.4684
 306.3684 -14551.4526 -1749.6305 0.0000 0.0000
 7997.4645 6282.6612 312.7410 -1714.8033 6347.6565
 313.0909 54.4506 10.7777 511540.4688 -7.8549
 -7.8884
 [38732]ENERGY: 19890000 3334.0258 5354.1621 5531.8007
 321.5773 -14594.4372 -1691.7416 0.0000 0.0000
 8024.8074 6280.1944 313.8102 -1744.6130 6347.4223
 312.9846 -203.5945 -149.5055 511540.4688 -7.3394
 -7.3254
 [38771]ENERGY: 19900000 3327.1174 5472.4450 5439.9215
 337.6913 -14486.5507 -1773.1535 0.0000 0.0000
 7969.9983 6287.4692 311.6669 -1682.5291 6348.0169
 313.2179 -6.7699 -13.3770 511540.4688 -7.3749
 -7.3853
 [38821]ENERGY: 19910000 3366.8001 5366.1406 5542.8974
 322.1939 -14536.3866 -1761.4172 0.0000 0.0000
 7984.2135 6284.4418 312.2228 -1699.7717 6347.0100
 313.3263 -173.8696 -5.0099 511540.4688 -4.3410
 -4.3268
 [38857]ENERGY: 19920000 3264.1718 5366.2550 5482.6732
 325.2803 -14501.1949 -1675.7892 0.0000 0.0000
 8021.4319 6282.8282 313.6782 -1738.6037 6346.5448
 313.2303 162.1848 212.0061 511540.4688 -5.6638
 -5.6780
 [38907]ENERGY: 19930000 3239.5623 5365.8819 5534.5929
 346.0860 -14529.9213 -1743.3731 0.0000 0.0000
 8067.2587 6280.0874 315.4703 -1787.1713 6346.4171
 313.2006 -15.1980 -82.3019 511540.4688 -9.9478
 -9.9501
 [38943]ENERGY: 19940000 3295.9541 5373.9427 5477.1966
 333.0617 -14529.5821 -1751.9804 0.0000 0.0000
 8084.6088 6283.2014 316.1488 -1801.4074 6348.7690
 313.3016 -10.8421 25.1344 511540.4688 -12.0348
 -12.0201
 [38993]ENERGY: 19950000 3283.1376 5460.4273 5489.0294
 323.6608 -14554.4299 -1733.0587 0.0000 0.0000
 8011.0544 6279.8209 313.2724 -1731.2335 6347.9608

Supplementary Text 6

313.3701	9.9561	-11.1576	511540.4688	-8.0893
-8.0950				
[39029]ENERGY:	19960000	3298.1547	5414.1389	5492.9488
319.0960	-14514.6728	-1790.0019	0.0000	0.0000
8062.8552	6282.5189	315.2981	-1780.3363	6348.2417
313.3849	25.3539	-54.7394	511540.4688	-10.4924
-10.4827				
[39079]ENERGY:	19970000	3273.7679	5409.6799	5475.8623
334.9780	-14423.9228	-1842.3267	0.0000	0.0000
8053.2784	6281.3171	314.9236	-1771.9613	6346.9244
313.3732	-209.4287	-141.8078	511540.4688	-8.3008
-8.3110				
[39115]ENERGY:	19980000	3335.5807	5437.4711	5454.4191
330.7873	-14425.2756	-1846.5869	0.0000	0.0000
8000.3306	6286.7264	312.8531	-1713.6042	6347.3191
313.3555	-43.5071	-84.1041	511540.4688	-9.2114
-9.1993				
[39165]ENERGY:	19990000	3350.1422	5392.3097	5491.6825
325.0803	-14479.3541	-1753.8957	0.0000	0.0000
7954.5387	6280.5036	311.0624	-1674.0351	6346.8094
313.2877	2.1243	-31.2519	511540.4688	-11.0988
-11.1120				
[39204]ENERGY:	20000000	3352.8457	5374.7234	5461.8607
331.4245	-14437.3686	-1778.3423	0.0000	0.0000
7981.8801	6287.0235	312.1315	-1694.8566	6347.0740
313.0697	1.4789	-128.9643	511540.4688	-9.9421
-9.9520				

40.1ns Q5NAT0 SIMULATION DATA

	TS ELECT TOTAL PRESSURE	BOND VDW TEMP GPRESSURE	ANGLE BOUNDARY POTENTIAL VOLUME	DIHED MISC TOTAL3 PRESSAVG	IMPRP KINETIC TEMPAVG GPRESSAVG
[192]ENERGY:	0	4683.0396	5161.8033	5250.3882	306.8334
	-10081.5245	-1805.4586	0.0000	0.0000	7393.9912
	10909.0727	295.7613	3515.0815	11012.7278	295.7613
	2697.6206	398.5367	686386.8863	2697.6206	398.5367
[280]ENERGY:	10000	3179.2743	5058.8267	5311.6943	355.7430
	-15021.8723	-1674.5847	0.0000	0.0000	7587.1364
	4796.2178	303.4872	-2790.9186	4860.7764	322.3989
	-82.5392	-18.9135	672387.9418	-1.2609	-1.1551
[319]ENERGY:	20000	3141.5211	4981.9891	5279.4834	369.4766
	-15202.3680	-1655.7454	0.0000	0.0000	7500.6846
	4415.0413	300.0291	-3085.6433	4472.6539	300.4789
	37.9836	53.0530	698024.9507	1.8096	1.8279
[371]ENERGY:	30000	3128.2969	5047.9974	5351.8320	339.2491
	-15294.7699	-1723.0906	0.0000	0.0000	7479.8344
	4329.3493	299.1951	-3150.4850	4392.0901	298.2180
	45.0358	55.3733	692726.1275	1.0559	1.0596
[409]ENERGY:	40000	3062.2959	4915.5486	5367.8251	318.7022
	-15242.8011	-1637.7519	0.0000	0.0000	7480.6200
	4264.4389	299.2265	-3216.1811	4322.8023	297.5825
	248.5802	223.1176	701542.2779	6.2008	6.2109

Supplementary Text 6

[461]ENERGY: 50000	3114.1617	5034.4429	5274.3527	332.5935
-15208.4339	-1743.8920	0.0000	0.0000	7411.4709
4214.6959	296.4605	-3196.7750	4272.8341	298.4510
-103.0185	-100.7097	704384.8430	-0.3675	-0.3619
[499]ENERGY: 60000	3097.8642	5036.8064	5240.2388	343.9810
-15265.4221	-1744.6155	0.0000	0.0000	7442.5076
4151.3604	297.7020	-3291.1472	4212.9153	298.0233
-34.7921	3.0120	699868.2769	0.6415	0.6211
[550]ENERGY: 70000	3074.5542	5053.4172	5273.9797	317.6805
-15226.1987	-1767.4160	0.0000	0.0000	7367.8019
4093.8189	294.7138	-3273.9831	4153.0377	298.1102
40.0759	34.8112	698526.4767	-1.2876	-1.2894
[587]ENERGY: 80000	3070.6400	5057.7975	5284.0248	321.8735
-15316.1261	-1737.8328	0.0000	0.0000	7377.5988
4057.9757	295.1056	-3319.6230	4114.9641	297.7017
-22.7557	72.0622	720049.7578	-1.6671	-1.6594
[638]ENERGY: 90000	3188.7484	5057.0386	5268.2942	339.2538
-15338.4012	-1686.8652	0.0000	0.0000	7427.4300
4255.4986	297.0989	-3171.9314	4315.6071	297.4097
-52.0524	-1.5799	714893.7784	0.4332	0.4270
[678]ENERGY: 100000	3122.6054	5003.7403	5249.5625	336.5185
-15303.4820	-1710.5339	0.0000	0.0000	7404.7576
4103.1684	296.1920	-3301.5892	4163.1204	299.3055
-80.0537	-24.8176	696932.0826	1.7566	1.7731
[729]ENERGY: 110000	3160.8026	4973.3056	5281.4846	316.5356
-15270.1713	-1847.1071	0.0000	0.0000	7406.1703
4021.0204	296.2485	-3385.1499	4082.4161	296.8630
-77.0907	-27.8147	686244.0339	2.4133	2.4224
[765]ENERGY: 120000	3138.1472	5022.4709	5280.5085	327.5227
-15341.0587	-1783.2466	0.0000	0.0000	7410.1731
4054.5172	296.4086	-3355.6559	4118.8734	297.6333
-197.2839	-156.7220	665377.0122	-1.6327	-1.6432
[815]ENERGY: 130000	3202.6548	5138.8816	5252.4392	333.9543
-15459.1582	-1698.9895	0.0000	0.0000	7407.6073
4177.3895	296.3060	-3230.2178	4236.0669	299.6500
56.8709	-14.8516	671776.5077	2.9286	2.9160
[851]ENERGY: 140000	3085.8142	5076.2766	5272.1700	335.3563
-15394.3227	-1796.4673	0.0000	0.0000	7419.4002
3998.2273	296.7777	-3421.1729	4060.8329	298.0591
159.9578	101.7084	684619.4366	1.9825	1.9630
[901]ENERGY: 150000	3111.8361	5083.1119	5194.7035	333.0186
-15333.2478	-1807.0807	0.0000	0.0000	7503.4813
4085.8229	300.1410	-3417.6584	4147.4784	297.8895
-52.3318	-29.5616	700702.1112	4.4062	4.4006
[937]ENERGY: 160000	3130.7430	5115.6523	5278.8343	321.1254
-15377.8524	-1812.1028	0.0000	0.0000	7395.2483
4051.6481	295.8116	-3343.6002	4107.9063	296.5258
31.8291	-22.9406	717273.6389	2.4444	2.4440
[987]ENERGY: 170000	3058.7526	5124.1746	5265.0265	336.1663
-15400.3537	-1725.4467	0.0000	0.0000	7484.3084
4142.6279	299.3741	-3341.6805	4203.1832	297.4357
-13.0242	-23.6936	733087.6888	-0.4243	-0.4048
[1023]ENERGY: 180000	3125.6147	5082.3773	5267.5084	
314.0244	-15325.5238	-1823.3447	0.0000	0.0000

Supplementary Text 6

7431.5927	4072.2489	297.2654	-3359.3438	4132.3864
297.9681	83.7870	3.7261	740883.1004	0.6615
0.6711				
[1073]ENERGY:	190000	3118.9140	5050.7932	5263.2028
348.3429	-15375.2489	-1761.8486	0.0000	0.0000
7512.2367	4156.3922	300.4912	-3355.8446	4216.1917
297.0861	56.8162	67.3044	722809.3811	3.2182
3.2120				
[1112]ENERGY:	200000	3080.3335	5033.9149	5233.2114
336.0872	-15348.5494	-1798.2025	0.0000	0.0000
7492.5896	4029.3847	299.7053	-3463.2050	4090.8770
298.6231	112.9594	84.1613	702906.6414	4.3992
4.3810				
[1162]ENERGY:	210000	3089.8266	5110.4777	5239.0001
311.0779	-15420.6888	-1768.1098	0.0000	0.0000
7431.4155	3992.9992	297.2583	-3438.4163	4054.4464
298.5238	46.5186	60.7693	689125.7304	-0.9311
-0.9430				
[1198]ENERGY:	220000	3074.2429	5041.4207	5255.1024
316.9341	-15347.5610	-1718.6998	0.0000	0.0000
7529.2702	4150.7095	301.1725	-3378.5607	4209.1234
299.4646	224.1866	194.7159	685239.4691	5.3086
5.3269				
[1248]ENERGY:	230000	3137.3814	4989.3466	5235.1423
326.2866	-15306.5878	-1862.3171	0.0000	0.0000
7382.5812	3901.8331	295.3049	-3480.7481	3961.5159
298.2712	131.0423	38.5305	709309.1164	1.0928
1.0767				
[1284]ENERGY:	240000	3140.2591	5170.8556	5235.1706
333.4220	-15492.2768	-1731.9710	0.0000	0.0000
7425.2765	4080.7360	297.0128	-3344.5405	4139.1248
298.8658	71.1658	49.1631	732596.3059	-0.3714
-0.3433				
[1334]ENERGY:	250000	3125.4599	5118.9266	5226.9230
328.7232	-15407.3719	-1774.1848	0.0000	0.0000
7545.7005	4164.1764	301.8298	-3381.5240	4225.3742
298.0997	-32.8910	-8.0237	695916.6936	-0.5836
-0.5843				
[1370]ENERGY:	260000	3133.2764	5045.5796	5239.1577
326.3608	-15324.1771	-1869.6407	0.0000	0.0000
7408.5020	3959.0588	296.3418	-3449.4433	4021.7467
299.4157	-61.9046	-101.5359	702353.2128	-0.0716
-0.0793				
[1420]ENERGY:	270000	3029.6619	5008.3538	5245.3589
369.8971	-15451.0902	-1777.6385	0.0000	0.0000
7374.6956	3799.2386	294.9895	-3575.4571	3860.5254
296.7146	32.1197	28.0131	697952.2055	2.3330
2.3323				
[1456]ENERGY:	280000	3093.3491	5071.8494	5274.8198
327.0725	-15405.6705	-1828.8256	0.0000	0.0000
7516.9480	4049.5428	300.6796	-3467.4052	4110.4772
298.2562	51.1884	-24.5381	701994.0217	-3.7611
-3.7694				
[1506]ENERGY:	290000	3180.1234	5189.8434	5221.1853

Supplementary Text 6

352.0418	-15401.5479	-1825.6905	0.0000	0.0000
7508.2830	4224.2385	300.3330	-3284.0445	4286.2596
300.9571	91.2755	33.3868	698064.6628	2.6793
2.6574				
[1545]ENERGY:	300000	3153.6723	5052.9039	5224.9574
338.5462	-15450.4421	-1755.0664	0.0000	0.0000
7521.6768	4086.2482	300.8688	-3435.4286	4151.1479
300.0045	-1.3354	3.2928	687814.6668	-0.2884
-0.2634				
[1595]ENERGY:	310000	3128.9202	5194.0378	5247.8622
329.1210	-15454.7060	-1808.6787	0.0000	0.0000
7515.2216	4151.7783	300.6106	-3363.4434	4212.5856
299.3496	58.0041	44.3335	675003.2078	3.9818
3.9646				
[1631]ENERGY:	320000	3191.8297	5072.2861	5309.0604
322.9730	-15474.3037	-1724.8493	0.0000	0.0000
7396.0688	4093.0649	295.8445	-3303.0039	4152.2915
301.6515	36.2039	-10.0398	661515.3969	-0.9377
-0.9499				
[1681]ENERGY:	330000	3188.1577	5142.1591	5220.0213
330.6006	-15448.3503	-1746.4110	0.0000	0.0000
7405.6963	4091.8737	296.2296	-3313.8226	4151.8937
298.0389	5.3475	-100.1743	671585.1337	4.1113
4.1347				
[1717]ENERGY:	340000	3107.7792	5034.0935	5263.9061
339.0191	-15382.0802	-1771.9517	0.0000	0.0000
7481.1202	4071.8863	299.2465	-3409.2339	4131.3843
298.5296	90.7662	51.4247	671626.4256	1.0178
1.0321				
[1767]ENERGY:	350000	3196.6530	5083.8554	5203.3836
345.5323	-15417.8760	-1788.1398	0.0000	0.0000
7394.0026	4017.4111	295.7618	-3376.5915	4073.0743
298.9525	-64.2600	-84.0474	673934.2969	-1.2356
-1.2541				
[1803]ENERGY:	360000	3135.6357	5064.8411	5258.4824
331.4628	-15384.1400	-1756.6055	0.0000	0.0000
7437.0930	4086.7695	297.4854	-3350.3235	4145.6040
300.0044	-52.7826	-66.1945	645732.6009	-0.3870
-0.3815				
[1853]ENERGY:	370000	3091.8282	5096.0485	5253.2554
348.4179	-15444.4315	-1768.3599	0.0000	0.0000
7468.8392	4045.5978	298.7553	-3423.2415	4108.6778
297.7511	98.3014	-17.5770	638783.4087	-5.1491
-5.1625				
[1889]ENERGY:	380000	3198.6707	5006.3495	5239.2580
313.1935	-15388.0393	-1831.6789	0.0000	0.0000
7591.7990	4129.5524	303.6737	-3462.2465	4191.7022
298.0483	-48.0668	-57.5298	652389.9513	-0.6791
-0.6615				
[1939]ENERGY:	390000	3128.8689	5147.8211	5259.6669
318.3621	-15581.7435	-1787.0239	0.0000	0.0000
7395.8570	3881.8085	295.8360	-3514.0485	3942.0817
299.1600	-142.3356	-94.9207	686284.3115	1.5374
1.5360				

Supplementary Text 6

[1978]ENERGY:	400000	3121.1737	5141.9525	5237.8007
341.7890	-15493.6921	-1747.4277	0.0000	0.0000
7368.9459	3970.5422	294.7595	-3398.4037	4029.6973
298.9845	25.4521	28.8310	705941.6149	3.5616
3.5573				
[2028]ENERGY:	410000	3142.2449	5044.7495	5244.1139
321.6315	-15396.8693	-1736.1777	0.0000	0.0000
7612.2967	4231.9896	304.4936	-3380.3071	4296.8475
299.1721	-18.1874	-108.3123	679499.8009	-0.5217
-0.5209				
[2064]ENERGY:	420000	3216.8908	5130.8109	5290.4419
321.6035	-15498.0018	-1733.2487	0.0000	0.0000
7488.2068	4216.7034	299.5300	-3271.5034	4278.5936
300.7439	-139.4307	-177.5957	680666.3954	-1.0010
-1.0069				
[2114]ENERGY:	430000	3121.0415	5164.8624	5265.1284
332.6614	-15579.2907	-1724.8834	0.0000	0.0000
7515.0701	4094.5898	300.6045	-3420.4803	4155.0956
300.3176	27.2165	64.1419	667615.0500	5.4422
5.4634				
[2150]ENERGY:	440000	3092.0472	5183.9058	5198.9928
330.7777	-15535.6322	-1732.6821	0.0000	0.0000
7426.2896	3963.6987	297.0533	-3462.5909	4024.8097
299.5429	47.6377	-8.5732	674988.9697	-1.6516
-1.6698				
[2200]ENERGY:	450000	3077.3846	5092.2759	5267.3630
321.1853	-15492.0090	-1804.4830	0.0000	0.0000
7453.5859	3915.3028	298.1451	-3538.2831	3977.8881
297.9475	-5.2406	-53.3322	658647.5438	0.2443
0.2519				
[2236]ENERGY:	460000	3133.7603	5018.5541	5289.9176
316.7362	-15472.1638	-1740.7415	0.0000	0.0000
7427.2223	3973.2852	297.0906	-3453.9371	4030.1727
299.0902	13.3217	-62.7911	674876.2122	1.3911
1.4016				
[2286]ENERGY:	470000	3127.4913	4992.2781	5201.0203
309.6305	-15466.0376	-1726.5359	0.0000	0.0000
7374.8192	3812.6660	294.9945	-3562.1532	3873.8736
298.9193	105.6638	96.6128	673444.7289	5.0763
5.0788				
[2322]ENERGY:	480000	3036.5908	5115.9841	5217.8342
313.4169	-15567.1400	-1665.2517	0.0000	0.0000
7488.7517	3940.1861	299.5518	-3548.5657	4001.5793
297.5428	199.3978	96.8170	673403.7469	2.0426
2.0107				
[2372]ENERGY:	490000	3074.1220	5148.1432	5240.8117
333.3690	-15618.8598	-1711.9101	0.0000	0.0000
7516.0583	3981.7343	300.6441	-3534.3240	4044.2000
298.1546	-40.3821	-32.6725	681281.5782	1.2225
1.2551				
[2411]ENERGY:	500000	3097.6311	4922.4368	5213.7887
329.8594	-15453.6425	-1798.3853	0.0000	0.0000
7469.8322	3781.5204	298.7950	-3688.3119	3839.3250
298.4082	-28.0602	-16.0500	688492.8974	0.1499

Supplementary Text 6

0.1439
 [2461]ENERGY: 510000 3083.0804 5012.2147 5229.6451
 307.1805 -15452.2272 -1735.2215 0.0000 0.0000
 7376.4206 3821.0925 295.0585 -3555.3281 3878.9534
 297.1383 101.6399 94.9606 688405.5946 2.9463
 2.9756
 [2497]ENERGY: 520000 3068.9549 5124.1922 5224.8445
 335.1759 -15577.0118 -1785.5000 0.0000 0.0000
 7415.5809 3806.2366 296.6249 -3609.3443 3866.3422
 297.4389 100.6106 44.0728 694027.3584 3.6587
 3.6335
 [2547]ENERGY: 530000 3061.9368 5019.8254 5254.1827
 326.8375 -15434.7492 -1807.2652 0.0000 0.0000
 7441.6178 3862.3858 297.6664 -3579.2319 3920.7241
 297.1332 56.6951 54.0381 727824.8496 -5.1175
 -5.1007
 [2583]ENERGY: 540000 3194.2206 5090.9538 5272.8668
 333.1087 -15515.4852 -1782.5055 0.0000 0.0000
 7632.1911 4225.3503 305.2894 -3406.8408 4290.6255
 301.0082 -38.4270 -0.6722 709960.0054 2.2609
 2.2506
 [2633]ENERGY: 550000 3132.9713 4994.0708 5317.8419
 335.4273 -15495.3285 -1805.4549 0.0000 0.0000
 7424.1332 3903.6611 296.9670 -3520.4721 3969.6982
 300.0941 -127.8158 -117.9040 698332.9392 0.2879
 0.2845
 [2669]ENERGY: 560000 3221.2659 5099.6914 5243.8712
 326.3126 -15433.6642 -1877.9119 0.0000 0.0000
 7461.3530 4040.9180 298.4558 -3420.4350 4098.7261
 298.8873 -35.9170 -81.4857 695842.3292 0.1598
 0.1422
 [2719]ENERGY: 570000 3060.1780 5159.7786 5248.4677
 346.1091 -15516.2960 -1805.7228 0.0000 0.0000
 7346.1233 3838.6380 293.8466 -3507.4853 3898.8865
 300.3268 72.3303 72.5222 686379.1208 -0.4547
 -0.4636
 [2755]ENERGY: 580000 3140.3712 5090.5282 5285.9250
 320.6720 -15555.7305 -1807.5421 0.0000 0.0000
 7457.2172 3931.4411 298.2904 -3525.7761 3990.7002
 297.4480 -80.0786 -48.5354 702888.1075 -4.1345
 -4.1205
 [2805]ENERGY: 590000 3072.7276 5144.5042 5269.4252
 338.4690 -15552.6688 -1757.2563 0.0000 0.0000
 7485.6410 4000.8419 299.4274 -3484.7991 4061.9260
 297.3207 41.2457 -38.4816 694238.8761 4.7380
 4.7319
 [2844]ENERGY: 600000 3134.1521 5099.2271 5260.4997
 354.6530 -15569.6431 -1785.8289 0.0000 0.0000
 7444.7570 3937.8169 297.7920 -3506.9401 4000.7552
 299.5258 -62.8926 -72.2141 682707.5143 -0.1467
 -0.1464
 [2894]ENERGY: 610000 3145.1552 5080.5676 5310.3160
 326.3685 -15596.2202 -1801.5025 0.0000 0.0000
 7361.9771 3826.6616 294.4808 -3535.3155 3887.0152

Supplementary Text 6

299.3837	-65.7452	-31.4421	686235.4425	-1.4283
-1.4276				
[2930]ENERGY:	620000	3164.7786	5143.6284	5291.1578
316.4663	-15638.2498	-1724.2813	0.0000	0.0000
7444.6669	3998.1669	297.7884	-3446.5000	4054.7716
297.9952	-1.9774	79.8357	693794.7112	1.7361
1.7609				
[2980]ENERGY:	630000	3119.3063	5214.7017	5266.5190
311.5646	-15569.0838	-1820.3797	0.0000	0.0000
7394.5355	3917.1635	295.7831	-3477.3720	3980.4682
299.6749	46.0007	-8.5482	710997.0600	-0.6284
-0.6517				
[3016]ENERGY:	640000	3174.7675	5031.1634	5271.0624
318.9766	-15585.7465	-1737.1738	0.0000	0.0000
7409.8712	3882.9207	296.3965	-3526.9504	3942.5428
298.7167	116.9771	61.2754	698601.6393	-1.3210
-1.3145				
[3066]ENERGY:	650000	3177.0533	5132.7307	5286.5408
340.8901	-15503.2876	-1789.6163	0.0000	0.0000
7430.2905	4074.6015	297.2133	-3355.6890	4134.1177
298.6829	-6.0652	-51.3619	684283.4684	-1.4557
-1.4616				
[3102]ENERGY:	660000	3157.3254	5104.2407	5296.4471
340.7365	-15562.8822	-1724.5104	0.0000	0.0000
7467.1329	4078.4900	298.6870	-3388.6430	4135.9954
300.3581	92.1610	30.8259	683870.1097	1.9933
2.0015				
[3152]ENERGY:	670000	3089.3575	5114.8798	5281.5975
331.4598	-15559.5396	-1728.7316	0.0000	0.0000
7445.9934	3975.0167	297.8414	-3470.9767	4037.3958
299.3014	87.5926	-22.6748	687287.8922	-0.0462
-0.0598				
[3188]ENERGY:	680000	3085.1129	4969.3597	5249.2296
317.5620	-15570.1568	-1759.7263	0.0000	0.0000
7377.4651	3668.8463	295.1003	-3708.6189	3731.8391
297.6035	-75.7937	-43.8626	666151.5232	4.1600
4.1813				
[3238]ENERGY:	690000	3102.9781	5040.9401	5256.1336
344.0963	-15601.4491	-1781.1087	0.0000	0.0000
7420.0614	3781.6516	296.8042	-3638.4097	3844.6507
296.9483	-170.7987	-55.8693	663287.8371	0.2688
0.2735				
[3277]ENERGY:	700000	3118.9327	5052.0453	5258.5682
325.2747	-15600.4720	-1800.9939	0.0000	0.0000
7469.3541	3822.7092	298.7759	-3646.6449	3881.4868
298.6444	-29.7427	-90.9349	653356.5542	1.5502
1.5562				
[3327]ENERGY:	710000	3179.5555	5070.6584	5272.9611
359.1280	-15511.5614	-1754.4067	0.0000	0.0000
7393.8983	4010.2332	295.7576	-3383.6651	4067.2059
296.1479	-71.1332	-86.9386	626891.9138	-0.3440
-0.3508				
[3363]ENERGY:	720000	3103.1979	5079.5094	5250.9275
343.0918	-15637.0600	-1737.8415	0.0000	0.0000

Supplementary Text 6

7506.3051	3908.1301	300.2539	-3598.1750	3972.1141
298.9742	109.9135	78.9654	618407.9429	-2.6763
-2.6934				
[3413]ENERGY:	730000	3132.0804	5136.5958	5322.1565
313.3612	-15625.6487	-1745.6477	0.0000	0.0000
7298.1017	3830.9992	291.9257	-3467.1025	3885.7272
298.4104	203.9190	157.9265	641397.5686	7.1437
7.1609				
[3449]ENERGY:	740000	3103.4202	5059.2642	5267.9758
322.4721	-15678.5302	-1805.5239	0.0000	0.0000
7448.7751	3717.8533	297.9527	-3730.9218	3779.3021
297.9642	28.8116	53.9967	621221.5827	-0.9396
-0.9131				
[3499]ENERGY:	750000	3184.4887	5157.9876	5250.2888
354.1707	-15667.1871	-1738.8487	0.0000	0.0000
7462.1009	4003.0008	298.4858	-3459.1001	4062.8674
298.8223	-23.9161	-149.1651	598798.9646	5.1931
5.2049				
[3535]ENERGY:	760000	3074.9927	5143.0871	5199.2593
335.9872	-15548.8272	-1796.6240	0.0000	0.0000
7466.5369	3874.4120	298.6632	-3592.1249	3939.5927
299.4873	-73.5628	-20.6852	587003.6180	-1.4957
-1.5196				
[3585]ENERGY:	770000	3021.5819	5088.0804	5238.2836
347.2035	-15562.3278	-1778.8406	0.0000	0.0000
7437.2795	3791.2605	297.4929	-3646.0191	3850.0204
298.2558	56.3357	32.1641	588565.3355	0.2428
0.2504				
[3621]ENERGY:	780000	3128.7049	5044.5780	5221.2300
335.0084	-15462.5257	-1787.9726	0.0000	0.0000
7366.8157	3845.8388	294.6743	-3520.9769	3902.0810
297.4929	-34.0066	-69.9849	572471.9140	3.6503
3.6510				
[3671]ENERGY:	790000	3158.9555	5138.7105	5231.9086
342.1291	-15689.9207	-1718.4646	0.0000	0.0000
7585.0219	4048.3401	303.4026	-3536.6817	4115.8385
301.1857	-118.1325	-107.7669	581207.2866	2.0623
2.0862				
[3710]ENERGY:	800000	3109.3253	5117.0824	5263.7548
320.5087	-15700.9071	-1714.9292	0.0000	0.0000
7541.5991	3936.4339	301.6657	-3605.1652	4006.9187
301.4937	-105.0339	-76.2315	576041.9977	2.6303
2.6237				
[3760]ENERGY:	810000	3145.3001	5037.6537	5278.2738
325.0220	-15582.5449	-1805.6051	0.0000	0.0000
7507.0316	3905.1313	300.2830	-3601.9004	3966.4459
298.1440	-129.7316	-166.0159	572015.2389	2.1397
2.1465				
[3796]ENERGY:	820000	3118.0676	5152.6129	5287.9136
334.9788	-15675.6172	-1774.5878	0.0000	0.0000
7440.2699	3883.6377	297.6125	-3556.6322	3944.1103
298.2845	-188.0620	-176.5159	579804.4380	-1.7902
-1.8076				
[3846]ENERGY:	830000	3119.2520	5153.5045	5235.6748

Supplementary Text 6

333.9058	-15612.9916	-1806.6763	0.0000	0.0000
7440.1258	3862.7950	297.6067	-3577.3308	3925.6701
299.1036	-6.6282	12.1214	590742.1042	-1.6203
-1.6360				
[3882]ENERGY:	840000	3111.9001	5053.6886	5213.5331
331.3233	-15673.4079	-1725.3709	0.0000	0.0000
7395.3912	3707.0575	295.8173	-3688.3337	3766.2147
299.1782	-123.6952	-144.5526	599607.0270	1.9048
1.9083				
[3932]ENERGY:	850000	3099.8319	5159.0361	5207.0059
351.5159	-15628.1456	-1697.1629	0.0000	0.0000
7562.6466	4054.7279	302.5076	-3507.9187	4112.5872
299.9441	-36.7523	-53.3497	608231.2720	1.1001
1.0939				
[3968]ENERGY:	860000	3165.5765	5130.1721	5253.6396
318.5936	-15637.4389	-1780.3599	0.0000	0.0000
7587.1571	4037.3401	303.4880	-3549.8170	4103.3866
300.7874	-126.3864	-112.2356	635059.3687	1.6425
1.6777				
[4018]ENERGY:	870000	3085.6251	5046.5693	5282.4229
349.3944	-15734.1253	-1710.6595	0.0000	0.0000
7503.9812	3823.2080	300.1610	-3680.7732	3884.5757
299.5773	-59.0729	-59.4872	638560.8523	4.6718
4.6641				
[4054]ENERGY:	880000	3204.2029	5106.6024	5276.2232
362.3494	-15672.3741	-1785.8709	0.0000	0.0000
7412.8624	3903.9953	296.5162	-3508.8671	3965.1868
298.3971	20.1930	6.2761	648394.6854	-1.0150
-0.9885				
[4104]ENERGY:	890000	3129.0806	5123.6061	5287.3198
337.2269	-15675.5439	-1759.9174	0.0000	0.0000
7459.5184	3901.2904	298.3824	-3558.2280	3964.2316
300.2189	56.6201	80.3820	657940.7285	0.7625
0.7611				
[4143]ENERGY:	900000	3157.3628	5104.1606	5278.8508
315.6052	-15668.6179	-1702.2780	0.0000	0.0000
7492.6129	3977.6964	299.7062	-3514.9165	4040.7213
298.7781	131.0939	95.4240	668517.9627	-0.2763
-0.2766				
[4193]ENERGY:	910000	3052.3556	5048.3192	5210.3962
338.0524	-15609.0228	-1699.7287	0.0000	0.0000
7435.1625	3775.5345	297.4082	-3659.6280	3839.5701
299.3335	57.2086	141.0280	649747.5354	4.0159
4.0167				
[4229]ENERGY:	920000	3139.6230	5147.5743	5196.5671
312.7321	-15648.5065	-1748.2678	0.0000	0.0000
7433.0229	3832.7451	297.3226	-3600.2779	3890.6953
298.0999	-53.8105	-25.9730	657553.5451	1.6576
1.6467				
[4279]ENERGY:	930000	3105.2252	5180.2862	5231.3569
316.9823	-15718.0245	-1737.9304	0.0000	0.0000
7387.6688	3765.5644	295.5084	-3622.1044	3823.9493
297.2416	-106.1315	-60.2365	679305.0425	-0.8180
-0.8152				

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[4315]ENERGY:	940000	3231.9699	5064.2342	5258.6796	
	317.6068	-15714.4221	-1779.4844	0.0000	0.0000
	7435.3571	3813.9411	297.4160	-3621.4160	3870.8461
	298.1927	-82.0115	-110.4575	694607.3580	0.7375
	0.7214				
[4365]ENERGY:	950000	3058.7383	5072.9182	5269.7776	
	338.2606	-15512.1562	-1787.9044	0.0000	0.0000
	7492.3472	3931.9813	299.6956	-3560.3659	3991.6569
	299.2385	98.9738	89.9541	701291.3609	0.7675
	0.7420				
[4401]ENERGY:	960000	3106.5409	4963.9316	5244.8190	
	327.5458	-15610.0498	-1729.4746	0.0000	0.0000
	7408.9043	3712.2173	296.3579	-3696.6870	3773.4159
	298.1141	38.7373	89.3275	680065.9889	-2.7848
	-2.7673				
[4451]ENERGY:	970000	3163.8488	4989.5316	5221.6318	
	300.8973	-15611.3858	-1789.9242	0.0000	0.0000
	7566.1797	3840.7791	302.6489	-3725.4006	3902.5568
	297.0335	131.2596	83.1796	652764.0069	1.5058
	1.4911				
[4487]ENERGY:	980000	3134.8613	5148.7357	5249.8069	
	329.9036	-15690.6120	-1759.7066	0.0000	0.0000
	7411.2375	3824.2263	296.4512	-3587.0111	3883.6367
	297.8708	-24.9599	-20.3240	665697.6024	-0.2226
	-0.2105				
[4537]ENERGY:	990000	3138.3679	5141.0050	5228.5475	
	312.6811	-15659.4855	-1749.3609	0.0000	0.0000
	7435.1838	3846.9388	297.4091	-3588.2450	3907.4947
	298.2929	-21.6855	-50.1959	663143.5011	-0.5846
	-0.5865				
[4576]ENERGY:	1000000	3141.4388	5130.6049	5277.5644	
	330.6152	-15760.7694	-1711.3107	0.0000	0.0000
	7516.9058	3925.0491	300.6780	-3591.8567	3985.9368
	299.2967	29.1699	54.3248	656151.2420	-1.2910
	-1.2907				
[269]ENERGY:	1010000	3118.5446	5075.5672	5274.7883	331.3344
	-15628.8916	-1715.9387	0.0000	0.0000	7474.5614
	3929.9656	299.0198	-3544.5958	3988.2025	300.1142
	-10.1897	-5.1528	656151.2420	0.1777	0.1687
[308]ENERGY:	1020000	3193.0267	5076.9738	5268.0610	348.6188
	-15710.1920	-1727.6348	0.0000	0.0000	7481.2238
	3930.0772	299.2864	-3551.1466	3988.2718	300.1884
	118.9233	80.6427	656151.2420	-0.1369	-0.1333
[360]ENERGY:	1030000	3092.3392	5039.1446	5261.4103	309.6746
	-15639.6431	-1660.4838	0.0000	0.0000	7523.7115
	3926.1534	300.9861	-3597.5581	3987.3758	300.1528
	-50.7301	-68.5227	656151.2420	-1.4696	-1.4777
[398]ENERGY:	1040000	3171.7749	5107.0066	5315.3158	338.0733
	-15753.6268	-1767.8602	0.0000	0.0000	7516.2281
	3926.9116	300.6867	-3589.3164	3989.0822	300.2051
	87.9361	29.3912	656151.2420	1.8201	1.8264
[450]ENERGY:	1050000	3132.5272	5105.9343	5239.9259	323.8519
	-15669.6168	-1764.5640	0.0000	0.0000	7561.5842
	3929.6428	302.5012	-3631.9414	3989.5633	300.3358

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	48.2273	3.8100	656151.2420	-1.3954	-1.4103
[488]ENERGY:	1060000	3185.0776	5113.0898	5236.5396	328.9191
	-15630.3543	-1745.4366	0.0000	0.0000	7444.0451
	3931.8803	297.7990	-3512.1648	3989.3764	300.4848
	2.0938	-44.0894	656151.2420	2.5044	2.5229
[539]ENERGY:	1070000	3045.6216	5033.6439	5238.9268	331.4349
	-15573.8816	-1742.9768	0.0000	0.0000	7594.0880
	3926.8567	303.8015	-3667.2313	3989.0907	300.4605
	-31.6628	42.5827	656151.2420	-2.3652	-2.3540
[576]ENERGY:	1080000	3164.3185	5047.0736	5228.5049	311.9635
	-15627.3653	-1712.0613	0.0000	0.0000	7519.7121
	3932.1459	300.8261	-3587.5662	3991.2400	300.4826
	106.0794	2.4271	656151.2420	0.8860	0.8805
[627]ENERGY:	1090000	3104.9405	5167.5023	5250.0484	334.7215
	-15629.5037	-1842.9717	0.0000	0.0000	7541.8912
	3926.6285	301.7134	-3615.2627	3990.6706	300.4734
	101.3561	43.0360	656151.2420	1.1652	1.1421
[667]ENERGY:	1100000	3124.2040	5181.2254	5223.8442	356.3144
	-15661.1873	-1784.1089	0.0000	0.0000	7490.8892
	3931.1810	299.6730	-3559.7082	3991.3821	300.3982
	8.3877	21.8072	656151.2420	-0.3465	-0.3270
[718]ENERGY:	1110000	3157.6805	5145.9613	5265.9942	312.5239
	-15587.1714	-1813.6826	0.0000	0.0000	7448.6271
	3929.9330	297.9823	-3518.6941	3992.5651	300.4745
	-92.8301	-129.0754	656151.2420	0.8505	0.8431
[754]ENERGY:	1120000	3160.4423	5069.0065	5285.0351	354.2103
	-15682.9936	-1713.4202	0.0000	0.0000	7462.1708
	3934.4513	298.5241	-3527.7195	3991.4907	300.4934
	19.9002	27.9187	656151.2420	-0.7996	-0.7943
[804]ENERGY:	1130000	3209.3782	5130.7589	5280.7692	330.8008
	-15768.0905	-1759.7389	0.0000	0.0000	7502.5226
	3926.4003	300.1384	-3576.1223	3992.9218	300.6672
	0.1463	-16.2160	656151.2420	1.4995	1.5130
[840]ENERGY:	1140000	3187.2797	5207.6356	5245.4209	328.0342
	-15756.5004	-1764.0744	0.0000	0.0000	7482.4012
	3930.1967	299.3335	-3552.2045	3992.2482	300.7003
	-185.8115	-163.1702	656151.2420	-1.0098	-1.0242
[890]ENERGY:	1150000	3125.9820	5123.8735	5247.6602	344.8588
	-15707.2332	-1792.0783	0.0000	0.0000	7588.1585
	3931.2214	303.5643	-3656.9370	3992.8840	300.5328
	-4.5459	-60.0908	656151.2420	-1.5687	-1.5701
[926]ENERGY:	1160000	3108.8290	5240.8077	5303.3476	306.9555
	-15732.9059	-1743.1260	0.0000	0.0000	7449.5409
	3933.4487	298.0189	-3516.0922	3992.8152	300.8292
	15.7935	14.0724	656151.2420	1.4967	1.4997
[976]ENERGY:	1170000	3203.4710	5195.1639	5293.9336	327.0240
	-15705.3408	-1806.6793	0.0000	0.0000	7423.7038
	3931.2762	296.9853	-3492.4276	3991.6024	300.8024
	-9.6948	9.2784	656151.2420	-2.6899	-2.6825
[1012]ENERGY:	1180000	3166.6177	5126.8889	5251.6964	
	330.0288	-15663.0329	-1736.3078	0.0000	0.0000
	7458.3151	3934.2063	298.3699	-3524.1088	3991.6520
	300.7396	-152.3701	-104.6227	656151.2420	2.6984
	2.6953				

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[1062]ENERGY: 1190000	3187.7277	5087.8116	5274.2794	
325.7112	-15700.5926	-1768.8652	0.0000	0.0000
7527.4005	3933.4725	301.1337	-3593.9280	3991.6251
300.6332	-53.2105	-60.0923	656151.2420	-0.6512
-0.6597				
[1101]ENERGY: 1200000	3124.8917	5054.6546	5303.5005	
335.5070	-15633.0663	-1781.3133	0.0000	0.0000
7527.0394	3931.2136	301.1192	-3595.8259	3991.2501
300.8150	43.8428	-14.1783	656151.2420	-0.7250
-0.7247				
[1151]ENERGY: 1210000	3069.2737	5137.9784	5250.0484	
344.6018	-15685.6980	-1725.5376	0.0000	0.0000
7539.2963	3929.9630	301.6095	-3609.3333	3992.1413
300.8082	-82.5831	-114.4971	656151.2420	-1.2651
-1.2486				
[1187]ENERGY: 1220000	3101.7655	5022.4202	5333.4346	
332.7915	-15639.9201	-1734.0355	0.0000	0.0000
7512.9955	3929.4517	300.5574	-3583.5438	3991.0248
300.9533	36.0516	21.5662	656151.2420	1.4734
1.4650				
[1237]ENERGY: 1230000	3103.7455	5055.8053	5202.3414	
336.8952	-15677.3514	-1690.6787	0.0000	0.0000
7600.2963	3931.0535	304.0499	-3669.2427	3992.2642
300.7596	88.6856	-6.0119	656151.2420	-0.2738
-0.2615				
[1273]ENERGY: 1240000	3079.5259	5126.8010	5205.7971	
350.5200	-15648.9079	-1738.9795	0.0000	0.0000
7557.7723	3932.5288	302.3487	-3625.2435	3991.9950
300.6867	-34.9153	-50.8640	656151.2420	1.7827
1.7733				
[1323]ENERGY: 1250000	3166.1027	5069.5940	5240.5757	
314.7782	-15708.1715	-1697.7984	0.0000	0.0000
7548.1229	3933.2037	301.9627	-3614.9192	3992.9418
300.9567	-38.0565	-67.4142	656151.2420	-1.2282
-1.2424				
[1359]ENERGY: 1260000	3126.3571	5052.1778	5277.9735	
326.9479	-15739.4444	-1725.2962	0.0000	0.0000
7613.4785	3932.1943	304.5772	-3681.2842	3993.2271
301.2066	30.6448	15.2658	656151.2420	-1.0025
-0.9879				
[1409]ENERGY: 1270000	3186.7795	5117.7206	5250.9870	
347.1520	-15727.0976	-1769.5436	0.0000	0.0000
7525.4932	3931.4911	301.0574	-3594.0021	3993.6041
301.1243	-35.0756	-65.7970	656151.2420	1.5760
1.5761				
[1445]ENERGY: 1280000	3184.6205	5070.6611	5222.7999	
330.8682	-15620.3638	-1713.1598	0.0000	0.0000
7462.1614	3937.5875	298.5238	-3524.5738	3993.6673
300.8761	23.3350	21.8410	656151.2420	-1.2571
-1.2670				
[1495]ENERGY: 1290000	3165.7844	5096.2674	5227.3057	
359.8039	-15766.9611	-1702.2568	0.0000	0.0000
7553.4498	3933.3932	302.1758	-3620.0567	3993.7284
301.1089	31.7780	16.6942	656151.2420	2.4470

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2.4341
 [1534]ENERGY: 1300000 3092.2028 5120.0240 5307.3247
 329.4836 -15721.2808 -1766.6691 0.0000 0.0000
 7570.1987 3931.2839 302.8458 -3638.9148 3994.2972
 301.2549 60.2977 32.7408 656151.2420 -1.3890
 -1.3848
 [1584]ENERGY: 1310000 3119.2535 5085.3368 5288.9054
 326.4813 -15720.2603 -1707.6237 0.0000 0.0000
 7541.9736 3934.0667 301.7167 -3607.9069 3994.0717
 301.1964 127.3238 99.7741 656151.2420 -1.7378
 -1.7286
 [1620]ENERGY: 1320000 3093.7106 5145.5057 5249.6797
 339.5724 -15747.2907 -1695.9058 0.0000 0.0000
 7548.9434 3934.2152 301.9955 -3614.7282 3995.8637
 301.1275 122.8876 -4.0803 656151.2420 1.3400
 1.3388
 [1670]ENERGY: 1330000 3129.5508 5073.7137 5321.0238
 334.2743 -15718.5594 -1788.5604 0.0000 0.0000
 7582.3951 3933.8379 303.3337 -3648.5571 3995.8339
 300.9519 -80.0610 -77.0076 656151.2420 -0.0003
 0.0031
 [1706]ENERGY: 1340000 3042.1725 5099.2504 5287.4190
 337.1003 -15642.8362 -1697.9865 0.0000 0.0000
 7507.6434 3932.7629 300.3433 -3574.8804 3994.5900
 301.1841 -30.6884 37.0408 656151.2420 -0.6162
 -0.6156
 [1756]ENERGY: 1350000 3178.3367 5064.3092 5270.8475
 337.6608 -15732.3425 -1721.7198 0.0000 0.0000
 7540.2236 3937.3155 301.6466 -3602.9081 3995.9921
 301.4323 124.1931 54.5352 656151.2420 -0.4457
 -0.4608
 [1792]ENERGY: 1360000 3167.5103 5111.2411 5255.3469
 328.8455 -15727.9508 -1754.7989 0.0000 0.0000
 7554.8324 3935.0265 302.2311 -3619.8060 3995.6638
 301.2498 -112.7605 -59.9524 656151.2420 1.5894
 1.6102
 [1842]ENERGY: 1370000 3120.6887 5045.3195 5256.2097
 332.3217 -15682.4049 -1738.3741 0.0000 0.0000
 7603.0301 3936.7907 304.1592 -3666.2394 3995.6852
 301.5272 144.8537 50.3519 656151.2420 0.0234
 0.0069
 [1878]ENERGY: 1380000 3184.2826 5097.7385 5286.9223
 344.1554 -15744.6954 -1714.7214 0.0000 0.0000
 7482.7615 3936.4435 299.3479 -3546.3180 3995.4789
 301.2462 -59.9761 -66.3143 656151.2420 -0.4990
 -0.4744
 [1928]ENERGY: 1390000 3198.5600 5157.4490 5280.4024
 311.5238 -15755.4931 -1720.3160 0.0000 0.0000
 7467.0631 3939.1892 298.7199 -3527.8740 3995.3739
 301.4271 -33.9930 -86.4707 656151.2420 0.9403
 0.9469
 [1967]ENERGY: 1400000 3144.9789 5072.5644 5257.7541
 331.3486 -15712.1559 -1710.2985 0.0000 0.0000
 7550.7170 3934.9088 302.0664 -3615.8083 3996.3414

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301.5900	-15.0458	64.4352	656151.2420	-0.2359
-0.2534				
[2017]ENERGY: 1410000	3160.5877	5123.2947	5290.5244	
339.2333	-15621.6876	-1812.1626	0.0000	0.0000
7458.9854	3938.7752	298.3967	-3520.2102	3996.5596
301.3866	-100.2792	-180.7632	656151.2420	-0.4419
-0.4496				
[2053]ENERGY: 1420000	3029.9497	5174.7437	5307.6297	
312.4446	-15701.4260	-1719.7560	0.0000	0.0000
7529.0080	3932.5937	301.1980	-3596.4143	3996.3828
301.5138	149.2735	96.8417	656151.2420	-0.1406
-0.1281				
[2103]ENERGY: 1430000	3131.3548	5096.2903	5221.1383	
352.7365	-15719.2081	-1711.8529	0.0000	0.0000
7562.6766	3933.1354	302.5449	-3629.5412	3996.5634
301.4552	69.5466	-26.4306	656151.2420	0.7142
0.6830				
[2139]ENERGY: 1440000	3116.1853	5009.9323	5310.9272	
354.0495	-15631.9521	-1768.7974	0.0000	0.0000
7543.8666	3934.2114	301.7924	-3609.6552	3996.6916
301.3315	-7.0683	-21.5582	656151.2420	0.0862
0.1109				
[2189]ENERGY: 1450000	3073.2160	5077.9175	5235.1414	
332.6808	-15702.2017	-1684.6644	0.0000	0.0000
7602.0801	3934.1697	304.1212	-3667.9103	3997.2514
301.5020	31.7654	87.7517	656151.2420	0.4486
0.4308				
[2225]ENERGY: 1460000	3122.4731	5094.5564	5272.8319	
352.6459	-15753.6037	-1707.2994	0.0000	0.0000
7554.8302	3936.4345	302.2310	-3618.3957	3997.3223
301.3957	-172.4570	-90.2803	656151.2420	-1.2930
-1.2684				
[2275]ENERGY: 1470000	3133.1869	5159.6372	5232.3436	
339.1830	-15691.4828	-1757.9858	0.0000	0.0000
7521.7477	3936.6298	300.9075	-3585.1179	3998.1988
301.6756	18.0719	-3.9715	656151.2420	1.0807
1.0657				
[2311]ENERGY: 1480000	3134.7065	5083.7288	5319.1768	
314.2807	-15724.1334	-1734.0298	0.0000	0.0000
7543.0028	3936.7324	301.7578	-3606.2704	3998.7304
301.6028	72.9195	-11.1271	656151.2420	-0.6209
-0.6092				
[2361]ENERGY: 1490000	3110.3615	5071.7306	5277.9648	
343.7396	-15679.4592	-1748.4654	0.0000	0.0000
7560.3568	3936.2288	302.4521	-3624.1280	3999.0294
301.5579	34.6465	-21.5684	656151.2420	-0.4641
-0.4659				
[2400]ENERGY: 1500000	3172.6596	5094.8279	5290.6828	
339.7068	-15712.1362	-1648.3216	0.0000	0.0000
7404.3266	3941.7459	296.2101	-3462.5807	3999.6528
301.3344	93.9347	201.1722	656151.2420	1.0311
1.0238				
[2450]ENERGY: 1510000	3195.3170	5070.0486	5251.4353	
347.5939	-15706.7699	-1679.3776	0.0000	0.0000

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7466.3955	3944.6428	298.6931	-3521.7527	4002.0325
301.4199	4.2737	-7.2083	656151.2420	0.1116
0.1142				
[2486]ENERGY: 1520000	3044.2511	5122.7220	5295.3318	
337.2040	-15707.9288	-1707.1123	0.0000	0.0000
7553.8537	3938.3215	302.1919	-3615.5322	4000.9525
301.4743	-1.7613	-23.2669	656151.2420	-1.4422
-1.4506				
[2536]ENERGY: 1530000	3136.1963	5063.0961	5278.6558	
326.1116	-15654.4085	-1763.6457	0.0000	0.0000
7552.7255	3938.7312	302.1468	-3613.9943	4001.3416
301.4430	29.6048	53.2090	656151.2420	0.9144
0.9168				
[2572]ENERGY: 1540000	3108.8359	5049.2745	5328.3901	
336.9242	-15695.9062	-1712.8469	0.0000	0.0000
7526.1778	3940.8495	301.0847	-3585.3284	4002.5363
301.3137	-17.7958	-20.9396	656151.2420	-3.0590
-3.0345				
[2622]ENERGY: 1550000	3106.3656	5176.4882	5197.6299	
339.4438	-15701.7910	-1758.3667	0.0000	0.0000
7578.1993	3937.9690	303.1659	-3640.2303	4001.8375
301.3978	-36.7296	-28.8458	656151.2420	2.1731
2.1657				
[2658]ENERGY: 1560000	3127.0973	5086.0708	5291.0576	
338.3608	-15689.3842	-1713.6026	0.0000	0.0000
7502.7799	3942.3796	300.1487	-3560.4003	4001.2573
301.5652	85.0345	-14.0353	656151.2420	0.5906
0.5874				
[2708]ENERGY: 1570000	3058.6967	5178.5954	5234.7069	
335.2297	-15781.1694	-1721.6455	0.0000	0.0000
7633.1466	3937.5604	305.3640	-3695.5862	4001.2126
301.6031	137.9398	31.0791	656151.2420	-0.5187
-0.5393				
[2744]ENERGY: 1580000	3217.5721	5107.6365	5279.0218	
343.4268	-15724.9703	-1770.3668	0.0000	0.0000
7491.8638	3944.1840	299.7120	-3547.6798	4001.9414
301.7767	-150.9771	-134.2512	656151.2420	1.9681
1.9955				
[2794]ENERGY: 1590000	3155.6460	5061.3783	5290.4332	
352.3602	-15620.3994	-1780.0153	0.0000	0.0000
7483.8506	3943.2535	299.3914	-3540.5971	4002.6238
301.5885	32.1802	15.8458	656151.2420	-1.9370
-1.9529				
[2833]ENERGY: 1600000	3101.7312	5124.0448	5313.9448	
326.4631	-15685.5813	-1742.7406	0.0000	0.0000
7502.3303	3940.1923	300.1307	-3562.1380	4001.7317
301.5778	-56.5336	-29.1028	656151.2420	-0.5509
-0.5614				
[2883]ENERGY: 1610000	3121.8907	5149.5729	5278.4289	
313.7179	-15742.6769	-1733.6251	0.0000	0.0000
7552.7067	3940.0150	302.1460	-3612.6917	4001.5518
301.5519	-45.1462	-49.7382	656151.2420	0.7974
0.8125				
[2919]ENERGY: 1620000	3152.3830	5045.0918	5302.9083	

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344.1710	-15712.4361	-1703.1138	0.0000	0.0000
7514.0165	3943.0207	300.5982	-3570.9958	4003.5360
301.8126	63.9146	41.4730	656151.2420	-1.1653
-1.1668				
[2969]ENERGY: 1630000	3050.8998	5124.2475	5292.7266	
341.4259	-15836.0834	-1672.1088	0.0000	0.0000
7634.4632	3935.5708	305.4167	-3698.8924	4002.6403
301.9037	51.2771	56.5106	656151.2420	0.2039
0.2101				
[3005]ENERGY: 1640000	3032.8364	5071.1137	5336.7453	
330.1876	-15614.9688	-1761.8118	0.0000	0.0000
7547.9169	3942.0194	301.9544	-3605.8975	4002.6160
301.8122	9.9398	-21.7186	656151.2420	1.5884
1.5898				
[3055]ENERGY: 1650000	3215.1148	5170.0860	5259.2074	
354.1419	-15774.7367	-1739.7728	0.0000	0.0000
7458.3656	3942.4061	298.3719	-3515.9595	4003.1848
301.8832	62.9361	-48.5371	656151.2420	-0.2910
-0.3119				
[3091]ENERGY: 1660000	3102.4322	5040.6194	5322.6325	
327.2535	-15627.0581	-1814.1462	0.0000	0.0000
7590.4778	3942.2111	303.6571	-3648.2667	4002.7298
301.7912	31.4788	-26.4984	656151.2420	0.1260
0.1289				
[3141]ENERGY: 1670000	3138.0338	5056.0277	5289.7561	
351.4223	-15644.0974	-1770.5998	0.0000	0.0000
7518.3395	3938.8823	300.7712	-3579.4572	4000.9578
301.8049	65.5763	10.3378	656151.2420	-2.2907
-2.2823				
[3177]ENERGY: 1680000	3112.6163	5121.4851	5278.2181	
335.9558	-15696.0446	-1762.8265	0.0000	0.0000
7549.6979	3939.1021	302.0257	-3610.5958	4001.5477
302.0756	-17.2812	-37.0689	656151.2420	3.0822
3.0746				
[3227]ENERGY: 1690000	3163.7459	5052.4784	5292.6217	
323.5012	-15709.4928	-1735.0511	0.0000	0.0000
7552.3241	3940.1276	302.1307	-3612.1965	4000.8985
301.8542	59.4426	60.1142	656151.2420	-1.7278
-1.7065				
[3266]ENERGY: 1700000	3191.1916	5124.6331	5273.2064	
353.8559	-15853.7181	-1697.3141	0.0000	0.0000
7544.5120	3936.3668	301.8182	-3608.1452	4000.1043
301.7626	-10.1117	85.8286	656151.2420	0.4128
0.3948				
[3316]ENERGY: 1710000	3127.1249	5068.2920	5288.0342	
347.4041	-15750.8373	-1744.3936	0.0000	0.0000
7603.7161	3939.3405	304.1867	-3664.3757	4001.0396
302.0366	-49.8446	-42.9743	656151.2420	-0.2132
-0.2184				
[3352]ENERGY: 1720000	3126.6602	5163.1473	5292.1021	
319.3422	-15678.9190	-1803.5738	0.0000	0.0000
7523.7987	3942.5578	300.9896	-3581.2409	4000.9318
301.8903	10.8589	-59.5494	656151.2420	-0.6551
-0.6590				

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[3402]ENERGY: 1730000	3108.2360	5138.9104	5231.6838	
330.0156	-15690.6904	-1749.7300	0.0000	0.0000
7571.6452	3940.0706	302.9037	-3631.5746	4000.6040
301.8414	63.0104	-23.3931	656151.2420	0.8656
0.8995				
[3438]ENERGY: 1740000	3213.9203	5146.3495	5278.9667	
326.1769	-15860.7757	-1691.4216	0.0000	0.0000
7525.3912	3938.6072	301.0533	-3586.7840	3998.6094
301.8913	31.1415	119.4196	656151.2420	0.7338
0.7125				
[3488]ENERGY: 1750000	3132.3752	5145.3628	5306.1793	
356.3386	-15762.7211	-1752.2833	0.0000	0.0000
7511.7498	3937.0012	300.5075	-3574.7485	3999.9086
302.2275	-131.2147	-59.4601	656151.2420	-1.5193
-1.5143				
[3524]ENERGY: 1760000	3145.9480	5155.2912	5295.5878	
326.4194	-15734.9129	-1744.7835	0.0000	0.0000
7496.9322	3940.4823	299.9148	-3556.4499	3999.8810
302.4024	197.7511	106.1376	656151.2420	-0.2241
-0.2166				
[3574]ENERGY: 1770000	3197.3057	5135.9879	5281.3644	
308.6581	-15773.5485	-1762.7478	0.0000	0.0000
7552.9175	3939.9373	302.1545	-3612.9802	4000.4577
302.2942	184.9469	113.7402	656151.2420	-1.4378
-1.4553				
[3610]ENERGY: 1780000	3132.7855	4997.0156	5292.5314	
343.2720	-15701.5724	-1758.2292	0.0000	0.0000
7629.9262	3935.7291	305.2352	-3694.1972	4000.4693
302.2393	-11.9419	-54.6613	656151.2420	3.1372
3.1467				
[3660]ENERGY: 1790000	3183.6371	5101.3534	5269.2453	
345.5131	-15778.1712	-1729.7976	0.0000	0.0000
7547.7068	3939.4868	301.9460	-3608.2199	4001.5487
302.2044	-15.0291	-1.9234	656151.2420	-0.1076
-0.1086				
[3699]ENERGY: 1800000	3143.6471	5126.4161	5238.7519	
302.2961	-15785.7426	-1726.1733	0.0000	0.0000
7641.2813	3940.4765	305.6895	-3700.8047	4000.4445
302.2978	-46.7762	-40.9150	656151.2420	0.7462
0.7357				
[3749]ENERGY: 1810000	3132.6437	5154.3488	5315.1322	
337.1721	-15737.3121	-1720.3776	0.0000	0.0000
7460.5795	3942.1866	298.4605	-3518.3930	4001.2432
302.1240	31.9670	67.9515	656151.2420	-0.9728
-0.9631				
[3785]ENERGY: 1820000	3085.6018	5181.4329	5282.8352	
346.0784	-15770.8122	-1707.4715	0.0000	0.0000
7523.2711	3940.9358	300.9685	-3582.3353	4001.5826
301.9943	42.9772	16.5497	656151.2420	-1.0739
-1.0824				
[3835]ENERGY: 1830000	3101.8102	5187.0989	5284.4175	
336.6790	-15767.2198	-1738.4440	0.0000	0.0000
7532.6399	3936.9816	301.3433	-3595.6583	4001.8322
302.0236	19.7647	28.5755	656151.2420	1.6970

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1.6971
 [3871]ENERGY: 1840000 3146.5383 5141.3499 5296.0111
 334.9195 -15782.7768 -1745.8729 0.0000 0.0000
 7547.4468 3937.6159 301.9356 -3609.8310 4000.5194
 301.9513 -72.0605 -122.0535 656151.2420 -2.5316
 -2.5177
 [3921]ENERGY: 1850000 3206.9136 5079.0581 5284.7830
 336.5049 -15798.1807 -1748.0134 0.0000 0.0000
 7576.7771 3937.8425 303.1090 -3638.9347 4000.9887
 301.9462 12.9131 1.8567 656151.2420 1.8899
 1.8934
 [3957]ENERGY: 1860000 3123.2590 5142.7743 5264.8005
 349.7420 -15727.0407 -1717.3945 0.0000 0.0000
 7507.8548 3943.9953 300.3517 -3563.8595 4001.7217
 301.9549 65.2586 -1.1913 656151.2420 1.9537
 1.9553
 [4007]ENERGY: 1870000 3115.3578 5114.6111 5287.5377
 336.8478 -15793.5390 -1663.2392 0.0000 0.0000
 7540.9963 3938.5726 301.6776 -3602.4237 4000.5055
 301.8869 104.3655 51.3044 656151.2420 -2.5125
 -2.5263
 [4043]ENERGY: 1880000 3186.9140 5095.8429 5267.0836
 353.1228 -15732.9651 -1747.6919 0.0000 0.0000
 7515.4462 3937.7525 300.6554 -3577.6937 4000.7413
 302.1046 86.1644 84.8527 656151.2420 0.0208
 0.0303
 [4093]ENERGY: 1890000 3161.6146 5182.8796 5256.8276
 338.0380 -15800.5753 -1678.5428 0.0000 0.0000
 7478.8446 3939.0862 299.1912 -3539.7584 4001.5415
 302.1529 -48.7557 14.5006 656151.2420 0.1560
 0.1603
 [4132]ENERGY: 1900000 3174.8723 5121.8920 5234.3643
 308.8725 -15682.8963 -1773.7065 0.0000 0.0000
 7556.0986 3939.4969 302.2817 -3616.6016 4002.0940
 302.1280 -195.7344 -135.7212 656151.2420 0.5689
 0.5675
 [4182]ENERGY: 1910000 3168.1697 5000.4033 5269.3314
 334.4816 -15613.5654 -1770.4835 0.0000 0.0000
 7557.4083 3945.7455 302.3341 -3611.6628 4001.9160
 301.9811 -95.3639 -108.6229 656151.2420 -0.2399
 -0.2396
 [4218]ENERGY: 1920000 3166.7697 5245.3643 5277.5496
 335.7481 -15764.5760 -1798.9838 0.0000 0.0000
 7481.5904 3943.4623 299.3010 -3538.1281 4002.9538
 302.0675 -91.3368 -57.9696 656151.2420 1.0369
 1.0219
 [4268]ENERGY: 1930000 3136.1754 5103.6423 5327.0137
 358.9530 -15720.5233 -1792.6431 0.0000 0.0000
 7527.3869 3940.0050 301.1331 -3587.3819 4003.3573
 302.1214 -14.4507 39.7001 656151.2420 -0.3912
 -0.3857
 [4304]ENERGY: 1940000 3142.9184 5148.1692 5282.7945
 349.2916 -15691.8603 -1806.1295 0.0000 0.0000
 7515.7389 3940.9229 300.6671 -3574.8160 4002.9513

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302.0691	-76.7266	-32.2486	656151.2420	0.6723
0.6759				
[4354]ENERGY: 1950000	3180.7617	5114.9695	5304.4261	
338.9161	-15774.5928	-1738.4698	0.0000	0.0000
7515.9315	3941.9425	300.6748	-3573.9890	4004.0787
302.0653	-48.4588	-113.1975	656151.2420	-2.1968
-2.2072				
[4390]ENERGY: 1960000	3104.7124	5105.4622	5272.6698	
334.8431	-15769.1157	-1674.9850	0.0000	0.0000
7570.8988	3944.4857	302.8738	-3626.4131	4001.9747
301.9607	96.9628	151.0964	656151.2420	-0.3070
-0.2738				
[4440]ENERGY: 1970000	3184.5432	5054.4733	5237.5538	
348.3751	-15762.4625	-1714.4691	0.0000	0.0000
7593.3474	3941.3613	303.7719	-3651.9861	4001.7694
301.8936	-116.6191	-67.9287	656151.2420	0.0781
0.0657				
[4476]ENERGY: 1980000	3098.5690	5218.3547	5271.0912	
341.9321	-15768.6169	-1751.0248	0.0000	0.0000
7530.4679	3940.7733	301.2564	-3589.6946	4001.1852
302.1833	-24.4965	-42.8394	656151.2420	-0.0532
-0.0653				
[4526]ENERGY: 1990000	3129.6986	5151.7789	5244.8073	
326.4080	-15742.9989	-1749.6387	0.0000	0.0000
7582.1132	3942.1682	303.3224	-3639.9450	4001.1861
302.0410	-63.6983	11.3554	656151.2420	0.6181
0.6311				
[4565]ENERGY: 2000000	3210.1056	5070.2962	5324.5510	
339.6444	-15818.2580	-1752.7236	0.0000	0.0000
7566.9096	3940.5252	302.7142	-3626.3844	3999.8689
302.1343	-61.5178	-72.9907	656151.2420	2.1028
2.0890				
[4615]ENERGY: 2010000	3131.2707	5026.3245	5258.6605	
329.3715	-15750.9094	-1699.0321	0.0000	0.0000
7642.6725	3938.3582	305.7451	-3704.3143	4001.0238
302.2061	27.9115	13.3034	656151.2420	-2.4936
-2.5037				
[4651]ENERGY: 2020000	3090.1899	5112.8239	5264.0030	
338.6124	-15700.5807	-1738.5783	0.0000	0.0000
7573.5934	3940.0635	302.9816	-3633.5299	4001.9368
302.2342	67.8924	24.8182	656151.2420	1.1845
1.1967				
[4701]ENERGY: 2030000	3123.6371	5106.6571	5220.8829	
340.1108	-15768.6231	-1629.8818	0.0000	0.0000
7550.1303	3942.9135	302.0430	-3607.2168	4001.2705
302.1750	116.9326	85.8052	656151.2420	-1.7287
-1.7383				
[4737]ENERGY: 2040000	3091.8154	5077.0325	5232.8556	
303.7594	-15717.8531	-1729.6347	0.0000	0.0000
7678.6244	3936.5994	307.1834	-3742.0250	4002.1427
302.2457	-8.7319	-49.7137	656151.2420	1.6215
1.6259				
[4787]ENERGY: 2050000	3087.1063	5048.9859	5269.3534	
322.1354	-15692.1594	-1765.9525	0.0000	0.0000

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7668.4550	3937.9240	306.7765	-3730.5311	4002.2427
302.1353	11.8708	9.4098	656151.2420	-1.3037
-1.2935				
[4823]ENERGY: 2060000	3160.6188	5128.1176	5244.3893	
302.0829	-15768.2646	-1751.5010	0.0000	0.0000
7626.9027	3942.3456	305.1142	-3684.5571	4003.4570
302.1508	-19.5915	-43.2914	656151.2420	0.3603
0.3524				
[4873]ENERGY: 2070000	3066.4038	5207.4369	5204.1679	
335.3907	-15657.8547	-1757.4362	0.0000	0.0000
7541.4162	3939.5246	301.6944	-3601.8916	4002.5081
302.0451	92.7479	36.8650	656151.2420	0.7586
0.7569				
[4909]ENERGY: 2080000	3168.8348	5118.1974	5228.4351	
327.9501	-15717.2629	-1742.3616	0.0000	0.0000
7556.3307	3940.1236	302.2910	-3616.2071	4001.9765
302.4393	-99.4729	-96.0981	656151.2420	0.7462
0.7498				
[4959]ENERGY: 2090000	3118.8735	5158.9874	5172.7596	
329.6900	-15799.9147	-1736.3970	0.0000	0.0000
7693.2342	3937.2330	307.7678	-3756.0013	4002.4175
302.4963	148.8438	117.7937	656151.2420	-1.3021
-1.3147				
[4998]ENERGY: 2100000	3195.5487	5196.4897	5260.8943	
357.1556	-15812.8926	-1718.1172	0.0000	0.0000
7463.7137	3942.7921	298.5859	-3520.9215	4001.2607
302.4630	-170.5126	-89.2159	656151.2420	1.9025
1.8977				
[5048]ENERGY: 2110000	3175.0792	5198.0966	5245.5446	
336.1280	-15771.6011	-1687.8208	0.0000	0.0000
7449.8417	3945.2682	298.0309	-3504.5735	4002.1054
302.4458	200.4947	196.4669	656151.2420	-2.2332
-2.1989				
[5084]ENERGY: 2120000	3176.2410	5102.3133	5254.2555	
333.5848	-15704.8117	-1770.1943	0.0000	0.0000
7548.4873	3939.8758	301.9772	-3608.6115	4002.5655
302.6341	-75.3028	-74.6976	656151.2420	0.5149
0.4943				
[5134]ENERGY: 2130000	3203.2909	5087.0059	5270.4374	
314.1177	-15705.7795	-1833.4998	0.0000	0.0000
7604.9765	3940.5491	304.2371	-3664.4274	4003.4630
302.6250	-154.8311	-108.2528	656151.2420	-0.2428
-0.2263				
[5170]ENERGY: 2140000	3210.5659	5162.2971	5241.4636	
319.6246	-15748.5103	-1796.1818	0.0000	0.0000
7553.1185	3942.3776	302.1625	-3610.7409	4002.2086
302.6207	-88.0895	-98.3808	656151.2420	0.5678
0.5489				
[5220]ENERGY: 2150000	3099.4997	5110.3384	5234.8120	
342.0024	-15718.6486	-1722.6660	0.0000	0.0000
7595.2076	3940.5456	303.8463	-3654.6620	4002.5330
302.6421	148.5102	11.9985	656151.2420	-0.9109
-0.9114				
[5256]ENERGY: 2160000	3246.2360	5137.1389	5242.2220	

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323.4080	-15734.2783	-1773.5761	0.0000	0.0000
7498.5196	3939.6700	299.9783	-3558.8496	4004.3197
302.6532	-52.2991	-69.8987	656151.2420	0.3117
0.3270				
[5306]ENERGY: 2170000	3226.2762	5202.4087	5190.6034	
318.2896	-15765.7604	-1760.3025	0.0000	0.0000
7530.4237	3941.9388	301.2546	-3588.4849	4002.5784
302.6050	-15.3734	-108.0749	656151.2420	0.6718
0.6418				
[5342]ENERGY: 2180000	3089.0484	5189.6619	5256.2904	
326.3850	-15802.9253	-1750.9074	0.0000	0.0000
7629.2714	3936.8245	305.2090	-3692.4469	4003.2569
302.7941	66.7716	16.3292	656151.2420	-1.6804
-1.6754				
[5392]ENERGY: 2190000	3195.5020	5042.5912	5216.9565	
325.1379	-15757.6534	-1736.8358	0.0000	0.0000
7654.3468	3940.0454	306.2121	-3714.3015	4003.3395
302.6053	-102.3698	-106.6809	656151.2420	1.7577
1.7756				
[5431]ENERGY: 2200000	3205.4792	5202.5705	5230.0297	
337.7623	-15852.4070	-1680.1632	0.0000	0.0000
7500.7259	3943.9972	300.0665	-3556.7287	4002.8657
302.7850	69.1633	75.9002	656151.2420	0.6337
0.6290				
[5481]ENERGY: 2210000	3195.1925	5177.3236	5201.3621	
346.6085	-15737.5368	-1728.7476	0.0000	0.0000
7490.5180	3944.7202	299.6582	-3545.7977	4002.8968
302.7125	-21.9702	-33.7878	656151.2420	-0.7592
-0.7667				
[5517]ENERGY: 2220000	3141.1278	5156.9512	5210.4246	
343.4263	-15752.3167	-1712.9392	0.0000	0.0000
7555.0902	3941.7642	302.2414	-3613.3260	4002.9805
302.5024	136.2451	54.9678	656151.2420	-1.5597
-1.5559				
[5567]ENERGY: 2230000	3257.6442	5172.1769	5237.0479	
350.6302	-15811.7204	-1801.1296	0.0000	0.0000
7534.7153	3939.3645	301.4263	-3595.3508	4003.2787
302.6077	-89.5324	-157.9186	656151.2420	0.3523
0.3361				
[5603]ENERGY: 2240000	3177.1449	5115.4621	5224.9256	
341.2695	-15817.9337	-1657.3671	0.0000	0.0000
7557.1383	3940.6395	302.3233	-3616.4988	4002.7007
302.6586	102.6752	29.3581	656151.2420	-3.7356
-3.7255				
[5653]ENERGY: 2250000	3132.8800	5165.2777	5295.0537	
331.3875	-15802.8227	-1716.5587	0.0000	0.0000
7538.6374	3943.8549	301.5832	-3594.7825	4004.0015
303.4477	28.2203	-8.3677	656151.2420	-2.0371
-2.0295				
[5689]ENERGY: 2260000	3108.4819	5086.1812	5259.3758	
350.4885	-15760.2797	-1762.7710	0.0000	0.0000
7657.1185	3938.5952	306.3230	-3718.5233	4004.4651
303.3032	24.8646	48.2427	656151.2420	-12.1146
-12.1047				

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[5739]ENERGY: 2270000	3134.7698	5097.7581	5227.3242	
322.5484	-15804.2229	-1702.7994	0.0000	0.0000
7663.6234	3939.0016	306.5833	-3724.6219	4003.7310
303.3342	101.0289	101.6134	656151.2420	-20.1282
-20.1401				
[5775]ENERGY: 2280000	3207.3796	5117.4534	5228.3865	
338.4008	-15780.1046	-1748.0418	0.0000	0.0000
7582.6121	3946.0859	303.3424	-3636.5261	4004.5158
303.5390	10.9608	-63.0946	656151.2420	-8.1724
-8.1694				
[5825]ENERGY: 2290000	3166.9422	5222.8530	5230.2281	
323.4173	-15735.8819	-1802.1102	0.0000	0.0000
7539.9213	3945.3698	301.6345	-3594.5515	4003.5398
303.5616	-91.3545	-27.4800	656151.2420	-11.6930
-11.6978				
[5864]ENERGY: 2300000	3254.1805	5191.4367	5228.5185	
353.8740	-15921.8516	-1750.5822	0.0000	0.0000
7585.7341	3941.3101	303.4673	-3644.4240	4003.8028
303.4788	-50.7503	-30.3028	656151.2420	-14.9534
-14.9444				
[5914]ENERGY: 2310000	3062.2500	5209.6856	5218.4696	
337.7124	-15781.2385	-1765.6821	0.0000	0.0000
7656.8660	3938.0630	306.3129	-3718.8029	4002.4446
303.5187	114.1866	135.6266	656151.2420	-10.9785
-10.9736				
[5950]ENERGY: 2320000	3278.6750	5198.1663	5239.0918	
332.6940	-15935.5081	-1732.3540	0.0000	0.0000
7561.1984	3941.9635	302.4857	-3619.2349	4003.5019
303.3314	-134.3948	-99.7047	656151.2420	-16.1806
-16.1953				
[6000]ENERGY: 2330000	3150.5684	5114.7155	5243.3964	
345.2353	-15766.9428	-1742.8458	0.0000	0.0000
7596.7456	3940.8725	303.9078	-3655.8730	4002.8330
303.5670	-29.9106	-29.0853	656151.2420	-6.1073
-6.0953				
[6036]ENERGY: 2340000	3085.6990	5187.8735	5311.5634	
334.4501	-15705.8098	-1785.8649	0.0000	0.0000
7513.0395	3940.9508	300.5591	-3572.0887	4003.6437
303.7054	-13.3238	-55.7282	656151.2420	-15.4372
-15.4374				
[6086]ENERGY: 2350000	3108.0777	5214.8109	5215.5118	
315.3994	-15793.2455	-1730.4779	0.0000	0.0000
7608.4945	3938.5709	304.3778	-3669.9236	4002.7987
303.4817	-145.4004	-153.7805	656151.2420	-11.3612
-11.3585				
[6122]ENERGY: 2360000	3139.3696	5234.5458	5238.3699	
349.1377	-15724.2268	-1781.4766	0.0000	0.0000
7488.4101	3944.1298	299.5738	-3544.2803	4002.8815
303.4674	19.3285	-1.0628	656151.2420	-9.8396
-9.8481				
[6172]ENERGY: 2370000	3140.1914	5132.9616	5242.9826	
321.3774	-15735.5593	-1732.4172	0.0000	0.0000
7574.4716	3944.0082	303.0167	-3630.4634	4001.6703
303.6291	-35.3803	56.1541	656151.2420	-10.1125

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-10.1148
 [6208]ENERGY: 2380000 3149.2437 5222.6201 5259.3151
 330.2510 -15867.3046 -1702.4582 0.0000 0.0000
 7548.7959 3940.4629 301.9896 -3608.3330 4001.1655
 303.6890 100.4501 33.9899 656151.2420 -11.0325
 -11.0225
 [6258]ENERGY: 2390000 3158.7909 5213.5435 5279.9211
 300.7634 -15799.6795 -1759.5115 0.0000 0.0000
 7550.7325 3944.5604 302.0671 -3606.1721 4002.7922
 303.7253 146.5380 43.1227 656151.2420 -13.5642
 -13.5850
 [6297]ENERGY: 2400000 3249.7838 5208.1729 5278.4430
 315.6764 -15882.7624 -1743.6652 0.0000 0.0000
 7516.2446 3941.8930 300.6874 -3574.3516 4002.0714
 303.7689 102.7185 64.0213 656151.2420 -19.9847
 -19.9776
 [6347]ENERGY: 2410000 3203.1306 5111.4271 5253.8155
 348.9482 -15687.8630 -1906.9561 0.0000 0.0000
 7619.3232 3941.8254 304.8110 -3677.4978 4002.8606
 303.8017 -49.4767 -138.3456 656151.2420 -19.5819
 -19.5801
 [6383]ENERGY: 2420000 3132.3158 5058.5118 5224.1339
 350.7016 -15743.4411 -1713.9505 0.0000 0.0000
 7631.8728 3940.1442 305.3131 -3691.7286 4000.8728
 303.7666 182.0528 128.6366 656151.2420 -16.8757
 -16.8642
 [6433]ENERGY: 2430000 3184.9268 5197.4857 5292.5949
 352.7490 -15889.4619 -1770.8176 0.0000 0.0000
 7575.5199 3942.9969 303.0587 -3632.5230 4003.0005
 303.7374 -9.7919 -63.2916 656151.2420 -20.6712
 -20.6784
 [6469]ENERGY: 2440000 3107.2641 5173.1274 5308.1244
 344.3945 -15916.7077 -1652.5700 0.0000 0.0000
 7579.6692 3943.3019 303.2247 -3636.3674 4003.0043
 303.7920 167.6702 82.7078 656151.2420 -17.9965
 -18.0117
 [6519]ENERGY: 2450000 3065.6582 5116.8449 5321.4641
 331.4253 -15803.7558 -1705.2531 0.0000 0.0000
 7615.9895 3942.3732 304.6777 -3673.6163 4003.2039
 303.7460 40.6605 -26.4443 656151.2420 -14.4294
 -14.4196
 [6555]ENERGY: 2460000 3135.9717 5217.5639 5279.2644
 334.0823 -15796.8327 -1826.6376 0.0000 0.0000
 7598.9765 3942.3885 303.9971 -3656.5880 4003.5086
 303.7907 70.9342 -16.8022 656151.2420 -19.8021
 -19.8043
 [6605]ENERGY: 2470000 3167.0493 5217.6431 5269.6632
 321.7337 -15902.7376 -1743.1261 0.0000 0.0000
 7611.4780 3941.7036 304.4972 -3669.7744 4002.0636
 303.9245 7.2189 41.6153 656151.2420 -18.0422
 -18.0274
 [6641]ENERGY: 2480000 3189.0556 5114.5316 5221.1582
 357.2565 -15769.9154 -1757.1686 0.0000 0.0000
 7585.9946 3940.9125 303.4777 -3645.0821 4003.0902

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303.8463	-42.6548	-82.5761	656151.2420	-20.6323
-20.6421				
[6691]ENERGY: 2490000	3121.8998	5279.8720	5274.7923	
312.2904	-15757.3986	-1787.9173	0.0000	0.0000
7501.5423	3945.0809	300.0992	-3556.4614	4002.5714
303.7346	41.5317	8.5729	656151.2420	-16.7883
-16.7808				
[6730]ENERGY: 2500000	3155.3811	5103.7586	5240.2491	
309.6914	-15683.6101	-1766.7566	0.0000	0.0000
7584.6672	3943.3807	303.4246	-3641.2864	4003.4966
303.6752	-9.4746	4.5628	656151.2420	-14.3410
-14.3428				
[6780]ENERGY: 2510000	3100.2506	5239.6014	5238.5357	
333.6457	-15801.8293	-1779.8353	0.0000	0.0000
7612.4602	3942.8290	304.5365	-3669.6312	4002.8669
303.8739	60.8943	101.4629	656151.2420	-16.1407
-16.1483				
[6816]ENERGY: 2520000	3282.4376	5214.9810	5211.5000	
323.2964	-15799.7360	-1866.2596	0.0000	0.0000
7576.9389	3943.1584	303.1154	-3633.7805	4001.8454
303.9822	-253.3885	-219.3876	656151.2420	-15.9081
-15.8857				
[6866]ENERGY: 2530000	3190.2924	5109.3753	5249.8790	
340.3672	-15756.9765	-1833.5259	0.0000	0.0000
7641.0894	3940.5009	305.6818	-3700.5885	4003.3073
303.9390	11.3449	-23.2533	656151.2420	-15.9548
-15.9712				
[6902]ENERGY: 2540000	3160.7817	5152.4038	5266.7623	
319.5078	-15720.7839	-1818.7770	0.0000	0.0000
7579.5306	3939.4252	303.2191	-3640.1054	4003.6855
304.0137	89.6818	30.3302	656151.2420	-19.9455
-19.9406				
[6952]ENERGY: 2550000	3103.2927	5254.2276	5250.1213	
343.0612	-15851.4015	-1774.5763	0.0000	0.0000
7617.9324	3942.6574	304.7554	-3675.2750	4004.2081
304.0696	-76.3393	-61.2962	656151.2420	-14.2384
-14.2349				
[6988]ENERGY: 2560000	3098.8388	5158.4779	5256.9361	
335.8229	-15763.2944	-1821.8213	0.0000	0.0000
7674.5151	3939.4752	307.0190	-3735.0399	4003.1940
303.9632	-31.7193	-0.8599	656151.2420	-20.5145
-20.5235				
[7038]ENERGY: 2570000	3128.5483	5176.2264	5236.3031	
348.0838	-15768.0370	-1777.9152	0.0000	0.0000
7595.6255	3938.8349	303.8630	-3656.7906	4003.6738
303.7942	148.7436	86.7086	656151.2420	-15.5015
-15.5091				
[7074]ENERGY: 2580000	3175.3071	5187.0035	5282.3779	
351.9794	-15821.8028	-1783.9781	0.0000	0.0000
7552.8407	3943.7278	302.1514	-3609.1129	4004.0228
303.7480	90.0577	18.8843	656151.2420	-15.9034
-15.8987				
[7124]ENERGY: 2590000	3128.5811	5229.1024	5247.5452	
357.0105	-15824.0957	-1830.1000	0.0000	0.0000

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7632.1215	3940.1650	305.3230	-3691.9565	4002.7828
303.7871	2.6263	-44.7818	656151.2420	-15.4872
-15.4700				
[7163]ENERGY: 2600000	3161.7352	5188.8594	5237.1707	
333.2387	-15855.0819	-1701.0485	0.0000	0.0000
7576.9092	3941.7828	303.1143	-3635.1264	4002.8916
303.6752	127.3027	111.6301	656151.2420	-17.4887
-17.5051				
[7213]ENERGY: 2610000	3161.2003	5162.1648	5270.5169	
322.1879	-15766.4269	-1748.7574	0.0000	0.0000
7539.8110	3940.6966	301.6301	-3599.1144	4002.2854
303.7699	-17.5688	4.1711	656151.2420	-18.2021
-18.2096				
[7249]ENERGY: 2620000	3152.7857	5190.0596	5284.1066	
339.4255	-15778.1075	-1777.7486	0.0000	0.0000
7536.8742	3947.3956	301.5127	-3589.4787	4003.3716
303.7440	84.2294	9.4900	656151.2420	-20.3405
-20.3279				
[7299]ENERGY: 2630000	3210.0399	5128.4339	5248.2915	
339.4770	-15751.7212	-1790.3507	0.0000	0.0000
7556.5632	3940.7337	302.3003	-3615.8295	4001.3485
303.8169	-77.1483	-94.3878	656151.2420	-19.4171
-19.4068				
[7335]ENERGY: 2640000	3112.1294	5165.3137	5286.5112	
348.4694	-15742.5554	-1806.9531	0.0000	0.0000
7577.1731	3940.0883	303.1248	-3637.0848	4002.2308
303.7017	-137.2808	-105.6673	656151.2420	-18.2698
-18.2709				
[7385]ENERGY: 2650000	3031.7110	5226.9504	5249.9020	
338.3445	-15688.9801	-1786.5798	0.0000	0.0000
7571.6118	3942.9598	302.9023	-3628.6520	4001.3067
303.8751	-66.1988	-43.3419	656151.2420	-18.1531
-18.1553				
[7421]ENERGY: 2660000	3090.9894	5236.3353	5216.1025	
341.4232	-15866.9141	-1746.6802	0.0000	0.0000
7667.8310	3939.0872	306.7516	-3728.7438	4001.4058
303.7877	-15.9562	-9.8661	656151.2420	-13.7924
-13.7870				
[7471]ENERGY: 2670000	3152.7300	5177.9650	5229.5321	
344.3152	-15785.9299	-1798.8445	0.0000	0.0000
7618.4911	3938.2590	304.7777	-3680.2321	4001.6827
303.7519	-46.6472	-75.0376	656151.2420	-21.7012
-21.7127				
[7507]ENERGY: 2680000	3111.8205	5188.2269	5268.0587	
329.5929	-15737.9934	-1784.7718	0.0000	0.0000
7565.4690	3940.4029	302.6566	-3625.0661	4002.6846
303.8955	-50.6914	-21.6951	656151.2420	-13.3678
-13.3748				
[7557]ENERGY: 2690000	3173.6798	5170.6171	5218.0916	
347.7057	-15765.0042	-1764.8302	0.0000	0.0000
7562.4441	3942.7039	302.5356	-3619.7402	4004.2125
303.6710	210.4740	33.8848	656151.2420	-21.1352
-21.1194				
[7596]ENERGY: 2700000	3109.0230	5176.0979	5237.5329	

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336.3589	-15813.1026	-1798.7137	0.0000	0.0000
7692.2478	3939.4443	307.7284	-3752.8035	4002.3716
303.5183	5.2784	-57.2415	656151.2420	-13.8440
-13.8619				
[7646]ENERGY: 2710000	3228.3691	5217.8505	5238.0560	
337.9008	-15840.6239	-1768.5375	0.0000	0.0000
7527.9274	3940.9423	301.1547	-3586.9851	4001.2441
303.6083	0.6940	17.6192	656151.2420	-21.9489
-21.9448				
[7682]ENERGY: 2720000	3121.9174	5230.9762	5303.7744	
333.8166	-15853.8276	-1744.2880	0.0000	0.0000
7547.6899	3940.0590	301.9453	-3607.6310	4001.7809
303.9750	-103.9768	-29.8602	656151.2420	-17.4003
-17.3935				
[7732]ENERGY: 2730000	3120.6795	5184.4515	5267.9106	
341.4438	-15765.6391	-1815.4895	0.0000	0.0000
7608.6936	3942.0503	304.3858	-3666.6433	4002.5566
303.9160	-43.7655	-52.7125	656151.2420	-15.2256
-15.2365				
[7768]ENERGY: 2740000	3199.8684	5283.8089	5261.5657	
344.8194	-15946.7476	-1797.5971	0.0000	0.0000
7594.5873	3940.3051	303.8215	-3654.2822	4002.1771
303.9965	-15.6775	-143.1812	656151.2420	-20.6918
-20.6952				
[7818]ENERGY: 2750000	3104.5966	5250.6541	5261.0432	
340.9119	-15791.2532	-1775.9701	0.0000	0.0000
7547.1391	3937.1215	301.9233	-3610.0176	4001.6878
303.9062	-37.1344	-72.4468	656151.2420	-17.7211
-17.7136				
[7854]ENERGY: 2760000	3098.6399	5136.0499	5278.3749	
337.2294	-15794.1598	-1744.5766	0.0000	0.0000
7628.0985	3939.6563	305.1621	-3688.4422	4002.1685
303.9198	-18.4339	-15.8414	656151.2420	-19.3517
-19.3569				
[7904]ENERGY: 2770000	3149.2592	5112.6775	5305.7957	
328.2712	-15822.2763	-1782.7605	0.0000	0.0000
7649.0326	3939.9993	305.9995	-3709.0333	4003.2665
303.9358	-74.5953	-17.1102	656151.2420	-17.7554
-17.7448				
[7940]ENERGY: 2780000	3234.8720	5162.7446	5306.3520	
328.9194	-15896.8258	-1794.0529	0.0000	0.0000
7597.6254	3939.6347	303.9430	-3657.9907	4004.0251
303.9446	-34.7951	23.2730	656151.2420	-20.3506
-20.3532				
[7990]ENERGY: 2790000	3128.8725	5236.1486	5252.3445	
346.1051	-15834.0108	-1750.9226	0.0000	0.0000
7563.1002	3941.6374	302.5618	-3621.4628	4005.3672
304.0093	-112.8641	-106.5476	656151.2420	-17.5085
-17.5166				
[8029]ENERGY: 2800000	3163.7388	5178.5958	5263.8565	
338.1367	-15789.1605	-1792.2651	0.0000	0.0000
7580.7415	3943.6437	303.2676	-3637.0978	4005.4075
304.1312	-77.5625	-79.4347	656151.2420	-25.3907
-25.3666				

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[8079]ENERGY: 2810000	3183.2179	5209.9740	5229.6786	
342.5530	-15853.9634	-1751.5280	0.0000	0.0000
7582.8752	3942.8073	303.3529	-3640.0679	4003.1202
304.1292	-20.9462	-34.7495	656151.2420	-15.8699
-15.8984				
[8115]ENERGY: 2820000	3125.2497	5165.8880	5305.4875	
339.5760	-15878.6984	-1723.8466	0.0000	0.0000
7609.4976	3943.1538	304.4179	-3666.3438	4004.2314
304.0037	104.6584	67.6635	656151.2420	-19.6327
-19.6090				
[8165]ENERGY: 2830000	3119.1781	5218.9876	5281.0918	
316.9236	-15766.2603	-1836.7912	0.0000	0.0000
7609.4737	3942.6032	304.4170	-3666.8705	4005.0417
304.1939	50.0102	14.3450	656151.2420	-17.5944
-17.6130				
[8201]ENERGY: 2840000	3183.6770	5189.1199	5252.5498	
345.7999	-15832.5839	-1781.6495	0.0000	0.0000
7585.3786	3942.2917	303.4531	-3643.0868	4003.9008
304.1160	63.7558	87.9742	656151.2420	-21.2763
-21.2772				
[8251]ENERGY: 2850000	3151.8200	5220.3432	5228.9708	
328.9897	-15694.4697	-1820.9086	0.0000	0.0000
7528.1828	3942.9283	301.1650	-3585.2545	4003.6926
304.2162	-85.1667	-108.8215	656151.2420	-19.8479
-19.8391				
[8287]ENERGY: 2860000	3075.5606	5287.2606	5260.3527	
348.4361	-15806.3242	-1805.9678	0.0000	0.0000
7582.4722	3941.7902	303.3368	-3640.6820	4004.5437
304.1993	-179.0917	-185.0232	656151.2420	-18.2880
-18.2935				
[8337]ENERGY: 2870000	3133.1266	5228.3307	5313.4445	
345.7975	-15857.4392	-1832.0681	0.0000	0.0000
7609.1598	3940.3518	304.4044	-3668.8080	4003.5120
304.1905	-5.2162	-14.4162	656151.2420	-17.3997
-17.3949				
[8373]ENERGY: 2880000	3138.5263	5216.0475	5264.4696	
359.4606	-15849.0313	-1858.3752	0.0000	0.0000
7673.4707	3944.5681	306.9772	-3728.9025	4004.7777
304.3642	39.5829	-47.3414	656151.2420	-23.2737
-23.2705				
[8423]ENERGY: 2890000	3142.7367	5162.2737	5276.2075	
354.8350	-15811.0865	-1754.3176	0.0000	0.0000
7575.3925	3946.0414	303.0536	-3629.3511	4004.4364
304.2929	95.7400	-7.4502	656151.2420	-23.1872
-23.1874				
[8462]ENERGY: 2900000	3219.3661	5109.6922	5229.6222	
325.1670	-15789.8065	-1740.0045	0.0000	0.0000
7592.5650	3946.6014	303.7406	-3645.9636	4004.7395
304.2761	-97.2347	-121.7193	656151.2420	-25.3448
-25.3579				
[8512]ENERGY: 2910000	3157.5266	5162.6146	5295.8457	
332.4922	-15753.0171	-1771.1948	0.0000	0.0000
7520.3560	3944.6232	300.8518	-3575.7328	4005.0591
304.4839	13.1720	18.1564	656151.2420	-22.2292

Supplementary Text 6

-22.2188
 [8548]ENERGY: 2920000 3171.3089 5224.2457 5243.0699
 358.7529 -15840.2378 -1799.7551 0.0000 0.0000
 7587.0830 3944.4674 303.5213 -3642.6156 4005.0611
 304.6044 151.7954 38.0286 656151.2420 -25.9874
 -25.9876
 [8598]ENERGY: 2930000 3128.0475 5121.6787 5265.7409
 338.0178 -15793.9484 -1769.9579 0.0000 0.0000
 7654.4885 3944.0671 306.2178 -3710.4215 4004.6565
 304.7949 87.3450 5.4850 656151.2420 -21.5313
 -21.5464
 [8634]ENERGY: 2940000 3239.5991 5229.1966 5243.1191
 335.0239 -15799.2715 -1901.6627 0.0000 0.0000
 7602.6674 3948.6719 304.1447 -3653.9955 4005.1815
 304.6016 -36.0834 -129.0893 656151.2420 -25.9267
 -25.9192
 [8684]ENERGY: 2950000 3235.4086 5137.0305 5301.9087
 345.4041 -15829.9429 -1811.3068 0.0000 0.0000
 7566.2456 3944.7477 302.6877 -3621.4979 4006.0155
 304.6801 -44.6056 -110.0614 656151.2420 -22.5881
 -22.5892
 [8720]ENERGY: 2960000 3083.0649 5148.0275 5254.8404
 348.3278 -15814.2348 -1747.1175 0.0000 0.0000
 7668.6440 3941.5523 306.7841 -3727.0917 4004.5556
 304.6340 -73.8493 7.9033 656151.2420 -18.1994
 -18.1838
 [8770]ENERGY: 2970000 3135.8677 5224.4857 5296.6328
 345.9954 -15905.3113 -1750.5517 0.0000 0.0000
 7594.1109 3941.2294 303.8024 -3652.8815 4003.8693
 304.5384 3.5529 21.7688 656151.2420 -20.9048
 -20.9167
 [8806]ENERGY: 2980000 3157.2791 5128.6791 5259.0466
 342.7465 -15802.1401 -1795.2120 0.0000 0.0000
 7652.9000 3943.2991 306.1543 -3709.6009 4005.6849
 304.5442 -10.4127 -115.1732 656151.2420 -21.8267
 -21.8194
 [8856]ENERGY: 2990000 3164.3028 5180.4661 5236.6191
 321.6603 -15754.2819 -1853.6283 0.0000 0.0000
 7645.2817 3940.4199 305.8495 -3704.8618 4004.4382
 304.5397 -64.3728 -23.8583 656151.2420 -25.1738
 -25.1848
 [8895]ENERGY: 3000000 3134.8832 5218.4065 5259.6314
 336.8943 -15933.9696 -1678.6961 0.0000 0.0000
 7607.8932 3945.0430 304.3538 -3662.8502 4005.8767
 304.7237 28.3086 -4.0991 656151.2420 -21.8323
 -21.8199
 [8945]ENERGY: 3010000 3160.6014 5219.2792 5242.7626
 352.0568 -15750.5580 -1872.8142 0.0000 0.0000
 7593.6617 3944.9896 303.7844 -3648.6721 4006.2033
 304.7521 41.9357 -23.1044 656151.2420 -24.4170
 -24.4231
 [8981]ENERGY: 3020000 3188.4412 5165.6502 5238.9643
 343.7717 -15812.6145 -1763.8886 0.0000 0.0000
 7584.5025 3944.8268 303.4180 -3639.6756 4004.6680

Supplementary Text 6

304.6855	-61.1477	-29.5183	656151.2420	-23.6071
-23.6029				
[9031]ENERGY: 3030000	3118.1301	5233.5350	5296.0174	
319.8208	-15831.6642	-1790.7044	0.0000	0.0000
7599.7872	3944.9219	304.0295	-3654.8654	4005.5882
304.8308	41.1903	-17.0207	656151.2420	-24.6970
-24.7030				
[9067]ENERGY: 3040000	3096.9864	5229.3026	5246.4710	
342.0724	-15854.5073	-1703.9873	0.0000	0.0000
7584.8251	3941.1629	303.4309	-3643.6622	4004.1902
304.5336	99.1074	97.0211	656151.2420	-26.9289
-26.9247				
[9117]ENERGY: 3050000	3246.4243	5111.6412	5225.2778	
339.5582	-15803.5045	-1766.0431	0.0000	0.0000
7590.7182	3944.0721	303.6667	-3646.6460	4005.2672
304.7237	23.2243	-43.0094	656151.2420	-23.8052
-23.8167				
[9153]ENERGY: 3060000	3174.7673	5149.3063	5302.3156	
353.1017	-15947.7908	-1732.4740	0.0000	0.0000
7645.0015	3944.2276	305.8383	-3700.7739	4005.3926
304.7286	89.8061	67.8715	656151.2420	-23.6110
-23.6002				
[9203]ENERGY: 3070000	3154.3175	5137.5228	5286.0394	
335.8543	-15825.1108	-1758.2165	0.0000	0.0000
7615.1390	3945.5457	304.6436	-3669.5933	4006.7130
304.7561	75.6916	76.4573	656151.2420	-22.5864
-22.5824				
[9239]ENERGY: 3080000	3177.2631	5185.7226	5302.8066	
329.3244	-15770.8535	-1797.7688	0.0000	0.0000
7521.4593	3947.9536	300.8960	-3573.5057	4007.2111
304.9450	194.7479	86.1940	656151.2420	-26.6097
-26.6051				
[9289]ENERGY: 3090000	3139.8538	5100.8445	5249.4423	
344.8013	-15740.1809	-1832.4800	0.0000	0.0000
7679.1888	3941.4698	307.2059	-3737.7190	4005.6519
304.7766	-49.7189	-1.9702	656151.2420	-24.4381
-24.4573				
[9328]ENERGY: 3100000	3178.8443	5189.6625	5303.9836	
317.0634	-15826.5679	-1805.6753	0.0000	0.0000
7590.8948	3948.2053	303.6737	-3642.6894	4006.4280
304.7536	-128.3396	-111.8829	656151.2420	-29.2489
-29.2248				
[9378]ENERGY: 3110000	3165.7764	5136.2601	5298.4335	
358.2446	-15797.5965	-1814.5771	0.0000	0.0000
7600.3644	3946.9053	304.0526	-3653.4590	4008.1170
304.9153	51.0842	-52.4816	656151.2420	-26.7779
-26.7966				
[9414]ENERGY: 3120000	3185.7758	5194.0272	5252.5087	
328.9333	-15845.8815	-1799.9562	0.0000	0.0000
7634.9323	3950.3396	305.4355	-3684.5927	4008.4956
304.8288	-79.8182	-183.9699	656151.2420	-21.9334
-21.9440				
[9464]ENERGY: 3130000	3183.3332	5284.1825	5237.3966	
327.5761	-15852.2931	-1857.3033	0.0000	0.0000

Supplementary Text 6

7622.0028	3944.8948	304.9182	-3677.1080	4008.3524
304.9616	-38.7109	-103.5909	656151.2420	-24.2491
-24.2359				
[9500]ENERGY: 3140000	3165.1707	5217.2269	5250.7474	
346.2330	-15899.5589	-1753.8983	0.0000	0.0000
7619.5770	3945.4978	304.8212	-3674.0792	4007.9060
304.9293	-29.2321	-154.3200	656151.2420	-26.3119
-26.3182				
[9550]ENERGY: 3150000	3144.7309	5203.9844	5260.1187	
344.0903	-15854.0794	-1796.5988	0.0000	0.0000
7639.5243	3941.7704	305.6192	-3697.7540	4007.0499
304.7647	-164.4352	-153.1108	656151.2420	-27.0261
-26.9929				
[9586]ENERGY: 3160000	3235.6689	5247.0547	5185.6083	
322.8535	-15860.1503	-1777.1647	0.0000	0.0000
7594.0690	3947.9395	303.8007	-3646.1295	4006.2314
304.6037	-142.1366	-112.7918	656151.2420	-29.2882
-29.3105				
[9636]ENERGY: 3170000	3198.0441	5243.6507	5284.4802	
334.0814	-15836.9503	-1810.3701	0.0000	0.0000
7531.4647	3944.4008	301.2962	-3587.0640	4006.6831
304.5232	90.7558	37.1497	656151.2420	-24.1293
-24.1179				
[9672]ENERGY: 3180000	3180.7526	5119.8725	5262.4255	
332.8077	-15883.0777	-1765.5676	0.0000	0.0000
7693.9847	3941.1976	307.7979	-3752.7871	4007.0935
304.6370	38.4466	-107.1928	656151.2420	-25.5664
-25.5786				
[9722]ENERGY: 3190000	3238.4894	5061.5873	5311.0150	
343.6035	-15871.9998	-1793.2911	0.0000	0.0000
7655.8868	3945.2909	306.2737	-3710.5958	4005.6137
304.6532	-178.9264	-103.4353	656151.2420	-27.0981
-27.1043				
[9761]ENERGY: 3200000	3199.3614	5103.6825	5298.1455	
353.1506	-15841.3806	-1774.1008	0.0000	0.0000
7606.8032	3945.6617	304.3102	-3661.1414	4005.8987
304.7095	-139.4935	-183.5431	656151.2420	-23.1241
-23.1233				
[9811]ENERGY: 3210000	3186.8782	5229.1041	5274.2941	
333.8472	-15907.8704	-1839.4734	0.0000	0.0000
7666.1732	3942.9529	306.6853	-3723.2202	4006.7686
304.8118	74.3467	17.3690	656151.2420	-27.2732
-27.2651				
[9847]ENERGY: 3220000	3221.2561	5260.7358	5285.2020	
326.1895	-15860.9331	-1821.1089	0.0000	0.0000
7530.8842	3942.2255	301.2730	-3588.6587	4007.2295
304.6320	-2.4615	-73.6180	656151.2420	-24.0299
-24.0471				
[9897]ENERGY: 3230000	3200.8185	5241.0485	5246.1358	
333.0345	-15896.0442	-1712.7870	0.0000	0.0000
7536.0702	3948.2763	301.4805	-3587.7939	4006.6502
304.6340	152.1579	137.9109	656151.2420	-23.4307
-23.4204				
[9933]ENERGY: 3240000	3253.6599	5113.3045	5293.4881	

Supplementary Text 6

334.6740	-15865.8396	-1787.6909	0.0000	0.0000
7605.8246	3947.4206	304.2710	-3658.4040	4006.3715
304.5405	-113.4530	-110.8394	656151.2420	-21.3567
-21.3543				
[9983]ENERGY: 3250000	3168.1838	5227.8306	5233.4695	
332.5047	-15907.9518	-1706.2517	0.0000	0.0000
7597.7752	3945.5604	303.9490	-3652.2148	4006.7231
304.7118	96.1063	115.0356	656151.2420	-21.5522
-21.5554				
[10019]ENERGY: 3260000	3112.0844	5159.7506	5243.3749	
322.0833	-15757.6102	-1783.3530	0.0000	0.0000
7646.9366	3943.2666	305.9157	-3703.6699	4005.2764
304.8051	-124.4262	-136.9393	656151.2420	-22.9045
-22.9186				
[10069]ENERGY: 3270000	3164.5144	5178.0076	5228.2935	
327.6079	-15890.2177	-1752.4348	0.0000	0.0000
7687.2109	3942.9817	307.5269	-3744.2292	4007.0572
304.6227	-94.3300	-156.9853	656151.2420	-20.2903
-20.2787				
[10105]ENERGY: 3280000	3175.4142	5221.1777	5268.2460	
339.8588	-15885.5397	-1761.1433	0.0000	0.0000
7587.9397	3945.9534	303.5555	-3641.9863	4006.2696
304.6353	-23.8081	28.1038	656151.2420	-21.0002
-20.9967				
[10155]ENERGY: 3290000	3246.3213	5219.4865	5269.5629	
316.9740	-15924.1886	-1761.7533	0.0000	0.0000
7581.9564	3948.3593	303.3162	-3633.5970	4007.3462
304.6175	-57.9541	-92.9896	656151.2420	-23.7082
-23.7112				
[10194]ENERGY: 3300000	3133.1179	5051.5968	5315.9260	
342.0013	-15834.4440	-1726.7471	0.0000	0.0000
7663.4259	3944.8769	306.5754	-3718.5490	4007.2865
304.7741	213.5900	92.4480	656151.2420	-25.6824
-25.6751				
[10244]ENERGY: 3310000	3199.5269	5108.7088	5250.1398	
330.2078	-15775.6288	-1804.7937	0.0000	0.0000
7638.3377	3946.4985	305.5717	-3691.8392	4008.6767
304.7940	-134.6758	-151.7494	656151.2420	-25.4215
-25.4190				
[10280]ENERGY: 3320000	3143.7249	5228.3548	5306.5680	
331.2686	-15841.0423	-1803.7352	0.0000	0.0000
7583.3640	3948.5028	303.3725	-3634.8612	4007.5476
304.6377	-129.9734	-48.9135	656151.2420	-26.1415
-26.1380				
[10330]ENERGY: 3330000	3201.4000	5267.4281	5247.3408	
337.1759	-15887.1021	-1752.6214	0.0000	0.0000
7538.3283	3951.9496	301.5708	-3586.3788	4008.6210
304.6275	123.4768	58.2434	656151.2420	-25.6319
-25.6329				
[10366]ENERGY: 3340000	3211.2329	5153.4024	5267.5300	
356.9288	-15868.1571	-1783.6919	0.0000	0.0000
7611.7107	3948.9558	304.5065	-3662.7549	4010.6310
304.8447	142.7883	59.0070	656151.2420	-24.4572
-24.4626				

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[10416]ENERGY: 3350000	3191.7153	5172.2980	5307.5036	
348.1545	-15846.9908	-1759.4996	0.0000	0.0000
7535.5981	3948.7791	301.4616	-3586.8190	4009.8554
304.7870	28.3539	7.6518	656151.2420	-23.2244
-23.2256				
[10452]ENERGY: 3360000	3100.4563	5211.6233	5362.3867	
328.8132	-15978.6014	-1734.2919	0.0000	0.0000
7656.3789	3946.7652	306.2934	-3709.6137	4009.6310
304.8954	93.1828	91.7249	656151.2420	-23.2821
-23.2719				
[10502]ENERGY: 3370000	3102.4889	5176.3252	5299.2758	
340.3344	-15854.7815	-1823.6136	0.0000	0.0000
7704.6580	3944.6872	308.2248	-3759.9708	4009.8871
304.7876	-58.5374	-70.5165	656151.2420	-23.4122
-23.4222				
[10538]ENERGY: 3380000	3154.8644	5205.3172	5269.4461	
339.8188	-15899.9482	-1765.1369	0.0000	0.0000
7640.8505	3945.2120	305.6722	-3695.6385	4009.6204
304.7874	-65.4875	-145.4016	656151.2420	-24.6604
-24.6530				
[10588]ENERGY: 3390000	3222.9221	5205.2905	5310.3416	
353.2767	-15953.9286	-1778.2093	0.0000	0.0000
7592.6424	3952.3353	303.7437	-3640.3071	4010.6761
304.8748	-159.2000	-162.4692	656151.2420	-25.0944
-25.1047				
[10627]ENERGY: 3400000	3148.6597	5071.3391	5315.3722	
328.5976	-15864.9027	-1773.1182	0.0000	0.0000
7718.4775	3944.4253	308.7777	-3774.0522	4008.7858
305.0049	-142.9050	-89.9778	656151.2420	-22.7292
-22.7133				
[10677]ENERGY: 3410000	3229.2770	5279.9478	5314.6594	
329.7950	-15963.3842	-1848.9180	0.0000	0.0000
7609.0119	3950.3890	304.3985	-3658.6230	4009.5910
304.8351	-27.4081	-114.6887	656151.2420	-25.6456
-25.6638				
[10713]ENERGY: 3420000	3245.8238	5153.2176	5290.4678	
334.5944	-15864.4863	-1847.0275	0.0000	0.0000
7637.8078	3950.3976	305.5505	-3687.4102	4009.9920
304.9236	-91.3464	-76.9961	656151.2420	-23.1424
-23.1523				
[10763]ENERGY: 3430000	3151.6478	5201.7317	5330.0656	
335.1852	-15877.7817	-1791.4409	0.0000	0.0000
7600.1343	3949.5420	304.0434	-3650.5922	4011.3478
304.8726	3.5570	-62.3860	656151.2420	-24.6222
-24.6039				
[10799]ENERGY: 3440000	3206.0308	5173.6959	5285.2724	
338.5517	-15804.6550	-1777.0207	0.0000	0.0000
7531.2701	3953.1452	301.2885	-3578.1250	4010.5073
304.9236	-41.6953	19.2912	656151.2420	-25.7161
-25.7199				
[10849]ENERGY: 3450000	3118.9282	5212.6045	5271.2457	
329.0351	-15798.4518	-1780.5629	0.0000	0.0000
7596.5526	3949.3515	303.9001	-3647.2012	4010.2879
304.8226	-110.8613	-102.6489	656151.2420	-26.2817

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-26.2849
 [10885]ENERGY: 3460000 3196.0325 5182.5546 5280.4784
 313.0168 -15874.5547 -1791.4095 0.0000 0.0000
 7642.6902 3948.8082 305.7458 -3693.8820 4011.6488
 304.8839 -57.2467 -90.5788 656151.2420 -20.2933
 -20.2926
 [10935]ENERGY: 3470000 3070.8192 5190.0266 5262.1773
 352.5509 -15868.5947 -1704.7449 0.0000 0.0000
 7646.9679 3949.2022 305.9169 -3697.7657 4010.7904
 304.9135 36.8738 24.5097 656151.2420 -26.1565
 -26.1554
 [10971]ENERGY: 3480000 3193.5871 5237.7159 5294.6754
 341.0375 -15798.5923 -1850.2861 0.0000 0.0000
 7532.8151 3950.9526 301.3503 -3581.8625 4012.0080
 304.8387 21.4843 -32.1455 656151.2420 -24.4770
 -24.4759
 [11021]ENERGY: 3490000 3140.0847 5213.8273 5280.7368
 348.5295 -15872.2044 -1764.0952 0.0000 0.0000
 7603.1253 3950.0039 304.1630 -3653.1214 4011.9374
 304.8088 118.0830 67.8290 656151.2420 -21.0388
 -21.0589
 [11060]ENERGY: 3500000 3215.4277 5262.6977 5258.2094
 327.7490 -15925.2034 -1799.9111 0.0000 0.0000
 7610.4094 3949.3787 304.4544 -3661.0307 4010.4846
 304.9300 -110.4228 -117.1267 656151.2420 -22.6301
 -22.6164
 [11110]ENERGY: 3510000 3186.3934 5261.8392 5258.0736
 364.2002 -15782.5515 -1830.9260 0.0000 0.0000
 7492.1325 3949.1615 299.7228 -3542.9710 4011.7868
 305.0948 119.6226 19.8642 656151.2420 -21.9382
 -21.9316
 [11146]ENERGY: 3520000 3089.4350 5151.5335 5267.0387
 339.3332 -15815.9194 -1735.7255 0.0000 0.0000
 7651.8294 3947.5249 306.1114 -3704.3045 4010.6450
 304.9075 -1.1636 5.7136 656151.2420 -22.7296
 -22.7380
 [11196]ENERGY: 3530000 3169.5367 5211.1948 5274.4145
 333.3687 -15880.7190 -1695.5761 0.0000 0.0000
 7538.6551 3950.8747 301.5839 -3587.7805 4011.4396
 304.8658 -76.9209 -64.9111 656151.2420 -21.9151
 -21.8928
 [11232]ENERGY: 3540000 3129.7012 5244.6959 5256.7530
 348.6401 -15867.9690 -1773.2188 0.0000 0.0000
 7611.4175 3950.0200 304.4948 -3661.3975 4011.8839
 305.0847 102.2571 93.0183 656151.2420 -22.4005
 -22.4174
 [11282]ENERGY: 3550000 3254.1771 5141.8475 5252.5814
 325.1177 -15950.1410 -1697.1408 0.0000 0.0000
 7622.9220 3949.3639 304.9550 -3673.5581 4012.1770
 305.1836 0.3768 26.8386 656151.2420 -20.9134
 -20.9193
 [11318]ENERGY: 3560000 3204.7030 5142.0468 5286.0630
 351.5160 -15858.4695 -1784.5527 0.0000 0.0000
 7608.9562 3950.2627 304.3963 -3658.6935 4012.5115

Supplementary Text 6

304.9536	73.9599	-65.4294	656151.2420	-28.1095
-28.1054				
[11368]ENERGY: 3570000	3198.1810	5142.0409	5262.9387	
335.7735	-15850.9649	-1766.5980	0.0000	0.0000
7627.6569	3949.0280	305.1444	-3678.6289	4012.3408
304.8543	-15.4237	-41.7553	656151.2420	-23.4985
-23.4935				
[11404]ENERGY: 3580000	3229.7754	5191.2833	5271.6390	
327.5126	-15933.3991	-1755.0347	0.0000	0.0000
7624.4720	3956.2484	305.0170	-3668.2235	4013.3764
305.0052	97.6417	18.1163	656151.2420	-19.5242
-19.5351				
[11454]ENERGY: 3590000	3162.9093	5126.5403	5233.5486	
331.7409	-15862.8184	-1750.6898	0.0000	0.0000
7705.8133	3947.0442	308.2711	-3758.7691	4013.3132
304.9589	118.2450	116.3172	656151.2420	-25.1307
-25.1218				
[11493]ENERGY: 3600000	3188.1887	5170.0250	5322.7564	
351.4749	-15838.9882	-1821.6936	0.0000	0.0000
7581.5576	3953.3208	303.3002	-3628.2368	4014.6553
304.9934	-24.9083	-72.1294	656151.2420	-21.5128
-21.5208				
[11543]ENERGY: 3610000	3136.4806	5194.9279	5280.5227	
311.0070	-15953.8992	-1703.3130	0.0000	0.0000
7685.4273	3951.1533	307.4555	-3734.2740	4012.4664
305.0963	45.6127	60.9749	656151.2420	-23.5312
-23.5143				
[11579]ENERGY: 3620000	3243.1799	5119.8998	5284.2723	
329.5615	-15896.9838	-1782.0181	0.0000	0.0000
7652.7264	3950.6379	306.1473	-3702.0886	4013.2925
305.1877	-67.2957	-65.9414	656151.2420	-25.2929
-25.2951				
[11629]ENERGY: 3630000	3243.9541	5098.5588	5313.9313	
342.2223	-15939.2026	-1792.2885	0.0000	0.0000
7685.4989	3952.6743	307.4584	-3732.8246	4014.0823
305.1825	87.8293	83.8989	656151.2420	-22.5587
-22.5486				
[11665]ENERGY: 3640000	3168.1499	5286.6139	5224.6736	
357.9339	-15939.8739	-1734.9915	0.0000	0.0000
7591.4967	3954.0026	303.6978	-3637.4941	4013.5048
305.3055	-65.8853	-31.7532	656151.2420	-22.0365
-22.0486				
[11715]ENERGY: 3650000	3177.4733	5164.5245	5315.5585	
316.9503	-15905.0433	-1732.9695	0.0000	0.0000
7614.8293	3951.3230	304.6312	-3663.5063	4013.8864
305.2291	122.3795	43.0883	656151.2420	-28.5372
-28.5325				
[11751]ENERGY: 3660000	3201.4129	5222.9660	5225.3574	
351.7784	-15906.2126	-1803.3285	0.0000	0.0000
7660.5255	3952.4991	306.4593	-3708.0264	4013.8526
305.2887	12.5616	15.9974	656151.2420	-23.7531
-23.7595				
[11801]ENERGY: 3670000	3116.1193	5298.6224	5289.8523	
346.9931	-15948.7819	-1779.5987	0.0000	0.0000

Supplementary Text 6

7627.0406	3950.2471	305.1198	-3676.7935	4013.6733
305.1452	69.6024	19.4553	656151.2420	-26.4411
-26.4228				
[11837]ENERGY: 3680000	3133.2257	5205.3648	5279.0913	
346.5340	-15874.0178	-1779.3833	0.0000	0.0000
7642.5369	3953.3516	305.7397	-3689.1853	4014.1330
305.0425	135.0214	43.0358	656151.2420	-20.9252
-20.9639				
[11887]ENERGY: 3690000	3172.7073	5138.5710	5292.9352	
341.0185	-15908.8021	-1761.8097	0.0000	0.0000
7675.8809	3950.5011	307.0736	-3725.3798	4012.6064
305.0869	33.5700	-6.4664	656151.2420	-24.8773
-24.8535				
[11926]ENERGY: 3700000	3140.5403	5267.5273	5257.7518	
337.5003	-15856.9215	-1790.7619	0.0000	0.0000
7596.3033	3951.9395	303.8901	-3644.3638	4013.3863
305.0870	-37.4603	-45.7591	656151.2420	-19.4805
-19.4888				
[11976]ENERGY: 3710000	3171.4960	5232.7336	5284.8061	
337.3919	-15885.3162	-1772.3860	0.0000	0.0000
7585.6759	3954.4012	303.4650	-3631.2746	4013.9343
305.3078	104.8961	34.0208	656151.2420	-20.4593
-20.4563				
[12012]ENERGY: 3720000	3138.4457	5136.5224	5238.8080	
315.1905	-15808.2692	-1731.9834	0.0000	0.0000
7665.0673	3953.7814	306.6410	-3711.2859	4014.0625
305.2493	71.6070	-43.3902	656151.2420	-25.6126
-25.6156				
[12062]ENERGY: 3730000	3045.0822	5158.5687	5251.5121	
348.8245	-15768.9604	-1681.6255	0.0000	0.0000
7596.7049	3950.1064	303.9062	-3646.5985	4013.3388
305.1047	210.8950	197.0839	656151.2420	-21.9930
-22.0027				
[12098]ENERGY: 3740000	3173.5014	5179.4875	5306.9346	
347.7274	-15955.0589	-1748.3292	0.0000	0.0000
7649.1006	3953.3634	306.0023	-3695.7372	4013.0807
305.0920	-152.7809	-109.9089	656151.2420	-22.1802
-22.1543				
[12148]ENERGY: 3750000	3172.4988	5092.8606	5334.7514	
335.0576	-15849.8080	-1696.0877	0.0000	0.0000
7565.8312	3955.1039	302.6711	-3610.7273	4012.9059
304.9482	22.2979	-42.3246	656151.2420	-21.1047
-21.1159				
[12184]ENERGY: 3760000	3161.6001	5172.2245	5309.0368	
335.8349	-15870.9809	-1741.0532	0.0000	0.0000
7590.1051	3956.7673	303.6422	-3633.3377	4013.7555
305.0553	-48.5573	29.7745	656151.2420	-23.1078
-23.0939				
[12234]ENERGY: 3770000	3099.3442	5150.8515	5256.4378	
340.1999	-15781.2300	-1756.8454	0.0000	0.0000
7644.4510	3953.2089	305.8163	-3691.2420	4014.8675
305.1522	-29.6025	-61.7773	656151.2420	-18.1679
-18.1889				
[12270]ENERGY: 3780000	3091.6106	5243.0499	5247.6790	

Supplementary Text 6

321.3351	-15837.1982	-1714.3735	0.0000	0.0000
7601.7945	3953.8974	304.1098	-3647.8971	4015.4721
305.0889	132.6997	96.5182	656151.2420	-23.5301
-23.5326				
[12320]ENERGY: 3790000	3118.3790	5197.7707	5270.0540	
351.0138	-15870.9816	-1783.1182	0.0000	0.0000
7666.2111	3949.3288	306.6868	-3716.8823	4016.0379
305.2733	-7.6614	4.0590	656151.2420	-17.8985
-17.8848				
[12359]ENERGY: 3800000	3104.6295	5182.7037	5271.7213	
334.4531	-15893.8774	-1694.9587	0.0000	0.0000
7647.8172	3952.4889	305.9509	-3695.3283	4016.1351
305.2654	154.3647	106.4511	656151.2420	-21.3178
-21.3168				
[12409]ENERGY: 3810000	3133.2983	5183.9170	5250.9269	
346.3604	-15799.8546	-1846.4964	0.0000	0.0000
7684.1381	3952.2897	307.4039	-3731.8484	4016.6390
305.1151	-17.3534	-93.7801	656151.2420	-19.3496
-19.3518				
[12445]ENERGY: 3820000	3205.4945	5245.2367	5245.5330	
317.7390	-15850.4387	-1778.7551	0.0000	0.0000
7573.1768	3957.9863	302.9649	-3615.1905	4016.2682
305.1487	-83.9633	-126.1854	656151.2420	-29.1750
-29.1741				
[12495]ENERGY: 3830000	3157.8717	5189.5507	5280.9725	
338.4176	-15928.7130	-1773.2969	0.0000	0.0000
7687.1086	3951.9112	307.5228	-3735.1974	4015.8416
305.3001	103.7699	-4.2192	656151.2420	-20.4267
-20.4399				
[12531]ENERGY: 3840000	3275.4753	5193.9284	5267.3615	
351.3041	-15911.8849	-1802.9655	0.0000	0.0000
7583.1339	3956.3529	303.3633	-3626.7811	4015.2350
305.3112	-123.2069	-102.1322	656151.2420	-24.3390
-24.3303				
[12581]ENERGY: 3850000	3174.2384	5117.3768	5308.5153	
340.3030	-15846.5553	-1796.2366	0.0000	0.0000
7655.6372	3953.2787	306.2638	-3702.3584	4015.8606
305.1292	43.0354	-50.1769	656151.2420	-25.1349
-25.1292				
[12617]ENERGY: 3860000	3160.9164	5142.6924	5284.2284	
343.1094	-15798.7975	-1745.9964	0.0000	0.0000
7567.7711	3953.9238	302.7487	-3613.8473	4015.8795
305.1558	5.3493	-42.2557	656151.2420	-22.7198
-22.7230				
[12667]ENERGY: 3870000	3219.6701	5181.3342	5269.0398	
341.1165	-15817.0889	-1783.1441	0.0000	0.0000
7546.7102	3957.6378	301.9061	-3589.0724	4015.9500
305.1167	-98.8794	-71.5335	656151.2420	-23.5808
-23.5766				
[12703]ENERGY: 3880000	3266.4580	5040.3031	5232.2524	
335.6071	-15793.4490	-1740.3653	0.0000	0.0000
7615.3555	3956.1620	304.6523	-3659.1935	4017.2077
305.0718	24.6515	-103.7677	656151.2420	-24.3472
-24.3540				

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[12753]ENERGY: 3890000	3221.5593	5175.3946	5248.2804	
331.1931	-15914.5392	-1674.2342	0.0000	0.0000
7569.4233	3957.0773	302.8148	-3612.3460	4016.4471
305.0170	-26.0319	36.8312	656151.2420	-27.5453
-27.5721				
[12792]ENERGY: 3900000	3161.6369	5119.3812	5263.8906	
337.2594	-15833.5521	-1751.7730	0.0000	0.0000
7657.9686	3954.8116	306.3570	-3703.1570	4016.8931
305.0447	52.1731	62.1634	656151.2420	-22.3505
-22.3229				
[12842]ENERGY: 3910000	3127.3490	5176.5518	5283.7259	
336.2066	-15848.5881	-1787.0592	0.0000	0.0000
7665.9031	3954.0891	306.6745	-3711.8140	4018.0666
305.0159	85.5833	18.7972	656151.2420	-22.0133
-22.0187				
[12878]ENERGY: 3920000	3197.3787	5097.3175	5275.6028	
351.6359	-15853.9675	-1747.5616	0.0000	0.0000
7634.9603	3955.3662	305.4366	-3679.5942	4016.8436
305.0314	-44.1471	-7.5048	656151.2420	-25.6810
-25.6775				
[12928]ENERGY: 3930000	3190.1671	5170.3612	5320.4352	
337.5447	-15861.5129	-1826.2522	0.0000	0.0000
7624.2309	3954.9738	305.0074	-3669.2570	4017.1180
305.1570	-70.0463	-102.4436	656151.2420	-20.5601
-20.5548				
[12964]ENERGY: 3940000	3145.2685	5216.2490	5291.1659	
323.9578	-15880.9529	-1789.5789	0.0000	0.0000
7648.5654	3954.6748	305.9809	-3693.8906	4017.9061
305.0372	-186.7507	-126.3660	656151.2420	-24.9940
-24.9974				
[13014]ENERGY: 3950000	3208.4917	5179.6520	5264.8735	
320.8165	-15841.9556	-1755.8209	0.0000	0.0000
7579.2847	3955.3419	303.2093	-3623.9428	4017.1069
305.1341	80.7037	-2.7502	656151.2420	-22.1382
-22.1363				
[13050]ENERGY: 3960000	3205.8050	5184.5238	5278.3246	
360.7207	-15996.4069	-1614.0156	0.0000	0.0000
7538.9482	3957.8996	301.5956	-3581.0486	4016.0559
304.9834	157.4051	101.8814	656151.2420	-23.3545
-23.3557				
[13100]ENERGY: 3970000	3192.0590	5179.7271	5262.3803	
350.9218	-15855.8974	-1791.9588	0.0000	0.0000
7620.1486	3957.3806	304.8440	-3662.7680	4018.4927
305.0927	-86.8390	-147.9947	656151.2420	-22.1089
-22.1215				
[13136]ENERGY: 3980000	3120.9497	5135.0969	5309.2973	
350.6304	-15824.6217	-1786.7658	0.0000	0.0000
7652.5856	3957.1724	306.1417	-3695.4132	4018.3093
305.2343	61.6223	77.7593	656151.2420	-22.5401
-22.5195				
[13186]ENERGY: 3990000	3179.9200	5245.2081	5254.4577	
340.1201	-15865.3150	-1838.9403	0.0000	0.0000
7640.2858	3955.7364	305.6496	-3684.5494	4018.0248
305.2818	-72.0715	-41.7631	656151.2420	-25.1200

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-25.1376
 [13225]ENERGY: 4000000 3167.8008 5222.7417 5274.7997
 346.2924 -15898.0437 -1726.0043 0.0000 0.0000
 7568.6775 3956.2642 302.7849 -3612.4133 4017.6939
 305.4209 -14.3113 23.2625 656151.2420 -19.4503
 -19.4473
 [13275]ENERGY: 4010000 3190.6770 5198.6286 5269.4093
 335.6620 -15854.2769 -1766.4765 0.0000 0.0000
 7583.5386 3957.1621 303.3795 -3626.3765 4017.2719
 305.3147 -31.4998 -96.9843 656151.2420 -25.0943
 -25.1070
 [13311]ENERGY: 4020000 3161.0259 5105.5176 5254.0731
 316.6770 -15800.2637 -1789.7266 0.0000 0.0000
 7707.6667 3954.9700 308.3452 -3752.6967 4018.2383
 305.3866 102.1304 29.2000 656151.2420 -25.5666
 -25.5380
 [13361]ENERGY: 4030000 3183.5406 5199.4676 5298.6119
 344.1985 -15889.9646 -1793.4245 0.0000 0.0000
 7613.1771 3955.6065 304.5651 -3657.5705 4018.4687
 305.3911 26.2078 0.8916 656151.2420 -26.0630
 -26.0784
 [13397]ENERGY: 4040000 3206.7567 5042.4134 5294.9369
 312.9182 -15851.5118 -1755.7421 0.0000 0.0000
 7705.3349 3955.1062 308.2519 -3750.2287 4017.1808
 305.4258 -123.1013 -114.5448 656151.2420 -22.5797
 -22.5862
 [13447]ENERGY: 4050000 3153.2606 5211.9604 5292.4447
 321.8313 -15895.1310 -1753.8860 0.0000 0.0000
 7626.4110 3956.8910 305.0946 -3669.5200 4019.2951
 305.3041 50.1520 -18.4557 656151.2420 -24.7638
 -24.7536
 [13483]ENERGY: 4060000 3146.5599 5122.5572 5249.8801
 336.6324 -15740.7419 -1747.1331 0.0000 0.0000
 7588.2087 3955.9631 303.5663 -3632.2455 4017.7876
 305.4803 -18.9219 -89.3951 656151.2420 -25.5771
 -25.5864
 [13533]ENERGY: 4070000 3201.4888 5165.3202 5268.2097
 315.6432 -15781.8056 -1781.1014 0.0000 0.0000
 7570.6856 3958.4405 302.8653 -3612.2451 4019.7717
 305.5119 6.9574 -7.5424 656151.2420 -20.9055
 -20.8810
 [13569]ENERGY: 4080000 3266.4747 5171.3457 5225.5270
 336.5059 -15848.6387 -1799.8207 0.0000 0.0000
 7608.0770 3959.4710 304.3611 -3648.6060 4019.3276
 305.5403 -69.0993 -84.4711 656151.2420 -27.2206
 -27.2363
 [13619]ENERGY: 4090000 3178.7956 5107.3239 5245.4400
 366.5555 -15793.1599 -1752.3005 0.0000 0.0000
 7610.2286 3962.8832 304.4472 -3647.3454 4022.5742
 305.5274 85.4737 39.0394 656151.2420 -21.1271
 -21.1146
 [13658]ENERGY: 4100000 3112.2143 5181.0111 5261.4755
 322.1193 -15811.0756 -1762.2844 0.0000 0.0000
 7655.0868 3958.5470 306.2417 -3696.5398 4022.1269

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305.4684	92.7951	61.1640	656151.2420	-24.4748
-24.4823				
[13708]ENERGY: 4110000	3175.7578	5152.4186	5301.9946	
351.4052	-15849.6436	-1793.8435	0.0000	0.0000
7620.0278	3958.1169	304.8392	-3661.9109	4022.6237
305.4236	-8.0261	-71.3964	656151.2420	-20.2678
-20.2737				
[13744]ENERGY: 4120000	3153.1076	5176.8270	5234.8508	
340.1033	-15782.9480	-1792.0288	0.0000	0.0000
7629.7249	3959.6367	305.2271	-3670.0882	4021.6190
305.5466	-66.3156	-45.8755	656151.2420	-19.9474
-19.9386				
[13794]ENERGY: 4130000	3168.8081	5116.4948	5271.1898	
329.7410	-15896.4781	-1732.2002	0.0000	0.0000
7701.3130	3958.8683	308.0910	-3742.4448	4022.5444
305.2788	93.7234	0.6597	656151.2420	-20.6411
-20.6536				
[13830]ENERGY: 4140000	3178.8165	5212.0801	5264.7010	
341.3266	-15799.5069	-1808.6227	0.0000	0.0000
7573.8297	3962.6242	302.9911	-3611.2055	4022.7004
305.4165	97.4526	61.3084	656151.2420	-21.0871
-21.0737				
[13880]ENERGY: 4150000	3197.8541	5057.2448	5333.4350	
332.6281	-15857.7093	-1764.7369	0.0000	0.0000
7660.7664	3959.4822	306.4690	-3701.2842	4022.6382
305.3368	-0.6508	-66.1567	656151.2420	-22.8729
-22.8944				
[13916]ENERGY: 4160000	3203.5889	5058.6881	5254.4779	
352.5764	-15796.9602	-1758.0499	0.0000	0.0000
7646.7916	3961.1127	305.9099	-3685.6789	4023.0873
305.3210	39.0282	-42.9404	656151.2420	-20.4509
-20.4432				
[13966]ENERGY: 4170000	3183.3704	5161.5890	5287.9006	
328.8400	-15883.2791	-1760.3873	0.0000	0.0000
7645.9315	3963.9650	305.8755	-3681.9664	4023.7131
305.4568	-93.1558	-139.3840	656151.2420	-22.8723
-22.8778				
[14002]ENERGY: 4180000	3230.5152	5104.3965	5333.7138	
343.8279	-15875.9785	-1687.7619	0.0000	0.0000
7516.3464	3965.0594	300.6914	-3551.2870	4023.5868
305.5710	158.0916	43.5115	656151.2420	-23.0952
-23.0891				
[14052]ENERGY: 4190000	3150.9969	5182.1565	5250.1773	
319.8310	-15858.2669	-1747.8666	0.0000	0.0000
7663.7043	3960.7326	306.5865	-3702.9717	4023.9260
305.6349	37.3930	30.4347	656151.2420	-26.4069
-26.3966				
[14091]ENERGY: 4200000	3164.4961	5152.2430	5227.7247	
326.3376	-15854.8346	-1740.5257	0.0000	0.0000
7686.2149	3961.6560	307.4870	-3724.5590	4023.9942
305.6041	-126.0859	-37.2232	656151.2420	-21.3288
-21.3144				
[14141]ENERGY: 4210000	3206.1642	5152.3275	5293.4378	
337.5295	-15853.7869	-1814.3042	0.0000	0.0000

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7641.2822	3962.6502	305.6895	-3678.6320	4025.1298
305.6818	-33.7598	-71.5753	656151.2420	-24.8440
-24.8715				
[14177]ENERGY: 4220000	3218.2921	5211.1074	5306.3205	
340.5254	-15842.8368	-1847.5440	0.0000	0.0000
7580.4481	3966.3127	303.2558	-3614.1355	4024.7197
305.5671	-49.9823	-83.2487	656151.2420	-17.3083
-17.2998				
[14227]ENERGY: 4230000	3177.1353	5132.2737	5258.5462	
334.5894	-15918.3061	-1748.0188	0.0000	0.0000
7723.4768	3959.6966	308.9777	-3763.7802	4025.0102
305.5207	31.4766	-54.4505	656151.2420	-23.9815
-23.9876				
[14263]ENERGY: 4240000	3206.6835	5191.8181	5272.1236	
354.6527	-15894.0159	-1710.8695	0.0000	0.0000
7541.3916	3961.7840	301.6934	-3579.6076	4023.7778
305.5298	-8.5123	41.2530	656151.2420	-21.2532
-21.2342				
[14313]ENERGY: 4250000	3252.8305	5200.6855	5292.4093	
336.0136	-15926.2905	-1701.0655	0.0000	0.0000
7510.5268	3965.1096	300.4586	-3545.4172	4023.9202
305.4212	13.9901	-20.8176	656151.2420	-21.8165
-21.8307				
[14349]ENERGY: 4260000	3153.0086	5153.3277	5291.3788	
361.1064	-15778.3312	-1808.6112	0.0000	0.0000
7590.8607	3962.7397	303.6724	-3628.1209	4023.3351
305.4191	-255.8809	-207.5528	656151.2420	-23.7448
-23.7483				
[14399]ENERGY: 4270000	3163.8278	5175.2881	5294.7273	
361.7614	-15822.8050	-1776.1561	0.0000	0.0000
7566.3032	3962.9467	302.6900	-3603.3565	4023.7897
305.5150	22.2487	13.4696	656151.2420	-24.1605
-24.1526				
[14435]ENERGY: 4280000	3182.4528	5200.2033	5274.4954	
338.9830	-15842.8999	-1775.5822	0.0000	0.0000
7586.2092	3963.8616	303.4863	-3622.3476	4024.2545
305.5519	-162.6040	-100.7818	656151.2420	-23.7334
-23.7300				
[14485]ENERGY: 4290000	3184.7010	5105.9233	5283.0472	
331.6899	-15863.3243	-1657.1371	0.0000	0.0000
7578.8680	3963.7680	303.1926	-3615.1001	4024.2148
305.5382	-1.5134	-48.1129	656151.2420	-24.7366
-24.7368				
[14524]ENERGY: 4300000	3220.8268	5154.7291	5291.3045	
330.1618	-15873.4363	-1767.0647	0.0000	0.0000
7606.7773	3963.2986	304.3091	-3643.4787	4024.5255
305.4316	22.5290	-56.2778	656151.2420	-23.8058
-23.7983				
[14574]ENERGY: 4310000	3163.7419	5163.6994	5255.2443	
364.9235	-15873.4065	-1761.7994	0.0000	0.0000
7651.9578	3964.3609	306.1166	-3687.5969	4023.8181
305.4395	-37.1236	-44.6673	656151.2420	-26.7647
-26.7830				
[14610]ENERGY: 4320000	3180.0833	5136.8712	5282.6262	

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344.5198	-15943.7880	-1718.3543	0.0000	0.0000
7681.8314	3963.7896	307.3117	-3718.0417	4023.2738
305.4153	-87.7220	-116.0743	656151.2420	-22.4472
-22.4438				
[14660]ENERGY: 4330000	3166.4568	5218.7311	5319.1652	
332.1702	-15859.1910	-1785.3348	0.0000	0.0000
7570.5393	3962.5367	302.8594	-3608.0026	4024.1194
305.3252	101.6762	50.0145	656151.2420	-25.4512
-25.4556				
[14696]ENERGY: 4340000	3214.5285	5093.8987	5287.3130	
335.7881	-15873.7453	-1731.4555	0.0000	0.0000
7638.6549	3964.9824	305.5844	-3673.6724	4024.0973
305.2530	41.9529	-46.8583	656151.2420	-21.3985
-21.4020				
[14746]ENERGY: 4350000	3158.6244	5207.5492	5232.9174	
327.3988	-15791.5810	-1846.6810	0.0000	0.0000
7671.7644	3959.9922	306.9089	-3711.7722	4023.9032
305.3355	-58.1167	-73.3965	656151.2420	-20.8132
-20.8159				
[14782]ENERGY: 4360000	3162.2064	5174.0587	5265.4664	
343.8812	-15898.6627	-1799.5232	0.0000	0.0000
7712.2211	3959.6479	308.5274	-3752.5732	4024.4015
305.2311	-4.6941	7.1977	656151.2420	-25.5028
-25.4844				
[14832]ENERGY: 4370000	3184.3469	5025.3786	5300.1853	
352.5448	-15788.3655	-1746.7375	0.0000	0.0000
7635.8553	3963.2080	305.4724	-3672.6473	4024.7177
305.1565	-47.7593	-41.3782	656151.2420	-17.7446
-17.7556				
[14868]ENERGY: 4380000	3133.9576	5168.2817	5237.1874	
330.4794	-15866.6884	-1731.3540	0.0000	0.0000
7692.4955	3964.3592	307.7383	-3728.1363	4023.8763
305.3190	47.3573	-58.1095	656151.2420	-25.9415
-25.9389				
[14918]ENERGY: 4390000	3187.0195	5108.3687	5266.4552	
330.9916	-15845.9917	-1680.1170	0.0000	0.0000
7597.9220	3964.6484	303.9549	-3633.2736	4024.6975
305.4074	-20.6420	-1.2470	656151.2420	-20.6718
-20.6497				
[14957]ENERGY: 4400000	3154.2814	5195.3200	5298.3988	
339.5754	-15898.7388	-1786.1885	0.0000	0.0000
7659.5180	3962.1663	306.4190	-3697.3517	4025.4519
305.4510	-58.7675	-128.2341	656151.2420	-25.5938
-25.6073				
[15007]ENERGY: 4410000	3185.3391	5155.8850	5295.8056	
325.0465	-15865.6082	-1765.1209	0.0000	0.0000
7628.0698	3959.4171	305.1609	-3668.6527	4025.1962
305.3810	21.1602	27.6167	656151.2420	-28.6668
-28.6704				
[15043]ENERGY: 4420000	3219.9327	5193.3404	5273.1772	
328.2757	-15932.7247	-1714.4815	0.0000	0.0000
7595.3671	3962.8869	303.8527	-3632.4801	4025.0851
305.5635	-24.4920	1.3261	656151.2420	-18.6245
-18.6198				

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[15093]ENERGY:	4430000	3165.0126	5258.9338	5254.2250
329.7845	-15761.7502	-1786.8385	0.0000	0.0000
7504.4813	3963.8486	300.2168	-3540.6327	4025.6293
305.7266	-19.7424	-93.4868	656151.2420	-27.7298
-27.7311				
[15129]ENERGY:	4440000	3108.3144	5249.4888	5282.0183
334.4292	-15877.0621	-1779.3603	0.0000	0.0000
7644.2998	3962.1281	305.8102	-3682.1716	4023.9689
305.6428	121.6863	17.3029	656151.2420	-25.0895
-25.0878				
[15179]ENERGY:	4450000	3176.1101	5204.4157	5293.0004
327.0472	-15878.0306	-1754.2544	0.0000	0.0000
7591.4075	3959.6959	303.6943	-3631.7116	4024.3637
305.5974	-112.7537	-150.4223	656151.2420	-24.1377
-24.1368				
[15215]ENERGY:	4460000	3217.8032	5193.4023	5200.4961
326.6551	-15832.5462	-1770.2489	0.0000	0.0000
7631.3376	3966.8991	305.2917	-3664.4385	4025.2778
305.2316	-11.1259	-51.3998	656151.2420	-26.9354
-26.9519				
[15265]ENERGY:	4470000	3202.6631	5211.8635	5231.7417
334.8865	-15885.2107	-1775.4526	0.0000	0.0000
7642.4344	3962.9260	305.7356	-3679.5084	4023.7610
305.2906	-120.3279	-143.5269	656151.2420	-26.9304
-26.9226				
[15301]ENERGY:	4480000	3106.6853	5123.5603	5277.2129
347.0737	-15802.2582	-1790.3156	0.0000	0.0000
7700.0104	3961.9688	308.0389	-3738.0416	4024.6798
305.6168	-67.5477	-140.4192	656151.2420	-24.6399
-24.6427				
[15351]ENERGY:	4490000	3179.5515	5136.7449	5236.7074
316.7117	-15726.5901	-1826.7760	0.0000	0.0000
7644.0435	3960.3929	305.8000	-3683.6506	4024.6505
305.5719	53.4015	1.9547	656151.2420	-26.5285
-26.5401				
[15390]ENERGY:	4500000	3147.5141	5110.6896	5278.0579
338.0806	-15913.1324	-1675.9077	0.0000	0.0000
7675.9234	3961.2256	307.0753	-3714.6978	4022.8896
305.5802	-39.0011	-41.2648	656151.2420	-26.2339
-26.2278				
[15440]ENERGY:	4510000	3234.7402	5243.3508	5275.2717
327.2656	-15970.5127	-1721.2558	0.0000	0.0000
7578.5824	3967.4423	303.1812	-3611.1401	4025.0162
305.4044	142.9808	75.3702	656151.2420	-20.7234
-20.7245				
[15476]ENERGY:	4520000	3157.2451	5144.0332	5277.2566
311.6162	-15865.8236	-1697.6191	0.0000	0.0000
7638.1885	3964.8969	305.5657	-3673.2916	4023.2164
305.4536	176.8157	59.1345	656151.2420	-21.5666
-21.5544				
[15526]ENERGY:	4530000	3150.1217	5226.5405	5244.7966
319.5322	-15764.7289	-1837.9583	0.0000	0.0000
7624.3982	3962.7021	305.0140	-3661.6961	4024.3793
305.3617	-6.7118	-87.1715	656151.2420	-18.5382

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-18.5315
 [15562]ENERGY: 4540000 3165.8403 5181.9894 5308.6380
 338.7414 -15933.9318 -1728.2574 0.0000 0.0000
 7629.2331 3962.2530 305.2075 -3666.9801 4023.1690
 305.3796 -130.3592 -36.3302 656151.2420 -24.0557
 -24.0677
 [15612]ENERGY: 4550000 3131.2568 5156.6823 5217.7579
 339.7719 -15854.3426 -1734.2242 0.0000 0.0000
 7701.5004 3958.4026 308.0985 -3743.0979 4024.1615
 305.4793 35.5277 -19.1140 656151.2420 -16.4591
 -16.4581
 [15648]ENERGY: 4560000 3189.1372 5173.6164 5264.4075
 353.7692 -15860.0928 -1761.8170 0.0000 0.0000
 7600.1360 3959.1566 304.0434 -3640.9794 4022.9759
 305.3887 -70.4123 -98.6936 656151.2420 -26.6425
 -26.6367
 [15698]ENERGY: 4570000 3180.0307 5153.8387 5246.7854
 350.8853 -15914.1271 -1747.3161 0.0000 0.0000
 7690.6375 3960.7344 307.6640 -3729.9031 4023.9137
 305.4848 77.6368 22.0234 656151.2420 -22.6289
 -22.6366
 [15734]ENERGY: 4580000 3209.4649 5158.6431 5220.4432
 327.9255 -15701.9382 -1832.7298 0.0000 0.0000
 7583.3170 3965.1258 303.3706 -3618.1912 4025.3666
 305.4062 -50.6899 -72.3578 656151.2420 -23.2132
 -23.2075
 [15784]ENERGY: 4590000 3235.2315 5229.3320 5253.8478
 327.9622 -15835.9258 -1810.9393 0.0000 0.0000
 7564.4600 3963.9683 302.6162 -3600.4917 4024.1895
 305.0926 -250.3856 -191.6809 656151.2420 -25.0935
 -25.0961
 [15823]ENERGY: 4600000 3185.9118 5159.2111 5213.4235
 360.1054 -15908.8686 -1687.6649 0.0000 0.0000
 7638.8160 3960.9344 305.5908 -3677.8816 4024.4362
 305.5199 167.6388 101.5190 656151.2420 -22.1811
 -22.1854
 [15873]ENERGY: 4610000 3171.5423 5218.4684 5260.8757
 327.1829 -15780.7065 -1858.9612 0.0000 0.0000
 7622.6737 3961.0753 304.9451 -3661.5984 4025.1853
 305.3979 -59.4682 -63.4748 656151.2420 -22.3400
 -22.3417
 [15909]ENERGY: 4620000 3170.0476 5107.8878 5229.5646
 340.1682 -15894.0374 -1677.5682 0.0000 0.0000
 7686.9316 3962.9941 307.5157 -3723.9375 4024.0157
 305.3374 91.6364 111.1114 656151.2420 -17.7192
 -17.7075
 [15959]ENERGY: 4630000 3195.1724 5215.9398 5300.9414
 333.5308 -15853.7519 -1794.1353 0.0000 0.0000
 7567.9601 3965.6572 302.7562 -3602.3030 4025.2677
 305.4455 -64.1378 -0.5155 656151.2420 -20.1372
 -20.1494
 [15995]ENERGY: 4640000 3173.7769 5179.7249 5246.8000
 331.4142 -15837.2733 -1812.4131 0.0000 0.0000
 7682.8218 3964.8514 307.3513 -3717.9703 4024.6312

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305.4202	-93.6113	-102.2083	656151.2420	-19.8814
-19.8609				
[16045]ENERGY: 4650000	3106.6881	5118.4542	5339.4649	
355.4669	-15973.0173	-1720.5982	0.0000	0.0000
7733.1643	3959.6230	309.3652	-3773.5413	4024.4518
305.1879	125.6606	93.9729	656151.2420	-21.7602
-21.7684				
[16081]ENERGY: 4660000	3171.0956	5236.9185	5256.4394	
314.5978	-15899.9067	-1792.6661	0.0000	0.0000
7679.2976	3965.7761	307.2103	-3713.5215	4025.1637
305.3289	95.7070	-3.9867	656151.2420	-24.8862
-24.8947				
[16131]ENERGY: 4670000	3174.9169	5176.3687	5275.1201	
310.5952	-15857.7985	-1737.2978	0.0000	0.0000
7623.1506	3965.0551	304.9641	-3658.0955	4026.3264
305.4738	9.4092	-24.4478	656151.2420	-20.2053
-20.2073				
[16167]ENERGY: 4680000	3186.4141	5131.9449	5311.2169	
327.3892	-15804.1703	-1813.2684	0.0000	0.0000
7623.0817	3962.6080	304.9614	-3660.4737	4026.2348
305.4514	-41.4921	-60.6807	656151.2420	-21.8334
-21.8477				
[16217]ENERGY: 4690000	3143.1719	5146.2169	5248.8491	
338.0038	-15811.3429	-1708.1896	0.0000	0.0000
7609.7693	3966.4785	304.4288	-3643.2908	4025.8708
305.5285	-40.2300	-41.2808	656151.2420	-24.6780
-24.6505				
[16256]ENERGY: 4700000	3138.0439	5263.0960	5258.1091	
321.4026	-15844.3120	-1787.1633	0.0000	0.0000
7617.4075	3966.5840	304.7344	-3650.8235	4026.6547
305.7617	-18.6962	12.6517	656151.2420	-17.9372
-17.9447				
[16306]ENERGY: 4710000	3147.5715	5149.4583	5224.0177	
344.2000	-15871.9134	-1668.9223	0.0000	0.0000
7638.0183	3962.4300	305.5589	-3675.5882	4026.1490
305.5339	91.7929	25.0602	656151.2420	-19.6943
-19.7094				
[16342]ENERGY: 4720000	3157.8974	5233.6459	5259.1162	
332.6119	-15838.4212	-1767.8582	0.0000	0.0000
7588.4580	3965.4501	303.5763	-3623.0080	4026.4269
305.4574	38.0507	-13.3533	656151.2420	-24.3838
-24.3628				
[16392]ENERGY: 4730000	3214.5798	5095.6680	5232.8453	
348.8837	-15837.9500	-1666.4967	0.0000	0.0000
7577.0151	3964.5452	303.1185	-3612.4698	4026.2699
305.5844	199.3476	102.2080	656151.2420	-21.7577
-21.7663				
[16428]ENERGY: 4740000	3122.5285	5220.8721	5262.8029	
362.9159	-15833.8057	-1814.1788	0.0000	0.0000
7641.5802	3962.7151	305.7014	-3678.8651	4027.2494
305.6645	-127.5315	-154.2207	656151.2420	-24.3728
-24.3664				
[16478]ENERGY: 4750000	3202.3316	5166.8740	5231.2939	
338.1729	-15851.2146	-1742.5885	0.0000	0.0000

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7618.5912	3963.4605	304.7817	-3655.1307	4026.6763
305.4483	-59.1335	45.0304	656151.2420	-23.1457
-23.1529				
[16514]ENERGY: 4760000	3164.2350	5126.7071	5277.3073	
343.4120	-15813.2511	-1749.6672	0.0000	0.0000
7617.9304	3966.6735	304.7553	-3651.2569	4027.3413
305.5295	-35.2228	-104.3341	656151.2420	-18.8406
-18.8460				
[16564]ENERGY: 4770000	3127.4558	5137.0713	5258.4083	
331.5529	-15886.3958	-1715.2429	0.0000	0.0000
7710.7156	3963.5653	308.4672	-3747.1503	4028.2642
305.3957	81.8580	55.4165	656151.2420	-21.1643
-21.1500				
[16600]ENERGY: 4780000	3239.3978	5183.6467	5274.2224	
358.2566	-15873.4050	-1806.0422	0.0000	0.0000
7593.2574	3969.3337	303.7683	-3623.9236	4027.7854
305.5933	-244.2121	-200.8856	656151.2420	-19.3505
-19.3595				
[16650]ENERGY: 4790000	3193.8106	5105.0024	5299.8048	
351.0182	-15890.3027	-1726.8468	0.0000	0.0000
7638.9307	3971.4172	305.5954	-3667.5136	4027.8321
305.7206	28.6438	-18.9721	656151.2420	-22.4810
-22.4718				
[16689]ENERGY: 4800000	3188.4312	5220.2399	5291.5642	
316.5784	-15898.8167	-1760.1339	0.0000	0.0000
7609.6416	3967.5046	304.4237	-3642.1370	4028.2126
305.7185	-18.1303	-78.5075	656151.2420	-24.5260
-24.5224				
[16739]ENERGY: 4810000	3198.3444	5184.5517	5226.7450	
330.3655	-15838.5480	-1733.1872	0.0000	0.0000
7597.1392	3965.4107	303.9236	-3631.7284	4029.1751
305.5230	-24.0121	-161.6925	656151.2420	-25.6912
-25.7026				
[16775]ENERGY: 4820000	3130.7848	5061.0794	5309.5204	
324.3028	-15728.1714	-1747.9043	0.0000	0.0000
7617.3677	3966.9792	304.7328	-3650.3885	4028.0989
305.6995	-50.6548	-33.1529	656151.2420	-24.7073
-24.7148				
[16825]ENERGY: 4830000	3160.3373	5113.9291	5255.1224	
336.8313	-15753.5853	-1784.2323	0.0000	0.0000
7638.8782	3967.2807	305.5933	-3671.5975	4028.7179
305.7246	113.1613	35.8064	656151.2420	-22.4539
-22.4397				
[16861]ENERGY: 4840000	3104.6795	5190.4514	5284.7853	
345.7149	-15886.4321	-1698.1845	0.0000	0.0000
7622.5319	3963.5464	304.9394	-3658.9856	4027.3940
305.5054	114.3621	44.1822	656151.2420	-27.3587
-27.3730				
[16911]ENERGY: 4850000	3189.8829	5148.8924	5277.1791	
315.1487	-15814.9007	-1722.2584	0.0000	0.0000
7574.6089	3968.5530	303.0222	-3606.0559	4027.9290
305.6335	38.9046	18.5693	656151.2420	-22.7808
-22.7591				
[16947]ENERGY: 4860000	3230.8260	5265.0991	5279.1287	

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324.2427	-15982.9394	-1715.4513	0.0000	0.0000
7567.0598	3967.9657	302.7202	-3599.0941	4027.0426
305.5235	-48.3836	-101.5694	656151.2420	-24.6063
-24.6289				
[16997]ENERGY: 4870000	3200.3301	5115.2942	5290.4207	
358.8707	-15818.9777	-1837.0090	0.0000	0.0000
7656.9994	3965.9286	306.3183	-3691.0708	4028.3865
305.5596	-56.5215	-164.0185	656151.2420	-24.3700
-24.3409				
[17033]ENERGY: 4880000	3219.7567	5240.8136	5233.0195	
354.0964	-15837.4596	-1804.4689	0.0000	0.0000
7562.1845	3967.9422	302.5252	-3594.2423	4029.0566
305.5700	40.5529	-26.3782	656151.2420	-26.0608
-26.0696				
[17083]ENERGY: 4890000	3143.9178	5141.5428	5293.1562	
354.1056	-15832.1410	-1772.2920	0.0000	0.0000
7640.7497	3969.0392	305.6682	-3671.7106	4028.3068
305.4029	-11.1197	7.8288	656151.2420	-25.1789
-25.1865				
[17122]ENERGY: 4900000	3190.7470	5170.7840	5281.2269	
352.7986	-15860.7651	-1763.9516	0.0000	0.0000
7597.4412	3968.2812	303.9356	-3629.1601	4028.7453
305.4849	-56.4751	-1.4649	656151.2420	-25.1199
-25.1392				
[17172]ENERGY: 4910000	3131.6865	5219.7020	5282.3193	
332.7260	-15826.8734	-1853.1398	0.0000	0.0000
7678.8848	3965.3055	307.1938	-3713.5793	4029.8618
305.7628	-7.2139	-42.1804	656151.2420	-25.5327
-25.5250				
[17208]ENERGY: 4920000	3163.6032	5113.2931	5230.8345	
354.2042	-15871.5033	-1749.0560	0.0000	0.0000
7723.3120	3964.6877	308.9711	-3758.6243	4028.0149
305.6525	187.6679	175.0924	656151.2420	-26.1514
-26.1559				
[17258]ENERGY: 4930000	3222.8108	5227.7430	5277.5557	
354.4223	-15941.9262	-1730.5842	0.0000	0.0000
7560.6257	3970.6470	302.4628	-3589.9786	4028.7837
305.7700	-78.3808	-45.1002	656151.2420	-22.1824
-22.1584				
[17294]ENERGY: 4940000	3245.5337	5197.8429	5253.1053	
304.9226	-15830.6373	-1794.9866	0.0000	0.0000
7592.5160	3968.2967	303.7386	-3624.2194	4029.0324
305.8029	-124.9848	-145.0291	656151.2420	-23.1446
-23.1500				
[17344]ENERGY: 4950000	3121.7174	5176.1596	5263.4263	
321.1638	-15805.1744	-1751.6038	0.0000	0.0000
7640.0396	3965.7284	305.6398	-3674.3113	4029.1021
305.6669	-30.2931	-31.9338	656151.2420	-25.2968
-25.3058				
[17380]ENERGY: 4960000	3266.2654	5220.8810	5248.5508	
340.8275	-15925.8211	-1791.9828	0.0000	0.0000
7610.2748	3968.9956	304.4490	-3641.2792	4029.3977
305.7168	-139.2718	-153.5968	656151.2420	-21.5547
-21.5455				

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[17430]ENERGY: 4970000	3147.5966	5255.0883	5258.0541	
338.8421	-15870.2254	-1832.7398	0.0000	0.0000
7667.8253	3964.4412	306.7513	-3703.3841	4029.1867
305.7072	-135.5933	-149.0330	656151.2420	-23.7148
-23.7264				
[17466]ENERGY: 4980000	3195.8193	5214.1316	5284.7496	
319.2780	-15840.6019	-1812.8530	0.0000	0.0000
7609.8681	3970.3918	304.4328	-3639.4763	4031.6715
305.5813	-9.2769	-53.6365	656151.2420	-19.5501
-19.5478				
[17516]ENERGY: 4990000	3161.6141	5136.0222	5302.3553	
330.6064	-15839.4786	-1744.0138	0.0000	0.0000
7621.8681	3968.9736	304.9128	-3652.8945	4030.3717
305.7286	59.8467	18.5985	656151.2420	-25.5171
-25.5022				
[17555]ENERGY: 5000000	3169.1068	5180.3586	5290.7885	
335.8401	-15822.5602	-1799.9922	0.0000	0.0000
7613.9525	3967.4941	304.5962	-3646.4584	4029.5971
305.6476	-81.0819	-88.0469	656151.2420	-17.8755
-17.8846				
[17605]ENERGY: 5010000	3104.3882	5331.3645	5207.5921	
324.8799	-15887.7948	-1708.3240	0.0000	0.0000
7597.7855	3969.8914	303.9494	-3627.8941	4030.5646
305.5616	93.0162	107.3341	656151.2420	-21.4358
-21.4239				
[17641]ENERGY: 5020000	3228.8551	5185.8807	5291.1267	
310.1849	-15830.9855	-1750.5096	0.0000	0.0000
7537.7693	3972.3216	301.5485	-3565.4477	4031.0247
305.5123	73.7675	3.3241	656151.2420	-21.2926
-21.2888				
[17691]ENERGY: 5030000	3178.2215	5159.8910	5223.3259	
326.7910	-15841.8752	-1770.1748	0.0000	0.0000
7690.1472	3966.3266	307.6443	-3723.8206	4031.0425
305.6838	-98.4789	-103.9856	656151.2420	-24.8075
-24.8326				
[17727]ENERGY: 5040000	3205.8233	5191.1457	5247.7658	
315.2164	-15835.9662	-1715.5081	0.0000	0.0000
7565.6416	3974.1185	302.6635	-3591.5231	4031.4986
305.5826	36.8419	-103.3596	656151.2420	-26.7031
-26.7121				
[17777]ENERGY: 5050000	3129.5723	5141.4303	5297.0710	
344.4270	-15825.6033	-1773.5544	0.0000	0.0000
7654.9483	3968.2913	306.2362	-3686.6570	4031.0682
305.4731	77.8552	-19.7558	656151.2420	-24.1573
-24.1446				
[17813]ENERGY: 5060000	3197.3141	5192.8077	5306.0123	
329.1897	-15887.6475	-1799.9445	0.0000	0.0000
7633.1327	3970.8646	305.3635	-3662.2681	4030.4220
305.3086	-196.3423	-142.7683	656151.2420	-25.7889
-25.7975				
[17863]ENERGY: 5070000	3070.0522	5155.7127	5281.0415	
351.2184	-15814.1575	-1782.9756	0.0000	0.0000
7705.8609	3966.7526	308.2730	-3739.1083	4031.9271
305.4814	152.0307	29.6226	656151.2420	-19.6413

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-19.6391
 [17899]ENERGY: 5080000 3172.2682 5229.6115 5237.1005
 329.7593 -15780.2223 -1761.6021 0.0000 0.0000
 7544.5998 3971.5150 301.8217 -3573.0848 4032.0481
 305.6440 96.9672 76.4047 656151.2420 -26.5111
 -26.5132
 [17949]ENERGY: 5090000 3173.7698 5149.8489 5290.9604
 328.8702 -15787.8547 -1747.5424 0.0000 0.0000
 7564.8183 3972.8705 302.6306 -3591.9478 4032.1535
 305.4753 -85.8768 -82.0943 656151.2420 -21.5527
 -21.5367
 [17988]ENERGY: 5100000 3232.9844 5150.5492 5239.9974
 343.1702 -15808.0807 -1803.6044 0.0000 0.0000
 7617.1555 3972.1716 304.7243 -3644.9839 4031.5900
 305.4712 -48.9455 -1.4686 656151.2420 -24.8859
 -24.8851
 [18038]ENERGY: 5110000 3114.2603 5146.0692 5299.6639
 337.0870 -15887.9994 -1745.5662 0.0000 0.0000
 7704.8099 3968.3246 308.2309 -3736.4853 4031.5620
 305.6630 95.7307 58.2979 656151.2420 -18.1163
 -18.1227
 [18074]ENERGY: 5120000 3196.8355 5192.6201 5321.2946
 346.0690 -15946.4163 -1741.2297 0.0000 0.0000
 7600.9732 3970.1464 304.0769 -3630.8267 4031.6789
 305.7010 69.0707 -35.5824 656151.2420 -27.0226
 -27.0399
 [18124]ENERGY: 5130000 3262.3613 5144.7009 5310.4122
 320.2873 -15870.2702 -1825.3359 0.0000 0.0000
 7631.5720 3973.7277 305.3010 -3657.8443 4031.8389
 305.5897 -186.4684 -115.8369 656151.2420 -19.8838
 -19.8539
 [18160]ENERGY: 5140000 3138.6003 5124.3073 5267.9314
 343.6134 -15831.6539 -1759.4818 0.0000 0.0000
 7683.0093 3966.3260 307.3588 -3716.6833 4031.2521
 305.7544 -79.2398 -108.6832 656151.2420 -27.2428
 -27.2652
 [18210]ENERGY: 5150000 3166.4321 5253.6838 5289.0987
 299.5651 -15840.3052 -1757.7672 0.0000 0.0000
 7559.3820 3970.0892 302.4131 -3589.2927 4031.3889
 305.6266 -32.2432 -15.1545 656151.2420 -22.4085
 -22.3916
 [18246]ENERGY: 5160000 3194.9623 5198.4141 5272.6565
 308.8627 -15856.0834 -1832.6827 0.0000 0.0000
 7683.4777 3969.6073 307.3775 -3713.8705 4032.0630
 305.7352 10.1002 -15.3267 656151.2420 -23.5872
 -23.5923
 [18296]ENERGY: 5170000 3182.2490 5153.6953 5255.4373
 359.7968 -15828.2566 -1779.0239 0.0000 0.0000
 7626.0380 3969.9361 305.0796 -3656.1020 4030.4991
 305.5869 -27.7353 -28.0707 656151.2420 -25.1644
 -25.1708
 [18332]ENERGY: 5180000 3212.7072 5207.1347 5241.6113
 358.5848 -15890.4905 -1728.3651 0.0000 0.0000
 7571.1515 3972.3339 302.8839 -3598.8176 4030.5324

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305.6430	-121.5729	-159.8978	656151.2420	-19.6125
-19.6196				
[18382]ENERGY: 5190000	3162.0418	5254.9456	5250.4374	
329.1076	-15864.9591	-1819.0725	0.0000	0.0000
7657.9471	3970.4478	306.3562	-3687.4992	4032.7392
305.6213	-0.7367	-23.2741	656151.2420	-23.8879
-23.8908				
[18421]ENERGY: 5200000	3150.1509	5168.9711	5279.9791	
342.9331	-15885.2815	-1755.0342	0.0000	0.0000
7670.3534	3972.0718	306.8525	-3698.2816	4033.5738
305.7682	50.2106	-24.2957	656151.2420	-23.1334
-23.1274				
[18471]ENERGY: 5210000	3137.7628	5284.2028	5205.3750	
359.9324	-15799.5821	-1775.9560	0.0000	0.0000
7559.8598	3971.5947	302.4322	-3588.2651	4032.9987
305.7672	-2.9213	8.1510	656151.2420	-22.3905
-22.3780				
[18507]ENERGY: 5220000	3167.8240	5199.5066	5255.2238	
323.4806	-15811.5929	-1825.6424	0.0000	0.0000
7664.3952	3973.1951	306.6141	-3691.2002	4034.8831
305.6936	-11.6572	-52.5590	656151.2420	-24.2668
-24.2538				
[18557]ENERGY: 5230000	3122.1468	5246.5447	5278.3285	
351.8570	-15932.1127	-1729.4549	0.0000	0.0000
7635.0797	3972.3891	305.4414	-3662.6906	4033.6567
305.7877	120.2709	30.5134	656151.2420	-22.5577
-22.5731				
[18593]ENERGY: 5240000	3167.4593	5185.0687	5279.3871	
329.9376	-15824.3240	-1826.1804	0.0000	0.0000
7658.9545	3970.3028	306.3965	-3688.6518	4032.6037
305.6570	-43.3676	-103.1480	656151.2420	-23.6798
-23.6844				
[18643]ENERGY: 5250000	3141.5205	5155.9625	5297.0388	
315.8625	-15785.9022	-1786.3716	0.0000	0.0000
7631.7558	3969.8663	305.3084	-3661.8896	4032.5869
305.6173	-54.3747	-61.6948	656151.2420	-24.1223
-24.1061				
[18679]ENERGY: 5260000	3235.4508	5212.0141	5324.5568	
359.8817	-15893.6635	-1825.9768	0.0000	0.0000
7562.5020	3974.7650	302.5379	-3587.7369	4033.6682
305.9384	-100.1107	-138.9998	656151.2420	-21.1918
-21.1892				
[18729]ENERGY: 5270000	3179.5073	5155.3179	5262.6078	
344.1925	-15747.1681	-1905.2643	0.0000	0.0000
7681.2035	3970.3965	307.2865	-3710.8069	4034.5503
305.8739	-3.2979	-155.2980	656151.2420	-22.9137
-22.9264				
[18765]ENERGY: 5280000	3187.8508	5209.9260	5243.3769	
331.0031	-15841.4634	-1784.0102	0.0000	0.0000
7624.6170	3971.3001	305.0228	-3653.3169	4032.9426
305.8635	20.5226	49.1042	656151.2420	-24.8370
-24.8277				
[18815]ENERGY: 5290000	3201.6838	5224.9434	5285.6565	
340.6808	-15920.7522	-1718.5074	0.0000	0.0000

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7561.1560	3974.8609	302.4840	-3586.2951	4034.2226
305.9247	20.8889	10.7230	656151.2420	-24.4692
-24.4848				
[18854]ENERGY: 5300000	3167.2885	5149.8281	5247.4082	
337.6953	-15783.8641	-1730.3146	0.0000	0.0000
7586.8491	3974.8906	303.5119	-3611.9585	4033.7841
305.7786	-80.8809	-90.5077	656151.2420	-23.5746
-23.5634				
[18904]ENERGY: 5310000	3123.9620	5225.8544	5273.7932	
347.7182	-15852.6327	-1764.1475	0.0000	0.0000
7619.3772	3973.9248	304.8132	-3645.4524	4034.2408
305.7866	64.1323	1.4906	656151.2420	-22.3961
-22.4003				
[18940]ENERGY: 5320000	3212.7222	5226.3877	5231.0358	
323.7248	-15763.4298	-1834.4573	0.0000	0.0000
7579.4491	3975.4324	303.2159	-3604.0166	4033.7732
305.7586	14.0129	-39.1610	656151.2420	-24.3697
-24.3736				
[18990]ENERGY: 5330000	3270.1258	5095.9913	5300.5615	
324.0938	-15804.7473	-1841.1576	0.0000	0.0000
7628.0825	3972.9500	305.1614	-3655.1325	4034.7505
305.9384	-133.7306	-143.6081	656151.2420	-21.5136
-21.5201				
[19026]ENERGY: 5340000	3181.8473	5155.8343	5278.0486	
344.9045	-15874.1000	-1716.2399	0.0000	0.0000
7602.2998	3972.5947	304.1300	-3629.7050	4033.2120
305.9797	31.1183	-24.5959	656151.2420	-25.2041
-25.1904				
[19076]ENERGY: 5350000	3178.7779	5172.0578	5331.0283	
339.9221	-15928.5696	-1711.8242	0.0000	0.0000
7592.9712	3974.3636	303.7568	-3618.6076	4035.0326
305.9378	-9.5857	-62.6514	656151.2420	-24.0294
-24.0378				
[19112]ENERGY: 5360000	3181.3131	5177.4012	5191.2007	
321.1465	-15771.4372	-1721.5037	0.0000	0.0000
7597.5157	3975.6362	303.9386	-3621.8794	4035.6083
305.7438	-12.5216	-50.7587	656151.2420	-24.9546
-24.9303				
[19162]ENERGY: 5370000	3190.1570	5192.8220	5225.2504	
336.7664	-15872.3289	-1731.8237	0.0000	0.0000
7631.8505	3972.6936	305.3122	-3659.1569	4033.9296
305.9785	-41.3686	-63.1677	656151.2420	-25.9083
-25.9217				
[19198]ENERGY: 5380000	3146.5641	5238.3621	5276.1244	
336.5572	-15955.3125	-1691.0714	0.0000	0.0000
7621.1258	3972.3497	304.8831	-3648.7761	4034.4009
305.8383	81.4687	25.3928	656151.2420	-26.1792
-26.1936				
[19248]ENERGY: 5390000	3155.8455	5256.1507	5209.4157	
364.9621	-15769.3655	-1885.2404	0.0000	0.0000
7639.7696	3971.5377	305.6290	-3668.2318	4036.2388
305.9971	-19.6644	-82.9745	656151.2420	-23.0983
-23.1058				
[19287]ENERGY: 5400000	3166.3134	5136.4964	5297.9878	

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319.2711	-15788.4763	-1826.4105	0.0000	0.0000
7667.6820	3972.8638	306.7456	-3694.8182	4035.4676
305.9338	5.0331	6.7812	656151.2420	-25.5772
-25.5579				
[19337]ENERGY: 5410000	3169.1842	5176.2620	5238.8317	
335.5477	-15804.4942	-1837.2630	0.0000	0.0000
7696.8598	3974.9282	307.9129	-3721.9316	4036.9932
305.9553	-67.7119	-94.6837	656151.2420	-22.2445
-22.2640				
[19373]ENERGY: 5420000	3145.2432	5136.6696	5297.1236	
299.3874	-15905.9517	-1708.1172	0.0000	0.0000
7707.8310	3972.1858	308.3518	-3735.6451	4035.6256
305.7929	-77.9903	-160.5312	656151.2420	-26.4235
-26.4247				
[19423]ENERGY: 5430000	3140.2903	5074.1761	5273.3291	
358.4340	-15857.9505	-1760.4540	0.0000	0.0000
7742.8725	3970.6977	309.7536	-3772.1748	4036.5605
305.6028	-65.6603	-5.3075	656151.2420	-30.4428
-30.4108				
[19459]ENERGY: 5440000	3265.7792	5118.7152	5261.8910	
350.4736	-15860.0969	-1779.9859	0.0000	0.0000
7620.0205	3976.7967	304.8389	-3643.2238	4037.3175
305.7287	-63.6991	-70.3165	656151.2420	-27.0755
-27.0822				
[19509]ENERGY: 5450000	3228.6539	5101.8554	5260.5614	
333.3797	-15875.9572	-1780.3932	0.0000	0.0000
7706.5697	3974.6697	308.3013	-3731.9000	4036.5775
305.9566	-12.3256	-27.9286	656151.2420	-24.8118
-24.8303				
[19545]ENERGY: 5460000	3191.4190	5214.4751	5290.8541	
302.0145	-15841.3914	-1782.1074	0.0000	0.0000
7604.1669	3979.4307	304.2047	-3624.7362	4038.5457
305.7808	31.9217	-58.9675	656151.2420	-31.6386
-31.6322				
[19595]ENERGY: 5470000	3160.9887	5115.4261	5252.7743	
295.1969	-15849.1351	-1748.2386	0.0000	0.0000
7746.3773	3973.3896	309.8938	-3772.9877	4036.9010
305.8893	18.0002	36.3108	656151.2420	-22.6757
-22.6638				
[19631]ENERGY: 5480000	3093.3623	5160.2226	5255.5871	
339.7621	-15825.4396	-1747.2108	0.0000	0.0000
7695.9067	3972.1906	307.8747	-3723.7161	4037.3313
306.0344	135.1180	84.3821	656151.2420	-24.1087
-24.1068				
[19681]ENERGY: 5490000	3185.4644	5256.5309	5246.3512	
345.1009	-15886.9751	-1758.7991	0.0000	0.0000
7586.4750	3974.1482	303.4969	-3612.3267	4037.3573
306.0428	-69.8316	-7.4686	656151.2420	-24.4207
-24.4322				
[19720]ENERGY: 5500000	3149.7604	5150.3698	5242.7323	
331.9755	-15798.9719	-1744.6900	0.0000	0.0000
7643.8966	3975.0726	305.7941	-3668.8240	4038.2961
306.0046	65.4669	49.8184	656151.2420	-20.9782
-20.9742				

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[19770]ENERGY: 5510000	3215.3265	5105.9774	5253.0037	
316.1094	-15780.2642	-1746.3921	0.0000	0.0000
7614.5596	3978.3202	304.6205	-3636.2394	4038.5159
305.9300	-147.2035	-136.8776	656151.2420	-27.7647
-27.7809				
[19806]ENERGY: 5520000	3154.0611	5125.8049	5308.2136	
343.7785	-15878.7002	-1763.8715	0.0000	0.0000
7683.1491	3972.4354	307.3644	-3710.7137	4038.8594
305.8410	-111.4880	-123.7228	656151.2420	-26.2980
-26.2799				
[19856]ENERGY: 5530000	3130.5165	5152.7117	5278.9242	
331.6190	-15864.2439	-1681.7424	0.0000	0.0000
7631.1603	3978.9454	305.2846	-3652.2149	4039.1719
305.8759	-77.3963	-18.0149	656151.2420	-22.0837
-22.0742				
[19892]ENERGY: 5540000	3192.3922	5248.7017	5247.1145	
349.1190	-15889.6828	-1741.5368	0.0000	0.0000
7570.6723	3976.7802	302.8647	-3593.8921	4039.5802
306.0003	-28.7498	-41.0214	656151.2420	-27.3188
-27.3375				
[19942]ENERGY: 5550000	3168.0216	5211.3282	5270.0686	
317.8744	-15884.1587	-1701.8084	0.0000	0.0000
7599.5367	3980.8624	304.0195	-3618.6743	4040.8790
306.0582	74.6785	-14.0880	656151.2420	-22.0504
-22.0588				
[19978]ENERGY: 5560000	3252.3826	5152.9032	5278.2935	
355.8212	-15922.6419	-1752.6517	0.0000	0.0000
7618.4488	3982.5557	304.7760	-3635.8931	4041.4216
305.8619	-12.7704	-14.3815	656151.2420	-29.5597
-29.5413				
[20028]ENERGY: 5570000	3213.7138	5169.5587	5244.1601	
335.8094	-15876.6168	-1745.4839	0.0000	0.0000
7637.7131	3978.8544	305.5467	-3658.8587	4040.9768
306.0062	-36.4419	-116.1500	656151.2420	-21.0679
-21.0709				
[20064]ENERGY: 5580000	3146.7167	5301.5689	5283.1177	
332.4767	-15894.8164	-1768.9713	0.0000	0.0000
7581.5183	3981.6107	303.2986	-3599.9077	4041.2099
306.0391	27.6002	49.5842	656151.2420	-19.7210
-19.7326				
[20114]ENERGY: 5590000	3171.5731	5298.4523	5281.1068	
348.4924	-15900.1785	-1801.6182	0.0000	0.0000
7580.5932	3978.4212	303.2616	-3602.1720	4039.9234
306.0774	-131.1123	-100.5881	656151.2420	-24.5184
-24.5096				
[20153]ENERGY: 5600000	3135.2847	5224.8862	5280.4264	
334.1923	-15867.9717	-1803.8782	0.0000	0.0000
7673.1238	3976.0634	306.9633	-3697.0603	4041.6010
306.1531	5.1193	14.7656	656151.2420	-25.1304
-25.1448				
[20203]ENERGY: 5610000	3148.6022	5156.7258	5301.4104	
314.2288	-15802.3441	-1760.9053	0.0000	0.0000
7620.4274	3978.1451	304.8552	-3642.2823	4040.7574
306.0918	-5.8461	-49.4410	656151.2420	-23.4273

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-23.4179
 [20239]ENERGY: 5620000 3179.9507 5270.1194 5263.5230
 349.9271 -15868.7335 -1812.7158 0.0000 0.0000
 7596.6304 3978.7011 303.9032 -3617.9293 4040.7007
 306.2324 -74.7203 -67.9415 656151.2420 -23.7587
 -23.7484
 [20289]ENERGY: 5630000 3179.9887 5162.4548 5266.4553
 343.6334 -15843.6608 -1759.2683 0.0000 0.0000
 7630.9399 3980.5430 305.2757 -3650.3969 4040.6032
 306.0883 -55.6313 -153.6231 656151.2420 -20.8602
 -20.8789
 [20325]ENERGY: 5640000 3241.4897 5192.9664 5298.9738
 347.7105 -15852.2278 -1796.8459 0.0000 0.0000
 7552.6315 3984.6982 302.1430 -3567.9333 4042.1056
 305.8833 49.6864 72.9737 656151.2420 -25.5953
 -25.5686
 [20375]ENERGY: 5650000 3134.4371 5155.3528 5260.5916
 365.4742 -15840.7666 -1767.6368 0.0000 0.0000
 7669.3817 3976.8339 306.8136 -3692.5478 4042.2149
 305.9730 78.0471 -2.7049 656151.2420 -23.3546
 -23.3873
 [20411]ENERGY: 5660000 3173.2616 5202.8410 5283.6991
 330.3215 -15821.1086 -1797.4124 0.0000 0.0000
 7610.4192 3982.0215 304.4548 -3628.3978 4043.1579
 306.1895 124.4804 29.7265 656151.2420 -23.6600
 -23.6406
 [20461]ENERGY: 5670000 3227.5374 5206.2502 5263.2681
 366.2294 -15950.5504 -1795.9266 0.0000 0.0000
 7663.7924 3980.6007 306.5900 -3683.1917 4041.4150
 306.1137 22.8823 -123.6637 656151.2420 -23.1201
 -23.1265
 [20497]ENERGY: 5680000 3152.4441 5134.3293 5269.0103
 344.3719 -15764.3185 -1744.6785 0.0000 0.0000
 7590.2820 3981.4407 303.6492 -3608.8413 4042.5127
 306.0870 101.9973 -7.9829 656151.2420 -23.7786
 -23.7732
 [20547]ENERGY: 5690000 3239.2483 5099.3349 5250.0110
 317.4759 -15837.1245 -1782.2785 0.0000 0.0000
 7690.8427 3977.5098 307.6722 -3713.3330 4041.3516
 306.0412 -67.9032 -103.6703 656151.2420 -22.5705
 -22.5715
 [20586]ENERGY: 5700000 3158.2963 5241.6821 5253.9275
 332.5444 -15837.3701 -1802.0147 0.0000 0.0000
 7636.2856 3983.3510 305.4896 -3652.9345 4043.1541
 306.1375 54.8913 4.5473 656151.2420 -26.8068
 -26.8059
 [20636]ENERGY: 5710000 3169.8321 5187.8248 5233.2563
 358.4793 -15843.9715 -1782.2379 0.0000 0.0000
 7658.5697 3981.7529 306.3811 -3676.8169 4043.7311
 306.1768 30.7208 58.0330 656151.2420 -25.5856
 -25.5745
 [20672]ENERGY: 5720000 3222.0498 5174.3553 5269.0354
 346.3431 -15857.7525 -1816.1742 0.0000 0.0000
 7646.9191 3984.7760 305.9150 -3662.1431 4044.9151

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306.0550	18.4719	-38.1766	656151.2420	-28.4631
-28.4772				
[20722]ENERGY: 5730000	3092.5506	5097.1239	5221.7163	
339.1938	-15754.9977	-1729.9463	0.0000	0.0000
7714.2352	3979.8759	308.6080	-3734.3593	4043.5975
305.9729	96.2272	-38.2259	656151.2420	-24.4466
-24.4395				
[20758]ENERGY: 5740000	3198.6029	5168.4589	5277.7484	
326.1789	-15852.6332	-1781.7885	0.0000	0.0000
7647.2908	3983.8581	305.9299	-3663.4327	4044.2270
305.8980	32.2083	26.2651	656151.2420	-26.3674
-26.3773				
[20808]ENERGY: 5750000	3198.3646	5257.3160	5233.8480	
343.4723	-15935.2057	-1766.8724	0.0000	0.0000
7651.7825	3982.7053	306.1096	-3669.0772	4045.5052
305.9020	-62.1947	-82.3958	656151.2420	-20.8511
-20.8397				
[20844]ENERGY: 5760000	3196.1811	5189.3396	5218.2864	
330.1970	-15797.7549	-1737.4885	0.0000	0.0000
7588.8986	3987.6592	303.5939	-3601.2393	4045.6289
306.0830	98.8994	-58.5432	656151.2420	-22.5629
-22.5765				
[20894]ENERGY: 5770000	3099.5191	5253.5714	5238.7187	
299.8851	-15809.9661	-1775.4653	0.0000	0.0000
7674.5670	3980.8299	307.0211	-3693.7371	4045.5821
305.9901	7.9276	-91.6755	656151.2420	-25.4880
-25.4774				
[20930]ENERGY: 5780000	3206.2841	5177.8624	5293.2648	
338.0012	-15819.7322	-1801.8514	0.0000	0.0000
7589.8696	3983.6986	303.6327	-3606.1710	4045.3876
305.9922	51.2266	11.3004	656151.2420	-19.3276
-19.3291				
[20980]ENERGY: 5790000	3093.8700	5192.4966	5338.7204	
359.1280	-15886.8889	-1712.0151	0.0000	0.0000
7599.8541	3985.1651	304.0322	-3614.6890	4045.2421
305.9311	84.0400	19.5446	656151.2420	-19.9863
-19.9886				
[21019]ENERGY: 5800000	3219.2335	5063.7620	5284.0235	
348.2246	-15837.5313	-1774.3114	0.0000	0.0000
7678.9620	3982.3630	307.1969	-3696.5990	4044.1996
305.8864	95.6644	-30.3541	656151.2420	-27.6575
-27.6601				
[21069]ENERGY: 5810000	3097.2558	5214.0416	5253.9911	
354.8247	-15839.0107	-1696.2885	0.0000	0.0000
7598.5074	3983.3215	303.9783	-3615.1859	4046.0763
305.9791	146.8631	53.8540	656151.2420	-22.5450
-22.5367				
[21105]ENERGY: 5820000	3215.7642	5134.6891	5290.2222	
344.0955	-15913.3608	-1758.2517	0.0000	0.0000
7669.5530	3982.7115	306.8205	-3686.8415	4045.2727
305.9188	-141.1296	-124.9248	656151.2420	-27.2014
-27.2065				
[21155]ENERGY: 5830000	3116.6700	5098.9824	5303.0023	
353.1536	-15888.6682	-1739.7809	0.0000	0.0000

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7738.7684	3982.1274	309.5894	-3756.6410	4044.9616
305.9576	-57.3532	-141.1580	656151.2420	-27.1789
-27.1717				
[21191]ENERGY: 5840000	3207.2782	5163.7264	5268.1580	
337.4436	-15836.0569	-1771.5575	0.0000	0.0000
7615.7560	3984.7479	304.6683	-3631.0081	4045.8524
306.0429	28.5814	29.9045	656151.2420	-23.2215
-23.2305				
[21241]ENERGY: 5850000	3281.6380	5134.2892	5274.4082	
345.3073	-15825.5516	-1829.0780	0.0000	0.0000
7606.2810	3987.2941	304.2893	-3618.9869	4047.0929
305.9660	-153.9742	-142.1350	656151.2420	-28.3344
-28.3432				
[21277]ENERGY: 5860000	3202.9386	5156.6572	5264.0379	
337.8957	-15878.3157	-1777.1865	0.0000	0.0000
7677.3597	3983.3870	307.1328	-3693.9727	4045.9898
305.9581	42.3763	17.4283	656151.2420	-24.2852
-24.2761				
[21327]ENERGY: 5870000	3180.4919	5187.4406	5267.3858	
321.9872	-15845.0975	-1768.0884	0.0000	0.0000
7641.0412	3985.1607	305.6798	-3655.8804	4045.5380
305.8141	-94.8630	-144.4066	656151.2420	-20.6279
-20.6262				
[21363]ENERGY: 5880000	3081.4789	5195.9813	5255.2805	
325.5165	-15843.0894	-1736.8585	0.0000	0.0000
7702.6321	3980.9414	308.1438	-3721.6907	4045.1255
305.7541	93.3082	83.0611	656151.2420	-27.8005
-27.8150				
[21413]ENERGY: 5890000	3180.3516	5178.9930	5253.6605	
331.8655	-15828.0557	-1797.2288	0.0000	0.0000
7662.5241	3982.1103	306.5393	-3680.4138	4044.4146
305.9903	-112.0761	-119.4224	656151.2420	-23.9206
-23.8851				
[21452]ENERGY: 5900000	3114.4136	5195.0819	5255.0235	
335.1840	-15850.9358	-1736.8622	0.0000	0.0000
7670.3638	3982.2688	306.8529	-3688.0950	4045.1137
305.9371	40.8257	43.2863	656151.2420	-26.9955
-27.0249				
[21502]ENERGY: 5910000	3194.0473	5181.2221	5296.8055	
330.6105	-15913.8349	-1709.9812	0.0000	0.0000
7604.5895	3983.4587	304.2216	-3621.1308	4046.0290
305.9569	53.3629	33.5722	656151.2420	-22.5040
-22.4883				
[21538]ENERGY: 5920000	3174.0491	5178.4932	5281.5619	
360.6166	-15866.6275	-1756.1651	0.0000	0.0000
7609.6732	3981.6015	304.4250	-3628.0717	4046.0181
305.9287	71.4280	76.1633	656151.2420	-22.9191
-22.9173				
[21588]ENERGY: 5930000	3146.5462	5113.8473	5261.9836	
329.4647	-15798.8045	-1757.6360	0.0000	0.0000
7689.9575	3985.3588	307.6367	-3704.5987	4045.9109
306.0376	-36.2126	1.6630	656151.2420	-21.5961
-21.5973				
[21624]ENERGY: 5940000	3222.9384	5120.6813	5307.6288	

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323.1400	-15816.3957	-1809.3500	0.0000	0.0000
7633.5339	3982.1767	305.3795	-3651.3572	4046.7728
306.1075	-73.8836	-106.3432	656151.2420	-19.8085
-19.8117				
[21674]ENERGY: 5950000	3235.2986	5018.2439	5247.9051	
310.1902	-15667.2055	-1806.5743	0.0000	0.0000
7642.6049	3980.4629	305.7424	-3662.1419	4046.6329
305.9254	-147.2697	-163.2953	656151.2420	-27.6309
-27.6369				
[21710]ENERGY: 5960000	3226.5964	5087.5350	5248.6399	
347.5611	-15840.0608	-1774.5176	0.0000	0.0000
7690.7268	3986.4809	307.6675	-3704.2459	4045.9943
305.9764	-56.8180	-78.4330	656151.2420	-19.4644
-19.4562				
[21760]ENERGY: 5970000	3179.0032	5183.6683	5268.0628	
327.4675	-15896.9318	-1781.0174	0.0000	0.0000
7702.1145	3982.3672	308.1231	-3719.7473	4046.4508
305.9259	-79.5512	-79.5261	656151.2420	-26.5800
-26.5947				
[21796]ENERGY: 5980000	3164.1631	5208.4186	5253.1509	
334.1454	-15859.9356	-1789.3062	0.0000	0.0000
7673.4282	3984.0643	306.9755	-3689.3639	4046.5335
306.0189	119.7971	29.6729	656151.2420	-25.0255
-25.0273				
[21846]ENERGY: 5990000	3166.7773	5236.5826	5207.5239	
350.5085	-15822.8934	-1811.9827	0.0000	0.0000
7659.5746	3986.0908	306.4213	-3673.4838	4047.0916
305.8896	-63.2836	-114.6673	656151.2420	-20.5205
-20.5059				
[21885]ENERGY: 6000000	3214.8587	5203.1279	5251.4972	
337.0106	-15864.9482	-1821.5074	0.0000	0.0000
7664.1357	3984.1745	306.6037	-3679.9611	4048.6080
305.9857	40.1487	-14.9110	656151.2420	-26.1752
-26.1745				
[269]ENERGY: 6010000	3205.4871	5226.0774	5246.3142	330.7224
-15859.9301	-1811.7618	0.0000	0.0000	7649.5096
3986.4188	306.0186	-3663.0909	4047.0334	305.9160
-154.6696	-210.7610	656151.2420	-20.4726	-20.4877
[308]ENERGY: 6020000	3100.2048	5221.3589	5293.6319	325.2728
-15830.3539	-1750.4830	0.0000	0.0000	7626.5651
3986.1966	305.1007	-3640.3684	4047.8077	305.9052
154.9497	77.4490	656151.2420	-22.9825	-22.9629
[360]ENERGY: 6030000	3075.9574	5168.5804	5245.3407	330.8950
-15780.9250	-1786.1180	0.0000	0.0000	7732.8945
3986.6249	309.3544	-3746.2696	4048.0536	305.8227
23.6603	-25.1819	656151.2420	-23.5038	-23.5146
[398]ENERGY: 6040000	3158.7682	5107.6497	5329.6173	368.0921
-15780.3176	-1756.5007	0.0000	0.0000	7562.5661
3989.8751	302.5405	-3572.6910	4047.4741	305.9919
76.2838	-13.7040	656151.2420	-19.4065	-19.4066
[450]ENERGY: 6050000	3186.5968	5229.6870	5275.8576	344.0884
-15850.4331	-1779.5574	0.0000	0.0000	7584.2238
3990.4630	303.4069	-3593.7608	4048.1370	305.8632
-174.2035	-159.2081	656151.2420	-28.2877	-28.3044

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[488]ENERGY: 6060000	3196.9129	5145.3340	5248.2817	319.6035
-15837.3809	-1755.2690	0.0000	0.0000	7668.0465
3985.5286	306.7602	-3682.5179	4047.8607	305.9026
-14.0183	-71.7402	656151.2420	-19.2153	-19.1976
[539]ENERGY: 6070000	3145.9140	5222.7323	5250.4812	347.8123
-15836.1139	-1809.8600	0.0000	0.0000	7661.5246
3982.4906	306.4993	-3679.0341	4047.7544	305.9101
-127.3552	-132.5014	656151.2420	-25.8553	-25.8700
[576]ENERGY: 6080000	3178.2014	5066.3197	5252.6870	338.3305
-15834.5970	-1671.6615	0.0000	0.0000	7655.8569
3985.1370	306.2726	-3670.7199	4047.2334	306.0852
-29.8889	3.5183	656151.2420	-19.0088	-18.9927
[627]ENERGY: 6090000	3217.7221	5221.9934	5290.2059	342.6304
-15923.4223	-1750.2821	0.0000	0.0000	7591.3212
3990.1687	303.6908	-3601.1525	4049.4452	306.1867
57.7866	1.7184	656151.2420	-24.9620	-24.9585
[667]ENERGY: 6100000	3177.8788	5084.2730	5275.5293	349.4836
-15775.1835	-1756.5042	0.0000	0.0000	7632.0710
3987.5480	305.3210	-3644.5230	4048.3862	306.0928
-92.3749	-123.9169	656151.2420	-22.5185	-22.5375
[718]ENERGY: 6110000	3263.3047	5157.3931	5288.8378	322.3194
-15846.4404	-1864.4497	0.0000	0.0000	7667.6077
3988.5725	306.7426	-3679.0352	4050.0585	306.0323
-91.4519	-96.0166	656151.2420	-24.9551	-24.9465
[754]ENERGY: 6120000	3180.6249	5271.6129	5289.7562	320.5576
-16026.0604	-1713.4342	0.0000	0.0000	7666.2540
3989.3109	306.6885	-3676.9431	4051.3767	306.0983
68.5503	42.0304	656151.2420	-24.1294	-24.1261
[804]ENERGY: 6130000	3254.5858	5238.5614	5283.9341	316.3139
-15870.1861	-1812.9174	0.0000	0.0000	7581.6681
3991.9599	303.3046	-3589.7083	4051.4547	306.2822
-147.1473	-114.8592	656151.2420	-22.9335	-22.9393
[840]ENERGY: 6140000	3127.0019	5262.2151	5207.0929	330.6533
-15827.2077	-1735.6521	0.0000	0.0000	7625.6789
3989.7825	305.0653	-3635.8964	4050.9045	306.1223
247.4967	142.1579	656151.2420	-22.6448	-22.6480
[890]ENERGY: 6150000	3195.3848	5280.3409	5260.8503	333.0434
-15853.8689	-1831.7035	0.0000	0.0000	7606.0022
3990.0492	304.2781	-3615.9529	4050.4765	306.3193
-100.8156	-59.1583	656151.2420	-23.4604	-23.4515
[926]ENERGY: 6160000	3230.8459	5194.7799	5227.9463	329.8402
-15917.8349	-1696.1387	0.0000	0.0000	7620.2021
3989.6408	304.8462	-3630.5613	4050.0903	306.1764
-18.1231	-18.7695	656151.2420	-26.5837	-26.5811
[976]ENERGY: 6170000	3128.8899	5210.2277	5284.9226	347.2839
-15852.8129	-1781.5800	0.0000	0.0000	7656.0570
3992.9884	306.2806	-3663.0687	4050.7207	306.0535
19.5887	45.9608	656151.2420	-21.7902	-21.7869
[1012]ENERGY: 6180000	3141.0684	5143.2280	5266.9248	
339.7176	-15814.9342	-1768.7999	0.0000	0.0000
7681.7070	3988.9118	307.3067	-3692.7952	4050.9918
306.2077	12.0865	-60.3353	656151.2420	-27.2328
-27.2579				
[1062]ENERGY: 6190000	3215.2091	5201.8003	5316.0368	

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348.4701	-15947.8174	-1741.7950	0.0000	0.0000
7600.8610	3992.7649	304.0724	-3608.0961	4050.2642
306.2663	-118.5517	-90.3740	656151.2420	-22.4682
-22.4357				
[1101]ENERGY: 6200000	3138.0362	5122.3801	5256.0582	
347.3249	-15771.0068	-1764.5859	0.0000	0.0000
7659.9645	3988.1713	306.4369	-3671.7932	4050.3403
306.1985	46.8985	-16.8594	656151.2420	-27.8560
-27.8582				
[1151]ENERGY: 6210000	3189.0442	5261.6703	5266.8238	
330.7783	-15821.8868	-1800.5727	0.0000	0.0000
7566.0757	3991.9328	302.6809	-3574.1429	4051.3098
306.1706	14.1242	-30.5095	656151.2420	-21.8605
-21.8581				
[1187]ENERGY: 6220000	3210.2803	5155.1573	5262.7923	
338.0054	-15853.6979	-1757.2513	0.0000	0.0000
7636.0071	3991.2932	305.4785	-3644.7139	4050.4795
305.9743	-62.6706	-18.0572	656151.2420	-26.5937
-26.5889				
[1237]ENERGY: 6230000	3194.8777	5160.5176	5290.9710	
337.0747	-15938.7186	-1727.7803	0.0000	0.0000
7670.5790	3987.5212	306.8615	-3683.0579	4051.5654
306.1617	40.4001	58.2858	656151.2420	-23.9352
-23.9361				
[1273]ENERGY: 6240000	3080.3985	5183.6537	5253.6994	
332.3696	-15824.3676	-1771.7452	0.0000	0.0000
7729.1848	3983.1932	309.2060	-3745.9916	4052.2647
306.1055	-40.2493	-50.7206	656151.2420	-22.7607
-22.7721				
[1323]ENERGY: 6250000	3221.7154	5218.1775	5247.3835	
337.1129	-15859.2357	-1831.0598	0.0000	0.0000
7655.1351	3989.2290	306.2437	-3665.9062	4052.0702
306.0580	-129.2490	-106.2284	656151.2420	-18.8525
-18.8569				
[1359]ENERGY: 6260000	3268.9974	5139.6641	5278.9812	
316.7260	-15870.2968	-1781.3740	0.0000	0.0000
7638.4195	3991.1174	305.5750	-3647.3021	4051.7616
306.2032	41.3063	2.4560	656151.2420	-25.4234
-25.4218				
[1409]ENERGY: 6270000	3172.7575	5197.0240	5241.8909	
300.3220	-15803.1115	-1780.2928	0.0000	0.0000
7659.0547	3987.6448	306.4005	-3671.4099	4051.2166
305.9632	-52.9999	-92.9382	656151.2420	-23.8583
-23.8590				
[1445]ENERGY: 6280000	3211.7592	5126.6963	5252.2680	
337.2441	-15831.3652	-1835.9622	0.0000	0.0000
7726.2059	3986.8461	309.0869	-3739.3599	4051.3269
306.1369	-67.5976	-164.6507	656151.2420	-21.4717
-21.4812				
[1495]ENERGY: 6290000	3108.0051	5169.5197	5234.0504	
339.0978	-15877.8882	-1745.5244	0.0000	0.0000
7756.2898	3983.5503	310.2904	-3772.7395	4049.7457
306.1161	96.4496	125.9365	656151.2420	-27.3303
-27.3253				

Supplementary Text 6

[1534]ENERGY: 6300000	3149.1164	5067.6607	5312.6936	
336.2317	-15855.0936	-1737.0371	0.0000	0.0000
7714.5807	3988.1524	308.6218	-3726.4283	4050.0951
306.1535	69.5163	5.3507	656151.2420	-22.3819
-22.3806				
[1584]ENERGY: 6310000	3208.3813	5144.4004	5226.5633	
340.3632	-15927.2209	-1707.7919	0.0000	0.0000
7703.5669	3988.2622	308.1812	-3715.3047	4050.7977
305.9698	105.1072	38.7032	656151.2420	-22.0743
-22.0575				
[1620]ENERGY: 6320000	3154.9165	5241.5656	5252.1772	
361.8700	-15877.3196	-1734.1010	0.0000	0.0000
7588.7746	3987.8833	303.5889	-3600.8913	4050.2800
305.9403	-137.2198	-99.6924	656151.2420	-20.0056
-20.0182				
[1670]ENERGY: 6330000	3187.0859	5225.0263	5239.6284	
336.6146	-15888.0631	-1805.0533	0.0000	0.0000
7690.1684	3985.4072	307.6452	-3704.7612	4050.5545
305.9782	-81.9929	-131.9671	656151.2420	-25.9978
-26.0130				
[1706]ENERGY: 6340000	3137.9674	5194.1154	5291.9670	
329.3081	-15813.5390	-1807.2375	0.0000	0.0000
7656.1404	3988.7218	306.2839	-3667.4186	4051.4278
306.1570	-99.1609	-80.2165	656151.2420	-23.6629
-23.6232				
[1756]ENERGY: 6350000	3192.0841	5228.3626	5266.3715	
314.9046	-15832.7964	-1776.2826	0.0000	0.0000
7600.5264	3993.1702	304.0591	-3607.3562	4052.8685
306.1125	-145.8763	-177.1465	656151.2420	-25.9427
-25.9633				
[1792]ENERGY: 6360000	3141.9885	5158.5645	5247.5046	
316.7376	-15783.4020	-1810.2742	0.0000	0.0000
7718.1352	3989.2544	308.7640	-3728.8809	4051.7160
306.0270	-217.6379	-177.8882	656151.2420	-24.2997
-24.3190				
[1842]ENERGY: 6370000	3084.3331	5240.5743	5278.9172	
358.5080	-15817.3453	-1749.9658	0.0000	0.0000
7593.5160	3988.5375	303.7786	-3604.9785	4051.9862
305.9048	95.7380	43.5331	656151.2420	-24.0684
-24.0571				
[1878]ENERGY: 6380000	3188.1541	5238.6517	5279.3352	
337.8428	-15836.9005	-1786.2966	0.0000	0.0000
7570.5892	3991.3760	302.8614	-3579.2132	4051.7946
305.9003	-137.5141	-68.9543	656151.2420	-22.1344
-22.1151				
[1928]ENERGY: 6390000	3200.6628	5199.9854	5214.6360	
349.5172	-15860.8173	-1648.9978	0.0000	0.0000
7539.4508	3994.4372	301.6157	-3545.0137	4052.4066
305.7370	144.6198	125.7761	656151.2420	-21.7194
-21.7423				
[1967]ENERGY: 6400000	3109.2512	5250.9647	5275.0742	
338.9263	-15875.0004	-1753.5846	0.0000	0.0000
7646.1430	3991.7744	305.8839	-3654.3686	4051.7434
305.7341	134.9246	79.9816	656151.2420	-23.5161

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-23.5044
 [2017]ENERGY: 6410000 3146.7005 5132.6071 5278.0682
 354.1562 -15814.1141 -1805.2744 0.0000 0.0000
 7696.2372 3988.3806 307.8880 -3707.8566 4052.2163
 305.9919 -153.4249 -155.1005 656151.2420 -17.2893
 -17.2775
 [2053]ENERGY: 6420000 3112.1208 5158.1043 5273.3350
 335.3431 -15818.1087 -1761.9264 0.0000 0.0000
 7690.5716 3989.4395 307.6613 -3701.1321 4053.6755
 305.9414 217.2800 83.5660 656151.2420 -25.7665
 -25.7938
 [2103]ENERGY: 6430000 3129.9538 5140.4111 5286.3278
 328.3085 -15816.3023 -1780.8644 0.0000 0.0000
 7704.4154 3992.2500 308.2151 -3712.1655 4054.8107
 305.9114 27.0870 -67.0794 656151.2420 -24.5557
 -24.5501
 [2139]ENERGY: 6440000 3206.2912 5168.8827 5282.8639
 337.7410 -15844.2615 -1744.4731 0.0000 0.0000
 7584.9052 3991.9494 303.4341 -3592.9558 4053.5969
 306.1815 -118.6934 -50.9474 656151.2420 -20.9905
 -20.9852
 [2189]ENERGY: 6450000 3188.6296 5190.4901 5285.5613
 337.4941 -15900.8922 -1758.6036 0.0000 0.0000
 7648.2876 3990.9669 305.9697 -3657.3208 4054.2496
 306.0746 -142.3077 -149.8469 656151.2420 -24.3247
 -24.3203
 [2225]ENERGY: 6460000 3198.1604 5198.1455 5303.3697
 344.6309 -15926.3705 -1799.7067 0.0000 0.0000
 7674.8615 3993.0908 307.0328 -3681.7706 4055.3471
 306.2497 -158.1024 -138.9556 656151.2420 -25.0348
 -25.0375
 [2275]ENERGY: 6470000 3174.3166 5210.7977 5274.5026
 351.6620 -15927.2845 -1806.0486 0.0000 0.0000
 7713.7937 3991.7393 308.5903 -3722.0543 4055.2433
 306.1798 23.4966 -53.2913 656151.2420 -28.5335
 -28.5593
 [2311]ENERGY: 6480000 3201.1573 5227.8901 5306.8628
 330.1585 -15950.2114 -1675.6308 0.0000 0.0000
 7553.7385 3993.9651 302.1873 -3559.7734 4054.7847
 306.3504 107.3496 94.8225 656151.2420 -28.1451
 -28.1161
 [2361]ENERGY: 6490000 3271.0366 5136.9307 5260.0245
 348.8577 -15869.3474 -1722.1853 0.0000 0.0000
 7569.5737 3994.8905 302.8208 -3574.6832 4054.2349
 306.1318 -163.2615 -145.2064 656151.2420 -22.9319
 -22.9428
 [2400]ENERGY: 6500000 3108.9276 5265.8485 5320.7853
 351.6399 -15973.3608 -1726.0192 0.0000 0.0000
 7646.4644 3994.2856 305.8968 -3652.1788 4055.0598
 306.1177 -5.5560 -0.2178 656151.2420 -26.5299
 -26.5394
 [2450]ENERGY: 6510000 3260.3494 5267.4628 5234.4729
 345.5304 -15928.1144 -1804.4219 0.0000 0.0000
 7615.4671 3990.7463 304.6568 -3624.7208 4055.2600

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306.3399	-207.2333	-176.1836	656151.2420	-21.6661
-21.6446				
[2486]ENERGY: 6520000	3102.0756	5165.7285	5255.0902	
325.4714	-15813.7954	-1794.7241	0.0000	0.0000
7751.7039	3991.5502	310.1069	-3760.1537	4056.4429
306.1861	154.8730	56.5279	656151.2420	-25.1750
-25.1929				
[2536]ENERGY: 6530000	3168.0093	5231.9995	5283.3377	
329.9716	-15877.4775	-1785.5841	0.0000	0.0000
7641.3567	3991.6133	305.6925	-3649.7434	4055.6709
306.2404	-54.4073	-18.4011	656151.2420	-28.0941
-28.0823				
[2572]ENERGY: 6540000	3216.1216	5064.7821	5293.6080	
353.2241	-15833.5119	-1692.8438	0.0000	0.0000
7596.5841	3997.9641	303.9013	-3598.6200	4055.8241
306.1131	66.8225	33.5978	656151.2420	-23.9371
-23.9364				
[2622]ENERGY: 6550000	3138.2979	5292.1470	5276.2104	
349.1878	-15908.8798	-1792.8737	0.0000	0.0000
7642.9007	3996.9903	305.7542	-3645.9104	4056.9015
306.1905	23.4940	-23.9943	656151.2420	-29.1007
-29.0967				
[2658]ENERGY: 6560000	3206.0452	5194.3708	5228.3586	
334.5764	-15776.1017	-1774.1273	0.0000	0.0000
7582.9278	3996.0497	303.3550	-3586.8780	4056.3300
305.9799	-132.9182	-80.4854	656151.2420	-22.3589
-22.3703				
[2708]ENERGY: 6570000	3133.5854	5102.5352	5331.5410	
350.3501	-15852.5191	-1760.4566	0.0000	0.0000
7686.6778	3991.7138	307.5055	-3694.9640	4055.8884
306.2253	-130.3084	-112.1351	656151.2420	-26.5607
-26.5483				
[2744]ENERGY: 6580000	3184.1004	5138.1036	5290.6267	
359.8095	-15909.8204	-1683.5055	0.0000	0.0000
7615.1064	3994.4206	304.6423	-3620.6858	4057.3416
306.3577	-46.6984	-47.5029	656151.2420	-22.6698
-22.6750				
[2794]ENERGY: 6590000	3158.9965	5195.4685	5282.2648	
352.2456	-15905.2969	-1801.0956	0.0000	0.0000
7713.1207	3995.7038	308.5634	-3717.4169	4058.0152
306.2321	-42.4536	-91.6578	656151.2420	-30.5911
-30.5867				
[2833]ENERGY: 6600000	3173.0310	5279.1752	5305.2101	
324.5590	-15908.5419	-1828.2179	0.0000	0.0000
7647.5963	3992.8117	305.9421	-3654.7845	4057.5144
306.2616	41.8109	-21.7702	656151.2420	-23.7781
-23.7748				
[2883]ENERGY: 6610000	3255.3318	5208.1674	5233.8461	
350.4866	-15878.4342	-1816.7220	0.0000	0.0000
7646.0558	3998.7314	305.8805	-3647.3243	4058.1670
306.3071	62.6523	-35.1123	656151.2420	-26.4114
-26.4108				
[2919]ENERGY: 6620000	3116.3536	5264.7927	5245.0343	
333.9982	-15884.7749	-1762.1673	0.0000	0.0000

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7683.6591	3996.8958	307.3848	-3686.7633	4057.9968
306.4739	58.7970	-35.7289	656151.2420	-25.7714
-25.7904				
[2969]ENERGY: 6630000	3155.1062	5207.6544	5214.3442	
331.4261	-15843.3088	-1724.9014	0.0000	0.0000
7653.5428	3993.8634	306.1800	-3659.6794	4057.5859
306.4849	34.6609	0.3403	656151.2420	-24.1627
-24.1515				
[3005]ENERGY: 6640000	3140.9980	5230.5243	5239.8780	
338.6586	-15864.2169	-1782.7362	0.0000	0.0000
7693.0290	3996.1348	307.7596	-3696.8942	4059.0738
306.5273	200.9693	74.2250	656151.2420	-26.8499
-26.8727				
[3055]ENERGY: 6650000	3124.4097	5210.7128	5242.6966	
344.0518	-15940.0244	-1726.1589	0.0000	0.0000
7739.4797	3995.1674	309.6179	-3744.3123	4059.4439
306.2782	43.6971	20.5147	656151.2420	-26.1280
-26.1056				
[3091]ENERGY: 6660000	3125.8083	5357.4302	5267.2532	
339.5903	-15907.7781	-1815.4976	0.0000	0.0000
7631.0424	3997.8487	305.2798	-3633.1937	4059.6481
306.4791	-39.1863	-10.3090	656151.2420	-27.1560
-27.1504				
[3141]ENERGY: 6670000	3193.6261	5269.8627	5250.5148	
320.0079	-15855.1316	-1741.8497	0.0000	0.0000
7563.3317	4000.3619	302.5711	-3562.9699	4059.3634
306.2819	-107.3123	-90.6075	656151.2420	-26.2838
-26.2977				
[3177]ENERGY: 6680000	3234.9385	5075.8909	5288.8407	
328.2939	-15851.4478	-1727.0607	0.0000	0.0000
7652.8557	4002.3112	306.1525	-3650.5446	4060.9579
306.2227	66.5913	-15.9191	656151.2420	-27.8298
-27.8213				
[3227]ENERGY: 6690000	3227.3420	5162.0624	5282.3402	
353.1192	-15871.4771	-1784.8078	0.0000	0.0000
7630.7111	3999.2902	305.2666	-3631.4210	4059.3389
306.2746	4.2143	-29.5216	656151.2420	-25.7837
-25.7935				
[3266]ENERGY: 6700000	3178.2795	5183.5919	5271.4122	
333.7118	-15964.1803	-1743.1359	0.0000	0.0000
7733.1748	3992.8540	309.3657	-3740.3207	4059.4534
306.3414	-70.8513	-64.4453	656151.2420	-25.8039
-25.8003				
[3316]ENERGY: 6710000	3228.2368	5068.4529	5315.7064	
324.6827	-15835.3156	-1794.4279	0.0000	0.0000
7691.2531	3998.5883	307.6886	-3692.6648	4060.6432
306.3161	-11.1250	-42.2566	656151.2420	-27.2849
-27.2664				
[3352]ENERGY: 6720000	3145.4592	5167.9102	5229.2925	
345.7862	-15824.0879	-1744.7087	0.0000	0.0000
7678.3064	3997.9579	307.1706	-3680.3484	4060.5079
306.3438	26.6384	8.5615	656151.2420	-27.9603
-27.9834				
[3402]ENERGY: 6730000	3115.9487	5100.0754	5287.0153	

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348.0599	-15736.8587	-1780.5121	0.0000	0.0000
7666.4511	4000.1797	306.6964	-3666.2714	4061.0301
306.2870	84.6462	44.2096	656151.2420	-28.2225
-28.2213				
[3438]ENERGY: 6740000	3180.1050	5233.6141	5258.7161	
352.6306	-15899.9097	-1746.4993	0.0000	0.0000
7618.8758	3997.5326	304.7931	-3621.3433	4059.9790
306.3140	150.1047	59.7711	656151.2420	-27.8891
-27.8750				
[3488]ENERGY: 6750000	3180.1940	5212.1605	5261.2311	
347.7025	-15914.9070	-1742.9490	0.0000	0.0000
7656.1649	3999.5969	306.2849	-3656.5679	4060.0178
306.3170	77.4824	16.8462	656151.2420	-28.8930
-28.8820				
[3524]ENERGY: 6760000	3218.6597	5218.8009	5292.7866	
364.6608	-15913.0873	-1732.1387	0.0000	0.0000
7553.4623	4003.1444	302.1763	-3550.3179	4061.0940
306.3055	180.8514	159.2945	656151.2420	-21.5212
-21.5281				
[3574]ENERGY: 6770000	3214.4385	5172.7207	5271.0463	
349.4796	-15929.3923	-1731.1345	0.0000	0.0000
7653.5635	4000.7218	306.1808	-3652.8417	4061.4151
306.3538	-1.8292	-51.4551	656151.2420	-27.1691
-27.1962				
[3610]ENERGY: 6780000	3184.8045	5173.9594	5222.8692	
341.8707	-15869.3540	-1746.5766	0.0000	0.0000
7689.0694	3996.6425	307.6012	-3692.4269	4060.2067
306.2262	177.9665	154.4153	656151.2420	-26.7960
-26.7770				
[3660]ENERGY: 6790000	3162.1603	5139.7499	5248.8269	
352.9385	-15817.6052	-1692.7575	0.0000	0.0000
7609.4088	4002.7219	304.4144	-3606.6869	4060.9652
306.4265	208.0386	202.6216	656151.2420	-20.0736
-20.0629				
[3699]ENERGY: 6800000	3171.4369	5148.5810	5295.0200	
355.9102	-15787.2436	-1827.7052	0.0000	0.0000
7642.9440	3998.9432	305.7560	-3644.0007	4062.2786
306.1008	-64.7615	-93.7680	656151.2420	-28.5923
-28.6099				
[3749]ENERGY: 6810000	3172.1413	5176.4282	5290.8808	
340.8087	-15849.4237	-1800.5051	0.0000	0.0000
7668.7197	3999.0498	306.7871	-3669.6698	4060.9276
306.1869	-31.2777	-61.9453	656151.2420	-24.5413
-24.5408				
[3785]ENERGY: 6820000	3251.3392	5153.2665	5289.9237	
337.6852	-15861.5337	-1778.1854	0.0000	0.0000
7611.9083	4004.4037	304.5144	-3607.5046	4061.5012
306.1670	-156.4921	-137.7107	656151.2420	-27.3644
-27.3519				
[3835]ENERGY: 6830000	3204.4079	5192.5777	5259.6202	
329.2347	-15860.0328	-1779.1361	0.0000	0.0000
7654.0626	4000.7342	306.2008	-3653.3285	4060.6380
306.1092	-92.8333	-92.2594	656151.2420	-27.5821
-27.5858				

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[3871]ENERGY: 6840000	3230.6505	5233.1736	5274.6128	
341.5954	-15970.8975	-1773.0410	0.0000	0.0000
7666.5886	4002.6823	306.7019	-3663.9063	4062.2352
306.1331	-117.8487	-63.8831	656151.2420	-32.2526
-32.2512				
[3921]ENERGY: 6850000	3214.8313	5128.9613	5275.2681	
335.4722	-15884.3290	-1729.7180	0.0000	0.0000
7661.3386	4001.8244	306.4918	-3659.5142	4062.1990
306.1935	187.0260	182.5270	656151.2420	-25.6734
-25.6722				
[3957]ENERGY: 6860000	3143.7470	5072.7021	5285.4470	
333.2454	-15839.1581	-1727.4481	0.0000	0.0000
7733.4063	4001.9416	309.3749	-3731.4646	4063.1574
306.1367	123.0777	-6.9699	656151.2420	-25.9780
-25.9924				
[4007]ENERGY: 6870000	3141.7827	5253.4401	5241.9648	
363.2591	-15861.3725	-1764.1412	0.0000	0.0000
7628.3874	4003.3203	305.1736	-3625.0671	4063.0124
306.1408	-136.0076	-115.4713	656151.2420	-29.0942
-29.0859				
[4043]ENERGY: 6880000	3127.6633	5190.5795	5278.4786	
314.8226	-15827.2883	-1777.1296	0.0000	0.0000
7690.6795	3997.8056	307.6656	-3692.8739	4061.6395
306.3228	62.5344	1.9791	656151.2420	-21.6916
-21.7042				
[4093]ENERGY: 6890000	3183.7196	5217.0867	5269.4795	
351.7749	-15794.4121	-1843.5542	0.0000	0.0000
7615.8764	3999.9708	304.6731	-3615.9056	4061.9708
306.4035	-61.9271	-88.5634	656151.2420	-30.5456
-30.5286				
[4132]ENERGY: 6900000	3156.8519	5156.8379	5228.6180	
341.0406	-15862.4674	-1728.3539	0.0000	0.0000
7705.9221	3998.4492	308.2754	-3707.4728	4061.4914
306.5208	3.3602	-64.3980	656151.2420	-22.3301
-22.3408				
[4182]ENERGY: 6910000	3147.9392	5187.5569	5275.1154	
331.5556	-15895.9816	-1746.0234	0.0000	0.0000
7696.1679	3996.3300	307.8852	-3699.8379	4060.4014
306.4639	36.2814	35.6980	656151.2420	-28.8263
-28.8200				
[4218]ENERGY: 6920000	3115.6605	5211.4137	5259.7646	
347.2841	-15871.3847	-1729.7123	0.0000	0.0000
7667.0762	4000.1021	306.7214	-3666.9740	4061.5517
306.2633	-39.5999	-53.3137	656151.2420	-25.8487
-25.8613				
[4268]ENERGY: 6930000	3113.9088	5251.6103	5257.6162	
314.3978	-15918.8092	-1727.8567	0.0000	0.0000
7706.8452	3997.7124	308.3123	-3709.1327	4061.6516
306.1329	232.3353	201.0583	656151.2420	-24.5769
-24.5676				
[4304]ENERGY: 6940000	3146.4162	5146.6997	5239.2084	
326.6937	-15841.6707	-1697.3874	0.0000	0.0000
7681.7917	4001.7515	307.3101	-3680.0402	4061.1831
306.1678	54.6326	49.2008	656151.2420	-21.1551

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-21.1504
 [4354]ENERGY: 6950000 3148.8865 5231.4683 5270.9496
 366.9261 -15939.7518 -1742.7439 0.0000 0.0000
 7661.6860 3997.4209 306.5057 -3664.2652 4061.1540
 306.1438 244.1208 129.4781 656151.2420 -26.7890
 -26.7997
 [4390]ENERGY: 6960000 3164.6845 5161.8153 5264.3754
 332.9828 -15814.2889 -1794.4583 0.0000 0.0000
 7682.3690 3997.4798 307.3332 -3684.8892 4062.4607
 306.0391 2.7265 -88.8408 656151.2420 -23.9948
 -23.9755
 [4440]ENERGY: 6970000 3186.0924 5154.2300 5278.3793
 339.6159 -15859.4343 -1763.6346 0.0000 0.0000
 7664.8250 4000.0737 306.6313 -3664.7513 4061.5627
 306.0989 33.3511 -89.2328 656151.2420 -24.3788
 -24.4033
 [4476]ENERGY: 6980000 3184.4807 5143.1003 5273.5894
 361.3828 -15872.8296 -1801.5178 0.0000 0.0000
 7710.3186 3998.5243 308.4513 -3711.7943 4061.3419
 306.0395 -23.9586 -16.5248 656151.2420 -24.9584
 -24.9356
 [4526]ENERGY: 6990000 3168.0620 5208.1574 5314.4379
 332.8155 -15880.4690 -1761.3430 0.0000 0.0000
 7620.8702 4002.5310 304.8729 -3618.3392 4062.9655
 305.9841 99.0275 67.6152 656151.2420 -24.4807
 -24.4706
 [4565]ENERGY: 7000000 3164.3408 5253.9544 5259.6636
 360.7595 -15936.2589 -1716.1438 0.0000 0.0000
 7613.5583 3999.8739 304.5804 -3613.6843 4060.7814
 306.2982 99.4131 135.1755 656151.2420 -22.9019
 -22.9131
 [4615]ENERGY: 7010000 3215.1978 5110.8371 5301.2671
 323.7426 -15753.0999 -1847.3732 0.0000 0.0000
 7651.5976 4002.1692 306.1022 -3649.4285 4062.6382
 306.1892 -111.1487 -52.4644 656151.2420 -25.9838
 -25.9867
 [4651]ENERGY: 7020000 3227.1019 5177.7211 5285.5040
 338.9686 -15850.6481 -1799.9630 0.0000 0.0000
 7622.7231 4001.4075 304.9470 -3621.3156 4061.5764
 306.3509 -54.4227 -104.8705 656151.2420 -24.6118
 -24.6128
 [4701]ENERGY: 7030000 3214.7515 5158.5663 5243.8280
 340.9208 -15852.2528 -1761.3043 0.0000 0.0000
 7656.6095 4001.1190 306.3027 -3655.4905 4063.7736
 306.4072 115.5590 29.9974 656151.2420 -26.1382
 -26.1427
 [4737]ENERGY: 7040000 3138.0222 5139.5455 5227.9873
 340.0121 -15797.1945 -1751.0572 0.0000 0.0000
 7701.6516 3998.9670 308.1046 -3702.6846 4063.5508
 306.3458 53.4649 91.6729 656151.2420 -25.8113
 -25.8134
 [4787]ENERGY: 7050000 3134.0945 5219.0461 5268.3030
 323.3569 -15768.5634 -1792.5280 0.0000 0.0000
 7615.7780 3999.4870 304.6692 -3616.2909 4062.9252

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306.4424	22.0492	14.8604	656151.2420	-22.6249
-22.6121				
[4823]ENERGY: 7060000	3147.1268	5231.8612	5254.8255	
339.9611	-15868.3639	-1793.3873	0.0000	0.0000
7687.1703	3999.1938	307.5252	-3687.9765	4063.5060
306.2789	-39.8979	-125.7711	656151.2420	-29.5718
-29.5952				
[4873]ENERGY: 7070000	3159.2020	5150.0298	5317.4636	
345.4222	-15916.6520	-1781.2834	0.0000	0.0000
7725.1062	3999.2885	309.0429	-3725.8177	4064.0577
306.2234	-48.7725	-42.3239	656151.2420	-24.5202
-24.5060				
[4909]ENERGY: 7080000	3205.9116	5173.9252	5283.6499	
353.5400	-15910.1559	-1694.4649	0.0000	0.0000
7594.0460	4006.4520	303.7998	-3587.5940	4065.1054
306.1780	25.3392	41.4147	656151.2420	-28.5948
-28.5857				
[4959]ENERGY: 7090000	3180.6203	5151.8119	5215.8079	
346.1917	-15820.5917	-1762.1552	0.0000	0.0000
7693.1035	4004.7884	307.7626	-3688.3150	4064.9853
306.1867	76.4991	50.0723	656151.2420	-26.4497
-26.4507				
[4998]ENERGY: 7100000	3157.8793	5201.3848	5273.4863	
347.7276	-15844.3314	-1746.5270	0.0000	0.0000
7617.7243	4007.3439	304.7471	-3610.3804	4065.7718
306.3043	92.8829	86.9213	656151.2420	-25.5200
-25.5507				
[5048]ENERGY: 7110000	3241.6314	5230.2724	5295.7408	
336.5968	-15953.9694	-1762.6083	0.0000	0.0000
7615.5830	4003.2467	304.6614	-3612.3363	4065.5139
306.5811	-104.8366	-95.6177	656151.2420	-23.4684
-23.4708				
[5084]ENERGY: 7120000	3201.4911	5162.3030	5263.1392	
345.0711	-15913.4620	-1692.4419	0.0000	0.0000
7637.2667	4003.3672	305.5289	-3633.8994	4064.5498
306.5812	165.5060	138.6878	656151.2420	-24.0587
-24.0278				
[5134]ENERGY: 7130000	3182.8076	5137.7379	5297.5037	
335.3880	-15931.7979	-1751.5940	0.0000	0.0000
7729.0017	3999.0470	309.1987	-3729.9547	4064.6040
306.5659	-29.4380	-37.7728	656151.2420	-19.1831
-19.1949				
[5170]ENERGY: 7140000	3144.1627	5241.2216	5249.1236	
323.5467	-15855.3223	-1736.1521	0.0000	0.0000
7634.6040	4001.1843	305.4223	-3633.4197	4064.8253
306.3976	72.6503	78.0994	656151.2420	-25.0501
-25.0430				
[5220]ENERGY: 7150000	3167.0342	5192.7929	5238.2779	
337.4537	-15836.8050	-1794.0915	0.0000	0.0000
7697.1903	4001.8524	307.9261	-3695.3379	4063.7514
306.2958	4.8855	58.5069	656151.2420	-22.0590
-22.0560				
[5256]ENERGY: 7160000	3199.1181	5114.9436	5272.2218	
323.7701	-15784.8790	-1731.6672	0.0000	0.0000

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7615.4227	4008.9301	304.6550	-3606.4926	4065.6828
306.2798	186.8884	48.1022	656151.2420	-24.0793
-24.1126				
[5306]ENERGY: 7170000	3218.6987	5224.4660	5287.8040	
343.3173	-15919.1081	-1815.0841	0.0000	0.0000
7665.3209	4005.4147	306.6512	-3659.9062	4065.2001
306.1129	-97.1262	-110.5901	656151.2420	-24.9306
-24.9027				
[5342]ENERGY: 7180000	3181.9337	5139.3294	5254.0958	
322.1243	-15873.7996	-1694.3040	0.0000	0.0000
7675.3192	4004.6987	307.0511	-3670.6204	4065.3129
306.3378	158.5189	131.4743	656151.2420	-25.4963
-25.4872				
[5392]ENERGY: 7190000	3186.6711	5222.3538	5299.2751	
363.2695	-15844.6661	-1782.6975	0.0000	0.0000
7560.7100	4004.9159	302.4662	-3555.7941	4065.3762
306.3424	-67.4726	-79.5915	656151.2420	-26.1967
-26.2040				
[5431]ENERGY: 7200000	3151.9926	5275.0035	5243.8974	
334.6415	-15808.5390	-1835.2424	0.0000	0.0000
7642.3666	4004.1201	305.7329	-3638.2465	4066.9906
306.5837	126.3620	71.9598	656151.2420	-22.8372
-22.8433				
[5481]ENERGY: 7210000	3136.3908	5162.7863	5293.2469	
325.9126	-15779.8820	-1793.1928	0.0000	0.0000
7658.8023	4004.0640	306.3904	-3654.7382	4067.0708
306.5273	-65.4004	-98.4617	656151.2420	-27.0821
-27.0749				
[5517]ENERGY: 7220000	3185.4974	5188.6319	5268.9204	
330.3868	-15850.3645	-1764.8547	0.0000	0.0000
7646.9292	4005.1465	305.9154	-3641.7827	4066.8521
306.5364	-48.3063	5.9447	656151.2420	-18.4215
-18.4282				
[5567]ENERGY: 7230000	3115.9882	5281.0578	5298.9705	
337.5740	-15877.9638	-1800.3655	0.0000	0.0000
7652.1671	4007.4283	306.1249	-3644.7388	4068.4883
306.5736	-112.3183	-65.3707	656151.2420	-23.8737
-23.8801				
[5603]ENERGY: 7240000	3196.6605	5200.2852	5242.1640	
336.0987	-15846.0886	-1815.8943	0.0000	0.0000
7691.5004	4004.7259	307.6985	-3686.7745	4069.6554
306.5015	-65.6130	-46.4566	656151.2420	-21.1406
-21.1233				
[5653]ENERGY: 7250000	3175.4445	5157.4038	5297.1360	
357.6388	-15843.9883	-1735.3687	0.0000	0.0000
7602.6034	4010.8695	304.1421	-3591.7339	4069.2773
306.4055	-22.6332	-48.6308	656151.2420	-24.0041
-24.0223				
[5689]ENERGY: 7260000	3169.8318	5249.4956	5325.6774	
344.3721	-15974.9308	-1747.2224	0.0000	0.0000
7639.0140	4006.2377	305.5988	-3632.7763	4068.6564
306.4457	-79.2454	-85.5006	656151.2420	-21.9661
-21.9635				
[5739]ENERGY: 7270000	3136.0349	5220.9412	5275.6061	

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356.4420	-15750.9614	-1883.7335	0.0000	0.0000
7652.8392	4007.1687	306.1518	-3645.6706	4069.9579
306.4617	-59.8385	-63.6277	656151.2420	-17.5299
-17.5030				
[5775]ENERGY: 7280000	3211.4889	5202.8562	5288.6482	
338.8907	-15863.7019	-1794.8210	0.0000	0.0000
7623.4293	4006.7905	304.9753	-3616.6388	4070.3049
306.3871	-39.7643	-95.4896	656151.2420	-26.3572
-26.3768				
[5825]ENERGY: 7290000	3164.2777	5119.7361	5329.0554	
365.6777	-15914.1920	-1701.4506	0.0000	0.0000
7645.1969	4008.3012	305.8461	-3636.8957	4070.3840
306.5547	126.8398	97.4919	656151.2420	-22.9313
-22.9158				
[5864]ENERGY: 7300000	3190.2982	5164.9755	5273.9333	
320.6540	-15834.4093	-1818.1006	0.0000	0.0000
7709.8939	4007.2450	308.4343	-3702.6489	4071.5532
306.7324	-118.3534	-134.4439	656151.2420	-23.5168
-23.5445				
[5914]ENERGY: 7310000	3180.5688	5185.4183	5281.8884	
343.9073	-15861.1380	-1709.5095	0.0000	0.0000
7590.8500	4011.9853	303.6720	-3578.8647	4071.2551
306.7481	165.6433	99.2220	656151.2420	-25.6363
-25.6172				
[5950]ENERGY: 7320000	3165.4933	5116.6743	5263.6176	
338.4083	-15817.6036	-1703.4052	0.0000	0.0000
7646.7845	4009.9692	305.9096	-3636.8153	4070.4112
306.6269	39.1240	101.0316	656151.2420	-26.3618
-26.3645				
[6000]ENERGY: 7330000	3075.4712	5160.8463	5273.7818	
332.0089	-15814.6865	-1810.8404	0.0000	0.0000
7791.0551	4007.6363	311.6812	-3783.4187	4071.4189
306.5975	50.6126	-0.4734	656151.2420	-27.9536
-27.9504				
[6036]ENERGY: 7340000	3097.8630	5197.4520	5309.8420	
337.4777	-15819.3294	-1776.3560	0.0000	0.0000
7663.2381	4010.1874	306.5678	-3653.0507	4072.4672
306.4735	82.1888	-49.1743	656151.2420	-25.0418
-25.0534				
[6086]ENERGY: 7350000	3229.0075	5135.0608	5309.9045	
353.9833	-15820.0589	-1803.7933	0.0000	0.0000
7603.1632	4007.2671	304.1645	-3595.8961	4070.7500
306.3424	-183.7880	-119.7988	656151.2420	-25.8207
-25.8196				
[6122]ENERGY: 7360000	3208.0245	5216.7210	5283.7567	
335.0269	-15843.8475	-1779.5161	0.0000	0.0000
7592.2254	4012.3910	303.7270	-3579.8344	4071.9449
306.3262	-38.7065	0.3139	656151.2420	-26.2168
-26.2080				
[6172]ENERGY: 7370000	3190.4824	5138.7245	5259.6540	
330.0484	-15862.3306	-1746.7595	0.0000	0.0000
7699.7140	4009.5333	308.0271	-3690.1807	4070.3780
306.1980	160.1402	136.9431	656151.2420	-24.0125
-24.0161				

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[6208]ENERGY: 7380000	3164.9235	5190.4774	5293.7011	
344.8957	-15863.9747	-1751.2269	0.0000	0.0000
7632.5441	4011.3401	305.3399	-3621.2039	4071.9667
306.2708	83.3843	-31.2844	656151.2420	-18.0917
-18.0989				
[6258]ENERGY: 7390000	3255.3255	5164.5911	5283.1668	
333.6812	-15859.0604	-1786.8653	0.0000	0.0000
7619.0379	4009.8769	304.7996	-3609.1610	4071.6108
306.4613	-73.0886	-4.2150	656151.2420	-24.7138
-24.7090				
[6297]ENERGY: 7400000	3222.2558	5231.1983	5266.5071	
326.8049	-15904.6396	-1728.8681	0.0000	0.0000
7597.5860	4010.8445	303.9414	-3586.7416	4071.4351
306.4623	-23.2941	0.2500	656151.2420	-25.0844
-25.0670				
[6347]ENERGY: 7410000	3180.6469	5076.3105	5267.7734	
334.0576	-15815.5614	-1733.6079	0.0000	0.0000
7697.1803	4006.7993	307.9257	-3690.3810	4071.8112
306.3442	-206.4323	-160.3455	656151.2420	-28.7795
-28.7834				
[6383]ENERGY: 7420000	3167.2228	5229.2085	5235.3021	
339.0513	-15788.4323	-1787.7932	0.0000	0.0000
7618.5927	4013.1519	304.7818	-3605.4407	4072.2096
306.5668	-12.9390	-0.2511	656151.2420	-25.3717
-25.3940				
[6433]ENERGY: 7430000	3182.2874	5174.8951	5252.6870	
328.6492	-15825.3683	-1783.9645	0.0000	0.0000
7679.5537	4008.7396	307.2205	-3670.8140	4072.2643
306.6062	-86.0164	-35.5971	656151.2420	-27.1555
-27.1373				
[6469]ENERGY: 7440000	3178.2179	5180.4400	5303.6582	
343.3676	-15816.9027	-1800.2151	0.0000	0.0000
7624.2268	4012.7926	305.0072	-3611.4342	4072.8476
306.4886	114.6935	70.2488	656151.2420	-23.4710
-23.4788				
[6519]ENERGY: 7450000	3172.4134	5233.8088	5313.4520	
368.0485	-15875.0327	-1777.1791	0.0000	0.0000
7574.1998	4009.7107	303.0059	-3564.4891	4073.1495
306.5239	77.1141	-44.6784	656151.2420	-23.1201
-23.1105				
[6555]ENERGY: 7460000	3098.0510	5128.3234	5269.2016	
326.9043	-15756.5438	-1755.3784	0.0000	0.0000
7698.2019	4008.7599	307.9666	-3689.4420	4072.7546
306.4794	84.8765	69.9497	656151.2420	-26.9675
-26.9727				
[6605]ENERGY: 7470000	3151.2466	5211.4194	5271.3289	
299.9117	-15735.5439	-1797.6144	0.0000	0.0000
7611.0755	4011.8237	304.4811	-3599.2518	4074.3100
306.5220	-63.2540	-69.7909	656151.2420	-22.1909
-22.1897				
[6641]ENERGY: 7480000	3065.8306	5147.0225	5293.2894	
323.2151	-15890.8719	-1666.6632	0.0000	0.0000
7739.4345	4011.2569	309.6161	-3728.1776	4073.9081
306.5726	270.9031	123.3987	656151.2420	-26.6357

Supplementary Text 6

-26.6531
 [6691]ENERGY: 7490000 3182.7035 5205.7203 5280.0807
 339.3890 -15875.0411 -1767.0078 0.0000 0.0000
 7647.8063 4013.6509 305.9505 -3634.1554 4073.2189
 306.4566 -49.1026 -20.3053 656151.2420 -25.4469
 -25.4342
 [6730]ENERGY: 7500000 3143.4112 5172.9852 5219.3481
 341.3786 -15766.4739 -1788.4428 0.0000 0.0000
 7688.8572 4011.0637 307.5927 -3677.7935 4075.0361
 306.6097 -138.1195 -84.1889 656151.2420 -23.7577
 -23.7625
 [6780]ENERGY: 7510000 3105.1642 5151.5461 5280.7231
 325.7240 -15875.4830 -1692.5827 0.0000 0.0000
 7715.5339 4010.6256 308.6599 -3704.9082 4074.4087
 306.4444 186.0521 104.8310 656151.2420 -28.2541
 -28.2578
 [6816]ENERGY: 7520000 3186.3116 5233.4644 5270.6607
 346.0387 -15850.0015 -1784.0012 0.0000 0.0000
 7613.7197 4016.1924 304.5869 -3597.5273 4075.8031
 306.5969 95.0169 23.6103 656151.2420 -22.1493
 -22.1326
 [6866]ENERGY: 7530000 3105.8622 5185.6197 5311.5031
 350.8169 -15753.1887 -1796.2830 0.0000 0.0000
 7606.8803 4011.2104 304.3132 -3595.6699 4075.7934
 306.5074 191.3733 126.4354 656151.2420 -29.5943
 -29.5919
 [6902]ENERGY: 7540000 3177.3361 5169.3869 5294.0740
 339.2640 -15814.5854 -1858.3156 0.0000 0.0000
 7704.4902 4011.6500 308.2181 -3692.8401 4075.6363
 306.6147 -14.1050 -76.4710 656151.2420 -23.6725
 -23.6792
 [6952]ENERGY: 7550000 3179.9518 5293.4068 5236.6624
 342.2642 -15896.5899 -1754.7066 0.0000 0.0000
 7615.4631 4016.4519 304.6566 -3599.0113 4075.8480
 306.5914 123.3699 88.1999 656151.2420 -28.5872
 -28.5682
 [6988]ENERGY: 7560000 3148.4018 5085.6486 5206.7413
 326.9200 -15853.9973 -1674.0935 0.0000 0.0000
 7772.9303 4012.5511 310.9561 -3760.3792 4074.1066
 306.3546 135.3363 14.6945 656151.2420 -25.0826
 -25.0983
 [7038]ENERGY: 7570000 3145.1269 5224.2044 5274.4881
 322.9386 -15842.1154 -1797.2050 0.0000 0.0000
 7685.8068 4013.2444 307.4707 -3672.5624 4075.9183
 306.5546 -28.6992 -85.5542 656151.2420 -23.8205
 -23.8122
 [7074]ENERGY: 7580000 3199.1258 5213.3869 5289.0700
 346.2669 -15879.3859 -1818.5642 0.0000 0.0000
 7663.6855 4013.5850 306.5857 -3650.1005 4075.9231
 306.5835 -19.0100 -46.1227 656151.2420 -22.1415
 -22.1600
 [7124]ENERGY: 7590000 3171.0508 5204.8084 5300.4008
 328.3366 -15777.4238 -1709.2996 0.0000 0.0000
 7502.1606 4020.0337 300.1239 -3482.1269 4074.9178

Supplementary Text 6

306.4945	177.9439	186.7664	656151.2420	-26.7771
-26.7732				
[7163]ENERGY: 7600000	3234.7860	5225.0700	5234.5835	
365.9936	-15873.3476	-1793.8521	0.0000	0.0000
7620.2758	4013.5091	304.8491	-3606.7667	4075.4961
306.4738	-99.8114	-82.4409	656151.2420	-21.5543
-21.5515				
[7213]ENERGY: 7610000	3262.1252	5255.7793	5279.0388	
333.4188	-15899.0928	-1767.9846	0.0000	0.0000
7554.9337	4018.2182	302.2351	-3536.7155	4075.4798
306.5501	-66.2533	-204.5683	656151.2420	-25.7379
-25.7381				
[7249]ENERGY: 7620000	3197.8442	5179.9696	5263.2959	
318.9784	-15855.6152	-1742.6602	0.0000	0.0000
7650.8034	4012.6160	306.0704	-3638.1874	4076.0405
306.5169	-38.0123	61.9256	656151.2420	-25.7182
-25.7046				
[7299]ENERGY: 7630000	3184.9372	5178.5699	5334.8177	
341.7891	-15911.0502	-1739.3807	0.0000	0.0000
7623.9963	4013.6793	304.9980	-3610.3170	4075.3161
306.4936	-10.3918	7.9380	656151.2420	-24.1003
-24.1106				
[7335]ENERGY: 7640000	3262.2384	5226.5214	5240.6092	
312.0666	-15907.6076	-1770.4235	0.0000	0.0000
7653.6180	4017.0225	306.1830	-3636.5955	4075.9478
306.6698	-74.0247	-62.0028	656151.2420	-25.1791
-25.1891				
[7385]ENERGY: 7650000	3187.1587	5166.2511	5307.2548	
331.3656	-15888.2371	-1798.2862	0.0000	0.0000
7711.5391	4017.0461	308.5001	-3694.4930	4078.2648
306.5579	-32.3796	-45.7027	656151.2420	-26.5622
-26.5592				
[7421]ENERGY: 7660000	3176.5828	5081.4436	5234.7472	
365.8136	-15835.5133	-1703.8571	0.0000	0.0000
7696.2323	4015.4490	307.8878	-3680.7833	4076.4292
306.5918	-66.2160	19.6122	656151.2420	-25.0521
-25.0399				
[7471]ENERGY: 7670000	3184.4447	5109.8427	5263.0388	
352.8431	-15906.1781	-1708.7174	0.0000	0.0000
7719.9345	4015.2083	308.8360	-3704.7262	4078.0733
306.3750	104.7590	74.9088	656151.2420	-21.8430
-21.8403				
[7507]ENERGY: 7680000	3194.3752	5230.0991	5249.1521	
316.3017	-15824.6783	-1786.9794	0.0000	0.0000
7638.4604	4016.7307	305.5766	-3621.7296	4078.5579
306.6846	68.6343	7.4646	656151.2420	-22.9584
-22.9884				
[7557]ENERGY: 7690000	3251.4878	5191.7763	5239.3925	
351.4972	-15938.1815	-1713.8658	0.0000	0.0000
7633.8822	4015.9887	305.3935	-3617.8935	4077.9365
306.6992	114.0947	26.8238	656151.2420	-26.7286
-26.7145				
[7596]ENERGY: 7700000	3163.7961	5223.0899	5248.0585	
360.7699	-15874.7119	-1793.2431	0.0000	0.0000

Supplementary Text 6

7689.2971	4017.0565	307.6103	-3672.2407	4080.1170
306.7739	-31.3841	-33.0468	656151.2420	-24.2737
-24.2686				
[7646]ENERGY: 7710000	3175.5600	5252.4094	5230.4186	
329.3147	-15838.8085	-1790.5772	0.0000	0.0000
7658.6326	4016.9495	306.3836	-3641.6831	4078.6280
306.7585	-149.9776	-122.2921	656151.2420	-28.0407
-28.0238				
[7682]ENERGY: 7720000	3124.1452	5222.5846	5280.3119	
338.8679	-15841.8579	-1706.2478	0.0000	0.0000
7601.6372	4019.4411	304.1035	-3582.1961	4078.6735
306.7994	141.2149	126.4288	656151.2420	-23.9668
-23.9794				
[7732]ENERGY: 7730000	3158.9163	5203.0182	5258.0587	
326.7957	-15770.4737	-1789.8712	0.0000	0.0000
7630.6878	4017.1318	305.2657	-3613.5561	4078.3282
306.7815	-199.3611	-149.1831	656151.2420	-29.0792
-29.0785				
[7768]ENERGY: 7740000	3179.2109	5135.6525	5287.2943	
329.3273	-15869.9271	-1700.8815	0.0000	0.0000
7662.2389	4022.9152	306.5279	-3639.3237	4079.5485
306.8890	153.7325	133.3348	656151.2420	-21.0444
-21.0515				
[7818]ENERGY: 7750000	3194.6428	5228.4700	5267.3454	
356.6492	-15919.2009	-1738.9318	0.0000	0.0000
7630.1542	4019.1289	305.2443	-3611.0253	4079.9819
306.7132	6.0280	-42.4009	656151.2420	-30.1756
-30.1855				
[7854]ENERGY: 7760000	3133.7403	5178.0448	5234.1745	
344.1394	-15862.5347	-1754.1634	0.0000	0.0000
7740.5186	4013.9196	309.6594	-3726.5991	4079.9881
306.8460	-40.6017	-70.1329	656151.2420	-24.7050
-24.6923				
[7904]ENERGY: 7770000	3167.4252	5166.0669	5257.3514	
332.3282	-15877.4591	-1720.1018	0.0000	0.0000
7689.3996	4015.0105	307.6144	-3674.3891	4079.8159
306.8917	-70.0037	-73.1464	656151.2420	-28.3019
-28.3070				
[7940]ENERGY: 7780000	3177.2014	5213.1954	5286.4644	
332.4110	-15878.4842	-1713.3767	0.0000	0.0000
7603.1769	4020.5883	304.1651	-3582.5886	4080.9810
306.8758	-72.5676	-2.8523	656151.2420	-25.2572
-25.2467				
[7990]ENERGY: 7790000	3171.6860	5216.1843	5242.5679	
327.7095	-15866.3610	-1769.5919	0.0000	0.0000
7695.9700	4018.1648	307.8773	-3677.8052	4082.8600
306.8867	-14.7129	-46.5576	656151.2420	-26.4481
-26.4598				
[8029]ENERGY: 7800000	3201.9120	5195.0291	5257.4217	
344.5257	-15850.6772	-1760.9282	0.0000	0.0000
7637.5481	4024.8313	305.5401	-3612.7168	4081.3435
306.9749	38.5328	-31.5329	656151.2420	-19.7435
-19.7575				
[8079]ENERGY: 7810000	3147.2070	5195.5270	5286.2303	

Supplementary Text 6

337.9762	-15932.4513	-1766.6899	0.0000	0.0000
7751.6384	4019.4376	310.1043	-3732.2007	4081.3075
306.9296	35.6649	20.6403	656151.2420	-27.6017
-27.5835				
[8115]ENERGY: 7820000	3136.6731	5259.2940	5250.6672	
330.9258	-15868.4018	-1783.9170	0.0000	0.0000
7693.9891	4019.2303	307.7980	-3674.7588	4079.5746
306.9005	-28.3638	-6.2896	656151.2420	-25.5537
-25.5550				
[8165]ENERGY: 7830000	3172.8465	5243.0366	5271.2497	
334.3391	-15878.4397	-1683.4832	0.0000	0.0000
7561.2507	4020.7997	302.4878	-3540.4510	4079.1621
306.9473	-62.5604	-36.4314	656151.2420	-22.3340
-22.3580				
[8201]ENERGY: 7840000	3178.9823	5138.9721	5289.2584	
344.9393	-15953.0642	-1730.2538	0.0000	0.0000
7749.3329	4018.1669	310.0121	-3731.1660	4079.5625
307.0323	63.3469	43.8338	656151.2420	-27.8610
-27.8343				
[8251]ENERGY: 7850000	3176.2353	5164.3433	5267.3405	
326.1643	-15834.4425	-1753.3975	0.0000	0.0000
7671.4979	4017.7414	306.8983	-3653.7565	4078.9383
306.9871	-72.7291	-4.5474	656151.2420	-24.4813
-24.4699				
[8287]ENERGY: 7860000	3178.5531	5214.3995	5258.8359	
347.6250	-15846.4609	-1771.2162	0.0000	0.0000
7635.2190	4016.9554	305.4469	-3618.2636	4079.4705
306.9230	-163.3239	-153.0735	656151.2420	-26.7014
-26.7195				
[8337]ENERGY: 7870000	3149.2098	5127.0464	5283.2048	
354.0405	-15890.1883	-1764.7143	0.0000	0.0000
7756.8564	4015.4552	310.3130	-3741.4012	4079.3528
306.9410	118.0224	20.1838	656151.2420	-22.8006
-22.7911				
[8373]ENERGY: 7880000	3279.2862	5257.5945	5212.2091	
308.0437	-15877.1090	-1808.5947	0.0000	0.0000
7645.3206	4016.7506	305.8510	-3628.5701	4079.6372
306.9370	-23.2194	-44.2143	656151.2420	-25.0581
-25.0575				
[8423]ENERGY: 7890000	3207.3512	5126.2827	5262.1780	
364.0042	-15910.2131	-1779.6463	0.0000	0.0000
7748.9530	4018.9097	309.9969	-3730.0433	4079.4906
307.0469	71.8388	-44.1981	656151.2420	-24.8325
-24.8481				
[8462]ENERGY: 7900000	3162.3733	5215.9002	5257.3302	
325.6365	-15881.0298	-1774.7136	0.0000	0.0000
7711.7524	4017.2491	308.5087	-3694.5032	4080.5738
307.0146	98.3201	59.0830	656151.2420	-23.4147
-23.4012				
[8512]ENERGY: 7910000	3161.2491	5240.0357	5225.8228	
336.1152	-15832.2358	-1823.5539	0.0000	0.0000
7711.8366	4019.2698	308.5120	-3692.5669	4082.1463
307.0150	34.7966	-44.2399	656151.2420	-25.5246
-25.5266				

Supplementary Text 6

[8548]ENERGY: 7920000	3184.9597	5104.3918	5238.4314	
344.0119	-15845.2985	-1767.8882	0.0000	0.0000
7758.5193	4017.1275	310.3796	-3741.3918	4081.5074
306.8799	17.2429	-5.3030	656151.2420	-24.3577
-24.3610				
[8598]ENERGY: 7930000	3216.9734	5092.8085	5226.7844	
343.0855	-15830.8048	-1732.9109	0.0000	0.0000
7706.3874	4022.3235	308.2940	-3684.0639	4081.0825
306.9506	-78.8659	-110.5851	656151.2420	-26.6468
-26.6569				
[8634]ENERGY: 7940000	3152.7552	5184.6821	5281.9237	
345.6670	-15857.2905	-1771.6825	0.0000	0.0000
7683.9055	4019.9606	307.3946	-3663.9448	4082.1114
306.9996	-43.2302	-33.3806	656151.2420	-25.5369
-25.5083				
[8684]ENERGY: 7950000	3166.2927	5220.8015	5277.5034	
353.8355	-15871.9795	-1842.9772	0.0000	0.0000
7716.5164	4019.9929	308.6992	-3696.5235	4082.6842
306.9187	-184.0602	-183.3137	656151.2420	-23.8340
-23.8594				
[8720]ENERGY: 7960000	3122.0300	5154.4274	5255.0615	
338.0562	-15825.9247	-1719.8883	0.0000	0.0000
7693.1053	4016.8674	307.7627	-3676.2379	4081.5778
306.6972	-243.4510	-116.0378	656151.2420	-18.8959
-18.8918				
[8770]ENERGY: 7970000	3150.8187	5263.3652	5230.9819	
371.6066	-15931.9519	-1763.8250	0.0000	0.0000
7697.6410	4018.6364	307.9441	-3679.0046	4082.7760
306.8805	-21.7397	-16.0024	656151.2420	-25.1863
-25.1765				
[8806]ENERGY: 7980000	3081.8924	5192.9016	5249.7787	
338.7493	-15839.4232	-1761.9057	0.0000	0.0000
7754.0347	4016.0277	310.2002	-3738.0069	4082.3568
306.8571	-66.4135	-65.6305	656151.2420	-23.9223
-23.9335				
[8856]ENERGY: 7990000	3241.1077	5184.8405	5249.8073	
340.3692	-15969.4379	-1723.3316	0.0000	0.0000
7695.9589	4019.3142	307.8768	-3676.6447	4083.0597
306.7441	-23.9246	-89.1451	656151.2420	-23.3888
-23.3890				
[8895]ENERGY: 8000000	3105.9169	5163.7836	5262.0419	
328.9854	-15772.2743	-1725.9768	0.0000	0.0000
7660.7044	4023.1812	306.4665	-3637.5232	4082.5025
306.7796	66.0510	67.5065	656151.2420	-25.7829
-25.7707				
[8945]ENERGY: 8010000	3204.9312	5173.7055	5235.4946	
335.1634	-15777.2973	-1740.6999	0.0000	0.0000
7593.6329	4024.9305	303.7833	-3568.7024	4083.7785
306.8689	-37.0093	45.8441	656151.2420	-21.8339
-21.8441				
[8981]ENERGY: 8020000	3168.7124	5209.9957	5234.7367	
319.3823	-15829.7250	-1715.5166	0.0000	0.0000
7634.7023	4022.2878	305.4263	-3612.4145	4082.7840
306.8577	364.6388	221.0678	656151.2420	-26.6690

Supplementary Text 6

-26.6771
 [9031]ENERGY: 8030000 3192.7870 5182.5712 5260.1584
 334.1999 -15804.5310 -1784.7906 0.0000 0.0000
 7642.1520 4022.5469 305.7243 -3619.6051 4082.0323
 306.8626 -19.4057 -5.2354 656151.2420 -24.3250
 -24.3256
 [9067]ENERGY: 8040000 3162.2307 5326.1490 5201.7864
 343.9367 -15769.6886 -1771.3306 0.0000 0.0000
 7530.7829 4023.8665 301.2690 -3506.9164 4082.3464
 306.8016 -107.8967 10.7812 656151.2420 -26.3029
 -26.2759
 [9117]ENERGY: 8050000 3160.8642 5086.2462 5240.1800
 329.5642 -15795.7425 -1726.3811 0.0000 0.0000
 7725.3557 4020.0868 309.0529 -3705.2689 4083.1706
 306.8092 128.1721 69.2583 656151.2420 -25.3353
 -25.3476
 [9153]ENERGY: 8060000 3089.3830 5211.6800 5243.3702
 325.3329 -15800.5327 -1739.0368 0.0000 0.0000
 7689.7289 4019.9255 307.6276 -3669.8034 4084.2726
 306.9448 122.8602 73.2868 656151.2420 -26.0697
 -26.0847
 [9203]ENERGY: 8070000 3163.5522 5182.5006 5229.2294
 326.3509 -15799.1661 -1741.8613 0.0000 0.0000
 7660.1473 4020.7529 306.4442 -3639.3944 4083.5860
 306.9897 116.3871 -0.2184 656151.2420 -23.2269
 -23.2190
 [9239]ENERGY: 8080000 3181.0175 5116.1882 5283.1235
 363.0333 -15823.0125 -1772.1490 0.0000 0.0000
 7675.4427 4023.6437 307.0561 -3651.7990 4083.4439
 306.8234 118.2857 -9.5220 656151.2420 -26.4332
 -26.4356
 [9289]ENERGY: 8090000 3164.0713 5171.8055 5219.7469
 343.0016 -15803.3647 -1771.4176 0.0000 0.0000
 7697.6816 4021.5246 307.9457 -3676.1569 4082.9753
 306.9531 14.4521 -52.8870 656151.2420 -25.6088
 -25.6036
 [9328]ENERGY: 8100000 3162.8373 5292.8772 5296.7159
 324.3492 -15890.4778 -1761.6538 0.0000 0.0000
 7599.0370 4023.6850 303.9995 -3575.3520 4083.6939
 306.8299 58.1458 -5.0202 656151.2420 -23.3207
 -23.3181
 [9378]ENERGY: 8110000 3206.6466 5191.4992 5297.7045
 354.5753 -15770.5018 -1848.3399 0.0000 0.0000
 7593.3043 4024.8881 303.7701 -3568.4161 4082.7011
 306.6773 -52.0261 -161.5308 656151.2420 -22.1767
 -22.2001
 [9414]ENERGY: 8120000 3080.5859 5149.7370 5295.8073
 340.0469 -15732.1073 -1781.5673 0.0000 0.0000
 7668.2982 4020.8007 306.7703 -3647.4975 4082.9288
 306.8961 124.0249 58.3546 656151.2420 -32.4415
 -32.4457
 [9464]ENERGY: 8130000 3213.2569 5192.1038 5266.9612
 350.3854 -15780.9333 -1830.7745 0.0000 0.0000
 7613.9611 4024.9606 304.5965 -3589.0005 4085.0978

Supplementary Text 6

306.8104	-162.3811	-115.8036	656151.2420	-23.4149
-23.3786				
[9500]ENERGY: 8140000	3183.0513	5182.7600	5241.6926	
328.5047	-15768.1966	-1838.2961	0.0000	0.0000
7693.8817	4023.3976	307.7937	-3670.4841	4085.3700
307.0192	-33.0088	-75.3999	656151.2420	-28.3207
-28.3209				
[9550]ENERGY: 8150000	3233.5488	5102.7428	5242.9109	
339.4348	-15820.9144	-1720.5161	0.0000	0.0000
7649.7584	4026.9653	306.0286	-3622.7932	4085.6860
306.9932	60.8175	42.0026	656151.2420	-20.4386
-20.4480				
[9586]ENERGY: 8160000	3175.5877	5153.3989	5290.2987	
343.9398	-15854.9595	-1756.6646	0.0000	0.0000
7669.8042	4021.4053	306.8305	-3648.3989	4084.2224
307.1408	-34.8057	-26.3664	656151.2420	-30.4385
-30.4335				
[9636]ENERGY: 8170000	3128.0587	5287.6295	5260.2952	
331.7053	-15925.6000	-1730.6372	0.0000	0.0000
7671.9253	4023.3769	306.9154	-3648.5485	4085.6682
307.1333	-19.6232	-105.1670	656151.2420	-25.3026
-25.3209				
[9672]ENERGY: 8180000	3210.3434	5168.1861	5263.5893	
358.3405	-15919.4957	-1786.3820	0.0000	0.0000
7727.5132	4022.0948	309.1392	-3705.4184	4086.0871
307.0070	12.1393	18.7757	656151.2420	-28.3210
-28.2989				
[9722]ENERGY: 8190000	3262.6855	5122.7725	5253.9730	
331.2991	-15753.3274	-1880.8785	0.0000	0.0000
7690.0226	4026.5467	307.6394	-3663.4759	4087.1340
307.0410	-106.5984	-170.7965	656151.2420	-26.0075
-26.0180				
[9761]ENERGY: 8200000	3167.1962	5105.1644	5271.9470	
329.4055	-15743.8849	-1815.7675	0.0000	0.0000
7712.1053	4026.1660	308.5228	-3685.9393	4086.1186
306.8274	-10.6781	-47.8142	656151.2420	-21.3480
-21.3486				
[9811]ENERGY: 8210000	3200.6745	5257.3616	5283.7493	
341.2528	-15839.0852	-1855.9332	0.0000	0.0000
7637.0788	4025.0987	305.5213	-3611.9801	4086.4014
306.8152	-26.7545	-110.4467	656151.2420	-25.7213
-25.7075				
[9847]ENERGY: 8220000	3193.8075	5250.2635	5275.6377	
353.7754	-15983.7409	-1764.9609	0.0000	0.0000
7699.3790	4024.1613	308.0137	-3675.2177	4084.3847
306.9193	-88.7549	-15.1415	656151.2420	-21.5010
-21.5052				
[9897]ENERGY: 8230000	3184.6039	5236.7898	5279.5573	
345.7264	-15860.2210	-1783.3802	0.0000	0.0000
7618.7047	4021.7810	304.7863	-3596.9238	4085.6582
306.9666	56.3093	-79.6124	656151.2420	-27.4625
-27.4634				
[9933]ENERGY: 8240000	3194.1397	5157.6933	5230.7955	
345.8986	-15859.0013	-1755.0087	0.0000	0.0000

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7709.3995	4023.9166	308.4145	-3685.4829	4085.1235
306.8638	-23.3152	-81.1626	656151.2420	-19.5576
-19.5643				
[9983]ENERGY: 8250000	3124.8905	5182.3997	5280.4239	
334.7998	-15861.6498	-1706.7528	0.0000	0.0000
7669.4026	4023.5140	306.8144	-3645.8886	4087.2678
306.6091	82.5956	24.2084	656151.2420	-29.9903
-30.0002				
[10019]ENERGY: 8260000	3249.0757	5191.7971	5215.4918	
349.7418	-15782.2139	-1816.1264	0.0000	0.0000
7620.4091	4028.1751	304.8545	-3592.2340	4087.6628
307.0457	-161.9058	-249.7864	656151.2420	-19.1716
-19.1517				
[10069]ENERGY: 8270000	3253.0681	5169.6720	5224.4339	
333.8330	-15807.6749	-1769.4789	0.0000	0.0000
7625.4364	4029.2896	305.0556	-3596.1468	4087.2461
306.8198	-123.5261	-81.6444	656151.2420	-26.0535
-26.0711				
[10105]ENERGY: 8280000	3279.6943	5180.6863	5262.4093	
344.4958	-15908.5591	-1757.8031	0.0000	0.0000
7626.1335	4027.0570	305.0835	-3599.0765	4087.1634
306.7626	105.4823	18.1818	656151.2420	-23.7466
-23.7359				
[10155]ENERGY: 8290000	3165.5197	5239.7441	5290.4776	
345.0010	-15856.0837	-1784.3802	0.0000	0.0000
7629.3908	4029.6692	305.2138	-3599.7215	4087.6557
306.7467	-116.7335	-180.9736	656151.2420	-25.8330
-25.8428				
[10194]ENERGY: 8300000	3180.8265	5231.6259	5259.2238	
343.1273	-15834.6376	-1842.0208	0.0000	0.0000
7685.3048	4023.4499	307.4506	-3661.8550	4088.3992
306.7577	-100.8852	-110.6441	656151.2420	-23.6645
-23.6582				
[10244]ENERGY: 8310000	3247.6707	5062.1511	5245.9413	
338.1506	-15858.9761	-1775.8594	0.0000	0.0000
7763.2065	4022.2848	310.5671	-3740.9218	4086.9771
306.8634	-153.7060	-94.0096	656151.2420	-21.7483
-21.7634				
[10280]ENERGY: 8320000	3226.1120	5242.0783	5226.0314	
329.3263	-15847.2928	-1774.0417	0.0000	0.0000
7624.9267	4027.1401	305.0352	-3597.7866	4087.9148
306.8422	0.9739	-13.8825	656151.2420	-28.7675
-28.7434				
[10330]ENERGY: 8330000	3161.1750	5267.8740	5283.6667	
331.1101	-15955.8305	-1774.3394	0.0000	0.0000
7710.7665	4024.4224	308.4692	-3686.3441	4087.9163
306.8701	87.9208	-11.2787	656151.2420	-21.5654
-21.5697				
[10366]ENERGY: 8340000	3182.7569	5187.7447	5294.0073	
348.9464	-15899.4595	-1730.5712	0.0000	0.0000
7640.0920	4023.5167	305.6419	-3616.5754	4086.6540
306.8548	21.5126	33.7624	656151.2420	-25.1932
-25.2039				
[10416]ENERGY: 8350000	3202.2357	5203.6168	5262.5231	

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352.5758	-15829.6380	-1855.1267	0.0000	0.0000
7689.5655	4025.7522	307.6211	-3663.8133	4088.2122
306.8166	-119.1423	-209.9213	656151.2420	-20.9837
-20.9827				
[10452]ENERGY: 8360000	3199.5701	5162.5155	5257.0811	
318.0891	-15750.7622	-1826.7114	0.0000	0.0000
7662.3591	4022.1413	306.5327	-3640.2178	4087.4860
306.8439	53.1615	57.2062	656151.2420	-25.8513
-25.8571				
[10502]ENERGY: 8370000	3153.8684	5201.7336	5261.4215	
331.5102	-15775.1564	-1775.4492	0.0000	0.0000
7630.3519	4028.2799	305.2522	-3602.0719	4088.2174
306.8419	-10.1703	-9.4263	656151.2420	-22.5849
-22.5623				
[10538]ENERGY: 8380000	3210.3983	5137.5654	5252.3910	
344.5986	-15834.4042	-1788.6354	0.0000	0.0000
7705.1923	4027.1059	308.2462	-3678.0864	4087.5174
306.9013	202.2251	93.9786	656151.2420	-28.4199
-28.4312				
[10588]ENERGY: 8390000	3204.7718	5208.3787	5242.2240	
346.6457	-15903.1807	-1775.4771	0.0000	0.0000
7699.2578	4022.6201	308.0088	-3676.6377	4088.2542
306.9213	1.3576	-20.8929	656151.2420	-23.4132
-23.4106				
[10627]ENERGY: 8400000	3136.7369	5199.1126	5281.5305	
325.7154	-15778.9606	-1752.5322	0.0000	0.0000
7615.6402	4027.2428	304.6637	-3588.3974	4087.9527
307.0507	126.8880	-6.3844	656151.2420	-24.8085
-24.8248				
[10677]ENERGY: 8410000	3160.0076	5253.9336	5249.5044	
315.4355	-15849.3080	-1833.5925	0.0000	0.0000
7727.0193	4023.0000	309.1194	-3704.0193	4088.6601
307.0153	-134.4022	-211.5011	656151.2420	-27.3403
-27.3402				
[10713]ENERGY: 8420000	3120.2458	5197.0945	5268.3239	
345.9969	-15821.9024	-1697.8066	0.0000	0.0000
7617.4458	4029.3978	304.7359	-3588.0479	4089.6801
306.9852	139.1532	2.9713	656151.2420	-25.3442
-25.3486				
[10763]ENERGY: 8430000	3215.3215	5158.7004	5300.3977	
331.0564	-15850.1991	-1829.4684	0.0000	0.0000
7698.3965	4024.2050	307.9743	-3674.1915	4089.8660
306.8117	125.3086	21.7154	656151.2420	-23.2604
-23.2382				
[10799]ENERGY: 8440000	3145.9113	5173.2262	5301.3632	
342.4513	-15805.5609	-1693.9056	0.0000	0.0000
7564.7470	4028.2324	302.6277	-3536.5146	4088.4575
306.9743	120.1529	64.3397	656151.2420	-23.2804
-23.2974				
[10849]ENERGY: 8450000	3179.3564	5228.9465	5264.4307	
337.4090	-15803.7209	-1771.5774	0.0000	0.0000
7592.3479	4027.1922	303.7319	-3565.1557	4089.9969
306.9896	187.6664	86.6196	656151.2420	-23.7817
-23.7808				

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[10885]ENERGY: 8460000	3192.6616	5176.3071	5244.5510	
347.5381	-15769.7845	-1845.2391	0.0000	0.0000
7682.8627	4028.8969	307.3529	-3653.9658	4089.7537
306.8158	-95.5679	-123.0717	656151.2420	-23.0276
-23.0262				
[10935]ENERGY: 8470000	3183.9870	5162.6798	5267.5766	
350.6595	-15893.2688	-1750.1954	0.0000	0.0000
7701.6454	4023.0842	308.1043	-3678.5613	4088.4577
306.9608	-165.2695	-85.0450	656151.2420	-27.2131
-27.1960				
[10971]ENERGY: 8480000	3214.5154	5171.0997	5254.3388	
365.8622	-15803.7182	-1827.8599	0.0000	0.0000
7657.4479	4031.6858	306.3362	-3625.7620	4089.6300
306.9231	-18.6522	-102.4730	656151.2420	-19.8287
-19.8508				
[11021]ENERGY: 8490000	3200.7237	5189.7049	5301.5993	
334.9556	-15843.0681	-1824.7340	0.0000	0.0000
7668.0744	4027.2558	306.7613	-3640.8186	4089.6061
306.9968	-172.7309	-157.1070	656151.2420	-24.4397
-24.4287				
[11060]ENERGY: 8500000	3251.2581	5136.8376	5288.8049	
346.9766	-15799.3755	-1822.1694	0.0000	0.0000
7625.1275	4027.4598	305.0432	-3597.6676	4091.0304
306.8026	-79.7327	-90.0451	656151.2420	-25.3254
-25.3145				
[11110]ENERGY: 8510000	3191.0141	5127.5431	5253.1035	
320.7246	-15783.1929	-1797.2738	0.0000	0.0000
7715.3207	4027.2393	308.6514	-3688.0814	4090.4337
306.7678	46.6727	-37.7739	656151.2420	-24.0522
-24.0680				
[11146]ENERGY: 8520000	3217.5020	5216.2366	5261.0994	
329.1903	-15841.7427	-1802.5426	0.0000	0.0000
7647.4899	4027.2328	305.9378	-3620.2571	4091.0283
306.6726	121.3664	31.8772	656151.2420	-25.1186
-25.1100				
[11196]ENERGY: 8530000	3285.8819	5057.4746	5275.9108	
341.7153	-15847.2611	-1748.3279	0.0000	0.0000
7660.9612	4026.3547	306.4768	-3634.6065	4090.9347
306.7024	43.2923	30.8905	656151.2420	-24.5095
-24.5118				
[11232]ENERGY: 8540000	3139.3082	5153.8267	5253.1255	
337.8869	-15795.0696	-1836.4422	0.0000	0.0000
7771.1145	4023.7501	310.8834	-3747.3645	4090.3286
306.8406	4.5102	-56.3701	656151.2420	-23.8574
-23.8515				
[11282]ENERGY: 8550000	3127.9085	5229.6955	5256.6624	
326.6636	-15893.6184	-1723.9696	0.0000	0.0000
7702.7016	4026.0436	308.1466	-3676.6581	4089.4049
306.8762	90.0030	86.5296	656151.2420	-24.6773
-24.6690				
[11318]ENERGY: 8560000	3210.6146	5183.9070	5230.6920	
324.9663	-15783.6998	-1726.8905	0.0000	0.0000
7591.0120	4030.6016	303.6784	-3560.4105	4089.4681
306.8915	38.9943	-43.5184	656151.2420	-21.6886

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-21.7212
 [11368]ENERGY: 8570000 3242.3543 5180.7203 5279.8993
 351.1904 -15858.0011 -1799.0923 0.0000 0.0000
 7629.0983 4026.1691 305.2021 -3602.9292 4089.0260
 306.8525 -113.9762 -72.5549 656151.2420 -25.3323
 -25.3025
 [11404]ENERGY: 8580000 3208.8273 5227.2206 5237.6099
 343.4979 -15859.1013 -1721.1965 0.0000 0.0000
 7590.4309 4027.2888 303.6552 -3563.1421 4089.3123
 306.8719 -2.9098 -8.2590 656151.2420 -21.6170
 -21.6156
 [11454]ENERGY: 8590000 3201.2911 5238.8339 5339.1493
 309.4757 -15904.2888 -1798.3321 0.0000 0.0000
 7640.5500 4026.6790 305.6602 -3613.8710 4089.7560
 306.8579 30.5799 -33.3118 656151.2420 -25.5384
 -25.5495
 [11493]ENERGY: 8600000 3146.8665 5198.3214 5281.4255
 329.7315 -15844.1798 -1755.5647 0.0000 0.0000
 7671.2539 4027.8542 306.8885 -3643.3996 4088.9173
 306.8479 32.0606 -26.6767 656151.2420 -24.4463
 -24.4474
 [11543]ENERGY: 8610000 3177.2448 5217.8876 5306.6557
 355.0353 -15859.4733 -1822.6832 0.0000 0.0000
 7647.9263 4022.5932 305.9553 -3625.3331 4089.3163
 306.7596 -9.7502 -111.2272 656151.2420 -27.2419
 -27.2411
 [11579]ENERGY: 8620000 3205.8899 5092.0247 5307.7995
 335.5659 -15890.6551 -1757.7711 0.0000 0.0000
 7732.3802 4025.2340 309.3339 -3707.1462 4088.2354
 306.9189 -23.2883 -10.1805 656151.2420 -23.3468
 -23.3508
 [11629]ENERGY: 8630000 3202.2872 5112.3958 5273.4585
 376.5007 -15866.1332 -1757.9590 0.0000 0.0000
 7688.3462 4028.8961 307.5723 -3659.4501 4088.4704
 306.9274 59.8177 -89.7866 656151.2420 -26.5886
 -26.5855
 [11665]ENERGY: 8640000 3136.8486 5193.1647 5342.8659
 339.8705 -15852.1723 -1841.1586 0.0000 0.0000
 7706.1078 4025.5266 308.2828 -3680.5812 4088.8283
 306.7942 30.2146 43.8339 656151.2420 -23.8030
 -23.7920
 [11715]ENERGY: 8650000 3245.2201 5184.0805 5284.1205
 341.9025 -15885.3170 -1743.1119 0.0000 0.0000
 7600.9128 4027.8075 304.0745 -3573.1053 4089.4777
 307.0263 -69.3119 -91.7106 656151.2420 -19.1977
 -19.2036
 [11751]ENERGY: 8660000 3178.5076 5185.6990 5258.5413
 356.9569 -15885.7967 -1764.3423 0.0000 0.0000
 7699.8029 4029.3688 308.0306 -3670.4341 4089.6783
 306.7506 -40.7761 -58.9908 656151.2420 -25.1803
 -25.1911
 [11801]ENERGY: 8670000 3109.8489 5137.5547 5290.1618
 342.3865 -15792.7473 -1784.3255 0.0000 0.0000
 7725.9201 4028.7992 309.0754 -3697.1209 4090.3803

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306.8667	-43.2120	-46.6311	656151.2420	-19.3137
-19.2991				
[11837]ENERGY: 8680000	3185.9715	5177.7321	5269.2712	
341.9391	-15779.7490	-1794.1589	0.0000	0.0000
7629.5935	4030.5994	305.2219	-3598.9941	4091.7795
306.7869	-197.4434	-121.3172	656151.2420	-23.1379
-23.1380				
[11887]ENERGY: 8690000	3190.1358	5130.0044	5322.4462	
337.2552	-15832.1691	-1795.5124	0.0000	0.0000
7675.6964	4027.8565	307.0662	-3647.8399	4091.7980
306.8802	81.8156	38.3048	656151.2420	-19.3560
-19.3591				
[11926]ENERGY: 8700000	3127.1071	5197.4227	5261.4065	
342.9456	-15898.9758	-1698.5021	0.0000	0.0000
7698.1776	4029.5816	307.9656	-3668.5961	4091.2979
306.8412	127.8327	51.1357	656151.2420	-22.1547
-22.1515				
[11976]ENERGY: 8710000	3212.4472	5274.5301	5198.2616	
326.0253	-15808.3040	-1798.7308	0.0000	0.0000
7625.6266	4029.8560	305.0632	-3595.7706	4091.4041
307.0217	88.7431	63.3797	656151.2420	-29.0343
-29.0277				
[12012]ENERGY: 8720000	3114.1226	5219.7329	5226.4670	
327.5476	-15787.9850	-1809.9681	0.0000	0.0000
7736.8639	4026.7809	309.5132	-3710.0830	4091.4617
307.0418	-21.5742	-39.7806	656151.2420	-21.8259
-21.8512				
[12062]ENERGY: 8730000	3231.0185	5197.6973	5209.8843	
334.6283	-15826.0743	-1774.4204	0.0000	0.0000
7658.6347	4031.3684	306.3837	-3627.2663	4092.0405
306.9972	23.2837	-1.6523	656151.2420	-26.5910
-26.5752				
[12098]ENERGY: 8740000	3164.7113	5174.3436	5254.6488	
310.7343	-15838.7289	-1793.3363	0.0000	0.0000
7754.9771	4027.3498	310.2379	-3727.6272	4091.2014
306.8463	-288.9287	-203.7770	656151.2420	-22.7335
-22.7317				
[12148]ENERGY: 8750000	3289.4209	5087.7580	5248.5988	
341.4113	-15832.3536	-1778.8347	0.0000	0.0000
7673.4787	4029.4793	306.9775	-3643.9994	4090.9000
306.9380	-139.6902	-142.0348	656151.2420	-25.1489
-25.1612				
[12184]ENERGY: 8760000	3216.2774	5236.9836	5284.6617	
322.5886	-15881.6105	-1784.1414	0.0000	0.0000
7633.6046	4028.3641	305.3823	-3605.2405	4092.0503
306.9883	50.5927	7.8956	656151.2420	-23.8453
-23.8293				
[12234]ENERGY: 8770000	3159.7957	5125.5660	5297.0909	
344.7088	-15829.4342	-1711.8879	0.0000	0.0000
7645.6938	4031.5332	305.8660	-3614.1606	4092.3519
306.8872	131.6973	69.9015	656151.2420	-23.9243
-23.9388				
[12270]ENERGY: 8780000	3199.9096	5201.5115	5257.6248	
345.9297	-15872.8402	-1750.5211	0.0000	0.0000

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7647.2849	4028.8991	305.9296	-3618.3857	4091.4182
306.8658	-45.9826	-6.8153	656151.2420	-24.9830
-24.9805				
[12320]ENERGY: 8790000	3213.1082	5092.9481	5242.0228	
340.5724	-15850.3738	-1690.5780	0.0000	0.0000
7682.1505	4029.8502	307.3244	-3652.3003	4091.4205
306.9120	85.1939	86.2243	656151.2420	-23.4606
-23.4532				
[12359]ENERGY: 8800000	3205.9179	5191.4396	5225.3568	
321.3518	-15767.3435	-1809.3484	0.0000	0.0000
7665.3217	4032.6959	306.6512	-3632.6258	4092.8008
306.8112	-27.2524	-68.5424	656151.2420	-26.2763
-26.2834				
[12409]ENERGY: 8810000	3164.1815	5229.7149	5269.6419	
317.8718	-15835.3567	-1723.5360	0.0000	0.0000
7609.6713	4032.1888	304.4249	-3577.4825	4093.4206
306.8848	283.2556	153.1582	656151.2420	-21.8722
-21.8693				
[12445]ENERGY: 8820000	3095.2322	5210.8425	5316.6951	
333.0645	-15839.3279	-1756.1505	0.0000	0.0000
7671.5570	4031.9129	306.9006	-3639.6441	4093.8969
306.6017	-75.8693	-111.3207	656151.2420	-26.8111
-26.8265				
[12495]ENERGY: 8830000	3130.3841	5259.7700	5252.0597	
345.2206	-15844.8267	-1756.9578	0.0000	0.0000
7643.6797	4029.3294	305.7854	-3614.3502	4093.0548
306.8569	-6.1787	-18.2737	656151.2420	-23.5886
-23.5765				
[12531]ENERGY: 8840000	3127.7560	5152.4762	5286.5888	
346.4429	-15851.2026	-1700.6687	0.0000	0.0000
7666.2259	4027.6186	306.6874	-3638.6073	4092.3281
306.7412	-23.2198	-41.1553	656151.2420	-23.5997
-23.6089				
[12581]ENERGY: 8850000	3267.6898	5204.0566	5281.2922	
338.4805	-15851.3290	-1827.3562	0.0000	0.0000
7618.2284	4031.0623	304.7672	-3587.1661	4091.9263
306.8258	-191.3223	-125.6953	656151.2420	-28.5200
-28.5077				
[12617]ENERGY: 8860000	3173.1451	5214.7958	5256.5051	
338.0253	-15740.0186	-1893.3572	0.0000	0.0000
7682.2385	4031.3340	307.3279	-3650.9045	4093.2616
306.8513	-231.8937	-197.2019	656151.2420	-21.0417
-21.0395				
[12667]ENERGY: 8870000	3111.4502	5182.5425	5274.1268	
341.9200	-15795.7752	-1742.5706	0.0000	0.0000
7659.4609	4031.1545	306.4167	-3628.3065	4092.5081
306.6071	127.8232	80.9535	656151.2420	-26.2344
-26.2482				
[12703]ENERGY: 8880000	3188.2696	5085.9122	5284.9221	
325.2492	-15837.7033	-1757.3007	0.0000	0.0000
7740.9442	4030.2934	309.6765	-3710.6508	4092.6969
306.5580	108.9280	-1.2549	656151.2420	-32.6649
-32.6662				
[12753]ENERGY: 8890000	3146.9955	5193.5200	5276.3990	

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352.3633	-15925.3273	-1696.7170	0.0000	0.0000
7683.0977	4030.3312	307.3623	-3652.7665	4092.8376
306.8716	83.9126	53.3693	656151.2420	-31.0205
-31.0195				
[12792]ENERGY: 8900000	3174.6395	5215.2294	5304.6500	
334.6365	-15945.2965	-1747.2640	0.0000	0.0000
7694.2862	4030.8810	307.8099	-3663.4052	4093.4343
307.0014	-3.6079	14.7862	656151.2420	-24.7734
-24.7675				
[12842]ENERGY: 8910000	3116.7647	5136.0472	5263.1365	
365.0332	-15797.5045	-1741.5481	0.0000	0.0000
7690.5663	4032.4952	307.6611	-3658.0711	4093.9771
306.9795	126.7971	64.9038	656151.2420	-25.6994
-25.6958				
[12878]ENERGY: 8920000	3160.0789	5162.5044	5297.0080	
346.5099	-15779.9764	-1764.2803	0.0000	0.0000
7611.9301	4033.7747	304.5153	-3578.1554	4093.4898
306.9695	-87.2742	-104.1213	656151.2420	-29.6784
-29.6883				
[12928]ENERGY: 8930000	3205.1385	5207.0357	5293.1638	
322.4827	-15888.6068	-1748.4092	0.0000	0.0000
7646.2535	4037.0582	305.8884	-3609.1953	4095.0619
306.8036	-35.2665	-31.7947	656151.2420	-30.4240
-30.3926				
[12964]ENERGY: 8940000	3229.4180	5166.1376	5260.4900	
357.5706	-15896.7081	-1731.7932	0.0000	0.0000
7647.8054	4032.9202	305.9505	-3614.8852	4094.2012
306.8243	-50.3836	-45.7247	656151.2420	-21.1794
-21.2065				
[13014]ENERGY: 8950000	3263.0609	5146.0783	5254.7939	
337.5657	-15856.2975	-1721.5452	0.0000	0.0000
7608.7902	4032.4464	304.3897	-3576.3439	4093.7725
306.7200	-1.0842	-99.6220	656151.2420	-25.4217
-25.4157				
[13050]ENERGY: 8960000	3215.9374	5172.2446	5205.6666	
363.5219	-15912.8414	-1685.4533	0.0000	0.0000
7675.2871	4034.3629	307.0499	-3640.9242	4094.6081
306.7478	90.4859	-13.1131	656151.2420	-21.5010
-21.5031				
[13100]ENERGY: 8970000	3168.8564	5131.1603	5282.5517	
322.1368	-15800.0934	-1684.9572	0.0000	0.0000
7612.2522	4031.9069	304.5281	-3580.3453	4095.2609
306.7378	146.7916	50.9329	656151.2420	-28.7475
-28.7590				
[13136]ENERGY: 8980000	3238.8200	5216.3934	5258.0688	
331.9300	-15903.3650	-1789.8683	0.0000	0.0000
7683.3350	4035.3138	307.3718	-3648.0212	4094.3828
306.7334	109.7141	38.4760	656151.2420	-21.7545
-21.7116				
[13186]ENERGY: 8990000	3243.6313	5250.6295	5299.5216	
325.3831	-15926.3115	-1813.2804	0.0000	0.0000
7654.4161	4033.9897	306.2149	-3620.4265	4096.0790
306.6005	-3.7415	-71.4044	656151.2420	-26.5632
-26.6023				

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[13225]ENERGY: 9000000	3138.9800	5150.3903	5262.1925	
357.6284	-15805.2260	-1743.4437	0.0000	0.0000
7673.6410	4034.1623	306.9840	-3639.4786	4097.5156
306.7438	-38.0461	-26.9372	656151.2420	-28.1542
-28.1549				
[13275]ENERGY: 9010000	3166.2968	5154.1364	5256.3751	
343.4498	-15882.9356	-1764.0061	0.0000	0.0000
7758.1076	4031.4239	310.3631	-3726.6836	4097.7645
306.8163	-8.7613	11.4454	656151.2420	-24.7276
-24.7194				
[13311]ENERGY: 9020000	3203.2899	5143.0578	5222.2482	
327.4151	-15860.5475	-1669.1365	0.0000	0.0000
7670.3243	4036.6513	306.8513	-3633.6730	4098.2759
306.8114	-9.4276	-29.4920	656151.2420	-28.5348
-28.5295				
[13361]ENERGY: 9030000	3260.9197	5206.2784	5235.0533	
336.3430	-15885.2213	-1804.1502	0.0000	0.0000
7687.9106	4037.1334	307.5549	-3650.7773	4099.0866
306.8112	-107.4858	-92.8662	656151.2420	-24.8395
-24.8455				
[13397]ENERGY: 9040000	3191.9385	5226.1732	5288.0020	
346.5610	-15849.7490	-1827.6593	0.0000	0.0000
7660.7240	4035.9904	306.4673	-3624.7336	4099.8352
306.8648	-85.6970	-81.7097	656151.2420	-21.1331
-21.1223				
[13447]ENERGY: 9050000	3168.0839	5214.2540	5294.2627	
340.3868	-15926.1519	-1745.3750	0.0000	0.0000
7685.2757	4030.7361	307.4495	-3654.5396	4098.1922
306.8218	33.4245	7.6127	656151.2420	-25.7298
-25.7278				
[13483]ENERGY: 9060000	3228.5715	5126.7803	5277.4533	
351.6428	-15881.2384	-1698.9225	0.0000	0.0000
7637.4281	4041.7151	305.5353	-3595.7130	4099.0317
306.8776	165.2390	40.5708	656151.2420	-26.3170
-26.3260				
[13533]ENERGY: 9070000	3230.6279	5088.8746	5299.9356	
337.7736	-15804.3728	-1748.2772	0.0000	0.0000
7630.5235	4035.0852	305.2591	-3595.4383	4098.7918
307.1665	-78.8437	-35.0967	656151.2420	-23.5828
-23.5813				
[13569]ENERGY: 9080000	3164.9491	5247.3616	5241.6370	
330.0719	-15884.5373	-1749.6294	0.0000	0.0000
7689.4217	4039.2746	307.6153	-3650.1471	4099.9292
307.3288	61.8945	-5.9302	656151.2420	-26.3660
-26.3710				
[13619]ENERGY: 9090000	3241.5527	5231.1547	5231.2142	
330.5429	-15952.1847	-1736.0189	0.0000	0.0000
7688.7708	4035.0318	307.5893	-3653.7389	4098.2392
307.4171	-123.1938	-124.2731	656151.2420	-18.5701
-18.5474				
[13658]ENERGY: 9100000	3109.3043	5161.9194	5322.0005	
344.3760	-15856.4421	-1740.3096	0.0000	0.0000
7697.9951	4038.8437	307.9583	-3659.1514	4098.4312
307.0471	74.9042	-14.9053	656151.2420	-28.6106

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-28.6170
 [13708]ENERGY: 9110000 3207.7617 5152.8784 5265.7656
 357.2680 -15833.5500 -1764.8386 0.0000 0.0000
 7653.6864 4038.9715 306.1857 -3614.7148 4099.7826
 306.7723 31.8720 -4.9621 656151.2420 -29.2271
 -29.2219
 [13744]ENERGY: 9120000 3181.3162 5208.3268 5273.3365
 334.6453 -15790.8204 -1842.9146 0.0000 0.0000
 7675.4936 4039.3834 307.0581 -3636.1102 4100.1876
 306.9344 -33.5460 -59.5726 656151.2420 -24.1991
 -24.2121
 [13794]ENERGY: 9130000 3225.5009 5096.0127 5231.3385
 347.1480 -15817.8971 -1731.4518 0.0000 0.0000
 7689.0317 4039.6829 307.5997 -3649.3487 4100.0834
 307.0772 -90.3632 -134.2584 656151.2420 -31.7751
 -31.7693
 [13830]ENERGY: 9140000 3239.6856 5149.3567 5312.3100
 327.1013 -15882.1624 -1801.7713 0.0000 0.0000
 7694.8685 4039.3884 307.8332 -3655.4801 4100.9572
 307.0581 129.5620 -72.0871 656151.2420 -23.5272
 -23.5626
 [13880]ENERGY: 9150000 3145.3091 5196.0351 5248.8976
 346.6536 -15781.3256 -1862.9519 0.0000 0.0000
 7745.1522 4037.7701 309.8448 -3707.3821 4101.6297
 307.1512 33.6977 -85.4538 656151.2420 -30.0364
 -30.0191
 [13916]ENERGY: 9160000 3148.2049 5147.6624 5201.6431
 332.5861 -15785.1996 -1808.5316 0.0000 0.0000
 7801.1872 4037.5525 312.0865 -3763.6347 4101.2422
 307.0842 78.1675 -27.1632 656151.2420 -24.2402
 -24.2292
 [13966]ENERGY: 9170000 3296.5018 5089.4577 5283.3106
 355.3031 -15866.5737 -1735.6410 0.0000 0.0000
 7616.9296 4039.2883 304.7153 -3577.6413 4100.1892
 307.1597 -85.6474 -66.5005 656151.2420 -28.9000
 -28.8960
 [14002]ENERGY: 9180000 3138.3233 5161.7229 5270.3997
 347.4248 -15906.4332 -1667.8023 0.0000 0.0000
 7696.6401 4040.2753 307.9041 -3656.3648 4100.7566
 307.0832 -2.6071 -50.3406 656151.2420 -27.6508
 -27.6528
 [14052]ENERGY: 9190000 3201.0281 5174.5508 5304.3749
 323.8177 -15796.7581 -1781.4335 0.0000 0.0000
 7614.0789 4039.6588 304.6012 -3574.4201 4099.8055
 307.0837 -110.3172 -148.7014 656151.2420 -27.1571
 -27.1522
 [14091]ENERGY: 9200000 3195.2672 5275.3947 5270.5465
 318.8968 -15920.7504 -1664.7884 0.0000 0.0000
 7565.3612 4039.9277 302.6523 -3525.4335 4099.7085
 307.0763 110.9100 75.9930 656151.2420 -27.1766
 -27.1795
 [14141]ENERGY: 9210000 3221.8271 5210.2187 5256.0377
 350.9205 -15847.0104 -1795.2260 0.0000 0.0000
 7643.9309 4040.6985 305.7955 -3603.2325 4101.5739

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307.1839	-199.1135	-157.0692	656151.2420	-25.4846
-25.4838				
[14177]ENERGY: 9220000	3223.4735	5264.8014	5282.0599	
343.2195	-15864.1406	-1800.8542	0.0000	0.0000
7595.3947	4043.9541	303.8538	-3551.4406	4102.2077
307.1014	103.4642	56.9972	656151.2420	-24.5732
-24.5895				
[14227]ENERGY: 9230000	3170.6515	5178.8969	5276.0569	
360.4228	-15840.4047	-1734.3882	0.0000	0.0000
7628.8307	4040.0659	305.1914	-3588.7648	4102.2834
307.1958	0.8297	-47.1989	656151.2420	-25.8412
-25.8396				
[14263]ENERGY: 9240000	3221.9234	5251.6983	5223.8007	
329.9882	-15761.8505	-1799.4012	0.0000	0.0000
7578.0347	4044.1936	303.1593	-3533.8411	4102.1992
307.0018	103.0194	19.1195	656151.2420	-23.2766
-23.2622				
[14313]ENERGY: 9250000	3162.0794	5185.9341	5221.3507	
329.5275	-15821.7727	-1788.0740	0.0000	0.0000
7752.0364	4041.0814	310.1202	-3710.9550	4102.5563
307.0187	-51.4140	-27.6842	656151.2420	-24.9259
-24.9251				
[14349]ENERGY: 9260000	3197.6231	5170.0583	5302.7716	
344.2582	-15792.9315	-1828.3634	0.0000	0.0000
7652.4329	4045.8492	306.1356	-3606.5837	4103.7203
307.1913	98.3226	22.3489	656151.2420	-20.5094
-20.5225				
[14399]ENERGY: 9270000	3163.9266	5255.4603	5233.2686	
329.5259	-15845.4514	-1755.9103	0.0000	0.0000
7659.6892	4040.5089	306.4259	-3619.1803	4102.1645
307.2631	-94.1815	-75.1593	656151.2420	-26.2298
-26.2219				
[14435]ENERGY: 9280000	3186.3670	5148.0313	5280.7894	
321.1542	-15834.6619	-1711.6612	0.0000	0.0000
7649.9109	4039.9295	306.0347	-3609.9813	4102.3043
307.0943	59.3516	-46.5371	656151.2420	-27.1894
-27.1829				
[14485]ENERGY: 9290000	3231.2796	5222.2421	5232.0869	
329.6186	-15851.7192	-1765.6242	0.0000	0.0000
7643.7344	4041.6182	305.7876	-3602.1162	4101.9118
307.2027	-140.0790	-163.2346	656151.2420	-25.0387
-25.0416				
[14524]ENERGY: 9300000	3233.6983	5210.0644	5275.0365	
349.1486	-15871.6359	-1771.4437	0.0000	0.0000
7615.5086	4040.3768	304.6584	-3575.1318	4102.1535
307.2985	-200.7235	-189.7437	656151.2420	-27.5892
-27.6145				
[14574]ENERGY: 9310000	3133.9861	5207.0655	5275.4255	
327.9560	-15892.4632	-1746.6785	0.0000	0.0000
7734.1047	4039.3961	309.4029	-3694.7086	4101.7062
307.2700	-95.8898	-19.9400	656151.2420	-20.5342
-20.4927				
[14610]ENERGY: 9320000	3231.8850	5131.9580	5283.5163	
340.5982	-15982.1573	-1640.9334	0.0000	0.0000

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7674.9498	4039.8166	307.0364	-3635.1332	4100.9103
307.3329	-71.0274	-7.4253	656151.2420	-22.7343
-22.7419				
[14660]ENERGY: 9330000	3173.7436	5156.1148	5261.0987	
332.0105	-15771.8957	-1804.5979	0.0000	0.0000
7697.8261	4044.3001	307.9515	-3653.5259	4102.5583
307.1976	-61.5825	-105.7582	656151.2420	-28.8876
-28.9000				
[14696]ENERGY: 9340000	3266.8364	5065.3030	5233.4933	
338.7395	-15805.9487	-1656.3572	0.0000	0.0000
7604.4472	4046.5135	304.2159	-3557.9337	4104.3124
307.3202	134.2335	48.7409	656151.2420	-23.7953
-23.7995				
[14746]ENERGY: 9350000	3223.4962	5363.7535	5262.3643	
320.3453	-15921.4215	-1778.0222	0.0000	0.0000
7573.0578	4043.5736	302.9602	-3529.4842	4104.6488
307.2633	-16.4571	-69.8942	656151.2420	-29.8342
-29.8264				
[14782]ENERGY: 9360000	3174.4684	5201.3294	5222.2537	
348.7227	-15812.0501	-1783.6320	0.0000	0.0000
7692.7553	4043.8475	307.7487	-3648.9079	4104.0044
307.4042	-37.5967	-17.6076	656151.2420	-27.4589
-27.4594				
[14832]ENERGY: 9370000	3284.5646	5234.4727	5246.5982	
331.9261	-15889.5455	-1777.3535	0.0000	0.0000
7614.9369	4045.5995	304.6355	-3569.3374	4103.6809
307.4368	-109.1555	-174.3866	656151.2420	-24.1759
-24.1847				
[14868]ENERGY: 9380000	3175.9879	5220.3198	5267.5847	
341.5041	-15858.6311	-1793.8417	0.0000	0.0000
7687.9772	4040.9010	307.5575	-3647.0763	4104.2116
307.1968	31.0116	-90.0704	656151.2420	-21.2835
-21.2783				
[14918]ENERGY: 9390000	3234.6530	5178.1374	5301.9250	
333.2377	-15937.2957	-1718.5987	0.0000	0.0000
7649.5736	4041.6323	306.0212	-3607.9413	4104.0009
307.2478	18.8459	7.9720	656151.2420	-23.3368
-23.3483				
[14957]ENERGY: 9400000	3201.7367	5149.2233	5279.2828	
329.6999	-15808.0539	-1780.2221	0.0000	0.0000
7670.5322	4042.1987	306.8596	-3628.3334	4104.4244
307.1197	24.0367	-16.8199	656151.2420	-27.5011
-27.4774				
[15007]ENERGY: 9410000	3152.2569	5204.2599	5307.3527	
362.8059	-15861.7767	-1762.5077	0.0000	0.0000
7640.8948	4043.2859	305.6740	-3597.6089	4106.1281
307.2829	48.2216	-55.7402	656151.2420	-23.9745
-23.9917				
[15043]ENERGY: 9420000	3185.7104	5207.5542	5225.7328	
357.8745	-15782.7983	-1782.5610	0.0000	0.0000
7630.1849	4041.6975	305.2455	-3588.4874	4105.9231
307.4289	-183.6521	-160.2266	656151.2420	-19.9443
-19.9361				
[15093]ENERGY: 9430000	3155.7166	5220.4595	5228.7960	

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331.5901	-15804.1806	-1747.5453	0.0000	0.0000
7657.7528	4042.5891	306.3484	-3615.1638	4104.1163
307.3907	13.5255	-37.3720	656151.2420	-22.9442
-22.9496				
[15129]ENERGY: 9440000	3201.3624	5165.1063	5260.4769	
325.7451	-15869.6495	-1711.7360	0.0000	0.0000
7671.3032	4042.6084	306.8905	-3628.6948	4105.8756
307.3548	61.2636	79.3421	656151.2420	-21.9848
-21.9638				
[15179]ENERGY: 9450000	3184.9239	5171.5693	5287.5545	
333.1209	-15747.9850	-1775.9148	0.0000	0.0000
7588.0557	4041.3245	303.5602	-3546.7312	4106.4926
307.3083	-10.3787	-14.7716	656151.2420	-23.5370
-23.5527				
[15215]ENERGY: 9460000	3266.9227	5203.3251	5292.4755	
344.0366	-15780.7249	-1877.2384	0.0000	0.0000
7594.3865	4043.1829	303.8134	-3551.2035	4107.1011
307.2437	23.4660	-49.1305	656151.2420	-27.6068
-27.6217				
[15265]ENERGY: 9470000	3206.8709	5222.7926	5296.8044	
325.4034	-15812.6833	-1761.3320	0.0000	0.0000
7572.4648	4050.3209	302.9365	-3522.1440	4108.5124
307.2303	-88.0880	-145.0252	656151.2420	-27.4965
-27.4851				
[15301]ENERGY: 9480000	3180.9103	5203.3805	5247.8116	
336.1562	-15775.7084	-1756.8319	0.0000	0.0000
7611.2643	4046.9826	304.4886	-3564.2817	4108.5860
307.3829	148.1129	5.8185	656151.2420	-24.1556
-24.1594				
[15351]ENERGY: 9490000	3147.7805	5224.6617	5226.0808	
336.4198	-15785.9869	-1750.3018	0.0000	0.0000
7646.7094	4045.3634	305.9066	-3601.3459	4108.7355
307.2639	146.5833	108.7727	656151.2420	-23.0975
-23.0896				
[15390]ENERGY: 9500000	3186.3539	5159.3110	5270.9866	
317.8148	-15778.1511	-1782.4535	0.0000	0.0000
7670.6189	4044.4805	306.8631	-3626.1384	4108.4690
307.1939	-41.2263	-121.4950	656151.2420	-27.9446
-27.9471				
[15440]ENERGY: 9510000	3174.8025	5174.2318	5269.7414	
329.8397	-15814.7245	-1817.0370	0.0000	0.0000
7726.2599	4043.1140	309.0890	-3683.1459	4109.1033
307.1879	-180.2073	-154.0042	656151.2420	-26.5908
-26.5824				
[15476]ENERGY: 9520000	3128.9652	5127.8090	5210.0438	
337.1095	-15835.7197	-1724.3317	0.0000	0.0000
7802.8675	4046.7436	312.1537	-3756.1239	4109.1918
307.1778	-96.8506	-92.9114	656151.2420	-22.5400
-22.5351				
[15526]ENERGY: 9530000	3241.8046	5176.4110	5245.6584	
340.6435	-15830.2082	-1771.4889	0.0000	0.0000
7648.1494	4050.9697	305.9642	-3597.1797	4108.9584
307.3190	93.0131	-41.8957	656151.2420	-27.9594
-27.9849				

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[15562]ENERGY: 9540000	3105.1730	5194.8620	5269.5539	
329.9582	-15861.4939	-1750.0383	0.0000	0.0000
7755.0019	4043.0168	310.2388	-3711.9851	4110.0952
307.4395	74.1320	-10.9172	656151.2420	-22.7195
-22.7134				
[15612]ENERGY: 9550000	3184.0000	5262.7688	5274.1090	
341.7100	-15891.9643	-1778.1306	0.0000	0.0000
7656.1792	4048.6721	306.2854	-3607.5071	4110.3742
307.3354	165.9094	101.1308	656151.2420	-26.2157
-26.2145				
[15648]ENERGY: 9560000	3226.1846	5197.7691	5247.9380	
311.4181	-15781.4286	-1815.2035	0.0000	0.0000
7663.0205	4049.6982	306.5591	-3613.3223	4110.5622
307.3274	-70.4617	-61.3823	656151.2420	-27.3199
-27.3063				
[15698]ENERGY: 9570000	3110.8235	5106.3849	5266.7011	
362.6489	-15818.2817	-1720.4572	0.0000	0.0000
7735.6872	4043.5066	309.4662	-3692.1806	4110.3223
307.4110	-15.2103	-39.7824	656151.2420	-21.6079
-21.6249				
[15734]ENERGY: 9580000	3157.2811	5128.3325	5266.9878	
329.2495	-15835.9550	-1744.3568	0.0000	0.0000
7746.8708	4048.4099	309.9136	-3698.4609	4110.2910
307.3471	-65.6831	-71.2022	656151.2420	-26.0067
-26.0029				
[15784]ENERGY: 9590000	3242.3127	5209.5096	5238.5392	
307.7129	-15901.8723	-1734.6210	0.0000	0.0000
7687.9589	4049.5400	307.5568	-3638.4189	4111.5117
307.3913	-150.3588	-111.8379	656151.2420	-21.6643
-21.6513				
[15823]ENERGY: 9600000	3209.8060	5154.5573	5241.4604	
351.5507	-15881.1183	-1754.6255	0.0000	0.0000
7723.0062	4044.6369	308.9589	-3678.3693	4110.5922
307.3730	26.7398	-27.5500	656151.2420	-26.8307
-26.8418				
[15873]ENERGY: 9610000	3119.9500	5235.6348	5292.3526	
348.2034	-15862.1939	-1771.0312	0.0000	0.0000
7688.4796	4051.3954	307.5776	-3637.0842	4112.1202
307.2836	182.7790	81.5953	656151.2420	-24.6758
-24.6716				
[15909]ENERGY: 9620000	3141.3719	5265.9751	5271.1984	
342.9549	-15841.7519	-1771.1891	0.0000	0.0000
7641.1515	4049.7109	305.6843	-3591.4406	4113.6317
307.2517	53.0867	14.0913	656151.2420	-27.7805
-27.8007				
[15959]ENERGY: 9630000	3221.4503	5279.9487	5305.0883	
351.8351	-15837.2958	-1822.9587	0.0000	0.0000
7554.6913	4052.7593	302.2254	-3501.9320	4113.2413
307.2466	78.0547	24.8681	656151.2420	-23.3563
-23.3564				
[15995]ENERGY: 9640000	3211.1316	5220.5157	5241.6026	
349.8406	-15850.4044	-1787.1908	0.0000	0.0000
7663.3837	4048.8789	306.5737	-3614.5047	4112.3871
307.4053	13.4815	-108.1070	656151.2420	-22.5739

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-22.5558
 [16045]ENERGY: 9650000 3168.2539 5125.9042 5240.9691
 333.6616 -15795.2414 -1700.3891 0.0000 0.0000
 7678.7404 4051.8987 307.1880 -3626.8417 4112.7135
 307.2486 -6.1081 -50.4110 656151.2420 -25.2436
 -25.2459
 [16081]ENERGY: 9660000 3220.3844 5099.6014 5280.1764
 323.6019 -15824.8575 -1683.1689 0.0000 0.0000
 7632.8536 4048.5912 305.3523 -3584.2624 4111.6213
 307.3610 128.7573 119.3101 656151.2420 -23.6025
 -23.6195
 [16131]ENERGY: 9670000 3171.6122 5156.6406 5299.8251
 374.1284 -15865.1282 -1737.7158 0.0000 0.0000
 7653.2190 4052.5812 306.1670 -3600.6377 4113.6633
 307.3678 213.4981 77.7212 656151.2420 -19.8624
 -19.8491
 [16167]ENERGY: 9680000 3148.6530 5214.6394 5271.0446
 350.2150 -15859.0835 -1781.1305 0.0000 0.0000
 7705.8012 4050.1391 308.2706 -3655.6620 4113.8736
 307.5834 -39.8881 -53.6146 656151.2420 -21.6687
 -21.6799
 [16217]ENERGY: 9690000 3116.3576 5183.9882 5303.5175
 316.4640 -15717.6246 -1802.2080 0.0000 0.0000
 7650.0628 4050.5574 306.0408 -3599.5054 4112.4813
 307.4708 51.9334 73.1126 656151.2420 -27.1877
 -27.1688
 [16256]ENERGY: 9700000 3160.2525 5148.4840 5255.6184
 341.0392 -15857.4476 -1703.0525 0.0000 0.0000
 7709.4604 4054.3545 308.4170 -3655.1059 4112.5845
 307.5172 108.1881 95.7421 656151.2420 -23.2128
 -23.2134
 [16306]ENERGY: 9710000 3204.2086 5297.6188 5228.5547
 346.6077 -15835.6750 -1813.1306 0.0000 0.0000
 7625.5282 4053.7124 305.0593 -3571.8158 4112.9931
 307.5759 -35.5325 11.9830 656151.2420 -21.4801
 -21.4866
 [16342]ENERGY: 9720000 3167.1665 5130.8754 5227.8617
 346.9156 -15813.2822 -1722.1446 0.0000 0.0000
 7714.6194 4052.0118 308.6233 -3662.6076 4112.9918
 307.4782 33.4425 30.1130 656151.2420 -29.4901
 -29.4976
 [16392]ENERGY: 9730000 3141.6179 5109.7803 5257.4701
 354.8548 -15702.6379 -1822.3268 0.0000 0.0000
 7712.8232 4051.5815 308.5515 -3661.2416 4114.0225
 307.5859 189.5789 99.6371 656151.2420 -21.7265
 -21.7213
 [16428]ENERGY: 9740000 3186.3353 5120.7301 5246.4273
 330.6326 -15816.9442 -1735.4329 0.0000 0.0000
 7722.5668 4054.3150 308.9413 -3668.2518 4114.8438
 307.6060 19.2943 -41.4818 656151.2420 -26.7934
 -26.8013
 [16478]ENERGY: 9750000 3160.2676 5258.7842 5294.6872
 346.0694 -15859.6938 -1803.8721 0.0000 0.0000
 7654.7380 4050.9807 306.2278 -3603.7573 4114.6682

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307.5305	-27.9932	-36.1108	656151.2420	-25.5704
-25.5457				
[16514]ENERGY: 9760000	3207.0235	5141.9381	5220.4902	
342.0417	-15800.9120	-1803.7885	0.0000	0.0000
7742.6247	4049.4176	309.7437	-3693.2071	4113.7581
307.4415	-28.1348	-83.0945	656151.2420	-25.8697
-25.8915				
[16564]ENERGY: 9770000	3220.0890	5236.8340	5253.5917	
336.0148	-15868.4132	-1787.5670	0.0000	0.0000
7663.0941	4053.6433	306.5621	-3609.4507	4115.0231
307.4073	106.9431	9.5748	656151.2420	-24.7456
-24.7348				
[16600]ENERGY: 9780000	3216.5327	5237.9965	5270.7915	
330.1334	-15888.4407	-1779.3515	0.0000	0.0000
7664.4112	4052.0732	306.6148	-3612.3380	4114.1973
307.4019	-172.0667	-128.0887	656151.2420	-24.7709
-24.7560				
[16650]ENERGY: 9790000	3157.5652	5113.0449	5209.8112	
332.2880	-15753.4994	-1706.9119	0.0000	0.0000
7704.8240	4057.1221	308.2315	-3647.7019	4116.0938
307.3706	0.2243	-16.0119	656151.2420	-22.2508
-22.2532				
[16689]ENERGY: 9800000	3231.2032	5226.2357	5230.2625	
333.3148	-15894.9814	-1768.7117	0.0000	0.0000
7697.9441	4055.2673	307.9563	-3642.6769	4116.3954
307.4637	-62.4210	-34.1015	656151.2420	-22.2265
-22.2190				
[16739]ENERGY: 9810000	3144.6281	5189.0960	5285.5401	
348.1163	-15850.0747	-1787.4767	0.0000	0.0000
7722.4457	4052.2750	308.9364	-3670.1707	4116.5884
307.6450	8.3681	-30.9875	656151.2420	-28.5102
-28.5164				
[16775]ENERGY: 9820000	3204.4141	5172.8677	5196.5049	
322.6151	-15893.6015	-1706.8285	0.0000	0.0000
7754.4315	4050.4034	310.2160	-3704.0281	4116.9044
307.6043	82.3770	46.8862	656151.2420	-26.7329
-26.7509				
[16825]ENERGY: 9830000	3196.3925	5188.0652	5240.6001	
344.4646	-15880.9717	-1741.8410	0.0000	0.0000
7706.3004	4053.0103	308.2905	-3653.2901	4115.1979
307.6999	-2.3125	-50.9540	656151.2420	-27.2506
-27.2591				
[16861]ENERGY: 9840000	3195.1424	5212.7412	5207.3262	
377.9181	-15925.7736	-1663.9434	0.0000	0.0000
7649.8674	4053.2784	306.0329	-3596.5891	4115.9878
307.6871	177.9308	117.8959	656151.2420	-23.7019
-23.6846				
[16911]ENERGY: 9850000	3078.0942	5261.9323	5246.7659	
330.9417	-15890.1630	-1734.5185	0.0000	0.0000
7761.3622	4054.4148	310.4933	-3706.9474	4117.1670
307.6308	131.4057	14.4857	656151.2420	-24.3741
-24.3846				
[16947]ENERGY: 9860000	3154.3084	5271.7419	5273.2130	
326.4961	-15870.1802	-1710.0822	0.0000	0.0000

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7610.9212	4056.4181	304.4749	-3554.5031	4117.4616
307.6229	-47.6868	30.8313	656151.2420	-23.2459
-23.2138				
[16997]ENERGY: 9870000	3100.4245	5172.1216	5224.2912	
345.0746	-15772.1367	-1765.2066	0.0000	0.0000
7751.0035	4055.5719	310.0789	-3695.4315	4118.1424
307.5832	75.0779	38.7180	656151.2420	-22.2727
-22.2939				
[17033]ENERGY: 9880000	3199.3332	5139.4821	5267.5845	
350.0614	-15804.3155	-1797.6482	0.0000	0.0000
7701.6924	4056.1900	308.1062	-3645.5024	4118.5804
307.4578	-49.6718	-102.0145	656151.2420	-26.3612
-26.3727				
[17083]ENERGY: 9890000	3188.0215	5176.6425	5258.3861	
320.7156	-15760.9828	-1839.4639	0.0000	0.0000
7712.2642	4055.5831	308.5291	-3656.6810	4117.6580
307.5881	-157.4314	-182.5016	656151.2420	-21.5772
-21.5836				
[17122]ENERGY: 9900000	3276.7388	5108.8964	5266.0922	
326.8157	-15824.9571	-1806.3913	0.0000	0.0000
7707.8967	4055.0915	308.3544	-3652.8052	4117.8007
307.7030	-191.3165	-132.0599	656151.2420	-21.9309
-21.9090				
[17172]ENERGY: 9910000	3149.8317	5145.2749	5232.3633	
335.3443	-15740.8178	-1818.3120	0.0000	0.0000
7753.3084	4056.9928	310.1711	-3696.3156	4119.0953
307.7012	71.7270	6.4059	656151.2420	-25.8193
-25.8257				
[17208]ENERGY: 9920000	3152.4032	5233.9747	5262.4371	
328.9889	-15925.5787	-1690.1893	0.0000	0.0000
7693.7171	4055.7530	307.7871	-3637.9641	4117.8713
307.6467	13.7536	0.5949	656151.2420	-19.4040
-19.4040				
[17258]ENERGY: 9930000	3140.5184	5130.3374	5223.3311	
312.3341	-15793.8915	-1748.4203	0.0000	0.0000
7790.3555	4054.5647	311.6532	-3735.7908	4118.8875
307.5252	99.2271	-21.9730	656151.2420	-23.6523
-23.6548				
[17294]ENERGY: 9940000	3195.4435	5143.4917	5240.9601	
339.1508	-15867.9290	-1678.6737	0.0000	0.0000
7683.1064	4055.5499	307.3627	-3627.5565	4116.6638
307.5530	-62.4951	-78.5949	656151.2420	-20.3589
-20.3519				
[17344]ENERGY: 9950000	3223.8142	5229.1517	5240.9718	
325.9097	-15922.3096	-1761.8390	0.0000	0.0000
7716.9862	4052.6850	308.7180	-3664.3012	4118.2114
307.6622	-134.2431	-83.3709	656151.2420	-25.7360
-25.7348				
[17380]ENERGY: 9960000	3113.2950	5133.5316	5240.7337	
350.8057	-15835.8403	-1766.8535	0.0000	0.0000
7819.0500	4054.7223	312.8011	-3764.3277	4119.4689
307.6409	22.0774	-18.3296	656151.2420	-27.6671
-27.6699				
[17430]ENERGY: 9970000	3210.3764	5175.0767	5258.2912	

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316.4888	-15881.0982	-1715.3994	0.0000	0.0000
7694.8233	4058.5588	307.8314	-3636.2645	4120.2254
307.6475	-45.5372	-4.3619	656151.2420	-23.0556
-23.0664				
[17466]ENERGY: 9980000	3231.8586	5213.9711	5269.7176	
342.1361	-15883.1362	-1770.3788	0.0000	0.0000
7655.4996	4059.6680	306.2583	-3595.8317	4119.2848
307.6670	36.8323	-15.3476	656151.2420	-26.8453
-26.8246				
[17516]ENERGY: 9990000	3224.0030	5231.9255	5295.8911	
336.4382	-15896.7335	-1751.5379	0.0000	0.0000
7617.5689	4057.5554	304.7408	-3560.0135	4120.0003
307.7555	112.3914	108.2396	656151.2420	-25.7405
-25.7616				
[17555]ENERGY: 10000000	3191.8929	5276.4509	5254.8585	
354.9996	-15860.7184	-1742.8913	0.0000	0.0000
7586.2080	4060.8003	303.4862	-3525.4077	4119.9890
307.8785	-18.6017	-66.4992	656151.2420	-22.9161
-22.9060				
[17605]ENERGY: 10010000	3202.5763	5167.6654	5306.5194	
340.7576	-15873.1110	-1803.4756	0.0000	0.0000
7716.0426	4056.9747	308.6803	-3659.0678	4121.0879
307.8486	-39.6789	-16.3668	656151.2420	-25.8976
-25.9039				
[17641]ENERGY: 10020000	3210.2396	5307.8570	5246.3895	
352.9647	-15909.0778	-1810.2334	0.0000	0.0000
7660.6105	4058.7501	306.4627	-3601.8603	4121.8488
307.7864	-52.8575	-72.3278	656151.2420	-17.0779
-17.0894				
[17691]ENERGY: 10030000	3189.4475	5251.9175	5269.0292	
333.8925	-15863.1572	-1770.8805	0.0000	0.0000
7645.6325	4055.8816	305.8635	-3589.7509	4121.7539
307.7613	-98.2068	-43.7708	656151.2420	-25.8537
-25.8333				
[17727]ENERGY: 10040000	3130.6883	5240.3082	5272.1235	
350.0308	-15801.0081	-1813.3676	0.0000	0.0000
7684.3047	4063.0798	307.4106	-3621.2249	4121.9184
307.7524	72.1766	-84.8618	656151.2420	-23.7128
-23.7295				
[17777]ENERGY: 10050000	3140.1325	5122.1426	5282.3847	
363.9907	-15800.0738	-1763.7226	0.0000	0.0000
7712.0760	4056.9301	308.5216	-3655.1459	4121.5316
307.7905	54.6986	20.2201	656151.2420	-24.3483
-24.3322				
[17813]ENERGY: 10060000	3214.1060	5166.7295	5226.0235	
329.3666	-15815.0837	-1738.5984	0.0000	0.0000
7676.4393	4058.9829	307.0960	-3617.4564	4121.5970
307.6137	-155.5575	-72.5375	656151.2420	-24.7071
-24.7124				
[17863]ENERGY: 10070000	3147.2383	5175.6565	5252.3692	
332.3472	-15840.8234	-1693.3124	0.0000	0.0000
7687.3470	4060.8225	307.5323	-3626.5246	4122.5028
307.5038	-10.6692	4.2499	656151.2420	-25.2911
-25.2903				

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[17899]ENERGY: 10080000	3158.1851	5147.7383	5256.5813	
352.2093	-15769.4613	-1731.0376	0.0000	0.0000
7646.2346	4060.4496	305.8876	-3585.7850	4122.1211
307.4243	-5.2449	-27.0369	656151.2420	-24.9434
-24.9513				
[17949]ENERGY: 10090000	3142.7959	5235.1005	5250.0095	
341.1718	-15847.5500	-1747.6674	0.0000	0.0000
7686.6922	4060.5524	307.5061	-3626.1398	4122.3920
307.5085	-68.7637	0.7698	656151.2420	-22.3282
-22.3212				
[17988]ENERGY: 10100000	3213.8523	5245.1750	5270.1351	
334.7973	-15817.2297	-1830.3765	0.0000	0.0000
7644.5028	4060.8562	305.8183	-3583.6466	4122.3964
307.6630	-85.9796	-189.5952	656151.2420	-26.6311
-26.6405				
[18038]ENERGY: 10110000	3153.9377	5234.8861	5207.9762	
331.2776	-15788.9704	-1794.9798	0.0000	0.0000
7712.0772	4056.2047	308.5216	-3655.8726	4121.5489
307.8158	-219.0328	-206.6374	656151.2420	-21.5969
-21.5794				
[18074]ENERGY: 10120000	3181.3302	5235.6674	5241.3578	
331.2491	-15873.6929	-1772.9297	0.0000	0.0000
7718.5668	4061.5488	308.7813	-3657.0180	4122.7971
307.8062	9.6976	9.0641	656151.2420	-23.9014
-23.9053				
[18124]ENERGY: 10130000	3261.3872	5212.1885	5263.8463	
326.7351	-15852.3650	-1812.0978	0.0000	0.0000
7661.8309	4061.5252	306.5115	-3600.3057	4123.7973
307.8170	123.7105	-22.3745	656151.2420	-26.5238
-26.5330				
[18160]ENERGY: 10140000	3178.5935	5258.2856	5216.3539	
334.8202	-15881.9933	-1815.8050	0.0000	0.0000
7768.2049	4058.4598	310.7670	-3709.7451	4122.8373
307.9047	-39.4013	-79.1354	656151.2420	-23.4832
-23.4839				
[18210]ENERGY: 10150000	3222.2922	5110.8560	5231.4071	
331.0320	-15771.3716	-1771.9738	0.0000	0.0000
7706.9674	4059.2094	308.3172	-3647.7581	4122.1359
307.9660	95.4625	60.7004	656151.2420	-22.9328
-22.9425				
[18246]ENERGY: 10160000	3278.8356	5085.2238	5220.6662	
340.2750	-15795.0871	-1758.1920	0.0000	0.0000
7688.0551	4059.7767	307.5606	-3628.2784	4122.0751
307.7997	-172.6503	-126.2570	656151.2420	-22.3650
-22.3590				
[18296]ENERGY: 10170000	3159.1903	5235.9105	5301.6549	
371.1563	-15800.8665	-1823.5727	0.0000	0.0000
7616.7268	4060.1996	304.7072	-3556.5272	4122.6086
307.7577	-33.0513	-63.5705	656151.2420	-25.7879
-25.7876				
[18332]ENERGY: 10180000	3252.1945	5249.4319	5247.2937	
333.5080	-15870.5895	-1797.4788	0.0000	0.0000
7647.6030	4061.9627	305.9424	-3585.6403	4123.2350
307.8968	82.5591	-15.3561	656151.2420	-22.0284

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-22.0315
[18382]ENERGY: 10190000 3171.3571 5138.2726 5266.8518
339.4701 -15799.2477 -1758.7718 0.0000 0.0000
7700.2316 4058.1637 308.0478 -3642.0679 4122.2526
307.8612 78.8675 43.9713 656151.2420 -24.1608
-24.1508
[18421]ENERGY: 10200000 3250.3769 5122.8222 5284.0787
318.5914 -15905.5244 -1768.7073 0.0000 0.0000
7762.4580 4064.0956 310.5371 -3698.3625 4122.0973
307.9346 -1.4191 -36.6672 656151.2420 -25.7507
-25.7443
[18471]ENERGY: 10210000 3235.0544 5195.9782 5246.5719
332.4744 -15848.6500 -1765.5911 0.0000 0.0000
7665.7681 4061.6060 306.6691 -3604.1622 4122.2035
307.8383 1.7175 37.9337 656151.2420 -24.1741
-24.1712
[18507]ENERGY: 10220000 3286.7176 5193.1824 5275.2610
361.5878 -15900.6352 -1781.6294 0.0000 0.0000
7630.0277 4064.5119 305.2393 -3565.5158 4122.5013
307.6223 -105.7679 -176.6430 656151.2420 -25.1533
-25.1825
[18557]ENERGY: 10230000 3216.6587 5184.2336 5284.8936
331.0518 -15875.2706 -1788.2218 0.0000 0.0000
7703.7128 4057.0579 308.1870 -3646.6548 4121.9563
307.6318 -83.1649 -46.3800 656151.2420 -25.6745
-25.6476
[18593]ENERGY: 10240000 3238.3715 5296.0658 5320.7734
337.1615 -15860.7323 -1794.9831 0.0000 0.0000
7527.0740 4063.7308 301.1206 -3463.3432 4122.2286
307.8796 -61.8493 -49.0135 656151.2420 -24.9511
-24.9647
[18643]ENERGY: 10250000 3156.8823 5263.1322 5250.8429
331.7856 -15860.8127 -1719.2397 0.0000 0.0000
7641.2922 4063.8828 305.6899 -3577.4093 4123.8684
307.7293 130.3588 47.8599 656151.2420 -25.7456
-25.7475
[18679]ENERGY: 10260000 3221.8811 5102.5484 5264.4243
346.2357 -15853.7861 -1699.7490 0.0000 0.0000
7679.0661 4060.6205 307.2010 -3618.4456 4123.3061
307.8067 56.5282 -17.1070 656151.2420 -23.1659
-23.1619
[18729]ENERGY: 10270000 3220.2277 5191.7253 5240.3542
356.1997 -15892.1922 -1788.7156 0.0000 0.0000
7733.4195 4061.0184 309.3754 -3672.4011 4122.9777
307.8575 69.7396 -8.3586 656151.2420 -25.5250
-25.5286
[18765]ENERGY: 10280000 3136.4877 5231.3462 5270.5623
339.1778 -15805.5384 -1770.9517 0.0000 0.0000
7660.1467 4061.2306 306.4442 -3598.9161 4125.0242
307.7011 148.3817 26.8554 656151.2420 -24.5423
-24.5322
[18815]ENERGY: 10290000 3184.4277 5179.0193 5289.5518
352.9945 -15862.0614 -1767.3794 0.0000 0.0000
7684.0810 4060.6335 307.4017 -3623.4475 4123.3933

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307.5826	46.8654	-52.9126	656151.2420	-23.8567
-23.8614				
[18854]ENERGY: 10300000	3291.7510	5167.5361	5305.7392	
354.6112	-15931.2767	-1780.9055	0.0000	0.0000
7656.0518	4063.5072	306.2803	-3592.5446	4121.8830
307.8208	-103.9773	-39.0806	656151.2420	-25.6848
-25.6707				
[18904]ENERGY: 10310000	3237.9019	5129.6497	5251.0154	
358.1071	-15809.6861	-1796.1374	0.0000	0.0000
7687.2310	4058.0815	307.5277	-3629.1495	4122.7235
307.9972	-25.5361	-41.5220	656151.2420	-20.9717
-20.9704				
[18940]ENERGY: 10320000	3140.5091	5275.4130	5243.7699	
345.7247	-15885.6916	-1746.7999	0.0000	0.0000
7686.7277	4059.6528	307.5075	-3627.0749	4123.0035
307.8214	62.4289	25.2730	656151.2420	-20.0233
-20.0277				
[18990]ENERGY: 10330000	3264.6834	5229.0354	5264.7384	
333.3258	-15857.2160	-1761.1606	0.0000	0.0000
7586.9200	4060.3261	303.5147	-3526.5938	4123.8744
307.7016	107.7800	58.8910	656151.2420	-18.4133
-18.4063				
[19026]ENERGY: 10340000	3171.8370	5181.0435	5264.2263	
325.7107	-15815.2593	-1745.9677	0.0000	0.0000
7684.1429	4065.7335	307.4041	-3618.4095	4123.0740
307.8070	19.9456	-48.8470	656151.2420	-22.1983
-22.2076				
[19076]ENERGY: 10350000	3176.2456	5226.8464	5248.4727	
342.1678	-15793.1208	-1771.8617	0.0000	0.0000
7638.1339	4066.8840	305.5635	-3571.2499	4125.3551
307.8677	-24.6811	-84.1511	656151.2420	-21.8172
-21.8326				
[19112]ENERGY: 10360000	3253.4191	5209.8487	5222.7410	
326.2965	-15730.6003	-1844.1354	0.0000	0.0000
7627.7309	4065.3005	305.1474	-3562.4304	4124.5677
307.6969	-154.3119	-124.4305	656151.2420	-23.3344
-23.3025				
[19162]ENERGY: 10370000	3171.2125	5223.2944	5262.6706	
357.5336	-15858.6322	-1739.7103	0.0000	0.0000
7645.2510	4061.6195	305.8483	-3583.6314	4124.1457
307.6787	17.4179	-20.8846	656151.2420	-25.3446
-25.3531				
[19198]ENERGY: 10380000	3207.4448	5173.9444	5238.5281	
326.2599	-15866.8601	-1699.6557	0.0000	0.0000
7683.6619	4063.3234	307.3849	-3620.3385	4124.3072
307.7848	8.6087	11.4899	656151.2420	-23.0032
-23.0260				
[19248]ENERGY: 10390000	3176.5162	5236.4382	5266.9054	
334.9592	-15906.2010	-1765.0159	0.0000	0.0000
7719.1437	4062.7460	308.8043	-3656.3978	4124.5660
307.9477	-129.0155	-158.6245	656151.2420	-18.0646
-18.0618				
[19287]ENERGY: 10400000	3154.6457	5213.3037	5231.7782	
347.9662	-15776.0650	-1766.1476	0.0000	0.0000

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7657.6177	4063.0989	306.3430	-3594.5188	4125.5993
307.9158	153.1213	76.8024	656151.2420	-26.7706
-26.7660				
[19337]ENERGY: 10410000	3151.4864	5174.9438	5280.0908	
345.3004	-15828.8529	-1798.2952	0.0000	0.0000
7742.8789	4067.5523	309.7539	-3675.3266	4126.8371
307.7427	-49.0101	26.4417	656151.2420	-25.6997
-25.6968				
[19373]ENERGY: 10420000	3210.4361	5099.0105	5246.0235	
348.7116	-15841.3195	-1728.3614	0.0000	0.0000
7729.4832	4063.9840	309.2180	-3665.4992	4125.5127
307.8371	-53.6776	30.3566	656151.2420	-21.3467
-21.3525				
[19423]ENERGY: 10430000	3181.9599	5097.2280	5314.7884	
315.1867	-15819.2032	-1774.9149	0.0000	0.0000
7750.9059	4065.9507	310.0750	-3684.9552	4126.4723
307.8736	-75.5173	-23.6268	656151.2420	-21.6605
-21.6562				
[19459]ENERGY: 10440000	3218.2165	5107.6383	5275.0206	
351.7309	-15749.7731	-1828.9323	0.0000	0.0000
7689.5968	4063.4978	307.6223	-3626.0991	4127.2864
307.8143	-98.5629	-123.0930	656151.2420	-22.7605
-22.7655				
[19509]ENERGY: 10450000	3151.7720	5165.8990	5259.2843	
325.2786	-15880.7317	-1689.4738	0.0000	0.0000
7734.0779	4066.1063	309.4018	-3667.9716	4127.0807
307.6128	131.8385	90.4671	656151.2420	-24.6064
-24.5833				
[19545]ENERGY: 10460000	3173.9149	5167.5785	5272.3748	
344.8385	-15791.2169	-1767.5050	0.0000	0.0000
7666.2383	4066.2231	306.6879	-3600.0152	4126.0533
307.6650	38.3868	42.0053	656151.2420	-24.7416
-24.7648				
[19595]ENERGY: 10470000	3087.2347	5188.4171	5307.2993	
354.5143	-15830.6573	-1775.5698	0.0000	0.0000
7732.6980	4063.9364	309.3466	-3668.7616	4126.5710
307.4773	-22.5584	23.2966	656151.2420	-21.4153
-21.4157				
[19631]ENERGY: 10480000	3202.0616	5133.4715	5250.7710	
349.3796	-15861.7306	-1724.0245	0.0000	0.0000
7714.7918	4064.7203	308.6302	-3650.0715	4126.6446
307.6249	120.2244	145.4216	656151.2420	-23.2760
-23.2665				
[19681]ENERGY: 10490000	3181.2841	5176.7546	5294.6621	
344.1289	-15928.9856	-1681.0916	0.0000	0.0000
7678.5680	4065.3205	307.1811	-3613.2475	4126.6742
307.7450	26.0870	12.8486	656151.2420	-26.7688
-26.7614				
[19720]ENERGY: 10500000	3149.7109	5161.8840	5295.1630	
331.8375	-15743.4675	-1779.6105	0.0000	0.0000
7650.7015	4066.2190	306.0663	-3584.4825	4127.4832
307.7969	-134.4189	-122.2403	656151.2420	-18.6078
-18.6112				
[19770]ENERGY: 10510000	3220.6034	5161.9629	5293.8671	

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337.2980	-15801.9347	-1834.8717	0.0000	0.0000
7688.7619	4065.6870	307.5889	-3623.0749	4126.2590
307.6951	-144.6896	-128.3573	656151.2420	-25.0176
-25.0233				
[19806]ENERGY: 10520000	3155.0105	5203.4737	5263.2513	
346.1566	-15867.7301	-1732.5473	0.0000	0.0000
7696.8006	4064.4153	307.9105	-3632.3853	4125.6702
307.5602	107.4074	55.1159	656151.2420	-25.0971
-25.0984				
[19856]ENERGY: 10530000	3198.4446	5136.2003	5279.1692	
347.3371	-15772.0620	-1796.2562	0.0000	0.0000
7671.5792	4064.4124	306.9015	-3607.1668	4126.9878
307.5956	-170.6580	-103.6004	656151.2420	-24.5453
-24.5275				
[19892]ENERGY: 10540000	3201.9478	5207.5871	5268.5761	
355.5242	-15794.4861	-1772.9115	0.0000	0.0000
7603.3876	4069.6252	304.1735	-3533.7624	4127.4477
307.8679	82.8278	67.0686	656151.2420	-26.3102
-26.3188				
[19942]ENERGY: 10550000	3223.2711	5145.5153	5256.4552	
334.1979	-15835.5894	-1741.4858	0.0000	0.0000
7680.2319	4062.5960	307.2477	-3617.6359	4125.6045
307.5879	-79.4550	-46.3923	656151.2420	-22.7896
-22.7979				
[19978]ENERGY: 10560000	3177.4554	5174.3782	5248.0097	
327.0419	-15784.1261	-1745.6042	0.0000	0.0000
7668.7777	4065.9327	306.7895	-3602.8451	4126.9881
307.6170	-109.8685	-35.1442	656151.2420	-25.9895
-25.9926				
[20028]ENERGY: 10570000	3108.0241	5140.0005	5283.9856	
368.5603	-15760.1972	-1811.7934	0.0000	0.0000
7736.2135	4064.7934	309.4872	-3671.4201	4128.2670
307.6266	-14.5429	-90.4253	656151.2420	-21.8682
-21.8619				
[20064]ENERGY: 10580000	3221.4950	5204.3757	5283.1538	
344.1876	-15889.5649	-1740.3949	0.0000	0.0000
7642.5867	4065.8388	305.7417	-3576.7479	4126.1393
307.6958	-259.6714	-198.5235	656151.2420	-23.3494
-23.3596				
[20114]ENERGY: 10590000	3081.1502	5254.4318	5246.6622	
346.2282	-15914.2159	-1654.3202	0.0000	0.0000
7706.3296	4066.2659	308.2917	-3640.0638	4127.4523
307.4508	-0.4022	57.2332	656151.2420	-24.7756
-24.7619				
[20153]ENERGY: 10600000	3214.7900	5202.9714	5257.0743	
340.7408	-15881.3503	-1799.0260	0.0000	0.0000
7731.5527	4066.7529	309.3008	-3664.7998	4127.8910
307.5403	-78.3677	-98.1773	656151.2420	-20.2606
-20.2597				
[20203]ENERGY: 10610000	3150.7387	5084.6961	5243.9764	
331.6774	-15673.2763	-1810.9035	0.0000	0.0000
7737.7756	4064.6844	309.5497	-3673.0912	4126.9213
307.4553	16.9135	10.1697	656151.2420	-26.1162
-26.1267				

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[20239]ENERGY: 10620000	3219.9922	5120.6876	5276.9906	
359.4474	-15859.1811	-1712.5684	0.0000	0.0000
7659.0718	4064.4401	306.4012	-3594.6317	4126.6289
307.4115	14.3995	1.1122	656151.2420	-19.3758
-19.3667				
[20289]ENERGY: 10630000	3180.3500	5139.9792	5300.2175	
369.9172	-15778.3391	-1788.8382	0.0000	0.0000
7640.8424	4064.1290	305.6719	-3576.7134	4127.0997
307.3602	-34.8440	-10.3262	656151.2420	-27.4257
-27.4409				
[20325]ENERGY: 10640000	3102.8697	5112.7947	5328.7670	
356.1193	-15837.3775	-1770.3684	0.0000	0.0000
7772.1182	4064.9231	310.9236	-3707.1951	4127.3835
307.3373	28.1735	-3.2433	656151.2420	-19.7480
-19.7442				
[20375]ENERGY: 10650000	3179.2129	5198.0184	5238.0472	
363.4413	-15872.1768	-1717.1274	0.0000	0.0000
7675.6448	4065.0603	307.0642	-3610.5845	4126.4225
307.2611	-24.6523	-31.1741	656151.2420	-23.4710
-23.4602				
[20411]ENERGY: 10660000	3136.0595	5235.0891	5256.3467	
345.2897	-15720.9044	-1811.5284	0.0000	0.0000
7626.6085	4066.9608	305.1025	-3559.6478	4128.1198
307.4815	-40.1502	-55.6263	656151.2420	-23.5679
-23.5734				
[20461]ENERGY: 10670000	3158.8238	5162.5579	5244.2443	
350.7784	-15793.9515	-1758.6159	0.0000	0.0000
7700.7988	4064.6359	308.0705	-3636.1630	4128.5378
307.4600	101.8444	-29.8903	656151.2420	-22.4684
-22.4557				
[20497]ENERGY: 10680000	3147.2542	5265.6742	5276.7244	
339.4754	-15822.2442	-1813.5739	0.0000	0.0000
7672.6857	4065.9958	306.9458	-3606.6900	4128.0919
307.5027	73.4658	9.4136	656151.2420	-25.3037
-25.3141				
[20547]ENERGY: 10690000	3217.2275	5124.9021	5291.5037	
362.2890	-15899.4123	-1720.7698	0.0000	0.0000
7690.5033	4066.2435	307.6586	-3624.2598	4128.6607
307.3674	86.6365	-1.0069	656151.2420	-22.9882
-22.9926				
[20586]ENERGY: 10700000	3168.2666	5256.0715	5301.9430	
344.6821	-15952.7978	-1743.4956	0.0000	0.0000
7690.7546	4065.4245	307.6686	-3625.3301	4128.2978
307.4623	62.9939	-12.4348	656151.2420	-24.8880
-24.9045				
[20636]ENERGY: 10710000	3189.4474	5163.2212	5305.5402	
320.2294	-15842.3977	-1747.7802	0.0000	0.0000
7678.5284	4066.7887	307.1795	-3611.7398	4127.5402
307.4788	-40.9699	-47.5228	656151.2420	-22.8665
-22.8377				
[20672]ENERGY: 10720000	3227.5335	5200.0648	5296.2930	
334.7262	-15788.3317	-1866.2154	0.0000	0.0000
7662.3428	4066.4132	306.5320	-3595.9297	4127.2127
307.4449	-24.7428	-127.5010	656151.2420	-24.2862

Supplementary Text 6

-24.2905
 [20722]ENERGY: 10730000 3247.1988 5165.0580 5216.0796
 336.2441 -15855.5207 -1715.7208 0.0000 0.0000
 7675.7828 4069.1217 307.0697 -3606.6611 4128.1516
 307.3918 -8.4573 17.7859 656151.2420 -22.9414
 -22.9436
 [20758]ENERGY: 10740000 3225.6156 5168.4074 5275.1016
 359.0034 -15807.6201 -1790.6659 0.0000 0.0000
 7639.3493 4069.1913 305.6122 -3570.1580 4128.8929
 307.6503 -24.3355 -37.4953 656151.2420 -26.4053
 -26.4170
 [20808]ENERGY: 10750000 3161.9341 5147.5206 5268.1802
 320.3325 -15737.9612 -1791.4142 0.0000 0.0000
 7700.0385 4068.6305 308.0400 -3631.4079 4128.6585
 307.7491 -42.9842 -59.2547 656151.2420 -27.4051
 -27.3986
 [20844]ENERGY: 10760000 3187.1459 5234.6700 5208.0701
 360.8515 -15815.0196 -1785.0646 0.0000 0.0000
 7673.0526 4063.7058 306.9605 -3609.3468 4127.0851
 307.7003 47.4585 27.1744 656151.2420 -22.0431
 -22.0497
 [20894]ENERGY: 10770000 3174.4428 5144.1748 5236.1464
 349.2481 -15807.5729 -1808.6357 0.0000 0.0000
 7776.7856 4064.5890 311.1103 -3712.1965 4126.6559
 307.5219 45.9031 -25.9220 656151.2420 -26.0370
 -26.0378
 [20930]ENERGY: 10780000 3164.7309 5180.0045 5294.0043
 341.2955 -15822.0053 -1733.8820 0.0000 0.0000
 7641.7446 4065.8925 305.7080 -3575.8521 4127.1140
 307.5731 49.8343 13.6988 656151.2420 -28.4161
 -28.4039
 [20980]ENERGY: 10790000 3257.2449 5241.1299 5247.6931
 321.5932 -15841.1205 -1794.2606 0.0000 0.0000
 7635.6790 4067.9591 305.4653 -3567.7199 4129.3078
 307.5968 147.0855 94.9232 656151.2420 -22.9136
 -22.9204
 [21019]ENERGY: 10800000 3127.3262 5180.9705 5292.2707
 335.8622 -15790.7778 -1802.1235 0.0000 0.0000
 7720.5885 4064.1168 308.8621 -3656.4717 4128.2459
 307.7743 -98.2921 -90.3319 656151.2420 -28.4353
 -28.4088
 [21069]ENERGY: 10810000 3188.3260 5155.0477 5298.9941
 336.8085 -15809.7215 -1707.8368 0.0000 0.0000
 7606.6731 4068.2911 304.3050 -3538.3820 4129.4817
 307.6954 105.1750 100.4540 656151.2420 -19.4397
 -19.4634
 [21105]ENERGY: 10820000 3129.3868 5230.1403 5302.8978
 344.5421 -15861.1153 -1734.8222 0.0000 0.0000
 7653.5939 4064.6235 306.1820 -3588.9704 4127.6716
 307.7954 -54.5686 63.6642 656151.2420 -23.8001
 -23.7947
 [21155]ENERGY: 10830000 3232.2363 5281.9081 5258.8240
 334.0851 -15896.6726 -1739.7602 0.0000 0.0000
 7598.3870 4069.0077 303.9735 -3529.3793 4129.6287

Supplementary Text 6

307.5928	-89.2549	-67.0940	656151.2420	-22.3589
-22.3500				
[21191]ENERGY: 10840000	3169.4076	5132.6030	5290.0464	
321.5373	-15810.5368	-1715.0702	0.0000	0.0000
7678.8098	4066.7971	307.1908	-3612.0127	4129.5250
307.6242	30.1376	51.9993	656151.2420	-23.1759
-23.1935				
[21241]ENERGY: 10850000	3150.7897	5150.9006	5268.8704	
355.9325	-15767.3584	-1834.5318	0.0000	0.0000
7742.9520	4067.5550	309.7568	-3675.3970	4130.0000
307.5749	38.1511	-42.7914	656151.2420	-27.3819
-27.3930				
[21277]ENERGY: 10860000	3264.4389	5172.1166	5269.2264	
323.4496	-15932.4469	-1764.2123	0.0000	0.0000
7734.9778	4067.5502	309.4378	-3667.4276	4129.2278
307.6960	-31.6209	55.6852	656151.2420	-23.7750
-23.7478				
[21327]ENERGY: 10870000	3308.6574	5153.2306	5303.0664	
339.2895	-15932.6179	-1777.8913	0.0000	0.0000
7674.0700	4067.8047	307.0012	-3606.2652	4129.6675
307.7183	-9.4260	0.5097	656151.2420	-26.2151
-26.2123				
[21363]ENERGY: 10880000	3232.0912	5201.3870	5248.6649	
345.0622	-15847.0921	-1777.0778	0.0000	0.0000
7668.1320	4071.1673	306.7636	-3596.9646	4130.4416
307.8236	-36.9265	-53.7617	656151.2420	-26.9665
-26.9940				
[21413]ENERGY: 10890000	3221.3445	5123.8634	5239.1554	
345.0171	-15895.5045	-1728.2255	0.0000	0.0000
7760.6327	4066.2830	310.4641	-3694.3497	4129.7932
307.8677	88.2335	81.3319	656151.2420	-28.2992
-28.2888				
[21452]ENERGY: 10900000	3234.6083	5238.2929	5260.8430	
331.6604	-15848.0886	-1794.6075	0.0000	0.0000
7648.7530	4071.4615	305.9884	-3577.2915	4129.7968
307.8005	28.7798	-47.9031	656151.2420	-24.8106
-24.8142				
[21502]ENERGY: 10910000	3265.1857	5200.2824	5286.5719	
355.2315	-15800.9778	-1845.3805	0.0000	0.0000
7610.5820	4071.4952	304.4613	-3539.0868	4130.9729
307.7088	148.3516	-4.3389	656151.2420	-28.8458
-28.8576				
[21538]ENERGY: 10920000	3171.7343	5175.7705	5323.9117	
328.1079	-15793.8269	-1846.9024	0.0000	0.0000
7709.6815	4068.4766	308.4258	-3641.2049	4131.1363
307.6207	-9.5912	-32.4367	656151.2420	-23.4921
-23.4817				
[21588]ENERGY: 10930000	3215.5749	5298.5402	5296.2238	
342.5503	-15910.2218	-1813.9572	0.0000	0.0000
7642.2600	4070.9701	305.7286	-3571.2899	4130.8252
307.6733	-4.2589	-78.3474	656151.2420	-26.4524
-26.4439				
[21624]ENERGY: 10940000	3209.6182	5166.4348	5316.8437	
323.4727	-15866.9158	-1717.8423	0.0000	0.0000

Supplementary Text 6

7639.3749	4070.9862	305.6132	-3568.3887	4130.8754
307.7228	111.5525	-27.2116	656151.2420	-24.8760
-24.8812				
[21674]ENERGY: 10950000	3310.8079	5242.6969	5273.9858	
347.1047	-15924.0371	-1732.8290	0.0000	0.0000
7554.0101	4071.7393	302.1982	-3482.2708	4132.2692
307.7736	-10.6592	-68.6816	656151.2420	-24.1979
-24.1924				
[21710]ENERGY: 10960000	3198.5226	5183.2267	5311.6383	
354.0436	-15922.7607	-1718.6307	0.0000	0.0000
7664.4896	4070.5294	306.6179	-3593.9602	4131.9352
307.8202	51.6314	71.2426	656151.2420	-23.4685
-23.4755				
[21760]ENERGY: 10970000	3159.3043	5211.3744	5302.5293	
322.1139	-15896.0243	-1718.9761	0.0000	0.0000
7690.5329	4070.8542	307.6598	-3619.6787	4132.8678
307.6604	45.6071	0.0854	656151.2420	-24.7918
-24.7946				
[21796]ENERGY: 10980000	3169.1733	5257.4095	5263.5238	
354.6016	-15955.9359	-1692.4531	0.0000	0.0000
7671.5568	4067.8760	306.9006	-3603.6808	4133.2201
307.5875	46.3435	32.4858	656151.2420	-18.2445
-18.2381				
[21846]ENERGY: 10990000	3238.4481	5126.7631	5226.5588	
344.3792	-15886.8806	-1740.8183	0.0000	0.0000
7763.5333	4071.9837	310.5801	-3691.5496	4133.7071
307.5568	-175.2283	-214.6176	656151.2420	-28.1422
-28.1420				
[21885]ENERGY: 11000000	3262.1916	5146.3962	5275.5321	
359.5396	-15871.7490	-1794.9994	0.0000	0.0000
7696.8343	4073.7454	307.9119	-3623.0889	4133.5861
307.4421	-48.8558	-23.9664	656151.2420	-21.2862
-21.2842				
[21935]ENERGY: 11010000	3211.0543	5204.6539	5242.3544	
334.3357	-15823.4336	-1786.4451	0.0000	0.0000
7692.9415	4075.4611	307.7561	-3617.4804	4134.6457
307.8484	59.5481	3.1199	656151.2420	-23.9091
-23.9055				
[21971]ENERGY: 11020000	3226.8785	5235.7671	5274.9180	
345.3293	-15800.7370	-1803.7294	0.0000	0.0000
7596.7739	4075.2005	303.9089	-3521.5734	4134.1742
307.6296	-87.6964	-84.8746	656151.2420	-21.9212
-21.9197				
[22021]ENERGY: 11030000	3185.7511	5139.8043	5274.9393	
336.4499	-15819.5668	-1751.5175	0.0000	0.0000
7707.1746	4073.0348	308.3255	-3634.1398	4132.4367
307.6775	67.9464	118.9223	656151.2420	-25.2880
-25.2857				
[22057]ENERGY: 11040000	3286.5332	5197.8957	5264.8033	
339.3792	-15803.9056	-1820.5740	0.0000	0.0000
7611.0842	4075.2161	304.4814	-3535.8681	4133.9785
307.8511	-111.9577	-76.0003	656151.2420	-22.8963
-22.8972				
[22107]ENERGY: 11050000	3189.9836	5221.5718	5322.2496	

Supplementary Text 6

329.2988	-15956.3227	-1777.8366	0.0000	0.0000
7736.5500	4065.4945	309.5007	-3671.0555	4132.7285
307.8563	-80.9997	-69.9801	656151.2420	-27.0602
-27.0647				
[22143]ENERGY: 11060000	3172.1672	5135.1695	5299.6027	
322.4682	-15776.5012	-1777.7524	0.0000	0.0000
7702.0852	4077.2391	308.1219	-3624.8461	4133.6552
307.9836	202.3258	169.4202	656151.2420	-23.9225
-23.9314				
[22193]ENERGY: 11070000	3195.9244	5135.3282	5273.2179	
345.5688	-15802.3838	-1743.1867	0.0000	0.0000
7664.7251	4069.1938	306.6273	-3595.5313	4134.4014
307.8685	-0.1346	-61.1414	656151.2420	-26.1794
-26.1690				
[22229]ENERGY: 11080000	3272.2662	5182.2463	5280.7458	
320.2498	-15876.4197	-1779.9805	0.0000	0.0000
7673.6366	4072.7446	306.9838	-3600.8920	4134.3805
307.9434	-126.2888	-117.3282	656151.2420	-28.5627
-28.5544				
[22279]ENERGY: 11090000	3284.4719	5151.2613	5308.4704	
342.8655	-15857.2256	-1832.4094	0.0000	0.0000
7672.2147	4069.6489	306.9269	-3602.5658	4135.2319
307.8601	-204.0990	-189.4672	656151.2420	-26.8550
-26.8619				
[22318]ENERGY: 11100000	3159.6229	5265.5498	5285.3788	
352.2665	-15871.0689	-1799.5983	0.0000	0.0000
7679.2515	4071.4023	307.2085	-3607.8492	4133.4346
307.7946	-4.7650	-3.6154	656151.2420	-30.0537
-30.0702				
[22368]ENERGY: 11110000	3189.3656	5171.6103	5317.2942	
344.4555	-15940.4945	-1750.7911	0.0000	0.0000
7741.6390	4073.0790	309.7043	-3668.5600	4133.7374
307.7087	20.3074	20.1617	656151.2420	-20.7438
-20.7305				
[22404]ENERGY: 11120000	3199.2360	5161.5326	5253.6044	
323.2912	-15745.1194	-1832.0698	0.0000	0.0000
7711.8496	4072.3246	308.5125	-3639.5250	4135.4543
307.7602	-65.0175	-201.2351	656151.2420	-26.6576
-26.6804				
[22454]ENERGY: 11130000	3219.6392	5236.1011	5246.3882	
361.5130	-15864.6875	-1754.3231	0.0000	0.0000
7629.0633	4073.6942	305.2007	-3555.3691	4135.1649
307.6904	-76.8331	-54.7549	656151.2420	-20.4516
-20.4284				
[22490]ENERGY: 11140000	3222.8714	5234.2897	5255.5267	
326.3410	-15910.9296	-1727.1120	0.0000	0.0000
7672.0297	4073.0168	306.9195	-3599.0129	4135.9603
307.7957	86.9346	59.3156	656151.2420	-20.8120
-20.8124				
[22540]ENERGY: 11150000	3247.6959	5147.8752	5252.2023	
343.5264	-15840.6723	-1743.8127	0.0000	0.0000
7667.1940	4074.0088	306.7261	-3593.1852	4136.2512
307.8673	82.2694	-4.7194	656151.2420	-29.3168
-29.3287				

Supplementary Text 6

[22576]ENERGY: 11160000	3254.6947	5269.0938	5258.5154
337.5229	-15861.2799	-1845.8921	0.0000
7663.2512	4075.9059	306.5684	-3587.3452
307.8953	-116.1702	-109.4698	656151.2420
-22.5891			-22.5923
[22626]ENERGY: 11170000	3181.8864	5220.5653	5284.0284
342.2891	-15809.0290	-1815.5193	0.0000
7670.1124	4074.3334	306.8428	-3595.7790
307.7710	-109.4383	-32.9111	656151.2420
-26.0296			-26.0397
[22662]ENERGY: 11180000	3170.5117	5224.2910	5232.2518
327.4961	-15770.2696	-1739.7845	0.0000
7632.2971	4076.7937	305.3300	-3555.5034
308.0473	-36.1891	0.1391	656151.2420
-20.1054			-20.0995
[22712]ENERGY: 11190000	3180.8564	5210.1371	5285.7210
351.8138	-15833.9561	-1775.7699	0.0000
7658.1373	4076.9395	306.3638	-3581.1978
308.0429	-82.2860	-31.5428	656151.2420
-27.1073			-27.1095
[22751]ENERGY: 11200000	3145.0410	5228.0376	5282.2636
335.9261	-15839.4968	-1757.9247	0.0000
7682.6813	4076.5282	307.3457	-3606.1532
307.9507	30.3024	130.0741	656151.2420
-25.0617			-25.0723
[22801]ENERGY: 11210000	3118.8663	5280.2008	5238.2873
337.5139	-15822.9457	-1800.9775	0.0000
7729.7103	4080.6554	309.2271	-3649.0548
307.7300	67.8916	-36.5265	656151.2420
-27.0327			-27.0252
[22837]ENERGY: 11220000	3267.5934	5193.2199	5267.2634
316.8946	-15857.6767	-1708.1453	0.0000
7597.6777	4076.8269	303.9451	-3520.8507
307.5976	-29.4282	-92.5932	656151.2420
-27.0286			-27.0210
[22887]ENERGY: 11230000	3180.2557	5106.3074	5271.8785
332.4488	-15852.1348	-1765.7325	0.0000
7803.5623	4076.5855	312.1815	-3726.9768
307.8076	86.8874	31.2726	656151.2420
-22.3996			-22.4099
[22923]ENERGY: 11240000	3185.6892	5161.3936	5277.1663
324.0779	-15803.1159	-1723.4299	0.0000
7659.0729	4080.8540	306.4012	-3578.2189
307.7998	49.9386	-34.5068	656151.2420
-25.3158			-25.3063
[22973]ENERGY: 11250000	3217.4998	5232.1812	5273.9401
353.7075	-15844.6189	-1775.4486	0.0000
7617.2265	4074.4875	304.7271	-3542.7389
307.8992	51.1256	32.4451	656151.2420
-24.0381			-24.0349
[23009]ENERGY: 11260000	3165.7830	5179.2782	5253.2866
332.6653	-15798.5965	-1758.5920	0.0000
7700.5270	4074.3516	308.0596	-3626.1753
307.8442	-80.5685	-90.7908	656151.2420
			-21.8555

Supplementary Text 6

-21.8350
 [23059]ENERGY: 11270000 3243.0485 5267.1729 5270.7819
 339.1510 -15844.8590 -1794.9759 0.0000 0.0000
 7599.6057 4079.9252 304.0222 -3519.6806 4139.4960
 307.7450 95.9843 48.6874 656151.2420 -27.4151
 -27.4337
 [23095]ENERGY: 11280000 3210.5982 5239.7355 5241.0688
 370.8100 -15763.9715 -1805.9415 0.0000 0.0000
 7584.6104 4076.9098 303.4223 -3507.7006 4138.7731
 307.9650 -22.2843 -20.6881 656151.2420 -24.5566
 -24.5588
 [23145]ENERGY: 11290000 3184.2916 5159.3962 5289.3968
 344.9374 -15897.7193 -1713.4314 0.0000 0.0000
 7707.1765 4074.0479 308.3256 -3633.1286 4139.6783
 308.1838 -83.7400 -57.7183 656151.2420 -29.8706
 -29.8706
 [23184]ENERGY: 11300000 3151.4603 5271.5158 5269.7581
 327.8978 -15801.1107 -1845.7050 0.0000 0.0000
 7707.2181 4081.0344 308.3273 -3626.1837 4140.5279
 307.9978 -123.4670 -116.4210 656151.2420 -24.8398
 -24.8292
 [23234]ENERGY: 11310000 3175.8794 5279.1880 5234.4969
 327.1517 -15877.6315 -1763.0960 0.0000 0.0000
 7705.9278 4081.9163 308.2756 -3624.0115 4141.1684
 308.2425 0.7336 -73.1447 656151.2420 -25.6633
 -25.6711
 [23270]ENERGY: 11320000 3146.1611 5180.1079 5267.3900
 326.8541 -15789.3456 -1738.5108 0.0000 0.0000
 7684.5423 4077.1989 307.4201 -3607.3434 4139.5277
 308.2980 57.5930 77.6935 656151.2420 -24.9659
 -24.9446
 [23320]ENERGY: 11330000 3291.3135 5174.3878 5274.6092
 345.2134 -15862.8305 -1800.5007 0.0000 0.0000
 7654.9430 4077.1356 306.2360 -3577.8074 4138.0979
 308.0319 -246.3700 -108.4303 656151.2420 -26.0068
 -26.0057
 [23356]ENERGY: 11340000 3235.7567 5183.4699 5252.4267
 326.5862 -15841.9913 -1800.0188 0.0000 0.0000
 7718.3731 4074.6024 308.7735 -3643.7706 4138.0578
 308.0380 -167.3199 -169.4234 656151.2420 -27.4747
 -27.5028
 [23406]ENERGY: 11350000 3162.7186 5282.6974 5296.1119
 344.4056 -15828.9470 -1821.3677 0.0000 0.0000
 7642.0836 4077.7023 305.7216 -3564.3813 4138.5892
 308.1192 -40.0848 -10.2962 656151.2420 -26.0784
 -26.0728
 [23442]ENERGY: 11360000 3202.3202 5258.0686 5226.7241
 338.9505 -15779.2971 -1799.3268 0.0000 0.0000
 7631.0718 4078.5113 305.2810 -3552.5605 4138.9777
 308.1466 42.4611 46.8848 656151.2420 -27.3527
 -27.3579
 [23492]ENERGY: 11370000 3256.3542 5279.9381 5268.5540
 343.8559 -15903.9013 -1794.0497 0.0000 0.0000
 7625.9877 4076.7389 305.0776 -3549.2488 4139.1668

Supplementary Text 6

308.2604	-149.7369	-61.0443	656151.2420	-24.1332
-24.1237				
[23528]ENERGY: 11380000	3209.2494	5225.4978	5279.8599	
353.0406	-15838.0978	-1846.7890	0.0000	0.0000
7694.4824	4077.2433	307.8178	-3617.2391	4139.7667
308.2184	-44.7802	-101.5593	656151.2420	-28.5691
-28.5670				
[23578]ENERGY: 11390000	3218.6942	5316.6261	5305.6361	
349.9156	-15887.9670	-1850.8818	0.0000	0.0000
7625.6957	4077.7189	305.0660	-3547.9768	4139.4195
308.0667	-172.0576	-93.7685	656151.2420	-28.7281
-28.7308				
[23617]ENERGY: 11400000	3165.5580	5238.6166	5303.4693	
351.1527	-15880.4288	-1874.7132	0.0000	0.0000
7772.6094	4076.2639	310.9432	-3696.3455	4140.8641
307.9109	-45.9988	-69.7391	656151.2420	-22.5018
-22.5021				
[23667]ENERGY: 11410000	3109.4808	5264.7515	5281.4604	
332.7777	-15804.8273	-1857.2566	0.0000	0.0000
7750.2186	4076.6050	310.0475	-3673.6136	4141.2340
307.9701	62.7239	-33.9954	656151.2420	-23.1580
-23.1680				
[23703]ENERGY: 11420000	3171.2298	5263.6366	5253.6171	
333.5565	-15843.3542	-1786.1095	0.0000	0.0000
7684.8108	4077.3871	307.4309	-3607.4237	4139.7576
307.8202	-44.8253	-47.8078	656151.2420	-21.5272
-21.5156				
[23753]ENERGY: 11430000	3212.1197	5232.3789	5285.0560	
343.9109	-15827.5377	-1813.2299	0.0000	0.0000
7648.5321	4081.2300	305.9795	-3567.3021	4140.2106
307.7669	-222.1261	-237.4975	656151.2420	-24.7036
-24.6999				
[23789]ENERGY: 11440000	3162.6228	5237.0857	5283.7364	
349.5855	-15809.4320	-1812.4380	0.0000	0.0000
7667.7186	4078.8790	306.7471	-3588.8395	4140.8954
307.8011	60.7124	-21.9834	656151.2420	-26.1228
-26.1228				
[23839]ENERGY: 11450000	3178.1919	5174.3868	5214.9488	
370.1628	-15893.2824	-1671.0494	0.0000	0.0000
7706.4514	4079.8098	308.2966	-3626.6415	4141.6841
307.8519	179.0456	104.7238	656151.2420	-16.1834
-16.2020				
[23875]ENERGY: 11460000	3226.6332	5242.1252	5227.7103	
328.7175	-15888.1436	-1723.1450	0.0000	0.0000
7665.3062	4079.2037	306.6506	-3586.1024	4141.3383
307.8255	-110.7852	-1.5619	656151.2420	-28.3253
-28.3003				
[23925]ENERGY: 11470000	3263.6364	5196.5157	5238.8751	
338.5953	-15801.6533	-1749.2433	0.0000	0.0000
7597.9201	4084.6461	303.9548	-3513.2741	4141.6540
307.8256	-19.0569	-45.6568	656151.2420	-24.5768
-24.5731				
[23961]ENERGY: 11480000	3242.1821	5204.9442	5316.7495	
340.4319	-15858.6487	-1787.4158	0.0000	0.0000

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7623.4259	4081.6691	304.9752	-3541.7569	4143.5295
307.7180	126.0914	-38.8148	656151.2420	-26.8176
-26.8421				
[24011]ENERGY: 11490000	3178.5040	5200.6343	5240.4112	
344.4561	-15807.6522	-1765.6499	0.0000	0.0000
7689.3922	4080.0959	307.6141	-3609.2963	4141.4463
307.8881	16.5123	24.2047	656151.2420	-24.5241
-24.5019				
[24050]ENERGY: 11500000	3123.3919	5207.2772	5245.8880	
346.2330	-15735.0210	-1746.2763	0.0000	0.0000
7639.8367	4081.3295	305.6317	-3558.5072	4141.5826
307.9003	33.5975	-14.9142	656151.2420	-22.1167
-22.1307				
[24100]ENERGY: 11510000	3168.0506	5155.9934	5248.8549	
343.6874	-15805.2676	-1763.5556	0.0000	0.0000
7731.2593	4079.0224	309.2890	-3652.2370	4141.7331
307.9171	93.1377	64.5061	656151.2420	-24.5893
-24.5712				
[24136]ENERGY: 11520000	3148.1407	5228.7045	5259.0336	
363.2282	-15896.8480	-1758.5436	0.0000	0.0000
7736.4667	4080.1822	309.4973	-3656.2845	4141.0122
308.0072	35.0312	58.9985	656151.2420	-25.6108
-25.6178				
[24186]ENERGY: 11530000	3216.3167	5292.9932	5273.1707	
344.6645	-15860.0609	-1767.4864	0.0000	0.0000
7583.0966	4082.6943	303.3618	-3500.4024	4141.6191
308.0243	51.4136	-20.0234	656151.2420	-26.0877
-26.1006				
[24222]ENERGY: 11540000	3165.1311	5188.2715	5292.9524	
342.9772	-15773.3049	-1850.3703	0.0000	0.0000
7713.4210	4079.0779	308.5754	-3634.3431	4140.8762
307.8487	-56.9454	-91.5009	656151.2420	-24.5382
-24.5249				
[24272]ENERGY: 11550000	3188.9564	5261.6610	5272.5152	
331.2818	-15812.2930	-1836.7811	0.0000	0.0000
7674.2425	4079.5829	307.0081	-3594.6596	4141.3952
307.8482	74.1018	66.2775	656151.2420	-24.6442
-24.6578				
[24308]ENERGY: 11560000	3213.6836	5219.4322	5271.5866	
360.7655	-15869.9291	-1744.4798	0.0000	0.0000
7628.4593	4079.5182	305.1765	-3548.9411	4141.6001
307.9611	-83.7669	-20.4132	656151.2420	-24.8697
-24.8498				
[24358]ENERGY: 11570000	3157.6088	5203.5388	5221.4097	
343.0329	-15845.0606	-1754.2472	0.0000	0.0000
7750.5312	4076.8135	310.0600	-3673.7177	4140.7204
307.9448	144.1046	87.1401	656151.2420	-24.9811
-24.9955				
[24394]ENERGY: 11580000	3242.4453	5218.1735	5277.1974	
354.3657	-15894.7024	-1776.1847	0.0000	0.0000
7659.1170	4080.4118	306.4030	-3578.7052	4141.1310
307.9605	-88.0255	-75.8471	656151.2420	-24.9783
-24.9774				
[24444]ENERGY: 11590000	3111.0570	5226.4339	5290.8468	

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345.7483	-15744.5118	-1815.7271	0.0000	0.0000
7667.4311	4081.2782	306.7356	-3586.1529	4141.9151
307.9570	56.3844	53.4441	656151.2420	-26.8207
-26.8197				
[24483]ENERGY: 11600000	3200.9979	5171.5769	5225.8123	
317.3623	-15794.5908	-1718.1460	0.0000	0.0000
7675.5070	4078.5198	307.0587	-3596.9872	4141.7982
307.9676	43.8231	20.3684	656151.2420	-24.4074
-24.4132				
[24533]ENERGY: 11610000	3186.2026	5177.9263	5293.2451	
333.3954	-15854.5395	-1749.5931	0.0000	0.0000
7692.9478	4079.5845	307.7564	-3613.3633	4142.0449
307.8022	-40.7585	-126.5359	656151.2420	-23.8786
-23.8691				
[24569]ENERGY: 11620000	3251.6024	5106.2740	5256.1840	
317.7387	-15834.4756	-1799.0648	0.0000	0.0000
7780.3395	4078.5981	311.2525	-3701.7414	4142.2603
307.9244	-2.6920	-93.6222	656151.2420	-27.4554
-27.4719				
[24619]ENERGY: 11630000	3199.7531	5234.2361	5229.0247	
328.4016	-15850.4882	-1747.2444	0.0000	0.0000
7685.3312	4079.0142	307.4517	-3606.3170	4142.1368
307.8692	76.8598	48.6574	656151.2420	-23.7886
-23.7664				
[24655]ENERGY: 11640000	3227.2825	5242.3378	5230.6034	
319.3787	-15888.7026	-1826.2195	0.0000	0.0000
7771.4032	4076.0834	310.8950	-3695.3198	4142.8922
307.8684	1.8874	-29.1743	656151.2420	-23.4490
-23.4537				
[24705]ENERGY: 11650000	3143.0700	5224.2324	5296.2695	
354.4682	-15884.0909	-1794.0826	0.0000	0.0000
7742.6655	4082.5321	309.7453	-3660.1333	4142.8818
308.0719	89.1597	34.0005	656151.2420	-22.9447
-22.9474				
[24741]ENERGY: 11660000	3224.8489	5183.0809	5307.8381	
337.3809	-15852.1403	-1758.5688	0.0000	0.0000
7640.5201	4082.9597	305.6590	-3557.5604	4143.8628
307.8539	-1.3318	-67.8213	656151.2420	-24.3126
-24.3178				
[24791]ENERGY: 11670000	3208.7005	5229.9563	5281.4247	
349.2305	-15806.2981	-1799.6580	0.0000	0.0000
7620.3817	4083.7376	304.8534	-3536.6441	4143.9731
307.7099	19.2233	23.0684	656151.2420	-25.7256
-25.7194				
[24827]ENERGY: 11680000	3175.6684	5044.4435	5238.5172	
338.1867	-15729.1063	-1802.3650	0.0000	0.0000
7815.9639	4081.3082	312.6776	-3734.6556	4143.8959
307.7310	-50.4629	-39.4315	656151.2420	-23.1479
-23.1507				
[24877]ENERGY: 11690000	3230.3094	5205.0666	5291.3897	
343.7616	-15842.7724	-1778.5048	0.0000	0.0000
7635.8064	4085.0565	305.4704	-3550.7499	4143.9041
307.7943	-72.5914	-22.9178	656151.2420	-25.8384
-25.8390				

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[24916]ENERGY: 11700000	3153.1389	5175.9587	5292.9922	
343.4171	-15885.4472	-1705.7297	0.0000	0.0000
7711.0866	4085.4166	308.4820	-3625.6700	4143.3701
307.8544	129.9522	138.1965	656151.2420	-20.3797
-20.3752				
[24966]ENERGY: 11710000	3226.3210	5166.6762	5251.0162	
343.5222	-15761.8427	-1761.0296	0.0000	0.0000
7619.7683	4084.4316	304.8288	-3535.3367	4142.8602
307.7949	189.8609	95.9499	656151.2420	-26.1296
-26.1735				
[25002]ENERGY: 11720000	3201.8863	5181.7839	5284.5665	
332.9894	-15901.9931	-1731.1090	0.0000	0.0000
7710.9575	4079.0815	308.4769	-3631.8760	4142.5503
307.7421	127.5856	130.7401	656151.2420	-20.2982
-20.2693				
[25052]ENERGY: 11730000	3183.5838	5168.5583	5256.4485	
333.8906	-15812.4695	-1776.9974	0.0000	0.0000
7730.0094	4083.0237	309.2390	-3646.9858	4144.1211
307.8704	147.1514	103.3716	656151.2420	-24.5160
-24.5295				
[25088]ENERGY: 11740000	3179.7040	5278.5991	5254.4874	
340.1176	-15836.9837	-1769.9111	0.0000	0.0000
7635.3582	4081.3715	305.4525	-3553.9868	4143.6698
307.9899	-91.2971	-23.6962	656151.2420	-22.1623
-22.1332				
[25138]ENERGY: 11750000	3217.7422	5266.2238	5250.6183	
353.2443	-15837.8185	-1862.9511	0.0000	0.0000
7695.0615	4082.1206	307.8409	-3612.9409	4144.7819
307.8407	-68.0857	-64.0503	656151.2420	-22.5355
-22.5635				
[25174]ENERGY: 11760000	3145.8593	5178.0226	5248.9236	
312.8174	-15790.9132	-1860.5540	0.0000	0.0000
7846.0394	4080.1952	313.8808	-3765.8442	4144.2650
307.8881	-57.6530	-24.7499	656151.2420	-25.5078
-25.4813				
[25224]ENERGY: 11770000	3264.8644	5191.9439	5234.2782	
353.9419	-15821.6107	-1780.6240	0.0000	0.0000
7642.6227	4085.4163	305.7431	-3557.2064	4145.6483
307.5537	-15.0427	-64.7999	656151.2420	-20.6465
-20.6622				
[25260]ENERGY: 11780000	3171.8810	5311.1021	5296.3246	
324.1614	-15813.2734	-1794.3313	0.0000	0.0000
7587.3322	4083.1966	303.5312	-3504.1355	4144.6304
307.7511	-80.1867	-32.6907	656151.2420	-26.2392
-26.2315				
[25310]ENERGY: 11790000	3225.7684	5302.6520	5249.9515	
324.0966	-15871.5312	-1784.4834	0.0000	0.0000
7641.0490	4087.5029	305.6802	-3553.5461	4144.6201
307.8459	28.1711	22.0889	656151.2420	-22.9879
-22.9885				
[25349]ENERGY: 11800000	3246.7809	5230.2899	5253.4181	
311.2479	-15836.8631	-1826.0408	0.0000	0.0000
7702.3333	4081.1661	308.1318	-3621.1672	4145.4546
307.9089	25.2419	-93.6489	656151.2420	-25.1523

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-25.1464
[25399]ENERGY: 11810000 3261.0959 5178.5572 5263.4098
328.9226 -15903.3558 -1734.5895 0.0000 0.0000
7690.2517 4084.2919 307.6485 -3605.9598 4144.6417
308.0434 -118.7903 -59.9312 656151.2420 -21.4730
-21.4753
[25435]ENERGY: 11820000 3084.9571 5281.6679 5263.8615
333.6182 -15852.4914 -1746.9458 0.0000 0.0000
7716.1795 4080.8471 308.6858 -3635.3324 4144.8643
307.7787 2.3308 -24.5845 656151.2420 -25.2714
-25.2751
[25485]ENERGY: 11830000 3212.2688 5245.1325 5211.7496
323.8038 -15871.0606 -1781.6443 0.0000 0.0000
7741.7755 4082.0253 309.7097 -3659.7502 4144.9762
308.0037 -13.6885 -36.5979 656151.2420 -23.8105
-23.8224
[25521]ENERGY: 11840000 3183.2965 5193.5307 5289.4906
333.1435 -15842.3997 -1742.1989 0.0000 0.0000
7675.4104 4090.2731 307.0548 -3585.1373 4147.9877
308.0325 191.9918 84.9405 656151.2420 -24.3479
-24.3456
[25571]ENERGY: 11850000 3191.1144 5203.3798 5255.2888
346.5184 -15910.1000 -1709.2508 0.0000 0.0000
7705.3628 4082.3135 308.2530 -3623.0494 4146.0092
307.9729 36.6773 26.1179 656151.2420 -25.9892
-25.9782
[25607]ENERGY: 11860000 3190.4127 5184.7495 5263.4345
337.2511 -15812.3294 -1831.7252 0.0000 0.0000
7754.2080 4086.0013 310.2071 -3668.2067 4147.6913
307.9393 108.4167 -29.7275 656151.2420 -22.2835
-22.2871
[25657]ENERGY: 11870000 3210.2012 5313.8777 5265.0952
352.0486 -15941.8651 -1776.8732 0.0000 0.0000
7660.5662 4083.0505 306.4609 -3577.5157 4148.4996
308.0235 -70.0584 -131.0422 656151.2420 -26.5801
-26.5802
[25693]ENERGY: 11880000 3137.0323 5250.4894 5237.7338
348.7553 -15854.1657 -1731.9530 0.0000 0.0000
7696.6717 4084.5639 307.9053 -3612.1078 4147.7086
307.8466 -24.3930 -4.7676 656151.2420 -23.7182
-23.6956
[25743]ENERGY: 11890000 3223.9106 5185.9780 5274.4657
341.6939 -15819.0361 -1719.5995 0.0000 0.0000
7599.5082 4086.9209 304.0183 -3512.5874 4148.2432
307.8539 -130.8996 -95.5469 656151.2420 -25.1701
-25.1899
[25782]ENERGY: 11900000 3161.9212 5206.7223 5289.5775
348.5708 -15857.0087 -1754.5763 0.0000 0.0000
7695.2556 4090.4622 307.8487 -3604.7934 4149.4325
307.9661 176.7142 59.3259 656151.2420 -24.3762
-24.3842
[25832]ENERGY: 11910000 3261.7509 5210.7457 5213.5098
352.2617 -15833.8464 -1715.4608 0.0000 0.0000
7601.1545 4090.1154 304.0842 -3511.0392 4150.1510

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307.9881	17.0376	-60.6362	656151.2420	-23.5095
-23.4977				
[25868]ENERGY: 11920000	3232.4428	5167.4408	5293.7403	
331.6660	-15783.0972	-1786.1472	0.0000	0.0000
7632.3562	4088.4018	305.3324	-3543.9545	4150.1930
308.0141	-40.2912	-82.2341	656151.2420	-23.2970
-23.2981				
[25918]ENERGY: 11930000	3240.7566	5146.5903	5324.1469	
329.3701	-15828.2846	-1786.0829	0.0000	0.0000
7661.1305	4087.6269	306.4835	-3573.5035	4149.8322
308.0740	-41.0827	-103.4111	656151.2420	-26.4470
-26.4399				
[25954]ENERGY: 11940000	3217.4724	5189.0346	5277.5003	
332.9030	-15781.4500	-1767.4400	0.0000	0.0000
7623.8429	4091.8632	304.9918	-3531.9797	4150.8365
308.0743	-53.6425	-69.4786	656151.2420	-23.1074
-23.1091				
[26004]ENERGY: 11950000	3179.5079	5207.0785	5247.0913	
316.4564	-15876.7177	-1723.6029	0.0000	0.0000
7736.1180	4085.9315	309.4834	-3650.1865	4149.5668
307.9502	-109.3203	-144.2388	656151.2420	-24.0813
-24.0868				
[26040]ENERGY: 11960000	3205.1164	5291.0353	5279.2388	
320.3471	-15838.5024	-1779.5939	0.0000	0.0000
7611.0675	4088.7089	304.4808	-3522.3586	4149.3135
307.7875	174.9705	74.5911	656151.2420	-22.6501
-22.6573				
[26090]ENERGY: 11970000	3140.1300	5342.5392	5267.6490	
323.5975	-15910.3961	-1766.4918	0.0000	0.0000
7688.9384	4085.9662	307.5960	-3602.9722	4150.8646
307.9618	105.0418	47.0067	656151.2420	-24.1067
-24.1019				
[26126]ENERGY: 11980000	3231.7248	5149.7805	5301.2632	
326.7730	-15866.5542	-1747.0671	0.0000	0.0000
7691.9172	4087.8375	307.7151	-3604.0797	4150.2290
307.8575	85.0213	-17.5822	656151.2420	-22.8300
-22.8320				
[26176]ENERGY: 11990000	3202.6975	5289.3824	5233.7796	
349.8921	-15937.0275	-1695.8490	0.0000	0.0000
7645.6032	4088.4784	305.8624	-3557.1248	4149.1686
307.9378	73.7329	89.6278	656151.2420	-22.8775
-22.8815				
[26215]ENERGY: 12000000	3202.5399	5242.3716	5285.6956	
344.7025	-15848.6670	-1800.5809	0.0000	0.0000
7662.7201	4088.7818	306.5471	-3573.9384	4149.7716
307.8289	79.4565	18.3222	656151.2420	-25.0636
-25.0603				
[26265]ENERGY: 12010000	3239.0108	5290.2908	5343.8948	
375.1809	-15893.4543	-1872.7587	0.0000	0.0000
7607.9389	4090.1031	304.3556	-3517.8357	4149.9713
307.8760	-24.6232	-107.9400	656151.2420	-25.2839
-25.2833				
[26301]ENERGY: 12020000	3192.3812	5128.5425	5299.9884	
347.3290	-15802.3027	-1739.3156	0.0000	0.0000

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7662.3366	4088.9595	306.5318	-3573.3771	4149.1622
307.8510	85.0492	37.3372	656151.2420	-24.7677
-24.7566				
[26351]ENERGY: 12030000	3175.6511	5281.0137	5217.8956	
353.4083	-15906.1097	-1710.0078	0.0000	0.0000
7676.1015	4087.9527	307.0824	-3588.1488	4148.4789
307.6631	42.2641	19.2744	656151.2420	-24.7251
-24.7280				
[26387]ENERGY: 12040000	3150.0742	5201.1208	5269.2101	
342.1796	-15771.1910	-1767.5617	0.0000	0.0000
7661.4696	4085.3015	306.4971	-3576.1681	4148.6481
307.6107	80.9098	106.3820	656151.2420	-24.9266
-24.9296				
[26437]ENERGY: 12050000	3204.5594	5281.1606	5259.0922	
330.5424	-15899.5489	-1782.8786	0.0000	0.0000
7693.1568	4086.0839	307.7647	-3607.0729	4148.6729
307.8751	-32.4579	-58.6546	656151.2420	-24.2576
-24.2500				
[26473]ENERGY: 12060000	3185.9239	5170.1663	5293.8770	
335.2598	-15787.4409	-1792.4660	0.0000	0.0000
7682.3835	4087.7034	307.3337	-3594.6800	4148.7339
307.8467	3.6275	-37.2732	656151.2420	-23.2526
-23.2421				
[26523]ENERGY: 12070000	3195.5292	5220.6851	5257.7115	
326.9536	-15843.2019	-1814.3553	0.0000	0.0000
7745.7595	4089.0817	309.8691	-3656.6778	4150.1031
308.0842	144.6244	72.2244	656151.2420	-24.7021
-24.7085				
[26559]ENERGY: 12080000	3255.0682	5223.9915	5198.5549	
356.7262	-15818.7643	-1826.8375	0.0000	0.0000
7700.6773	4089.4162	308.0656	-3611.2611	4149.9119
308.2022	-154.4737	-110.7724	656151.2420	-24.0337
-24.0337				
[26609]ENERGY: 12090000	3195.3194	5248.9745	5275.1357	
340.5166	-15911.8294	-1719.8282	0.0000	0.0000
7663.7359	4092.0246	306.5878	-3571.7113	4150.3110
308.1032	-102.1773	-98.7215	656151.2420	-21.6993
-21.7195				
[26648]ENERGY: 12100000	3191.1468	5152.3603	5287.5966	
312.4272	-15810.0715	-1750.6156	0.0000	0.0000
7702.2881	4085.1320	308.1300	-3617.1561	4150.0061
307.9762	-18.6664	25.2951	656151.2420	-22.2900
-22.2820				
[26698]ENERGY: 12110000	3215.5069	5219.8879	5306.2840	
339.6396	-15843.3400	-1773.3578	0.0000	0.0000
7623.7130	4088.3337	304.9866	-3535.3793	4151.0997
308.0540	118.3670	47.5026	656151.2420	-28.7254
-28.7294				
[26734]ENERGY: 12120000	3117.4459	5178.3700	5339.7554	
354.4174	-15799.0730	-1772.4003	0.0000	0.0000
7671.1832	4089.6986	306.8857	-3581.4846	4150.0789
308.3044	69.9616	37.4305	656151.2420	-22.5760
-22.5938				
[26784]ENERGY: 12130000	3177.6183	5245.0862	5242.3600	

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350.6072	-15929.5792	-1637.3561	0.0000	0.0000
7641.1188	4089.8552	305.6830	-3551.2636	4149.8687
308.2750	112.8753	41.4615	656151.2420	-21.9867
-21.9635				
[26820]ENERGY: 12140000	3172.7550	5142.1627	5281.2847	
343.6008	-15818.2802	-1769.0274	0.0000	0.0000
7737.8819	4090.3776	309.5540	-3647.5044	4151.2623
308.0713	46.9562	1.8643	656151.2420	-24.0373
-24.0534				
[26870]ENERGY: 12150000	3217.9775	5173.2846	5281.2193	
336.3266	-15778.8346	-1860.3188	0.0000	0.0000
7717.3904	4087.0449	308.7342	-3630.3455	4151.0394
308.2810	-26.0828	-97.6895	656151.2420	-21.2301
-21.2077				
[26906]ENERGY: 12160000	3234.1042	5108.7911	5247.3073	
332.8470	-15843.3599	-1731.1562	0.0000	0.0000
7741.5359	4090.0695	309.7001	-3651.4664	4151.1023
308.1056	31.0801	23.7167	656151.2420	-27.2285
-27.2302				
[26956]ENERGY: 12170000	3171.2744	5178.4634	5268.6539	
345.6605	-15842.0230	-1722.4103	0.0000	0.0000
7689.8734	4089.4923	307.6334	-3600.3810	4150.3751
308.1153	-20.7362	-41.0404	656151.2420	-22.1224
-22.1377				
[267]ENERGY: 12180000	3179.8214	5207.1626	5229.1277	
360.9288	-15789.5185	-1830.6518	0.0000	0.0000
7731.2470	4088.1171	309.2885	-3643.1298	4151.8209
308.1838	-1.2009	9.9172	656151.2420	-26.7415
-26.7456				
[306]ENERGY: 12190000	3258.7886	5126.1966	5300.6821	
350.6770	-15928.1623	-1744.8676	0.0000	0.0000
7723.9835	4087.2979	308.9980	-3636.6855	4149.9292
308.1419	-53.3362	-49.6766	656151.2420	-25.7225
-25.7081				
[360]ENERGY: 12200000	3281.6807	5149.4118	5202.5815	
312.3226	-15922.6551	-1696.6006	0.0000	0.0000
7761.0892	4087.8302	310.4824	-3673.2590	4150.0195
308.1961	19.8066	-31.6790	656151.2420	-25.1249
-25.1295				
[398]ENERGY: 12210000	3171.7394	5222.2752	5269.8215	
350.2902	-15881.8609	-1722.8771	0.0000	0.0000
7679.5391	4088.9274	307.2200	-3590.6117	4149.3250
308.4217	60.5550	-17.3766	656151.2420	-22.0896
-22.0956				
[450]ENERGY: 12220000	3179.9563	5184.4371	5267.5048	
345.5902	-15884.2541	-1736.1117	0.0000	0.0000
7730.3183	4087.4410	309.2514	-3642.8773	4150.2261
308.1803	8.1725	35.7317	656151.2420	-24.8793
-24.8738				
[488]ENERGY: 12230000	3237.4080	5163.4004	5237.6636	
328.5782	-15817.9057	-1746.1119	0.0000	0.0000
7685.4908	4088.5234	307.4581	-3596.9675	4151.4918
308.3105	179.9875	38.3255	656151.2420	-26.1767
-26.1827				

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[539]ENERGY: 12240000	3195.3812	5260.5317	5253.2640	
334.5297	-15877.8020	-1754.8377	0.0000	0.0000
7676.3418	4087.4086	307.0921	-3588.9331	4150.6945
308.2185	-24.0904	-10.7509	656151.2420	-23.1382
-23.1231				
[576]ENERGY: 12250000	3211.0154	5213.4291	5250.9197	
356.9000	-15922.4864	-1735.5492	0.0000	0.0000
7714.7391	4088.9678	308.6281	-3625.7713	4150.4605
308.3210	41.3350	31.1024	656151.2420	-26.4577
-26.4644				
[627]ENERGY: 12260000	3137.2971	5196.3075	5233.0853	
348.9393	-15882.6648	-1712.2988	0.0000	0.0000
7768.9046	4089.5703	310.7950	-3679.3342	4150.6033
308.3271	118.8751	49.8046	656151.2420	-22.6499
-22.6719				
[664]ENERGY: 12270000	3264.9613	5211.5167	5233.6938	
349.7407	-15777.3542	-1788.4709	0.0000	0.0000
7598.3068	4092.3942	303.9703	-3505.9126	4150.5594
308.3507	-124.7351	-178.5000	656151.2420	-24.5364
-24.5023				
[715]ENERGY: 12280000	3243.6960	5252.6803	5247.5622	
330.4018	-15957.2672	-1739.0976	0.0000	0.0000
7706.9178	4084.8932	308.3152	-3622.0245	4149.4149
308.4162	130.3417	119.7183	656151.2420	-19.0614
-19.0797				
[751]ENERGY: 12290000	3168.9264	5234.1212	5291.0454	
342.1039	-15830.0062	-1816.9008	0.0000	0.0000
7699.3207	4088.6107	308.0113	-3610.7100	4151.2970
308.4277	176.2119	89.9022	656151.2420	-26.0547
-26.0467				
[804]ENERGY: 12300000	3216.7546	5114.0159	5299.9481	
357.1702	-15851.5468	-1735.2891	0.0000	0.0000
7687.2602	4088.3131	307.5288	-3598.9471	4150.3784
308.4146	17.6414	27.5348	656151.2420	-19.8978
-19.9025				
[840]ENERGY: 12310000	3243.2986	5167.9494	5253.6894	
338.8209	-15792.8410	-1812.4702	0.0000	0.0000
7692.6988	4091.1460	307.7464	-3601.5529	4150.5570
308.3394	-71.4324	-115.3212	656151.2420	-29.8484
-29.8223				
[890]ENERGY: 12320000	3212.4653	5246.5741	5274.6795	
332.4584	-15837.9494	-1786.5783	0.0000	0.0000
7646.7797	4088.4292	305.9094	-3558.3505	4150.8652
308.2420	-6.5140	9.4887	656151.2420	-20.1848
-20.2144				
[926]ENERGY: 12330000	3150.8870	5268.0550	5262.8208	
339.2413	-15866.1134	-1736.3950	0.0000	0.0000
7668.8001	4087.2959	306.7903	-3581.5043	4150.8431
308.2460	-25.7601	-22.6607	656151.2420	-25.3322
-25.3310				
[976]ENERGY: 12340000	3181.3958	5176.8095	5229.0934	
328.3308	-15783.6431	-1755.3702	0.0000	0.0000
7713.3378	4089.9541	308.5721	-3623.3837	4152.2287
308.2441	121.7083	43.0736	656151.2420	-22.8468

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-22.8418
 [1012]ENERGY: 12350000 3194.9625 5091.3218 5304.3129
 333.7759 -15749.4689 -1773.4294 0.0000 0.0000
 7688.3376 4089.8124 307.5719 -3598.5252 4149.7858
 308.0184 55.5201 -29.0257 656151.2420 -24.6093
 -24.6086
 [1062]ENERGY: 12360000 3072.7959 5257.2186 5214.2224
 334.4905 -15841.4178 -1736.1367 0.0000 0.0000
 7785.4377 4086.6108 311.4564 -3698.8270 4149.5664
 308.1830 -5.1773 -61.5099 656151.2420 -24.9850
 -24.9974
 [1098]ENERGY: 12370000 3253.2594 5254.1466 5235.6829
 308.7887 -15841.1623 -1759.6205 0.0000 0.0000
 7635.5729 4086.6677 305.4611 -3548.9052 4149.6021
 308.0775 2.4199 -99.0952 656151.2420 -21.3196
 -21.3002
 [1148]ENERGY: 12380000 3187.4657 5228.9992 5261.4208
 328.1043 -15888.3097 -1736.3263 0.0000 0.0000
 7703.3621 4084.7161 308.1730 -3618.6460 4150.0001
 308.0426 9.6453 -0.7306 656151.2420 -21.3254
 -21.3441
 [1184]ENERGY: 12390000 3162.9065 5265.5878 5309.7480
 345.1681 -15945.9418 -1779.0544 0.0000 0.0000
 7729.3086 4087.7228 309.2110 -3641.5858 4149.5220
 308.1411 67.4076 -16.5263 656151.2420 -22.3979
 -22.3773
 [1237]ENERGY: 12400000 3167.0975 5155.0361 5271.4450
 342.4811 -15828.5950 -1792.2156 0.0000 0.0000
 7769.3390 4084.5880 310.8124 -3684.7510 4150.1166
 308.0901 3.2928 -92.7446 656151.2420 -25.9276
 -25.9340
 [1273]ENERGY: 12410000 3172.5902 5185.1001 5219.6032
 343.8834 -15923.0129 -1687.4077 0.0000 0.0000
 7777.7532 4088.5095 311.1490 -3689.2437 4150.7179
 308.0694 121.4538 155.4214 656151.2420 -19.6457
 -19.6322
 [1323]ENERGY: 12420000 3185.3303 5250.8533 5265.4072
 333.3297 -15782.6489 -1794.5343 0.0000 0.0000
 7633.9187 4091.6560 305.3949 -3542.2627 4151.5206
 308.1943 -159.8084 -123.4740 656151.2420 -22.1467
 -22.1629
 [1359]ENERGY: 12430000 3151.1957 5237.7683 5304.0179
 338.8716 -15930.1251 -1737.0387 0.0000 0.0000
 7724.5650 4089.2546 309.0212 -3635.3104 4151.0914
 308.2361 69.0015 -52.7086 656151.2420 -20.3271
 -20.3433
 [1409]ENERGY: 12440000 3183.3964 5272.3297 5221.8167
 323.7365 -15884.5128 -1715.1116 0.0000 0.0000
 7690.5042 4092.1592 307.6586 -3598.3451 4152.1730
 308.2261 88.8146 51.7946 656151.2420 -21.2694
 -21.2488
 [1445]ENERGY: 12450000 3164.6179 5248.7808 5249.4591
 335.0285 -15910.2560 -1737.3783 0.0000 0.0000
 7738.1056 4088.3576 309.5629 -3649.7480 4151.0338

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308.2172	19.8689	-1.8158	656151.2420	-21.6883
-21.6859				
[1495]ENERGY: 12460000	3216.4719	5262.0175	5259.1168	
330.0209	-15831.8753	-1771.7087	0.0000	0.0000
7626.5335	4090.5767	305.0995	-3535.9569	4151.8137
308.1422	-15.3792	-96.1544	656151.2420	-21.7033
-21.7181				
[1531]ENERGY: 12470000	3251.7143	5288.6522	5249.5680	
369.9854	-15880.1812	-1758.2840	0.0000	0.0000
7568.9385	4090.3930	302.7954	-3478.5454	4153.0150
308.3324	-113.6888	-83.0103	656151.2420	-24.2622
-24.2576				
[1581]ENERGY: 12480000	3250.8181	5223.1459	5259.6553	
348.7798	-15910.3454	-1738.8364	0.0000	0.0000
7658.5703	4091.7876	306.3811	-3566.7827	4152.9553
308.0818	27.3225	21.5083	656151.2420	-20.7426
-20.7330				
[1617]ENERGY: 12490000	3195.1968	5138.8478	5246.4835	
362.4907	-15846.1515	-1705.4468	0.0000	0.0000
7698.4010	4089.8215	307.9745	-3608.5795	4152.2115
308.0497	-24.3919	-80.2319	656151.2420	-24.8973
-24.9041				
[1670]ENERGY: 12500000	3232.6886	5258.7747	5231.7332	
340.7153	-15912.9276	-1721.0050	0.0000	0.0000
7665.1949	4095.1741	306.6461	-3570.0208	4153.8395
308.0340	12.2510	-27.5207	656151.2420	-22.1442
-22.1412				
[1706]ENERGY: 12510000	3153.7429	5253.2880	5285.3857	
349.2460	-15863.3735	-1749.9225	0.0000	0.0000
7662.5242	4090.8909	306.5393	-3571.6333	4153.0751
308.0266	208.5262	137.6987	656151.2420	-25.1052
-25.1025				
[1756]ENERGY: 12520000	3185.2018	5172.5037	5315.2200	
342.8942	-15890.2846	-1751.7332	0.0000	0.0000
7718.5603	4092.3623	308.7810	-3626.1980	4153.8775
307.8375	-24.8152	-83.1533	656151.2420	-22.5723
-22.5767				
[1792]ENERGY: 12530000	3281.7867	5209.3892	5285.2661	
318.5212	-15942.5357	-1705.3924	0.0000	0.0000
7646.7440	4093.7791	305.9080	-3552.9649	4154.4976
308.0263	72.4302	60.9477	656151.2420	-21.7463
-21.7501				
[1842]ENERGY: 12540000	3261.2472	5234.8088	5291.7499	
333.5018	-15840.5854	-1809.1885	0.0000	0.0000
7623.9701	4095.5039	304.9969	-3528.4662	4155.7691
308.0046	-43.8075	-52.9964	656151.2420	-18.8758
-18.8669				
[1878]ENERGY: 12550000	3159.6676	5127.0049	5257.0574	
346.6881	-15747.1974	-1739.8727	0.0000	0.0000
7692.9255	4096.2733	307.7555	-3596.6522	4155.5521
307.8706	211.5863	95.9999	656151.2420	-21.2153
-21.2170				
[1928]ENERGY: 12560000	3134.1585	5151.6091	5227.7937	
337.0403	-15741.2235	-1749.7068	0.0000	0.0000

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7732.5310	4092.2022	309.3399	-3640.3288	4155.8168
307.9365	-12.6678	-61.3234	656151.2420	-22.9418
-22.9356				
[1964]ENERGY: 12570000	3187.6293	5247.7020	5274.4417	
351.4037	-15835.4231	-1823.4353	0.0000	0.0000
7688.8546	4091.1730	307.5926	-3597.6816	4156.4051
308.1175	21.1806	-57.8160	656151.2420	-23.6360
-23.6505				
[2014]ENERGY: 12580000	3139.3299	5234.2528	5235.2309	
328.8084	-15744.7050	-1757.1056	0.0000	0.0000
7658.2513	4094.0627	306.3683	-3564.1886	4154.8806
308.1150	-52.4929	30.9729	656151.2420	-25.0905
-25.0751				
[2050]ENERGY: 12590000	3177.5748	5271.4544	5259.9560	
320.9866	-15831.6251	-1833.9372	0.0000	0.0000
7726.3071	4090.7166	309.0909	-3635.5905	4156.5961
308.0138	0.8418	-22.6821	656151.2420	-22.1539
-22.1796				
[2103]ENERGY: 12600000	3195.6166	5142.4990	5259.2589	
322.3443	-15762.4613	-1785.3604	0.0000	0.0000
7723.9080	4095.8052	308.9949	-3628.1028	4156.1640
308.1222	-193.6594	-158.4334	656151.2420	-24.0527
-24.0232				
[2139]ENERGY: 12610000	3151.9489	5197.5508	5297.1514	
343.5770	-15864.5401	-1738.9509	0.0000	0.0000
7707.1166	4093.8537	308.3232	-3613.2629	4156.1290
308.1026	-35.9103	-2.5907	656151.2420	-21.5756
-21.5845				
[2189]ENERGY: 12620000	3209.7956	5163.8882	5248.3804	
342.2901	-15801.2052	-1714.1662	0.0000	0.0000
7649.6889	4098.6718	306.0258	-3551.0170	4157.2972
308.0482	-42.0122	-98.9517	656151.2420	-19.2465
-19.2676				
[2225]ENERGY: 12630000	3151.6103	5241.9788	5243.5647	
323.1694	-15845.7831	-1755.1956	0.0000	0.0000
7733.6253	4092.9698	309.3837	-3640.6555	4156.2183
308.0410	-10.8314	19.6767	656151.2420	-24.3340
-24.3305				
[2275]ENERGY: 12640000	3278.0667	5206.7384	5233.1310	
330.3276	-15823.7776	-1746.4684	0.0000	0.0000
7619.4010	4097.4187	304.8141	-3521.9823	4157.2661
307.9725	-170.6636	-155.1006	656151.2420	-18.6897
-18.6598				
[2311]ENERGY: 12650000	3131.1142	5230.6592	5271.6528	
363.6805	-15887.3652	-1707.8235	0.0000	0.0000
7693.8340	4095.7520	307.7918	-3598.0821	4156.7585
308.1777	160.7551	7.9308	656151.2420	-21.1190
-21.1416				
[2361]ENERGY: 12660000	3274.4570	5131.4912	5254.8823	
335.6994	-15843.8975	-1710.9888	0.0000	0.0000
7657.6986	4099.3423	306.3462	-3558.3563	4157.6066
308.1116	52.3622	-32.0240	656151.2420	-16.7986
-16.7993				
[2397]ENERGY: 12670000	3234.6203	5218.8212	5260.4888	

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323.0527	-15886.4105	-1722.1847	0.0000	0.0000
7669.7480	4098.1357	306.8283	-3571.6122	4158.1348
308.0768	93.5736	114.8040	656151.2420	-19.2244
-19.2084				
[2447]ENERGY: 12680000	3262.9019	5207.6305	5249.2257	
336.1836	-15804.3825	-1815.4706	0.0000	0.0000
7660.0690	4096.1575	306.4411	-3563.9115	4158.5914
308.0887	-113.0767	-106.9038	656151.2420	-17.1653
-17.1752				
[2483]ENERGY: 12690000	3203.6420	5233.8311	5232.0687	
348.7268	-15927.7830	-1738.1703	0.0000	0.0000
7742.2104	4094.5257	309.7271	-3647.6847	4157.0530
308.1025	37.2534	-7.1520	656151.2420	-18.9440
-18.9520				
[2536]ENERGY: 12700000	3211.6274	5203.2454	5237.2606	
341.6590	-15842.1105	-1805.9773	0.0000	0.0000
7749.2854	4094.9899	310.0102	-3654.2955	4158.1344
308.2085	-49.8376	45.2481	656151.2420	-20.9892
-20.9679				
[2572]ENERGY: 12710000	3226.5813	5091.2602	5281.3389	
365.8946	-15770.8718	-1799.0033	0.0000	0.0000
7701.2263	4096.4262	308.0876	-3604.8000	4158.4493
308.1553	-79.5754	-128.3973	656151.2420	-17.1544
-17.1593				
[2622]ENERGY: 12720000	3141.3428	5175.1437	5308.3149	
355.7782	-15831.8739	-1734.5223	0.0000	0.0000
7683.3180	4097.5013	307.3711	-3585.8167	4157.9267
308.1333	41.6856	11.5913	656151.2420	-17.5695
-17.5645				
[2658]ENERGY: 12730000	3173.0565	5163.1565	5304.7803	
336.1187	-15809.4309	-1814.3965	0.0000	0.0000
7741.3882	4094.6728	309.6942	-3646.7154	4158.5906
308.0030	33.1031	24.7452	656151.2420	-20.7937
-20.8186				
[2708]ENERGY: 12740000	3149.5212	5187.0428	5301.7860	
348.6694	-15865.4044	-1700.0656	0.0000	0.0000
7674.3253	4095.8746	307.0114	-3578.4508	4157.4477
308.0949	-39.4340	-57.5107	656151.2420	-16.8138
-16.8066				
[2744]ENERGY: 12750000	3203.2832	5238.1327	5242.0571	
332.1393	-15846.6109	-1780.3494	0.0000	0.0000
7707.9850	4096.6371	308.3579	-3611.3479	4158.4876
308.1293	-34.1120	-82.9201	656151.2420	-16.5010
-16.5033				
[2794]ENERGY: 12760000	3213.0462	5157.8241	5306.1594	
351.8984	-15869.8267	-1794.7447	0.0000	0.0000
7730.3133	4094.6701	309.2512	-3635.6433	4158.7616
308.1002	-74.8991	-79.8097	656151.2420	-21.1154
-21.1123				
[2830]ENERGY: 12770000	3148.3654	5235.0698	5214.1387	
343.2364	-15905.6279	-1765.8954	0.0000	0.0000
7824.0522	4093.3391	313.0012	-3730.7131	4159.5509
308.3249	18.6467	-9.3640	656151.2420	-15.4703
-15.4740				

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[2880]ENERGY: 12780000	3243.1170	5321.2753	5278.6381	
342.4133	-15885.1846	-1826.2559	0.0000	0.0000
7621.9645	4095.9675	304.9167	-3525.9970	4159.8172
308.2789	-80.2753	-170.7837	656151.2420	-19.7711
-19.7809				
[2916]ENERGY: 12790000	3261.8580	5213.8464	5270.8500	
336.2667	-15841.4342	-1785.0458	0.0000	0.0000
7644.0998	4100.4409	305.8022	-3543.6589	4160.2721
308.1456	74.9615	5.8008	656151.2420	-20.9863
-20.9768				
[2969]ENERGY: 12800000	3133.5243	5231.4865	5254.1412	
342.0888	-15779.8509	-1767.3896	0.0000	0.0000
7685.0007	4099.0011	307.4385	-3585.9996	4160.5302
308.0296	92.1681	-21.9356	656151.2420	-21.0209
-21.0185				
[3005]ENERGY: 12810000	3231.8758	5179.8421	5226.2635	
353.0893	-15888.3932	-1732.9959	0.0000	0.0000
7729.1683	4098.8499	309.2054	-3630.3184	4159.6477
308.0967	32.7823	5.7164	656151.2420	-20.1804
-20.1750				
[3055]ENERGY: 12820000	3212.7395	5219.3994	5236.6019	
348.5949	-15875.3980	-1722.2334	0.0000	0.0000
7679.8105	4099.5148	307.2308	-3580.2957	4161.5961
308.1090	23.9421	1.3238	656151.2420	-19.0932
-19.0941				
[3091]ENERGY: 12830000	3204.5852	5179.1407	5262.9640	
323.7722	-15763.8876	-1792.4053	0.0000	0.0000
7685.0601	4099.2291	307.4408	-3585.8310	4162.3525
307.9651	41.4978	19.7660	656151.2420	-18.7502
-18.7445				
[3141]ENERGY: 12840000	3218.6277	5252.7638	5248.6404	
322.0298	-15902.3996	-1735.6456	0.0000	0.0000
7696.4922	4100.5087	307.8982	-3595.9836	4163.1352
308.2178	55.7945	68.1021	656151.2420	-20.6455
-20.6437				
[3177]ENERGY: 12850000	3221.8965	5204.7805	5245.3145	
333.4373	-15831.5654	-1791.8745	0.0000	0.0000
7716.8861	4098.8749	308.7140	-3618.0112	4162.8761
308.0983	43.4151	33.5674	656151.2420	-22.3845
-22.3880				
[3227]ENERGY: 12860000	3153.6893	5145.5100	5276.0373	
350.7033	-15790.9621	-1746.9660	0.0000	0.0000
7713.8507	4101.8624	308.5926	-3611.9883	4163.4899
308.1105	37.9553	-23.9139	656151.2420	-19.1644
-19.1767				
[3263]ENERGY: 12870000	3177.6783	5220.6418	5321.6575	
351.4139	-15854.8081	-1801.1131	0.0000	0.0000
7687.3799	4102.8502	307.5336	-3584.5297	4164.2289
308.1009	32.2319	-56.6546	656151.2420	-17.2180
-17.2216				
[3313]ENERGY: 12880000	3258.5030	5181.3833	5268.9665	
339.8060	-15872.2229	-1768.7421	0.0000	0.0000
7696.4823	4104.1760	307.8978	-3592.3063	4163.3442
308.1299	18.8452	-1.5448	656151.2420	-17.4376

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-17.4150

[3349]ENERGY: 12890000	3136.2261	5244.9341	5298.2150
333.5625	-15841.6011	-1730.0279	0.0000 0.0000
7662.8236	4104.1323	306.5513	-3558.6912 4165.6502
308.1808	32.4189	-72.6931	656151.2420 -24.3640

-24.3868

[3402]ENERGY: 12900000	3259.3699	5242.0258	5256.9337
321.6947	-15932.9803	-1683.9133	0.0000 0.0000
7641.2345	4104.3650	305.6876	-3536.8695 4164.9484
307.9433	205.0444	92.5762	656151.2420 -17.8185

-17.7845

[3438]ENERGY: 12910000	3275.3463	5331.5926	5256.6293
317.5158	-15914.9078	-1778.0655	0.0000 0.0000
7619.3115	4107.4224	304.8106	-3511.8892 4164.9822
308.2012	50.7292	-70.3699	656151.2420 -21.5155

-21.5683

[3488]ENERGY: 12920000	3200.8293	5155.1227	5318.1164
350.1481	-15933.0204	-1760.0646	0.0000 0.0000
7771.7297	4102.8612	310.9080	-3668.8685 4165.7862
308.3199	64.2781	36.8794	656151.2420 -21.5092

-21.4602

[3524]ENERGY: 12930000	3228.5708	5189.3593	5295.2657
338.2114	-15869.2748	-1807.6437	0.0000 0.0000
7729.6561	4104.1447	309.2249	-3625.5114 4165.4645
308.2180	-121.6736	-226.1134	656151.2420 -21.5595

-21.5681

[3574]ENERGY: 12940000	3226.7964	5221.6949	5287.6317
326.8596	-15844.1387	-1821.5756	0.0000 0.0000
7709.4347	4106.7029	308.4159	-3602.7317 4166.5031
308.1769	-148.7876	-152.0746	656151.2420 -20.0969

-20.1141

[3610]ENERGY: 12950000	3145.7918	5331.7218	5267.8932
346.0927	-15874.4491	-1805.0660	0.0000 0.0000
7694.1030	4106.0875	307.8026	-3588.0155 4167.3235
308.0665	-103.4612	-158.8276	656151.2420 -19.5820

-19.5828

[3660]ENERGY: 12960000	3212.2853	5260.4369	5273.0227
350.3307	-15944.6580	-1760.6859	0.0000 0.0000
7712.8706	4103.6023	308.5534	-3609.2683 4166.1713
308.1497	-60.7206	-72.9668	656151.2420 -23.0953

-23.0778

[3696]ENERGY: 12970000	3263.9491	5180.8155	5285.1803
343.8719	-15831.7240	-1783.4842	0.0000 0.0000
7648.7734	4107.3820	305.9892	-3541.3914 4167.3268
307.9808	-74.4859	-126.5066	656151.2420 -19.7834

-19.7920

[3746]ENERGY: 12980000	3182.2202	5205.7646	5279.4158
339.5344	-15828.6632	-1776.1028	0.0000 0.0000
7703.1696	4105.3387	308.1653	-3597.8309 4167.3969
307.8256	2.7340	-76.5173	656151.2420 -24.4341

-24.4252

[267]ENERGY: 12990000	3205.3060	5293.2516	5301.9845
373.4929	-15858.0837	-1838.4873	0.0000 0.0000
7627.5983	4105.0623	305.1421	-3522.5360 4168.3919

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308.1119	-2.0812	-38.3020	656151.2420	-19.6073
-19.6224				
[308]ENERGY: 13000000	3213.2335	5186.6025	5257.4542	
340.6402	-15805.7317	-1794.2734	0.0000	0.0000
7707.4353	4105.3606	308.3359	-3602.0747	4166.6923
308.0377	93.6560	57.1789	656151.2420	-19.6120
-19.6156				
[360]ENERGY: 13010000	3176.1395	5176.5957	5294.3253	
349.0092	-15827.1321	-1768.8478	0.0000	0.0000
7706.6764	4106.7663	308.3056	-3599.9102	4168.0216
308.1970	41.5737	41.2290	656151.2420	-19.3629
-19.3455				
[398]ENERGY: 13020000	3230.6311	5245.2170	5323.6056	
332.0260	-15800.6470	-1822.8862	0.0000	0.0000
7602.4614	4110.4079	304.1365	-3492.0535	4168.3279
308.1861	50.4406	34.2649	656151.2420	-20.3830
-20.4047				
[450]ENERGY: 13030000	3171.0632	5287.2016	5280.1857	
332.5454	-15908.1761	-1814.7690	0.0000	0.0000
7757.1801	4105.2310	310.3260	-3651.9492	4166.9714
308.1640	4.5017	-13.0152	656151.2420	-18.7991
-18.7857				
[488]ENERGY: 13040000	3230.7496	5243.1159	5291.4502	
339.1054	-15929.6117	-1756.3942	0.0000	0.0000
7686.7841	4105.1993	307.5098	-3581.5848	4167.3539
308.1860	102.8594	36.8051	656151.2420	-18.7851
-18.7975				
[539]ENERGY: 13050000	3214.4592	5229.5809	5276.2692	
332.2683	-15924.1269	-1796.0394	0.0000	0.0000
7769.1549	4101.5662	310.8050	-3667.5887	4167.3978
308.2460	-203.2716	-277.1457	656151.2420	-19.4663
-19.4596				
[576]ENERGY: 13060000	3232.7945	5181.4075	5263.7685	
331.6954	-15815.0624	-1741.3833	0.0000	0.0000
7654.2445	4107.4647	306.2081	-3546.7798	4167.7604
308.3489	0.3300	-29.4128	656151.2420	-21.4439
-21.4406				
[627]ENERGY: 13070000	3217.9369	5275.3212	5250.1998	
331.7426	-15899.0505	-1745.6125	0.0000	0.0000
7676.7881	4107.3255	307.1099	-3569.4626	4166.5986
308.2567	-68.5922	-91.6771	656151.2420	-21.8791
-21.8632				
[664]ENERGY: 13080000	3137.1432	5169.5805	5265.6401	
347.7297	-15823.7603	-1797.0876	0.0000	0.0000
7801.9594	4101.2050	312.1174	-3700.7544	4166.4495
308.3455	-40.5590	-27.6181	656151.2420	-16.7745
-16.8104				
[715]ENERGY: 13090000	3281.7589	5219.3467	5276.8114	
362.7164	-15853.0148	-1795.9459	0.0000	0.0000
7617.2120	4108.8847	304.7266	-3508.3273	4166.7013
308.2025	-109.1570	-113.8468	656151.2420	-24.1412
-24.1169				
[754]ENERGY: 13100000	3234.8125	5223.3062	5286.6931	
334.5909	-15968.0545	-1740.3328	0.0000	0.0000

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7733.9357	4104.9512	309.3961	-3628.9845	4167.3250
308.1899	-95.4077	-186.5933	656151.2420	-21.8836
-21.8926				
[804]ENERGY: 13110000	3224.6079	5195.4472	5221.7695	
337.5385	-15854.2572	-1686.7073	0.0000	0.0000
7664.9587	4103.3572	306.6367	-3561.6015	4166.6944
308.2822	32.5854	-0.2009	656151.2420	-23.8773
-23.8569				
[840]ENERGY: 13120000	3274.7910	5285.4031	5272.9307	
338.3657	-15956.0691	-1698.8511	0.0000	0.0000
7596.3285	4112.8988	303.8911	-3483.4297	4167.6307
308.4309	30.6812	-102.5592	656151.2420	-17.7170
-17.7436				
[890]ENERGY: 13130000	3169.0273	5215.6275	5282.3328	
356.6975	-15810.6016	-1838.7141	0.0000	0.0000
7730.6811	4105.0505	309.2659	-3625.6306	4169.2689
308.2192	-90.6966	-96.8365	656151.2420	-20.1712
-20.1552				
[926]ENERGY: 13140000	3195.9109	5190.1507	5310.2061	
336.4091	-15779.2059	-1823.4280	0.0000	0.0000
7677.8472	4107.8902	307.1523	-3569.9570	4169.3604
308.4095	-102.2882	-164.8239	656151.2420	-20.5798
-20.5933				
[976]ENERGY: 13150000	3175.5947	5265.6010	5335.9556	
327.8425	-15877.5770	-1784.9794	0.0000	0.0000
7664.8265	4107.2638	306.6314	-3557.5627	4169.5056
308.4962	-116.3431	-122.6509	656151.2420	-19.4878
-19.4774				
[1012]ENERGY: 13160000	3194.1939	5252.3155	5351.9033	
348.4146	-15873.4168	-1831.4167	0.0000	0.0000
7663.0566	4105.0504	306.5606	-3558.0061	4169.6211
308.5872	9.6826	-65.0318	656151.2420	-18.9675
-18.9525				
[1062]ENERGY: 13170000	3074.5009	5332.0350	5234.9213	
353.2200	-15867.4695	-1738.9619	0.0000	0.0000
7716.1117	4104.3575	308.6830	-3611.7542	4169.5635
308.6222	79.1424	97.2080	656151.2420	-19.5286
-19.5372				
[1098]ENERGY: 13180000	3130.7192	5169.4421	5267.0540	
339.3334	-15823.4306	-1707.4329	0.0000	0.0000
7733.6322	4109.3175	309.3840	-3624.3148	4169.4669
308.7194	232.8941	167.3217	656151.2420	-22.1534
-22.1698				
[1148]ENERGY: 13190000	3169.5789	5222.2126	5230.0967	
351.0638	-15790.8317	-1766.8497	0.0000	0.0000
7695.2645	4110.5351	307.8491	-3584.7294	4170.6198
308.4946	-94.7057	-53.7570	656151.2420	-18.7879
-18.7637				
[1187]ENERGY: 13200000	3167.0161	5156.1845	5269.3947	
353.3055	-15853.3639	-1682.7579	0.0000	0.0000
7701.0547	4110.8336	308.0807	-3590.2210	4170.4603
308.2942	91.2316	5.6296	656151.2420	-24.2936
-24.3129				
[1237]ENERGY: 13210000	3159.3928	5181.1258	5297.4335	

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323.5394	-15815.0488	-1769.8481	0.0000	0.0000
7730.2503	4106.8450	309.2487	-3623.4054	4169.9410
308.4218	-36.5855	-12.6324	656151.2420	-20.2714
-20.2636				
[1273]ENERGY: 13220000	3210.5647	5138.0718	5269.6540	
346.4476	-15839.1975	-1759.2414	0.0000	0.0000
7741.4970	4107.7962	309.6986	-3633.7008	4170.0344
308.1146	81.9716	74.5154	656151.2420	-20.2497
-20.2350				
[1323]ENERGY: 13230000	3289.1389	5194.8351	5255.7540	
327.7024	-15846.4984	-1796.7703	0.0000	0.0000
7684.8378	4108.9995	307.4319	-3575.8382	4171.0714
308.2604	-149.2590	-131.8218	656151.2420	-19.3383
-19.3378				
[1359]ENERGY: 13240000	3234.3894	5123.1888	5278.3335	
361.5268	-15849.4453	-1745.7708	0.0000	0.0000
7703.8200	4106.0423	308.1913	-3597.7776	4170.7580
308.3327	70.4202	55.7934	656151.2420	-20.5135
-20.5368				
[1409]ENERGY: 13250000	3228.4414	5197.1673	5310.2638	
343.6477	-15835.4736	-1750.9256	0.0000	0.0000
7616.9211	4110.0422	304.7149	-3506.8789	4170.8838
308.3766	19.7541	-42.7591	656151.2420	-23.7315
-23.7124				
[1445]ENERGY: 13260000	3181.5606	5260.7249	5229.9919	
328.5916	-15853.4873	-1754.0449	0.0000	0.0000
7716.5741	4109.9111	308.7015	-3606.6630	4171.3435
308.5762	77.2690	38.5039	656151.2420	-19.5000
-19.5078				
[1495]ENERGY: 13270000	3179.2824	5279.5501	5275.5982	
339.3263	-15907.9827	-1739.3876	0.0000	0.0000
7681.3042	4107.6908	307.2906	-3573.6134	4171.0297
308.6091	-38.5997	-104.2186	656151.2420	-20.8769
-20.8902				
[1531]ENERGY: 13280000	3176.6654	5243.1721	5244.9917	
338.8113	-15832.6830	-1770.9647	0.0000	0.0000
7711.9018	4111.8946	308.5146	-3600.0071	4170.6834
308.8069	-72.1746	-58.0185	656151.2420	-17.7732
-17.7496				
[1581]ENERGY: 13290000	3137.3053	5181.7158	5313.2333	
351.1339	-15886.0623	-1724.0734	0.0000	0.0000
7735.7972	4109.0497	309.4706	-3626.7475	4170.9658
308.6741	34.1831	-52.8406	656151.2420	-16.5872
-16.6011				
[1620]ENERGY: 13300000	3225.5984	5278.7056	5310.6260	
341.3424	-15881.6047	-1756.2244	0.0000	0.0000
7595.1901	4113.6333	303.8456	-3481.5568	4171.5218
308.8214	63.2158	26.2143	656151.2420	-20.4239
-20.4351				
[1670]ENERGY: 13310000	3160.2125	5195.7954	5255.9665	
351.9936	-15862.4000	-1719.3640	0.0000	0.0000
7725.3229	4107.5268	309.0515	-3617.7960	4170.2535
308.7046	-48.0717	-43.9824	656151.2420	-24.5565
-24.5371				

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[1706]ENERGY: 13320000	3143.1474	5145.4957	5283.2196	
330.5857	-15770.8044	-1789.1176	0.0000	0.0000
7768.9067	4111.4331	310.7951	-3657.4736	4172.3593
308.7237	47.3115	37.2547	656151.2420	-16.4642
-16.4796				
[1756]ENERGY: 13330000	3187.7385	5267.6240	5297.8437	
319.7058	-15911.0853	-1762.3056	0.0000	0.0000
7708.9592	4108.4804	308.3969	-3600.4788	4172.8740
308.8503	-42.0075	-87.9090	656151.2420	-23.2485
-23.2456				
[1792]ENERGY: 13340000	3185.5181	5221.9621	5258.2633	
345.7574	-15849.2971	-1821.7421	0.0000	0.0000
7767.8103	4108.2719	310.7512	-3659.5383	4172.5639
308.8420	-75.5247	-71.1211	656151.2420	-22.9978
-22.9920				
[1842]ENERGY: 13350000	3232.9504	5149.5415	5218.8801	
372.0723	-15833.4812	-1738.2988	0.0000	0.0000
7710.6764	4112.3407	308.4656	-3598.3357	4173.2104
308.7810	16.7253	88.3196	656151.2420	-18.4974
-18.5111				
[1878]ENERGY: 13360000	3198.3295	5309.1725	5259.4214	
345.2739	-15845.0962	-1781.4230	0.0000	0.0000
7627.7216	4113.3997	305.1470	-3514.3220	4173.3688
308.6697	4.4729	17.4526	656151.2420	-14.9054
-14.8971				
[1928]ENERGY: 13370000	3192.2036	5266.5202	5245.7546	
336.2965	-15821.1438	-1861.9119	0.0000	0.0000
7754.8703	4112.5895	310.2336	-3642.2808	4174.6400
308.7040	-189.2374	-121.2531	656151.2420	-14.4339
-14.4157				
[1964]ENERGY: 13380000	3161.0041	5252.9691	5286.1280	
349.5050	-15826.6365	-1765.7135	0.0000	0.0000
7657.0392	4114.2955	306.3199	-3542.7438	4174.9802
308.6470	-84.1723	-55.3601	656151.2420	-15.7793
-15.7939				
[2014]ENERGY: 13390000	3230.8394	5139.6880	5241.6588	
335.0422	-15770.8021	-1766.9923	0.0000	0.0000
7701.8482	4111.2822	308.1124	-3590.5660	4174.9921
308.6512	-23.6619	-47.1545	656151.2420	-13.3139
-13.3101				
[2053]ENERGY: 13400000	3258.6863	5249.2735	5283.2447	
350.1893	-15931.7179	-1767.6506	0.0000	0.0000
7670.6531	4112.6784	306.8645	-3557.9747	4175.2515
308.7733	-22.6826	-2.0164	656151.2420	-18.6494
-18.6487				
[2103]ENERGY: 13410000	3205.9862	5294.9626	5221.5002	
326.3722	-15906.2384	-1760.2249	0.0000	0.0000
7730.9570	4113.3149	309.2769	-3617.6421	4173.9392
309.0206	217.9411	85.6053	656151.2420	-18.4619
-18.4606				
[2139]ENERGY: 13420000	3198.9811	5254.3173	5285.3672	
348.3272	-15838.5078	-1796.0151	0.0000	0.0000
7663.4614	4115.9312	306.5768	-3547.5302	4174.7834
308.9053	-147.3566	-112.8391	656151.2420	-12.0706

Supplementary Text 6

-12.0943
 [2189]ENERGY: 13430000 3247.9968 5205.4587 5276.9785
 340.3364 -15915.7718 -1727.7900 0.0000 0.0000
 7685.8413 4113.0499 307.4721 -3572.7914 4173.3427
 308.9447 34.7678 3.7460 656151.2420 -19.6386
 -19.6279
 [2225]ENERGY: 13440000 3164.1275 5300.1939 5273.5597
 334.7047 -15869.9883 -1761.2449 0.0000 0.0000
 7670.5414 4111.8939 306.8600 -3558.6475 4173.8207
 308.7770 78.8943 73.7256 656151.2420 -17.5334
 -17.5203
 [2275]ENERGY: 13450000 3201.0613 5312.8080 5239.1347
 348.1793 -15914.8198 -1817.5982 0.0000 0.0000
 7741.4393 4110.2046 309.6963 -3631.2346 4174.0611
 308.7280 -131.3309 -110.9023 656151.2420 -11.8281
 -11.8420
 [2311]ENERGY: 13460000 3183.4912 5159.6317 5275.8799
 296.7533 -15773.0519 -1774.7103 0.0000 0.0000
 7742.7247 4110.7186 309.7477 -3632.0061 4174.5997
 308.8648 209.8748 108.2280 656151.2420 -15.5518
 -15.5661
 [2361]ENERGY: 13470000 3264.7359 5272.8501 5211.5354
 342.8631 -15886.7273 -1778.2133 0.0000 0.0000
 7687.7036 4114.7475 307.5466 -3572.9561 4175.2638
 308.7166 -159.1899 -114.2008 656151.2420 -18.5535
 -18.5212
 [2397]ENERGY: 13480000 3169.7767 5222.1456 5248.1380
 344.5181 -15836.3090 -1783.3608 0.0000 0.0000
 7746.3888 4111.2975 309.8943 -3635.0914 4174.8574
 308.9391 99.5296 99.8787 656151.2420 -12.0987
 -12.1175
 [2447]ENERGY: 13490000 3262.0438 5246.5639 5231.0218
 346.5043 -15857.4901 -1790.0390 0.0000 0.0000
 7673.7982 4112.4029 306.9903 -3561.3953 4175.4110
 308.8775 -101.3850 -146.9543 656151.2420 -15.0873
 -15.0724
 [2486]ENERGY: 13500000 3279.6901 5200.1724 5227.4499
 323.4507 -15804.3385 -1845.4873 0.0000 0.0000
 7734.2876 4115.2249 309.4102 -3619.0626 4175.4595
 308.8284 -109.0421 -130.5288 656151.2420 -17.6619
 -17.6909
 [2536]ENERGY: 13510000 3175.0447 5242.5129 5268.9224
 342.2747 -15844.5354 -1780.3468 0.0000 0.0000
 7711.2020 4115.0746 308.4866 -3596.1275 4175.1424
 308.6676 147.6775 89.1865 656151.2420 -10.8903
 -10.8608
 [2572]ENERGY: 13520000 3192.7086 5249.5045 5236.5217
 315.6242 -15786.6486 -1807.9042 0.0000 0.0000
 7712.8664 4112.6727 308.5532 -3600.1938 4175.5312
 308.7411 53.9616 35.7773 656151.2420 -16.7587
 -16.7471
 [2622]ENERGY: 13530000 3202.6513 5180.4791 5281.3411
 351.4857 -15859.4539 -1739.9178 0.0000 0.0000
 7696.6957 4113.2811 307.9063 -3583.4146 4174.5160

Supplementary Text 6

308.6732	-0.7413	-31.6768	656151.2420	-14.4103
-14.4387				
[2658]ENERGY: 13540000	3147.8738	5168.4968	5274.2852	
345.2393	-15775.8364	-1732.8525	0.0000	0.0000
7685.1010	4112.3073	307.4425	-3572.7938	4174.3525
308.8249	70.8417	70.4866	656151.2420	-13.1408
-13.1353				
[2708]ENERGY: 13550000	3155.8350	5240.8759	5219.9815	
316.2312	-15794.0048	-1761.5748	0.0000	0.0000
7734.9814	4112.3255	309.4379	-3622.6560	4175.8755
308.7164	-8.9604	6.9367	656151.2420	-16.4525
-16.4335				
[2744]ENERGY: 13560000	3238.0406	5216.2739	5212.5165	
324.9865	-15731.0809	-1826.9314	0.0000	0.0000
7683.7528	4117.5581	307.3885	-3566.1947	4177.0497
309.2258	-63.3262	-36.0713	656151.2420	-17.2768
-17.2896				
[2794]ENERGY: 13570000	3217.8488	5182.6680	5262.3820	
317.1749	-15847.1364	-1746.2867	0.0000	0.0000
7729.2363	4115.8868	309.2081	-3613.3495	4176.8477
309.1115	114.4898	73.5608	656151.2420	-12.6942
-12.7000				
[2830]ENERGY: 13580000	3148.8749	5271.2119	5295.9062	
353.3621	-15967.4655	-1722.8202	0.0000	0.0000
7735.3295	4114.3988	309.4519	-3620.9306	4176.4244
309.0968	138.0941	83.0807	656151.2420	-15.5171
-15.5200				
[2880]ENERGY: 13590000	3258.4037	5211.3384	5313.4522	
348.1888	-15880.6774	-1789.4738	0.0000	0.0000
7654.4956	4115.7276	306.2181	-3538.7681	4177.1277
309.2037	-35.2996	-104.7651	656151.2420	-17.7022
-17.7145				
[2919]ENERGY: 13600000	3284.5264	5230.9634	5221.1233	
350.4187	-15931.3597	-1748.3172	0.0000	0.0000
7708.6491	4116.0040	308.3845	-3592.6451	4177.1627
309.1598	-61.0425	-43.8476	656151.2420	-14.9240
-14.9105				
[2969]ENERGY: 13610000	3164.6681	5186.5507	5274.5148	
359.8289	-15861.9022	-1725.1914	0.0000	0.0000
7718.5467	4117.0157	308.7805	-3601.5310	4176.6561
309.1156	143.1671	80.5176	656151.2420	-16.5580
-16.5530				
[3005]ENERGY: 13620000	3252.5246	5265.5753	5267.1715	
339.0656	-15929.0714	-1823.8349	0.0000	0.0000
7744.4175	4115.8482	309.8154	-3628.5693	4176.9029
309.1468	79.0005	-54.5251	656151.2420	-14.8506
-14.8376				
[3055]ENERGY: 13630000	3190.2537	5184.4690	5248.1123	
359.3307	-15856.8878	-1757.4849	0.0000	0.0000
7746.6982	4114.4912	309.9067	-3632.2070	4177.3894
309.0122	39.9587	77.3180	656151.2420	-13.8623
-13.8783				
[3091]ENERGY: 13640000	3177.0564	5250.0924	5311.2248	
352.7305	-15877.0426	-1761.5561	0.0000	0.0000

Supplementary Text 6

7664.6394	4117.1449	306.6239	-3547.4945	4177.8674
309.1114	50.4491	-18.8109	656151.2420	-14.6885
-14.6896				
[3141]ENERGY: 13650000	3213.0586	5205.9698	5223.3391	
329.6677	-15815.4349	-1763.5719	0.0000	0.0000
7721.9481	4114.9764	308.9165	-3606.9716	4177.3140
309.0906	-71.9631	-77.3424	656151.2420	-14.1849
-14.1757				
[3177]ENERGY: 13660000	3145.7284	5284.6295	5249.0319	
339.1040	-15785.8910	-1864.8779	0.0000	0.0000
7744.6868	4112.4116	309.8262	-3632.2752	4177.1719
309.0930	-150.2011	-190.8600	656151.2420	-19.0836
-19.0850				
[3227]ENERGY: 13670000	3211.3181	5267.1322	5206.2698	
324.9417	-15807.4916	-1770.1614	0.0000	0.0000
7685.4349	4117.4437	307.4558	-3567.9912	4176.6139
309.0341	104.8763	-2.7312	656151.2420	-14.3796
-14.3938				
[3263]ENERGY: 13680000	3116.2744	5210.2295	5263.1456	
362.0196	-15859.2705	-1752.1844	0.0000	0.0000
7771.6123	4111.8265	310.9033	-3659.7858	4177.7977
308.9330	67.1193	21.7565	656151.2420	-13.4431
-13.4422				
[3313]ENERGY: 13690000	3124.6406	5168.3221	5244.8943	
332.8220	-15813.2507	-1707.0929	0.0000	0.0000
7762.7221	4113.0576	310.5477	-3649.6645	4177.7671
308.8005	66.8800	-38.8201	656151.2420	-16.0599
-16.0567				
[3352]ENERGY: 13700000	3224.7036	5225.3627	5268.2560	
349.6767	-15878.5056	-1746.8877	0.0000	0.0000
7671.6907	4114.2962	306.9060	-3557.3944	4176.5429
308.6923	-80.3856	-54.9976	656151.2420	-17.2611
-17.2510				
[3402]ENERGY: 13710000	3232.5854	5210.5655	5244.4635	
345.3087	-15837.2425	-1769.3405	0.0000	0.0000
7686.6669	4113.0068	307.5051	-3573.6601	4177.5041
308.5846	-36.7910	-6.3826	656151.2420	-17.2512
-17.2603				
[3438]ENERGY: 13720000	3114.0425	5254.7826	5259.3017	
341.2838	-15859.5877	-1751.8038	0.0000	0.0000
7757.8645	4115.8837	310.3534	-3641.9808	4178.3809
308.6934	43.8764	2.1482	656151.2420	-15.6933
-15.6891				
[3488]ENERGY: 13730000	3217.1627	5337.5902	5179.4114	
357.1962	-15841.5373	-1816.6371	0.0000	0.0000
7685.6825	4118.8686	307.4657	-3566.8139	4178.2865
308.8213	-56.9230	-68.2727	656151.2420	-15.1686
-15.1891				
[3524]ENERGY: 13740000	3117.0804	5249.1179	5268.4058	
339.9655	-15722.5916	-1767.9695	0.0000	0.0000
7634.1544	4118.1630	305.4043	-3515.9914	4177.6234
308.7848	-47.8096	-23.8180	656151.2420	-16.1254
-16.0902				
[3574]ENERGY: 13750000	3138.9027	5208.3960	5267.3559	

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336.2432	-15822.4747	-1750.7231	0.0000	0.0000
7739.1482	4116.8481	309.6046	-3622.3001	4178.8555
308.9070	177.9376	90.2034	656151.2420	-18.9845
-18.9968				
[3610]ENERGY: 13760000	3181.0354	5308.2398	5228.6217	
308.9971	-15765.9953	-1825.2369	0.0000	0.0000
7682.5477	4118.2095	307.3403	-3564.3382	4178.1769
308.9264	-142.3575	-52.7472	656151.2420	-13.1447
-13.1328				
[3660]ENERGY: 13770000	3147.3033	5261.0209	5310.1901	
308.6025	-15811.4373	-1813.2956	0.0000	0.0000
7715.9627	4118.3467	308.6771	-3597.6160	4179.1537
308.8907	130.0995	76.7140	656151.2420	-15.3503
-15.3746				
[3696]ENERGY: 13780000	3271.7646	5210.8221	5290.5411	
347.7449	-16021.4190	-1712.4830	0.0000	0.0000
7728.7860	4115.7567	309.1901	-3613.0293	4178.9306
308.8653	74.1552	37.7207	656151.2420	-18.3846
-18.3826				
[3746]ENERGY: 13790000	3218.4934	5234.3545	5281.3641	
327.0837	-15794.9927	-1864.3678	0.0000	0.0000
7714.8393	4116.7744	308.6321	-3598.0649	4179.1775
308.9491	-134.7618	-140.1016	656151.2420	-18.2789
-18.2743				
[3785]ENERGY: 13800000	3158.8375	5223.7631	5249.7883	
323.2918	-15796.0762	-1772.0291	0.0000	0.0000
7732.2624	4119.8378	309.3292	-3612.4246	4180.0550
308.9495	-67.0861	-15.5448	656151.2420	-17.1503
-17.1484				
[3835]ENERGY: 13810000	3216.4077	5218.8370	5220.1693	
339.8094	-15804.1554	-1797.5105	0.0000	0.0000
7723.6345	4117.1921	308.9840	-3606.4425	4181.5188
309.1358	34.5440	-79.3469	656151.2420	-18.2412
-18.2452				
[3871]ENERGY: 13820000	3154.3025	5204.6347	5297.3292	
343.8053	-15821.5677	-1776.3540	0.0000	0.0000
7717.0899	4119.2399	308.7222	-3597.8501	4180.8470
309.1641	165.0149	19.1672	656151.2420	-18.4232
-18.4229				
[3921]ENERGY: 13830000	3185.0311	5217.8429	5238.1614	
336.0002	-15867.6375	-1747.6285	0.0000	0.0000
7759.7328	4121.5025	310.4281	-3638.2303	4181.5337
308.8551	83.0666	103.6440	656151.2420	-15.4105
-15.4063				
[3957]ENERGY: 13840000	3158.8018	5212.1917	5336.8186	
349.9853	-15886.4139	-1750.6246	0.0000	0.0000
7697.9370	4118.6960	307.9560	-3579.2410	4179.9374
308.8162	21.8530	53.2508	656151.2420	-17.9306
-17.9241				
[4007]ENERGY: 13850000	3158.7151	5171.9146	5311.9205	
354.8339	-15856.2758	-1728.9961	0.0000	0.0000
7707.2107	4119.3228	308.3270	-3587.8879	4181.1115
308.9756	-77.3710	-79.1702	656151.2420	-21.0502
-21.0445				

Supplementary Text 6

[4043]ENERGY: 13860000	3199.5928	5166.9288	5229.6922	
316.6822	-15758.5761	-1780.0143	0.0000	0.0000
7749.9897	4124.2954	310.0383	-3625.6943	4182.2276
308.9343	-42.7593	-19.7091	656151.2420	-12.6486
-12.6621				
[4093]ENERGY: 13870000	3166.1547	5285.0246	5282.5283	
326.0734	-15882.8763	-1769.1450	0.0000	0.0000
7713.2580	4121.0178	308.5689	-3592.2403	4183.4229
309.0736	-58.3473	-34.1411	656151.2420	-18.3789
-18.3859				
[4129]ENERGY: 13880000	3227.8106	5232.1374	5205.5626	
335.6330	-15879.0376	-1778.7885	0.0000	0.0000
7774.8391	4118.1565	311.0324	-3656.6826	4183.1710
309.0526	-16.3421	-69.4060	656151.2420	-14.6413
-14.6366				
[4179]ENERGY: 13890000	3180.3619	5181.2979	5281.5529	
345.2285	-15800.9450	-1776.3910	0.0000	0.0000
7715.3005	4126.4057	308.6506	-3588.8948	4183.6094
309.0633	78.5443	75.5864	656151.2420	-15.8078
-15.8002				
[4218]ENERGY: 13900000	3186.6877	5153.9938	5254.3806	
332.2089	-15842.3462	-1746.9265	0.0000	0.0000
7783.7847	4121.7830	311.3903	-3662.0017	4184.1445
309.0264	75.3544	-28.9120	656151.2420	-15.0542
-15.0626				
[4268]ENERGY: 13910000	3260.7090	5246.4834	5275.8191	
336.5479	-15851.0227	-1817.3331	0.0000	0.0000
7674.4169	4125.6205	307.0150	-3548.7964	4185.4798
308.9961	55.8214	6.8357	656151.2420	-15.8128
-15.8078				
[4304]ENERGY: 13920000	3174.6848	5215.2226	5255.8138	
330.7970	-15873.0018	-1737.1701	0.0000	0.0000
7752.0387	4118.3850	310.1203	-3633.6537	4183.9741
309.0718	-5.8903	41.4298	656151.2420	-14.2137
-14.1985				
[4354]ENERGY: 13930000	3201.7957	5372.7967	5231.4451	
323.1804	-15895.1202	-1830.9647	0.0000	0.0000
7716.1463	4119.2792	308.6844	-3596.8671	4185.8699
308.9669	-140.3993	-154.5807	656151.2420	-15.6719
-15.6870				
[4390]ENERGY: 13940000	3143.9047	5291.0973	5276.1107	
351.3267	-15790.0082	-1856.1734	0.0000	0.0000
7707.1365	4123.3942	308.3240	-3583.7422	4185.4216
309.0587	-53.1052	-86.4574	656151.2420	-12.0373
-12.0330				
[4440]ENERGY: 13950000	3237.9374	5192.6943	5242.3252	
314.2025	-15882.8048	-1733.8443	0.0000	0.0000
7750.0905	4120.6008	310.0424	-3629.4897	4184.6263
308.8605	-80.6271	-140.7353	656151.2420	-15.5506
-15.5669				
[4476]ENERGY: 13960000	3220.2517	5194.1246	5277.4923	
342.9906	-15863.0200	-1758.0152	0.0000	0.0000
7708.9615	4122.7854	308.3970	-3586.1760	4185.7411
309.0220	-84.7172	-110.6006	656151.2420	-13.3733

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-13.3591
 [4526]ENERGY: 13970000 3286.6847 5210.1509 5259.8565
 341.1823 -15810.2355 -1754.5992 0.0000 0.0000
 7591.4815 4124.5212 303.6972 -3466.9603 4185.0105
 309.2058 -63.6314 -77.6545 656151.2420 -17.7814
 -17.7780
 [4562]ENERGY: 13980000 3195.5175 5240.3387 5238.8091
 336.5088 -15800.3463 -1824.2977 0.0000 0.0000
 7737.8565 4124.3866 309.5529 -3613.4700 4185.1348
 309.0858 -132.4764 -157.0889 656151.2420 -16.9664
 -16.9692
 [4612]ENERGY: 13990000 3182.7859 5294.0687 5278.7556
 346.3580 -15797.8469 -1737.1205 0.0000 0.0000
 7561.6632 4128.6639 302.5043 -3432.9993 4186.6465
 309.0064 181.4858 173.2635 656151.2420 -13.4591
 -13.4693
 [4651]ENERGY: 14000000 3130.8038 5238.0015 5305.7121
 328.7077 -15874.3894 -1799.7096 0.0000 0.0000
 7795.1537 4124.2798 311.8451 -3670.8739 4187.2419
 308.9899 -45.0615 -95.1919 656151.2420 -14.6462
 -14.6281
 [4701]ENERGY: 14010000 3168.3766 5202.6711 5258.9017
 326.0845 -15799.8887 -1778.4099 0.0000 0.0000
 7743.4882 4121.2236 309.7782 -3622.2647 4185.8406
 308.9151 57.5294 68.3367 656151.2420 -14.0547
 -14.0528
 [4737]ENERGY: 14020000 3160.5539 5179.8774 5277.4060
 372.5947 -15818.1133 -1753.1331 0.0000 0.0000
 7704.6442 4123.8298 308.2243 -3580.8144 4185.5210
 309.0998 42.6301 25.4852 656151.2420 -12.1865
 -12.2096
 [4787]ENERGY: 14030000 3194.7229 5221.0484 5272.8563
 325.2708 -15878.6838 -1809.5571 0.0000 0.0000
 7795.2067 4120.8642 311.8472 -3674.3425 4184.5324
 309.1262 -185.7926 -95.3613 656151.2420 -18.1985
 -18.1930
 [4823]ENERGY: 14040000 3215.9267 5260.8042 5262.4723
 340.0132 -15906.6766 -1766.4715 0.0000 0.0000
 7716.1947 4122.2630 308.6864 -3593.9317 4185.6040
 308.9487 140.3411 57.3396 656151.2420 -19.0128
 -19.0095
 [4873]ENERGY: 14050000 3169.8174 5216.4413 5288.0086
 373.8309 -15907.6027 -1778.2444 0.0000 0.0000
 7758.9562 4121.2072 310.3970 -3637.7490 4186.0427
 309.1097 59.9407 -11.6213 656151.2420 -12.4704
 -12.4616
 [4909]ENERGY: 14060000 3160.9463 5119.7532 5246.4801
 339.7796 -15759.6774 -1790.6979 0.0000 0.0000
 7805.3349 4121.9188 312.2524 -3683.4161 4184.7259
 309.3209 -37.0361 -50.2426 656151.2420 -18.4585
 -18.4682
 [4959]ENERGY: 14070000 3204.4152 5216.3817 5221.3157
 335.5733 -15827.6744 -1779.3039 0.0000 0.0000
 7752.1017 4122.8092 310.1228 -3629.2924 4184.9446

Supplementary Text 6

309.3411	48.4211	37.9292	656151.2420	-18.9322
-18.9190				
[4995]ENERGY: 14080000	3188.5674	5214.0124	5246.4965	
346.7356	-15814.4580	-1758.8460	0.0000	0.0000
7703.2740	4125.7819	308.1695	-3577.4922	4185.5865
309.1746	-49.0727	-108.3943	656151.2420	-16.7247
-16.7310				
[5045]ENERGY: 14090000	3255.4691	5186.1184	5221.3292	
344.3830	-15868.6371	-1730.3851	0.0000	0.0000
7715.5853	4123.8628	308.6620	-3591.7225	4187.3422
309.2204	203.5602	97.3086	656151.2420	-19.7478
-19.7598				
[5084]ENERGY: 14100000	3231.3360	5114.2496	5257.8636	
322.7053	-15824.7928	-1708.0189	0.0000	0.0000
7733.4446	4126.7874	309.3764	-3606.6571	4187.3197
309.3831	-0.4428	15.5295	656151.2420	-26.1283
-26.1083				
[5134]ENERGY: 14110000	3190.1038	5222.4540	5281.0873	
330.1505	-15891.7234	-1736.6782	0.0000	0.0000
7730.8773	4126.2713	309.2737	-3604.6060	4186.0899
309.1776	103.9830	97.5937	656151.2420	-16.0117
-16.0276				
[5170]ENERGY: 14120000	3222.4023	5225.8028	5308.1463	
339.3288	-15824.7663	-1797.3815	0.0000	0.0000
7652.5954	4126.1279	306.1421	-3526.4675	4186.7796
309.3299	-158.4094	-119.9951	656151.2420	-14.1881
-14.1763				
[5220]ENERGY: 14130000	3193.6973	5201.8875	5271.7506	
341.0180	-15796.7274	-1832.7912	0.0000	0.0000
7747.3796	4126.2144	309.9339	-3621.1652	4186.9700
309.3391	-46.8502	-29.5053	656151.2420	-16.6336
-16.6328				
[5256]ENERGY: 14140000	3302.5540	5301.3951	5295.1880	
343.9507	-15905.2492	-1880.9277	0.0000	0.0000
7670.2686	4127.1795	306.8491	-3543.0891	4186.4468
309.3751	-248.9252	-227.5581	656151.2420	-12.7297
-12.7315				
[5306]ENERGY: 14150000	3218.5331	5213.5191	5268.7758	
338.5247	-15828.1168	-1767.5731	0.0000	0.0000
7680.3398	4124.0026	307.2520	-3556.3372	4185.0910
309.4202	46.9496	-50.7088	656151.2420	-15.3822
-15.3903				
[5342]ENERGY: 14160000	3192.9592	5217.9421	5284.1016	
342.0198	-15851.0770	-1778.9940	0.0000	0.0000
7715.7688	4122.7205	308.6693	-3593.0484	4184.9430
309.2598	221.5150	178.4623	656151.2420	-17.0889
-17.0713				
[5392]ENERGY: 14170000	3154.6936	5140.5336	5291.0070	
346.7243	-15776.0118	-1738.4189	0.0000	0.0000
7702.8314	4121.3592	308.1518	-3581.4722	4185.1829
309.3294	120.0371	39.3197	656151.2420	-17.0514
-17.0691				
[5428]ENERGY: 14180000	3246.4671	5175.7967	5249.0902	
339.0905	-15864.4338	-1784.7544	0.0000	0.0000

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7758.9752	4120.2315	310.3978	-3638.7437	4185.7091
309.4262	-155.7909	-122.1099	656151.2420	-17.8979
-17.8891				
[5478]ENERGY: 14190000	3242.0625	5191.3756	5231.8666	
343.4453	-15789.2890	-1845.7410	0.0000	0.0000
7750.9610	4124.6810	310.0772	-3626.2799	4185.3410
309.3707	-44.7900	-37.3396	656151.2420	-17.3421
-17.3404				
[5517]ENERGY: 14200000	3255.8255	5232.1774	5289.2516	
363.7433	-15894.6648	-1787.8588	0.0000	0.0000
7665.7315	4124.2056	306.6676	-3541.5258	4185.7211
309.3589	-45.8821	-147.6018	656151.2420	-16.8588
-16.8678				
[5567]ENERGY: 14210000	3168.5566	5240.9801	5232.7209	
332.1427	-15809.2367	-1795.4572	0.0000	0.0000
7754.7441	4124.4504	310.2285	-3630.2937	4185.9291
309.2302	-96.8963	-10.3620	656151.2420	-18.8026
-18.7932				
[5603]ENERGY: 14220000	3274.9844	5144.0091	5256.7887	
330.2416	-15702.9843	-1888.1065	0.0000	0.0000
7710.2788	4125.2119	308.4497	-3585.0670	4186.2215
309.2845	-110.6473	-153.5177	656151.2420	-16.4434
-16.4407				
[5653]ENERGY: 14230000	3171.1749	5254.4411	5217.0349	
349.0569	-15894.9259	-1787.5445	0.0000	0.0000
7810.8319	4120.0694	312.4723	-3690.7625	4186.6500
309.4043	-6.2445	-17.9451	656151.2420	-18.8949
-18.9061				
[5689]ENERGY: 14240000	3235.0552	5264.9855	5242.3421	
354.9173	-15850.1609	-1773.4320	0.0000	0.0000
7652.7520	4126.4592	306.1483	-3526.2928	4186.4192
309.2522	-144.8675	-75.3089	656151.2420	-15.8817
-15.8753				
[5739]ENERGY: 14250000	3190.6058	5107.4073	5221.0543	
317.9567	-15815.2763	-1744.7072	0.0000	0.0000
7844.5335	4121.5742	313.8206	-3722.9593	4185.4826
309.1843	-57.8870	-44.0145	656151.2420	-16.9347
-16.9477				
[5775]ENERGY: 14260000	3224.4683	5313.8982	5234.1870	
336.7483	-15903.9667	-1761.2943	0.0000	0.0000
7679.4303	4123.4712	307.2156	-3555.9590	4186.3286
309.3405	50.8391	28.1366	656151.2420	-15.6625
-15.6522				
[5825]ENERGY: 14270000	3134.1672	5199.5623	5254.5540	
338.3088	-15792.8722	-1758.9784	0.0000	0.0000
7751.5113	4126.2530	310.0992	-3625.2583	4187.7383
309.3593	157.3350	66.2435	656151.2420	-19.0506
-19.0570				
[5861]ENERGY: 14280000	3093.7932	5131.9416	5284.1457	
352.1154	-15823.0835	-1774.5881	0.0000	0.0000
7857.4548	4121.7790	314.3375	-3735.6758	4188.1708
309.1749	76.6845	7.7948	656151.2420	-19.2857
-19.2825				
[5911]ENERGY: 14290000	3149.3190	5197.2651	5248.6128	

Supplementary Text 6

314.8419	-15758.9662	-1753.3729	0.0000	0.0000
7730.3632	4128.0629	309.2532	-3602.3003	4188.0437
309.1284	64.0783	31.9496	656151.2420	-14.5186
-14.5262				
[5950]ENERGY: 14300000	3164.8026	5226.8368	5240.4568	
354.1976	-15803.7332	-1811.3874	0.0000	0.0000
7753.0635	4124.2366	310.1613	-3628.8269	4188.3896
309.2536	3.7678	-78.0757	656151.2420	-21.2303
-21.2286				
[6000]ENERGY: 14310000	3192.8666	5175.6131	5292.0940	
338.7393	-15880.6113	-1718.3560	0.0000	0.0000
7725.0521	4125.3979	309.0407	-3599.6543	4186.4800
309.1574	74.0009	45.2993	656151.2420	-19.0536
-19.0482				
[6036]ENERGY: 14320000	3152.4988	5177.1166	5301.0351	
331.7817	-15794.9675	-1716.6832	0.0000	0.0000
7677.8678	4128.6492	307.1531	-3549.2186	4188.7738
309.0720	178.7196	77.6907	656151.2420	-17.1074
-17.1145				
[6086]ENERGY: 14330000	3206.6975	5315.2074	5268.5380	
349.7838	-15908.0264	-1816.0939	0.0000	0.0000
7708.6006	4124.7071	308.3826	-3583.8935	4189.4312
309.2491	-220.3468	-142.8849	656151.2420	-18.2286
-18.2056				
[6122]ENERGY: 14340000	3176.9709	5240.8580	5272.7152	
344.5234	-15866.8599	-1788.4607	0.0000	0.0000
7747.4925	4127.2395	309.9384	-3620.2530	4190.3512
309.1733	0.2879	-49.6315	656151.2420	-14.7166
-14.7473				
[6172]ENERGY: 14350000	3215.6114	5223.0644	5279.8187	
320.7588	-15871.4074	-1752.9178	0.0000	0.0000
7714.5498	4129.4780	308.6206	-3585.0719	4189.6344
309.2869	162.7820	93.8713	656151.2420	-21.0260
-21.0063				
[6208]ENERGY: 14360000	3214.4408	5210.7720	5251.1257	
337.4481	-15834.3816	-1784.0815	0.0000	0.0000
7732.6349	4127.9583	309.3441	-3604.6766	4189.8776
309.2878	-68.0082	-84.4713	656151.2420	-18.7236
-18.7263				
[6258]ENERGY: 14370000	3222.2988	5188.9060	5295.9016	
317.0195	-15871.3075	-1729.7314	0.0000	0.0000
7706.1828	4129.2699	308.2858	-3576.9129	4189.7056
309.1411	-32.8325	-124.9147	656151.2420	-22.1013
-22.0983				
[6294]ENERGY: 14380000	3175.2670	5259.7708	5237.5912	
357.7122	-15800.7953	-1801.8905	0.0000	0.0000
7699.7917	4127.4470	308.0302	-3572.3447	4191.2775
309.0881	156.5464	26.8432	656151.2420	-14.3280
-14.3328				
[6344]ENERGY: 14390000	3174.1183	5216.2730	5245.2248	
357.8380	-15806.9348	-1829.3226	0.0000	0.0000
7766.7788	4123.9756	310.7100	-3642.8032	4190.2329
309.0824	81.0992	105.6167	656151.2420	-18.2218
-18.2186				

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[6383]ENERGY: 14400000	3171.0805	5335.3566	5229.2965	
343.4491	-15917.0102	-1782.0509	0.0000	0.0000
7747.3889	4127.5105	309.9343	-3619.8784	4189.4250
309.2789	156.7735	134.4340	656151.2420	-14.9838
-14.9782				
[6433]ENERGY: 14410000	3163.2464	5359.6987	5231.0680	
340.6817	-15869.8231	-1814.1795	0.0000	0.0000
7717.7657	4128.4579	308.7492	-3589.3078	4190.3141
309.3213	51.9711	8.6760	656151.2420	-14.0671
-14.0752				
[6469]ENERGY: 14420000	3208.3749	5210.2620	5240.3219	
337.8659	-15797.7740	-1811.2434	0.0000	0.0000
7737.9039	4125.7113	309.5548	-3612.1926	4190.7189
309.5121	83.8972	17.6090	656151.2420	-15.7887
-15.8060				
[6519]ENERGY: 14430000	3176.3008	5155.7768	5270.3115	
341.1353	-15848.1098	-1732.7396	0.0000	0.0000
7761.4192	4124.0942	310.4956	-3637.3249	4188.8465
309.4058	78.8751	67.1931	656151.2420	-17.0326
-17.0346				
[6555]ENERGY: 14440000	3225.5889	5151.3636	5304.9659	
357.8229	-15885.1843	-1819.6836	0.0000	0.0000
7791.2029	4126.0762	311.6871	-3665.1267	4188.7262
309.3317	-73.7170	-62.4989	656151.2420	-15.3094
-15.2830				
[6605]ENERGY: 14450000	3197.3405	5246.9269	5256.4723	
325.7236	-15823.5026	-1802.8853	0.0000	0.0000
7726.2366	4126.3119	309.0881	-3599.9248	4188.0125
309.3156	-45.0099	-43.9513	656151.2420	-15.6974
-15.6948				
[6641]ENERGY: 14460000	3205.4099	5219.1098	5271.8235	
316.3965	-15837.1043	-1780.4459	0.0000	0.0000
7727.5050	4122.6944	309.1388	-3604.8105	4187.1340
309.3768	-190.9115	-143.2877	656151.2420	-16.3934
-16.3994				
[6691]ENERGY: 14470000	3200.5203	5177.0278	5301.8373	
363.5226	-15820.4245	-1843.5254	0.0000	0.0000
7747.0220	4125.9800	309.9196	-3621.0419	4186.7460
309.3218	38.7072	-29.6133	656151.2420	-17.5776
-17.5928				
[6727]ENERGY: 14480000	3152.9381	5133.3088	5273.6755	
358.3459	-15893.0414	-1657.3481	0.0000	0.0000
7757.8068	4125.6854	310.3511	-3632.1213	4187.3043
309.2694	308.0049	271.3607	656151.2420	-16.1585
-16.1602				
[6777]ENERGY: 14490000	3207.8906	5243.6552	5280.7718	
329.4491	-15799.8429	-1774.9563	0.0000	0.0000
7639.4240	4126.3916	305.6152	-3513.0324	4187.0368
309.2638	26.6066	-0.6625	656151.2420	-17.0655
-17.0588				
[6816]ENERGY: 14500000	3158.6783	5301.9073	5260.5919	
328.2754	-15917.4994	-1789.4366	0.0000	0.0000
7780.7846	4123.3016	311.2703	-3657.4831	4189.1905
309.3745	51.3453	15.8412	656151.2420	-14.4418

Supplementary Text 6

-14.4301
 [6866]ENERGY: 14510000 3215.6101 5248.3501 5244.1663
 342.0602 -15963.3045 -1698.5049 0.0000 0.0000
 7739.6335 4128.0108 309.6240 -3611.6227 4188.1840
 309.2255 179.6576 119.1930 656151.2420 -20.0329
 -20.0306
 [6902]ENERGY: 14520000 3219.3456 5238.4750 5252.4942
 339.2658 -15815.2772 -1797.0265 0.0000 0.0000
 7693.0434 4130.3204 307.7602 -3562.7230 4189.8833
 309.5014 4.2828 -47.5297 656151.2420 -15.5209
 -15.5290
 [6952]ENERGY: 14530000 3129.7253 5251.2036 5309.0444
 345.5056 -15840.0154 -1792.8800 0.0000 0.0000
 7727.6637 4130.2471 309.1452 -3597.4166 4189.5174
 309.3090 -27.9989 -55.1102 656151.2420 -19.5229
 -19.5300
 [6988]ENERGY: 14540000 3224.6202 5195.1665 5292.0321
 344.9964 -15933.1335 -1713.2182 0.0000 0.0000
 7717.9389 4128.4025 308.7561 -3589.5364 4189.4538
 309.2220 64.1689 -3.0873 656151.2420 -17.7993
 -17.8016
 [7038]ENERGY: 14550000 3305.8621 5202.6061 5253.4909
 339.4111 -15849.8800 -1833.7348 0.0000 0.0000
 7707.7499 4125.5055 308.3485 -3582.2445 4188.6657
 309.2076 7.6913 -38.9190 656151.2420 -17.5646
 -17.5736
 [7074]ENERGY: 14560000 3184.7696 5112.3323 5287.5108
 352.4224 -15895.3051 -1703.5821 0.0000 0.0000
 7786.4663 4124.6143 311.4976 -3661.8521 4188.2488
 309.2879 104.9740 138.5435 656151.2420 -17.5298
 -17.5201
 [7124]ENERGY: 14570000 3158.5809 5184.8051 5304.4841
 360.7349 -15803.6093 -1809.7065 0.0000 0.0000
 7729.1799 4124.4690 309.2058 -3604.7109 4189.4536
 309.2860 53.2150 48.4115 656151.2420 -13.9903
 -13.9876
 [7160]ENERGY: 14580000 3152.3736 5225.6580 5327.0103
 317.1516 -15886.7781 -1803.5159 0.0000 0.0000
 7794.7034 4126.6030 311.8271 -3668.1005 4189.4381
 309.3258 -16.9721 -94.5012 656151.2420 -18.4095
 -18.4025
 [7210]ENERGY: 14590000 3138.6512 5222.3853 5269.9390
 332.2547 -15836.1046 -1746.1880 0.0000 0.0000
 7746.3569 4127.2944 309.8930 -3619.0625 4189.8762
 309.2165 -16.1593 18.0935 656151.2420 -12.2000
 -12.1944
 [7249]ENERGY: 14600000 3214.5609 5180.0773 5309.7329
 338.1959 -15853.0897 -1711.8118 0.0000 0.0000
 7649.5963 4127.2618 306.0221 -3522.3345 4189.4391
 309.2101 173.3057 107.3203 656151.2420 -15.9238
 -15.9324
 [7299]ENERGY: 14610000 3172.6583 5278.6044 5233.5852
 335.1786 -15821.7126 -1784.6002 0.0000 0.0000
 7710.1933 4123.9071 308.4463 -3586.2862 4188.6815

Supplementary Text 6

309.2693	129.9664	55.4121	656151.2420	-19.3242
-19.3278				
[7335]ENERGY: 14620000	3195.9847	5213.4566	5303.9858	
330.5860	-15812.6336	-1817.2972	0.0000	0.0000
7713.0649	4127.1472	308.5612	-3585.9177	4189.7449
309.0908	28.2940	37.9305	656151.2420	-13.8576
-13.8532				
[7385]ENERGY: 14630000	3202.9654	5330.5866	5289.0391	
345.9707	-15896.8894	-1782.5719	0.0000	0.0000
7640.3531	4129.4537	305.6523	-3510.8994	4189.4474
309.2580	-17.2094	-80.3083	656151.2420	-16.8389
-16.8315				
[7421]ENERGY: 14640000	3258.0493	5209.0445	5277.0961	
345.9915	-15832.1659	-1808.8756	0.0000	0.0000
7681.2692	4130.4092	307.2892	-3550.8600	4189.2304
309.2285	107.2372	56.9387	656151.2420	-15.3933
-15.4072				
[7471]ENERGY: 14650000	3293.9827	5166.8189	5234.1137	
364.8216	-15801.5773	-1810.0932	0.0000	0.0000
7681.7527	4129.8193	307.3085	-3551.9334	4189.2660
309.1374	-165.7949	-61.2906	656151.2420	-15.3758
-15.3645				
[7507]ENERGY: 14660000	3233.9044	5201.2339	5303.7664	
368.7789	-15853.5400	-1848.5763	0.0000	0.0000
7723.2562	4128.8234	308.9689	-3594.4328	4190.9491
309.3542	-108.1849	-164.1346	656151.2420	-12.6282
-12.6259				
[7557]ENERGY: 14670000	3195.9115	5300.9267	5274.0681	
343.5701	-15809.8675	-1881.4889	0.0000	0.0000
7704.0678	4127.1878	308.2012	-3576.8800	4191.5439
309.2419	-204.3511	-176.7575	656151.2420	-14.1067
-14.1017				
[7593]ENERGY: 14680000	3156.0166	5279.2349	5266.8742	
326.0178	-15970.4799	-1715.7012	0.0000	0.0000
7783.7397	4125.7020	311.3885	-3658.0377	4190.9791
309.2917	78.1770	71.6889	656151.2420	-14.5174
-14.5247				
[7643]ENERGY: 14690000	3211.0045	5206.2466	5318.8762	
347.2336	-15832.7121	-1821.3018	0.0000	0.0000
7699.2842	4128.6312	308.0099	-3570.6530	4190.4911
309.1159	7.1279	-116.9607	656151.2420	-15.7066
-15.7223				
[7682]ENERGY: 14700000	3288.5682	5088.9179	5296.0161	
348.1760	-15828.3815	-1794.0090	0.0000	0.0000
7730.2336	4129.5214	309.2480	-3600.7123	4189.1126
309.1450	-28.7633	41.4127	656151.2420	-15.4399
-15.4230				
[7732]ENERGY: 14710000	3239.7769	5249.5610	5258.5266	
344.5154	-15865.4833	-1801.2141	0.0000	0.0000
7702.8300	4128.5125	308.1517	-3574.3175	4190.7879
309.1789	25.6337	66.7161	656151.2420	-16.0514
-16.0550				
[7768]ENERGY: 14720000	3118.8108	5333.7110	5248.8454	
333.7441	-15882.4507	-1738.0315	0.0000	0.0000

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7716.3876	4131.0167	308.6941	-3585.3709	4190.0174
309.2836	28.6332	23.7767	656151.2420	-16.9619
-16.9448				
[7818]ENERGY: 14730000	3189.4050	5193.1013	5268.9562	
339.8943	-15848.2496	-1751.8600	0.0000	0.0000
7735.1266	4126.3739	309.4437	-3608.7527	4189.9130
309.2476	-100.3296	-121.7460	656151.2420	-12.2777
-12.3158				
[7854]ENERGY: 14740000	3188.8315	5217.6284	5274.4669	
324.7402	-15838.4346	-1810.8967	0.0000	0.0000
7768.3053	4124.6411	310.7711	-3643.6642	4190.7432
309.2562	60.3123	40.2502	656151.2420	-17.3322
-17.2960				
[7904]ENERGY: 14750000	3234.3931	5256.4807	5278.5582	
327.5707	-15903.9992	-1803.3530	0.0000	0.0000
7740.8189	4130.4695	309.6715	-3610.3494	4190.5699
309.2767	33.6779	28.2070	656151.2420	-12.7577
-12.7692				
[7940]ENERGY: 14760000	3212.8698	5211.0149	5322.7198	
313.9200	-15824.6268	-1808.4349	0.0000	0.0000
7702.6228	4130.0855	308.1434	-3572.5372	4189.9730
309.2246	69.3941	29.0168	656151.2420	-15.1479
-15.1474				
[7990]ENERGY: 14770000	3165.4893	5274.0143	5248.8782	
319.3131	-15924.6305	-1772.6576	0.0000	0.0000
7815.9565	4126.3633	312.6773	-3689.5932	4190.4435
309.3327	-11.7172	30.7135	656151.2420	-12.8711
-12.8861				
[8026]ENERGY: 14780000	3128.7465	5227.3612	5259.5949	
326.3087	-15731.5587	-1835.2674	0.0000	0.0000
7751.5483	4126.7336	310.1007	-3624.8147	4191.4590
309.2896	-55.1629	-119.8620	656151.2420	-13.1626
-13.1582				
[8076]ENERGY: 14790000	3121.6819	5295.5321	5280.9611	
344.2775	-15867.5302	-1781.3692	0.0000	0.0000
7736.5474	4130.1007	309.5006	-3606.4467	4192.1806
309.3735	112.6936	105.1518	656151.2420	-17.2745
-17.2608				
[8115]ENERGY: 14800000	3162.5856	5297.7191	5303.5631	
349.5201	-15836.0344	-1804.6622	0.0000	0.0000
7659.4122	4132.1034	306.4148	-3527.3089	4190.9473
309.3449	14.0716	-65.1096	656151.2420	-22.5482
-22.5619				
[8165]ENERGY: 14810000	3139.8242	5251.9052	5268.8408	
349.3447	-15818.5532	-1761.7648	0.0000	0.0000
7699.4865	4129.0834	308.0180	-3570.4031	4190.8723
309.2718	12.8781	19.2111	656151.2420	-18.1018
-18.0982				
[8201]ENERGY: 14820000	3251.1630	5206.8424	5261.4769	
332.2980	-15790.2069	-1819.8684	0.0000	0.0000
7690.4174	4132.1224	307.6551	-3558.2950	4191.3806
309.3644	-174.2865	-160.9988	656151.2420	-16.9923
-16.9958				
[8251]ENERGY: 14830000	3129.5523	5297.7934	5297.2207	

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347.5133	-15779.7046	-1853.3462	0.0000	0.0000
7690.2212	4129.2500	307.6473	-3560.9712	4191.5554
309.3587	77.1940	17.1290	656151.2420	-12.3615
-12.3702				
[8287]ENERGY: 14840000	3181.0640	5215.1179	5268.8454	
348.5848	-15865.0180	-1756.1235	0.0000	0.0000
7736.5649	4129.0356	309.5013	-3607.5294	4191.6515
309.2739	190.2864	129.0483	656151.2420	-13.9702
-13.9592				
[8337]ENERGY: 14850000	3203.5646	5173.6891	5284.1871	
337.3077	-15809.7539	-1850.1196	0.0000	0.0000
7791.8251	4130.7001	311.7120	-3661.1249	4192.0118
309.2363	-85.4458	-90.4445	656151.2420	-12.9872
-12.9996				
[8373]ENERGY: 14860000	3189.8777	5266.5327	5270.9352	
343.9612	-15834.2582	-1823.4186	0.0000	0.0000
7717.1412	4130.7712	308.7242	-3586.3700	4191.7686
309.2237	-120.4226	-70.1457	656151.2420	-16.9000
-16.8871				
[8423]ENERGY: 14870000	3181.6994	5274.5137	5340.1553	
334.5678	-15934.0919	-1800.0714	0.0000	0.0000
7735.3166	4132.0895	309.4513	-3603.2271	4192.2330
309.0096	32.5972	-43.7802	656151.2420	-15.4510
-15.4486				
[8459]ENERGY: 14880000	3261.2360	5247.3238	5298.2824	
343.3980	-15903.8082	-1790.2369	0.0000	0.0000
7674.1283	4130.3233	307.0035	-3543.8050	4192.1132
309.0553	-150.7376	-137.6514	656151.2420	-14.8382
-14.8237				
[8509]ENERGY: 14890000	3168.4150	5211.8555	5267.5855	
344.8516	-15849.4732	-1762.0317	0.0000	0.0000
7748.8154	4130.0180	309.9914	-3618.7974	4193.4333
309.4245	49.4308	8.1982	656151.2420	-14.4432
-14.4672				
[8548]ENERGY: 14900000	3220.7224	5228.4518	5233.4747	
334.3258	-15828.9549	-1763.8466	0.0000	0.0000
7705.9016	4130.0749	308.2746	-3575.8267	4192.6295
309.2337	-4.3315	-19.2442	656151.2420	-16.2970
-16.2970				
[8598]ENERGY: 14910000	3097.8054	5326.2708	5227.2212	
351.7281	-15852.6252	-1761.6299	0.0000	0.0000
7742.1925	4130.9629	309.7264	-3611.2296	4192.6628
309.3347	140.5589	57.8506	656151.2420	-13.0223
-13.0294				
[8634]ENERGY: 14920000	3090.0389	5232.9082	5262.0101	
350.4444	-15825.9974	-1688.1947	0.0000	0.0000
7708.3784	4129.5879	308.3737	-3578.7905	4191.6681
309.3361	70.8892	59.0358	656151.2420	-15.4166
-15.3908				
[8684]ENERGY: 14930000	3153.9364	5245.5242	5275.6900	
341.1713	-15800.4976	-1775.1825	0.0000	0.0000
7686.1205	4126.7622	307.4832	-3559.3583	4191.6288
309.1833	68.4082	69.3682	656151.2420	-12.4820
-12.4814				

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[8720]ENERGY: 14940000	3266.7374	5305.6127	5226.3664	
322.7905	-15862.4576	-1809.1279	0.0000	0.0000
7681.3875	4131.3090	307.2939	-3550.0785	4193.0776
309.2282	-50.9851	-82.9199	656151.2420	-14.5945
-14.6287				
[8770]ENERGY: 14950000	3324.8985	5268.0007	5209.8287	
333.6602	-15896.6267	-1741.2620	0.0000	0.0000
7636.8536	4135.3530	305.5123	-3501.5006	4193.0445
309.2008	-189.2625	-221.1751	656151.2420	-13.9970
-13.9712				
[8806]ENERGY: 14960000	3250.0062	5309.8100	5265.7094	
328.5304	-15980.9798	-1738.6748	0.0000	0.0000
7696.3364	4130.7377	307.8919	-3565.5987	4191.3855
309.3972	-81.1369	-58.3620	656151.2420	-14.0426
-14.0371				
[8856]ENERGY: 14970000	3145.6237	5280.6708	5256.3201	
333.9962	-15856.1878	-1796.6637	0.0000	0.0000
7764.0890	4127.8483	310.6024	-3636.2407	4192.1053
309.5003	-121.5072	-6.4556	656151.2420	-12.8460
-12.8503				
[8892]ENERGY: 14980000	3154.3008	5274.0539	5262.5684	
354.9710	-15894.5570	-1728.7194	0.0000	0.0000
7709.9855	4132.6032	308.4380	-3577.3823	4193.1003
309.5832	61.3501	-3.6153	656151.2420	-15.2554
-15.2673				
[8942]ENERGY: 14990000	3181.7784	5191.1112	5260.8207	
359.7053	-15843.0694	-1779.3981	0.0000	0.0000
7760.8777	4131.8258	310.4739	-3629.0519	4192.8227
309.7935	125.4354	62.7299	656151.2420	-13.9821
-13.9615				
[8981]ENERGY: 15000000	3146.3691	5200.5828	5250.9751	
353.2710	-15872.7361	-1818.9619	0.0000	0.0000
7866.1594	4125.6594	314.6857	-3740.5001	4192.5623
309.5566	-103.9507	-57.8508	656151.2420	-16.8204
-16.8381				
[9031]ENERGY: 15010000	3227.1187	5182.6507	5256.9055	
339.9228	-15819.1810	-1749.6616	0.0000	0.0000
7698.5076	4136.2627	307.9788	-3562.2450	4193.0842
309.5164	-55.4072	-28.5564	656151.2420	-13.2433
-13.2287				
[9067]ENERGY: 15020000	3229.6510	5242.6345	5235.1935	
348.2886	-15839.0201	-1767.9064	0.0000	0.0000
7685.8420	4134.6832	307.4721	-3551.1588	4193.9829
309.5356	-16.7093	-3.6253	656151.2420	-16.1389
-16.1703				
[9117]ENERGY: 15030000	3193.5336	5243.1534	5292.4603	
354.6708	-15896.4917	-1775.1753	0.0000	0.0000
7716.9433	4129.0945	308.7163	-3587.8489	4193.7474
309.4385	-62.2666	-16.2639	656151.2420	-16.3528
-16.3322				
[9153]ENERGY: 15040000	3231.7994	5288.1857	5318.0913	
370.1439	-15969.1152	-1748.7046	0.0000	0.0000
7639.2890	4129.6897	305.6098	-3509.5993	4193.6527
309.5557	8.6642	44.7531	656151.2420	-12.6624

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-12.6596
 [9203]ENERGY: 15050000 3156.4517 5166.1453 5272.6968
 315.2398 -15891.1137 -1721.0891 0.0000 0.0000
 7826.3230 4124.6537 313.0920 -3701.6693 4193.2792
 309.4778 -124.2967 -18.8485 656151.2420 -14.3861
 -14.3835
 [9239]ENERGY: 15060000 3179.8819 5229.0229 5243.4104
 340.1193 -15872.3954 -1768.2861 0.0000 0.0000
 7778.5240 4130.2771 311.1799 -3648.2469 4195.1355
 309.5111 34.3449 -23.2281 656151.2420 -14.8300
 -14.8403
 [9289]ENERGY: 15070000 3164.3061 5200.0569 5262.4687
 350.1162 -15848.0843 -1781.5210 0.0000 0.0000
 7784.4482 4131.7908 311.4168 -3652.6573 4193.9903
 309.6078 38.0953 0.8820 656151.2420 -16.2556
 -16.2570
 [9325]ENERGY: 15080000 3233.4290 5225.1091 5268.4032
 348.7973 -15903.4469 -1760.0756 0.0000 0.0000
 7719.2127 4131.4287 308.8071 -3587.7840 4195.0347
 309.5559 148.2119 30.2601 656151.2420 -14.9811
 -14.9926
 [9375]ENERGY: 15090000 3256.3085 5283.0349 5240.5525
 326.3720 -15879.5781 -1788.5464 0.0000 0.0000
 7694.7012 4132.8445 307.8265 -3561.8566 4194.4150
 309.4076 44.8557 -1.5648 656151.2420 -13.5686
 -13.5457
 [9414]ENERGY: 15100000 3151.0401 5181.1852 5303.2246
 321.6367 -15822.5529 -1805.7248 0.0000 0.0000
 7804.7958 4133.6048 312.2309 -3671.1910 4194.7994
 309.4265 -110.8819 -102.3407 656151.2420 -14.8277
 -14.8295
 [9464]ENERGY: 15110000 3222.4232 5155.3792 5262.9619
 340.4457 -15684.2986 -1853.0523 0.0000 0.0000
 7687.4309 4131.2900 307.5357 -3556.1409 4194.8753
 309.1444 -269.8509 -171.2700 656151.2420 -12.0862
 -12.0759
 [9500]ENERGY: 15120000 3272.2549 5265.8284 5220.6090
 337.4274 -15855.3292 -1794.3524 0.0000 0.0000
 7687.1592 4133.5972 307.5248 -3553.5619 4194.7559
 309.2298 -28.9728 -7.4010 656151.2420 -12.9204
 -12.9309
 [9550]ENERGY: 15130000 3185.9746 5330.2492 5221.4115
 347.3616 -15858.0243 -1827.9193 0.0000 0.0000
 7735.7877 4134.8411 309.4702 -3600.9466 4196.5419
 309.4616 155.8440 118.8171 656151.2420 -15.6893
 -15.6938
 [9586]ENERGY: 15140000 3233.0449 5249.5260 5259.8557
 354.4005 -15827.4741 -1861.0063 0.0000 0.0000
 7724.2299 4132.5766 309.0078 -3591.6533 4195.7945
 309.4616 -39.0605 -65.5660 656151.2420 -11.9921
 -11.9933
 [9636]ENERGY: 15150000 3246.6632 5227.4198 5225.2459
 368.9836 -15850.1894 -1793.8147 0.0000 0.0000
 7712.3837 4136.6921 308.5339 -3575.6916 4195.8766

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309.3888	-94.6615	-105.2746	656151.2420	-13.8272
-13.8231				
[9672]ENERGY: 15160000	3253.4453	5242.3451	5270.2662	
320.6381	-15824.4903	-1807.2278	0.0000	0.0000
7678.1062	4133.0829	307.1626	-3545.0234	4196.4016
309.5355	-54.3457	-34.1453	656151.2420	-15.0096
-15.0120				
[9722]ENERGY: 15170000	3161.2386	5215.4498	5209.4945	
360.7052	-15921.8081	-1701.0739	0.0000	0.0000
7809.1985	4133.2048	312.4070	-3675.9938	4196.4854
309.7185	104.2999	47.2779	656151.2420	-14.6036
-14.6131				
[9758]ENERGY: 15180000	3223.4059	5179.5277	5276.7636	
323.9523	-15836.1415	-1781.4102	0.0000	0.0000
7745.4686	4131.5666	309.8575	-3613.9021	4196.4794
309.4069	-115.1923	-65.3326	656151.2420	-13.9969
-13.9981				
[9808]ENERGY: 15190000	3140.4379	5151.7156	5274.3368	
318.0708	-15829.3713	-1773.9807	0.0000	0.0000
7850.0758	4131.2848	314.0423	-3718.7910	4196.2421
309.6347	-61.7695	-26.4713	656151.2420	-14.7740
-14.7566				
[9847]ENERGY: 15200000	3188.7622	5206.9254	5280.6022	
348.8060	-15830.6362	-1727.2539	0.0000	0.0000
7670.4525	4137.6581	306.8565	-3532.7944	4197.5407
309.6544	63.2061	64.0544	656151.2420	-16.5773
-16.5864				
[9897]ENERGY: 15210000	3181.8451	5194.8227	5223.0457	
341.6019	-15898.0557	-1757.2033	0.0000	0.0000
7843.1422	4129.1986	313.7649	-3713.9436	4196.6214
309.3593	12.1647	49.8012	656151.2420	-14.8621
-14.8562				
[9933]ENERGY: 15220000	3236.0131	5236.9472	5309.0313	
330.7793	-15812.7703	-1810.9542	0.0000	0.0000
7648.9058	4137.9522	305.9945	-3510.9535	4197.9093
309.5545	96.5533	88.2100	656151.2420	-13.0976
-13.0950				
[9983]ENERGY: 15230000	3197.6751	5204.3299	5253.9122	
326.9015	-15923.3614	-1733.9594	0.0000	0.0000
7808.1054	4133.6032	312.3633	-3674.5021	4197.8225
309.8327	142.1899	48.2276	656151.2420	-12.9037
-12.9215				
[10019]ENERGY: 15240000	3161.0633	5193.6789	5299.5015	
351.4214	-15816.8531	-1789.1715	0.0000	0.0000
7736.3954	4136.0359	309.4945	-3600.3595	4197.7452
309.8687	-94.4237	-46.4995	656151.2420	-20.6611
-20.6414				
[10069]ENERGY: 15250000	3232.2071	5205.6441	5233.2831	
351.5115	-15853.6720	-1845.0239	0.0000	0.0000
7815.3061	4139.2560	312.6513	-3676.0501	4199.1688
309.7956	-9.4753	-11.9381	656151.2420	-15.9663
-15.9726				
[10105]ENERGY: 15260000	3302.4975	5188.5826	5301.8116	
324.3568	-15937.8976	-1735.7605	0.0000	0.0000

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7689.2623	4132.8528	307.6089	-3556.4096	4197.7323
309.6221	3.0749	-34.8337	656151.2420	-21.1605
-21.1592				
[10155]ENERGY: 15270000	3213.2552	5148.2979	5295.0638	
318.9304	-15773.7309	-1784.0682	0.0000	0.0000
7715.9835	4133.7317	308.6779	-3582.2518	4197.3608
309.4758	27.7780	-43.8973	656151.2420	-17.6371
-17.6436				
[10191]ENERGY: 15280000	3303.2234	5202.9866	5275.7521	
356.2383	-15771.1451	-1853.4712	0.0000	0.0000
7625.1637	4138.7478	305.0447	-3486.4159	4198.4973
309.5687	-104.4969	-198.8177	656151.2420	-18.4113
-18.4245				
[10241]ENERGY: 15290000	3180.5207	5157.2940	5267.0592	
372.5689	-15831.0067	-1750.0499	0.0000	0.0000
7737.6586	4134.0447	309.5450	-3603.6139	4196.6285
309.4743	-124.4484	-152.7741	656151.2420	-16.6198
-16.6035				
[10280]ENERGY: 15300000	3208.0202	5221.9086	5268.3487	
326.2269	-15785.8151	-1761.9902	0.0000	0.0000
7660.3555	4137.0546	306.4525	-3523.3009	4197.1261
309.4694	-17.8521	11.8552	656151.2420	-22.4719
-22.4754				
[10330]ENERGY: 15310000	3241.4102	5288.5093	5297.9588	
313.0597	-15985.6210	-1757.6932	0.0000	0.0000
7735.2069	4132.8308	309.4469	-3602.3761	4196.0259
309.4957	-161.4664	-112.1753	656151.2420	-14.5352
-14.5359				
[10366]ENERGY: 15320000	3166.9850	5278.4891	5313.2618	
329.0617	-15864.6450	-1780.6592	0.0000	0.0000
7691.5044	4133.9978	307.6986	-3557.5067	4195.8709
309.6150	-197.8583	-138.4283	656151.2420	-11.7397
-11.7349				
[10416]ENERGY: 15330000	3174.2381	5141.0022	5286.9433	
332.7902	-15833.5243	-1743.4174	0.0000	0.0000
7773.2082	4131.2403	310.9672	-3641.9680	4197.4780
309.5749	-28.4677	37.6592	656151.2420	-14.8862
-14.8880				
[10452]ENERGY: 15340000	3270.9539	5270.0262	5220.6785	
330.6336	-15866.5504	-1777.9216	0.0000	0.0000
7690.4455	4138.2656	307.6563	-3552.1799	4197.2144
309.7380	3.6407	-14.8062	656151.2420	-11.9134
-11.9075				
[10502]ENERGY: 15350000	3166.7609	5087.5403	5288.6679	
339.1304	-15764.8609	-1808.9103	0.0000	0.0000
7824.3368	4132.6650	313.0126	-3691.6718	4197.1485
309.7143	19.6899	16.1625	656151.2420	-15.6131
-15.6178				
[10538]ENERGY: 15360000	3132.2140	5273.9342	5295.5960	
343.5479	-15881.7753	-1751.0706	0.0000	0.0000
7724.0884	4136.5346	309.0022	-3587.5538	4196.9297
309.8790	108.4125	82.6596	656151.2420	-17.3295
-17.3161				
[10588]ENERGY: 15370000	3122.7672	5250.3724	5249.2436	

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327.3262	-15815.2371	-1794.0410	0.0000	0.0000
7793.5451	4133.9764	311.7808	-3659.5687	4195.4766
309.7406	-29.8582	-29.7049	656151.2420	-10.9192
-10.9332				
[10624]ENERGY: 15380000	3254.6900	5281.0606	5294.4169	
355.5291	-15965.5328	-1829.4466	0.0000	0.0000
7742.2169	4132.9341	309.7274	-3609.2828	4197.3017
309.7908	-43.5907	-44.6079	656151.2420	-13.8934
-13.8859				
[10674]ENERGY: 15390000	3232.2644	5265.5240	5281.5275	
353.1827	-15947.0165	-1815.4883	0.0000	0.0000
7763.0840	4133.0778	310.5622	-3630.0062	4198.0881
309.7554	-49.1380	-156.3780	656151.2420	-15.4152
-15.4332				
[10713]ENERGY: 15400000	3174.2930	5162.7990	5226.5333	
295.6391	-15905.9591	-1697.2689	0.0000	0.0000
7875.9444	4131.9807	315.0772	-3743.9637	4197.9365
309.9062	164.2346	124.4880	656151.2420	-15.9799
-15.9728				
[10763]ENERGY: 15410000	3229.7848	5312.8085	5273.5594	
322.0290	-15853.8992	-1801.2083	0.0000	0.0000
7653.4830	4136.5573	306.1776	-3516.9258	4198.6663
309.8665	70.4484	63.6472	656151.2420	-19.7376
-19.7300				
[10799]ENERGY: 15420000	3279.9906	5206.4901	5269.8500	
336.6479	-15792.8853	-1825.8345	0.0000	0.0000
7666.7757	4141.0345	306.7094	-3525.7413	4198.6009
309.8612	-29.1883	-40.2633	656151.2420	-16.1927
-16.1688				
[10849]ENERGY: 15430000	3106.1761	5203.1685	5293.3145	
340.3542	-15815.3439	-1768.4186	0.0000	0.0000
7777.1599	4136.4108	311.1253	-3640.7491	4199.7291
309.9159	79.1875	-5.7981	656151.2420	-15.6428
-15.6718				
[10885]ENERGY: 15440000	3141.7860	5193.9828	5265.2637	
339.6187	-15830.7066	-1781.9361	0.0000	0.0000
7806.2204	4134.2289	312.2878	-3671.9915	4198.8013
310.0477	138.1709	147.0522	656151.2420	-14.8304
-14.8429				
[10935]ENERGY: 15450000	3199.4287	5189.5403	5212.9679	
313.4749	-15857.3451	-1751.5948	0.0000	0.0000
7829.3900	4135.8621	313.2147	-3693.5280	4197.5523
309.9666	107.6778	19.5424	656151.2420	-17.7856
-17.7720				
[10971]ENERGY: 15460000	3200.6656	5248.5754	5249.7882	
339.2226	-15934.0116	-1766.7152	0.0000	0.0000
7799.5213	4137.0462	312.0198	-3662.4751	4199.0208
310.0212	54.4917	7.7225	656151.2420	-17.4177
-17.4291				
[11021]ENERGY: 15470000	3184.9022	5187.6246	5291.8653	
355.1029	-15957.9016	-1733.9928	0.0000	0.0000
7804.8246	4132.4252	312.2320	-3672.3994	4198.2984
309.9443	76.0279	21.6653	656151.2420	-20.6060
-20.6044				

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[11057]ENERGY: 15480000	3201.4965	5252.6855	5287.1786	
350.6876	-15867.3570	-1846.8294	0.0000	0.0000
7757.9952	4135.8569	310.3586	-3622.1383	4200.0184
310.0883	-79.3125	-119.7407	656151.2420	-12.9386
-12.9370				
[11107]ENERGY: 15490000	3180.8327	5207.7369	5212.2969	
336.9803	-15765.0599	-1733.7538	0.0000	0.0000
7696.0606	4135.0937	307.8809	-3560.9669	4199.4365
309.9010	-89.1218	-73.2931	656151.2420	-21.3684
-21.3545				
[11146]ENERGY: 15500000	3236.2907	5204.3270	5305.1847	
338.7180	-15930.3246	-1709.7037	0.0000	0.0000
7694.6613	4139.1534	307.8249	-3555.5079	4201.0255
309.7710	-76.6967	-33.2622	656151.2420	-19.0901
-19.0997				
[11196]ENERGY: 15510000	3236.3674	5256.5759	5255.3410	
336.4916	-15798.0851	-1836.8262	0.0000	0.0000
7687.6118	4137.4764	307.5429	-3550.1354	4201.5411
310.0279	-60.3637	-122.9863	656151.2420	-17.8424
-17.8449				
[11232]ENERGY: 15520000	3198.1678	5277.2845	5296.5492	
346.0378	-15916.2549	-1803.1186	0.0000	0.0000
7738.6197	4137.2856	309.5835	-3601.3341	4199.3673
309.9813	-222.6930	-151.5936	656151.2420	-19.3527
-19.3248				
[11282]ENERGY: 15530000	3164.9627	5314.6950	5264.1147	
351.8830	-15950.1535	-1764.3721	0.0000	0.0000
7755.6063	4136.7363	310.2630	-3618.8700	4202.0588
310.2421	68.1923	18.9181	656151.2420	-16.2367
-16.2521				
[11318]ENERGY: 15540000	3211.3638	5190.6474	5273.0595	
349.3031	-15848.1168	-1757.4792	0.0000	0.0000
7719.9527	4138.7304	308.8367	-3581.2223	4202.3939
310.1249	16.7450	-20.5204	656151.2420	-16.6503
-16.6731				
[11368]ENERGY: 15550000	3256.7685	5165.9542	5239.8495	
324.3054	-15883.6665	-1817.7831	0.0000	0.0000
7852.2840	4137.7118	314.1306	-3714.5721	4202.8719
310.3021	-0.0181	-58.9627	656151.2420	-16.6707
-16.6430				
[11404]ENERGY: 15560000	3266.4233	5242.4691	5228.8872	
324.1398	-15868.5003	-1813.9480	0.0000	0.0000
7762.4192	4141.8903	310.5356	-3620.5289	4203.6038
310.2476	-154.2227	-167.8101	656151.2420	-14.6181
-14.6235				
[11454]ENERGY: 15570000	3142.4788	5252.9261	5344.7506	
338.8671	-15822.0659	-1823.9156	0.0000	0.0000
7709.4016	4142.4428	308.4146	-3566.9589	4203.4366
310.1240	48.6890	71.3696	656151.2420	-20.4908
-20.4931				
[11490]ENERGY: 15580000	3235.3707	5178.2149	5261.7162	
335.9854	-15853.3600	-1746.2226	0.0000	0.0000
7730.1778	4141.8823	309.2458	-3588.2955	4203.8556
310.3515	146.9470	149.6891	656151.2420	-14.5930

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-14.5966
 [11540]ENERGY: 15590000 3279.3185 5292.0221 5254.8499
 331.3829 -15928.4642 -1743.0724 0.0000 0.0000
 7656.7573 4142.7941 306.3086 -3513.9632 4202.1869
 310.1933 64.0655 37.8008 656151.2420 -22.9038
 -22.8966
 [11579]ENERGY: 15600000 3129.8310 5228.2219 5302.7099
 318.2142 -15857.0427 -1748.7003 0.0000 0.0000
 7767.7775 4141.0114 310.7499 -3626.7661 4202.1542
 310.1205 148.7463 127.1929 656151.2420 -14.9942
 -14.9866
 [11629]ENERGY: 15610000 3272.0665 5240.3336 5253.2611
 328.2097 -15874.5751 -1774.3207 0.0000 0.0000
 7695.5872 4140.5623 307.8620 -3555.0249 4202.8155
 310.0817 -69.9049 -69.3827 656151.2420 -11.4174
 -11.4406
 [11665]ENERGY: 15620000 3159.8634 5294.0675 5281.0135
 344.7142 -15887.3675 -1820.9557 0.0000 0.0000
 7769.2382 4140.5735 310.8084 -3628.6647 4204.1555
 310.2276 -53.5223 -81.9443 656151.2420 -17.1966
 -17.1732
 [11715]ENERGY: 15630000 3290.5741 5200.4686 5268.3093
 343.5858 -15905.4753 -1793.8928 0.0000 0.0000
 7737.4508 4141.0205 309.5367 -3596.4303 4204.6220
 310.1895 -207.0468 -154.3625 656151.2420 -16.9965
 -17.0088
 [11751]ENERGY: 15640000 3195.3788 5217.3244 5285.2506
 339.3730 -15866.6809 -1774.6296 0.0000 0.0000
 7747.2240 4143.2403 309.9277 -3603.9837 4204.9601
 310.3007 82.3083 36.8888 656151.2420 -16.7473
 -16.7611
 [11801]ENERGY: 15650000 3246.8528 5255.7471 5271.0370
 316.5139 -15964.5924 -1766.3623 0.0000 0.0000
 7779.3026 4138.4986 311.2110 -3640.8039 4204.2338
 310.3151 46.7442 16.9912 656151.2420 -17.3017
 -17.3160
 [11837]ENERGY: 15660000 3211.1489 5198.2603 5265.9203
 340.8786 -15911.2255 -1754.2211 0.0000 0.0000
 7789.6834 4140.4449 311.6263 -3649.2385 4204.9761
 310.3667 88.8413 30.1210 656151.2420 -11.9406
 -11.9392
 [11887]ENERGY: 15670000 3214.5538 5125.2080 5274.9926
 326.0042 -15844.9501 -1778.8906 0.0000 0.0000
 7824.3911 4141.3089 313.0148 -3683.0822 4205.3840
 310.1074 38.7070 46.1110 656151.2420 -17.2651
 -17.2366
 [11923]ENERGY: 15680000 3166.7413 5282.8659 5271.6444
 353.7825 -15861.8950 -1777.0342 0.0000 0.0000
 7709.1469 4145.2517 308.4044 -3563.8952 4205.8578
 310.2439 134.1898 93.4336 656151.2420 -12.6480
 -12.6481
 [11973]ENERGY: 15690000 3157.5220 5286.7141 5262.9960
 319.7882 -15923.4855 -1744.8788 0.0000 0.0000
 7784.5598 4143.2160 311.4213 -3641.3439 4204.7405

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310.2109	-114.7501	-118.7371	656151.2420	-17.6428
-17.6436				
[12012]ENERGY: 15700000	3203.7807	5215.7129	5213.2650	
323.3984	-15860.8420	-1735.2088	0.0000	0.0000
7781.9249	4142.0312	311.3159	-3639.8937	4205.4781
310.2428	-71.6613	3.9417	656151.2420	-12.1539
-12.1511				
[12062]ENERGY: 15710000	3171.5450	5132.4786	5301.1605	
341.9587	-15825.1288	-1800.9125	0.0000	0.0000
7821.3405	4142.4420	312.8927	-3678.8985	4205.9269
310.2067	-53.2847	19.8599	656151.2420	-16.1175
-16.1199				
[12098]ENERGY: 15720000	3171.1419	5233.3901	5271.3914	
335.6478	-15840.8218	-1807.8118	0.0000	0.0000
7777.5661	4140.5037	311.1415	-3637.0624	4206.1344
310.1113	-123.0890	-10.6508	656151.2420	-16.1349
-16.1324				
[12148]ENERGY: 15730000	3224.8867	5195.7430	5241.2180	
325.7980	-15841.0864	-1844.1051	0.0000	0.0000
7842.8560	4145.3103	313.7535	-3697.5458	4207.0614
310.0998	-135.4974	-127.6669	656151.2420	-18.0876
-18.0852				
[12184]ENERGY: 15740000	3259.9262	5235.6330	5237.8152	
328.7388	-15848.3882	-1810.0042	0.0000	0.0000
7735.8727	4139.5935	309.4736	-3596.2792	4206.1249
310.1987	-129.7306	-109.1490	656151.2420	-17.5167
-17.5243				
[12234]ENERGY: 15750000	3190.4319	5236.7658	5298.0838	
371.0626	-15938.9493	-1716.8012	0.0000	0.0000
7702.1705	4142.7640	308.1253	-3559.4064	4205.6983
310.4291	42.3225	24.9694	656151.2420	-16.0620
-16.0671				
[12270]ENERGY: 15760000	3191.3863	5237.5991	5271.6435	
349.7180	-15860.6804	-1774.1825	0.0000	0.0000
7730.2062	4145.6902	309.2469	-3584.5160	4207.0969
310.5035	67.9215	-9.9616	656151.2420	-18.3968
-18.3914				
[12320]ENERGY: 15770000	3232.5135	5218.4131	5304.3078	
359.3269	-15884.2032	-1769.5007	0.0000	0.0000
7689.6545	4150.5118	307.6246	-3539.1426	4207.9085
310.1756	53.1951	-7.8352	656151.2420	-13.6231
-13.6233				
[12356]ENERGY: 15780000	3157.7406	5276.8231	5277.8430	
349.7022	-15848.2933	-1771.9432	0.0000	0.0000
7702.5753	4144.4478	308.1415	-3558.1275	4208.6091
310.2822	100.4339	83.5128	656151.2420	-17.7171
-17.7178				
[12406]ENERGY: 15790000	3179.4557	5245.1848	5284.3395	
323.5706	-15792.4344	-1825.0181	0.0000	0.0000
7733.0836	4148.1817	309.3620	-3584.9018	4208.4560
310.1833	151.1118	20.3719	656151.2420	-17.4475
-17.4492				
[12445]ENERGY: 15800000	3245.9259	5225.9102	5310.4113	
346.9632	-16025.5509	-1652.8565	0.0000	0.0000

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7693.8863	4144.6895	307.7939	-3549.1968	4207.5308
310.2981	20.3327	-7.3791	656151.2420	-13.7771
-13.7770				
[12495]ENERGY: 15810000	3246.1578	5191.9488	5274.7952	
344.1938	-15857.1817	-1772.9316	0.0000	0.0000
7720.7236	4147.7059	308.8675	-3573.0177	4208.4157
310.2439	-94.7861	-84.5576	656151.2420	-16.4830
-16.4898				
[12531]ENERGY: 15820000	3180.9429	5154.3688	5307.7051	
340.6395	-15757.6779	-1855.0534	0.0000	0.0000
7774.6641	4145.5891	311.0254	-3629.0750	4209.3397
310.2754	-82.9351	-32.1413	656151.2420	-17.8863
-17.8749				
[12581]ENERGY: 15830000	3260.8482	5189.7534	5304.9902	
356.0052	-15809.6504	-1778.0302	0.0000	0.0000
7626.0460	4149.9624	305.0800	-3476.0836	4208.4905
310.2466	97.9659	41.9625	656151.2420	-15.0428
-15.0345				
[12617]ENERGY: 15840000	3212.2374	5232.9432	5294.3772	
347.2538	-15829.9428	-1810.7337	0.0000	0.0000
7700.4463	4146.5815	308.0564	-3553.8648	4207.0230
310.3069	-32.3724	-85.8382	656151.2420	-16.0341
-16.0431				
[12667]ENERGY: 15850000	3234.2870	5234.0673	5292.7782	
338.8473	-15861.8296	-1773.7832	0.0000	0.0000
7682.6617	4147.0285	307.3449	-3535.6332	4208.3854
310.0284	-98.3756	-92.9850	656151.2420	-17.3777
-17.3730				
[12703]ENERGY: 15860000	3187.5045	5272.0694	5242.9410	
337.3831	-15850.5612	-1737.7097	0.0000	0.0000
7694.5689	4146.1961	307.8212	-3548.3729	4208.8523
310.2159	110.1428	182.4128	656151.2420	-14.9731
-14.9789				
[12753]ENERGY: 15870000	3201.9036	5154.6742	5314.7510	
341.4754	-15792.5307	-1800.1270	0.0000	0.0000
7730.0353	4150.1819	309.2401	-3579.8534	4210.8885
310.2448	74.7569	-14.7167	656151.2420	-19.3924
-19.3960				
[12789]ENERGY: 15880000	3236.2363	5314.8028	5324.4532	
357.4800	-16000.7275	-1756.1764	0.0000	0.0000
7671.6573	4147.7257	306.9046	-3523.9316	4210.6815
310.1464	-61.6729	-81.1576	656151.2420	-23.1854
-23.1837				
[12839]ENERGY: 15890000	3176.0824	5152.7562	5236.2460	
352.6313	-15774.6266	-1812.8448	0.0000	0.0000
7817.0852	4147.3295	312.7225	-3669.7557	4210.7865
310.4019	-67.7327	-56.3118	656151.2420	-16.5338
-16.5140				
[12878]ENERGY: 15900000	3239.4665	5267.2842	5237.8708	
356.2474	-15819.8613	-1763.0227	0.0000	0.0000
7636.1541	4154.1389	305.4843	-3482.0151	4211.3322
310.3082	-161.8566	-113.0841	656151.2420	-14.5448
-14.5750				
[12928]ENERGY: 15910000	3190.0465	5214.3967	5247.0703	

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342.3653	-15885.0068	-1690.6924	0.0000	0.0000
7732.3974	4150.5772	309.3346	-3581.8203	4210.2160
310.0944	82.0270	9.9135	656151.2420	-18.2430
-18.2138				
[12964]ENERGY: 15920000	3169.0607	5178.4762	5253.7526	
346.5287	-15858.7694	-1751.3286	0.0000	0.0000
7807.8892	4145.6094	312.3546	-3662.2798	4210.3840
310.2036	34.8264	77.7325	656151.2420	-11.1765
-11.2041				
[13014]ENERGY: 15930000	3209.0426	5234.7941	5306.4755	
330.4125	-15848.7733	-1804.0129	0.0000	0.0000
7721.1199	4149.0585	308.8834	-3572.0614	4211.3255
310.1362	-73.5577	-90.7440	656151.2420	-19.4254
-19.4117				
[13050]ENERGY: 15940000	3254.2007	5231.5298	5243.2142	
328.4639	-15801.7814	-1781.0918	0.0000	0.0000
7674.5035	4149.0388	307.0185	-3525.4647	4211.5812
310.2787	-83.4127	-62.2990	656151.2420	-12.1705
-12.1671				
[13100]ENERGY: 15950000	3195.1226	5134.1667	5240.0338	
346.8476	-15817.3022	-1753.9846	0.0000	0.0000
7802.9245	4147.8083	312.1560	-3655.1162	4210.7423
310.2981	-28.7451	-90.6165	656151.2420	-16.7020
-16.7164				
[13136]ENERGY: 15960000	3139.0780	5256.8336	5296.9301	
355.1664	-15756.1379	-1860.3666	0.0000	0.0000
7717.3704	4148.8740	308.7334	-3568.4964	4212.3768
310.1022	-2.3887	26.4917	656151.2420	-22.5327
-22.4966				
[13186]ENERGY: 15970000	3223.3357	5206.2757	5309.7620	
323.7395	-15858.8117	-1795.1874	0.0000	0.0000
7741.6802	4150.7940	309.7059	-3590.8862	4211.1299
310.0952	-77.5198	-103.7121	656151.2420	-17.5275
-17.5626				
[13222]ENERGY: 15980000	3182.9397	5283.2721	5281.4045	
328.3615	-15924.3452	-1793.5830	0.0000	0.0000
7789.1898	4147.2395	311.6065	-3641.9504	4211.1827
310.0526	-0.4010	-85.8878	656151.2420	-21.7959
-21.7892				
[13272]ENERGY: 15990000	3159.6914	5320.3574	5263.2305	
350.8320	-15859.4804	-1788.6709	0.0000	0.0000
7704.0841	4150.0441	308.2019	-3554.0400	4211.0950
310.1917	-31.9954	-31.7243	656151.2420	-23.5930
-23.5937				
[13311]ENERGY: 16000000	3326.9996	5213.6788	5274.6319	
327.9817	-15812.3518	-1883.2111	0.0000	0.0000
7705.7164	4153.4456	308.2672	-3552.2709	4211.7459
310.0182	-132.9502	-183.5554	656151.2420	-21.4491
-21.4488				
[13361]ENERGY: 16010000	3259.2583	5207.4556	5301.0723	
336.2511	-15861.9492	-1793.5630	0.0000	0.0000
7702.0194	4150.5446	308.1193	-3551.4748	4211.4174
309.9358	-12.9100	6.2862	656151.2420	-25.5962
-25.5840				

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[13397]ENERGY: 16020000	3208.9861	5203.0749	5268.4407
349.3763	-15794.1626	-1853.2760	0.0000
7764.9490	4147.3884	310.6368	-3617.5607
310.1225	-68.3610	-107.7584	656151.2420
-14.5201			-14.5123
[13447]ENERGY: 16030000	3144.5403	5253.9820	5282.6416
346.9524	-15852.8306	-1757.3957	0.0000
7729.7954	4147.6856	309.2305	-3582.1099
310.1118	11.1019	-47.2036	656151.2420
-22.1043			-22.0876
[13483]ENERGY: 16040000	3173.9066	5230.0384	5231.8467
336.0778	-15871.0904	-1800.6996	0.0000
7847.8531	4147.9327	313.9534	-3699.9205
310.1770	107.9071	61.7320	656151.2420
-18.3763			-18.3773
[13533]ENERGY: 16050000	3143.7528	5269.7531	5295.6445
333.7699	-15924.9177	-1721.2217	0.0000
7751.5172	4148.2981	310.0994	-3603.2191
310.0908	98.7981	38.3104	656151.2420
-14.0329			-14.0388
[13569]ENERGY: 16060000	3187.2184	5278.6076	5249.9989
341.1400	-15868.1154	-1775.1172	0.0000
7733.6349	4147.3672	309.3841	-3586.2677
310.1311	48.1130	-5.0635	656151.2420
-16.1337			-16.1412
[13619]ENERGY: 16070000	3131.0753	5267.5027	5292.5542
367.6281	-15805.0782	-1835.2154	0.0000
7733.5060	4151.9727	309.3789	-3581.5333
310.2723	-28.9048	-85.4466	656151.2420
-16.1405			-16.1489
[13655]ENERGY: 16080000	3170.2004	5261.6851	5290.0323
312.1626	-15915.2639	-1761.0666	0.0000
7793.4056	4151.1556	311.7752	-3642.2500
310.1719	53.3761	57.0187	656151.2420
-18.2879			-18.2664
[13705]ENERGY: 16090000	3220.3680	5275.7716	5258.5428
336.1909	-15920.6205	-1761.6891	0.0000
7741.0595	4149.6232	309.6811	-3591.4363
310.3668	61.7626	35.9863	656151.2420
-22.0578			-22.0593
[13744]ENERGY: 16100000	3233.3093	5261.9833	5262.0881
335.7412	-15926.4416	-1775.8183	0.0000
7759.3992	4150.2612	310.4148	-3609.1380
310.3187	37.4046	16.9874	656151.2420
-16.5074			-16.5184
[13794]ENERGY: 16110000	3229.9388	5224.1359	5254.9514
331.2115	-15779.4471	-1831.4876	0.0000
7719.8771	4149.1801	308.8337	-3570.6971
310.3584	-98.3403	-96.4379	656151.2420
-12.3575			-12.3452
[13830]ENERGY: 16120000	3205.1178	5270.4875	5243.3206
338.7323	-15899.6613	-1787.5767	0.0000
7777.2529	4147.6729	311.1290	-3629.5799
310.3278	-117.9621	-16.4292	656151.2420
			-17.3461

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-17.3298
[13880]ENERGY: 16130000 3190.6545 5237.2909 5282.9477
348.5539 -15878.0012 -1733.6228 0.0000 0.0000
7706.8521 4154.6752 308.3126 -3552.1770 4215.2883
310.3015 14.7983 37.4683 656151.2420 -12.1012
-12.0958
[13916]ENERGY: 16140000 3204.7934 5176.9085 5261.0211
331.2118 -15787.5932 -1809.7111 0.0000 0.0000
7776.6392 4153.2698 311.1044 -3623.3694 4215.0254
310.3494 -70.3200 22.1151 656151.2420 -21.6596
-21.6637
[13966]ENERGY: 16150000 3217.5161 5138.5176 5310.7634
359.1545 -15764.5062 -1815.3244 0.0000 0.0000
7706.8975 4153.0185 308.3144 -3553.8790 4215.0322
310.5067 55.3203 20.9922 656151.2420 -9.8558
-9.8526
[14002]ENERGY: 16160000 3179.5736 5197.6405 5255.2586
348.0328 -15875.5939 -1752.4701 0.0000 0.0000
7799.7990 4152.2405 312.0310 -3647.5585 4214.1094
310.3548 89.6764 134.2696 656151.2420 -20.8323
-20.8425
[14052]ENERGY: 16170000 3093.1294 5283.5864 5232.5576
363.2840 -15839.5407 -1765.6970 0.0000 0.0000
7783.6448 4150.9643 311.3847 -3632.6805 4215.6793
310.2269 68.8306 79.2915 656151.2420 -22.7333
-22.7344
[14088]ENERGY: 16180000 3214.7873 5301.7827 5268.8628
341.9752 -15930.0597 -1732.5101 0.0000 0.0000
7690.8743 4155.7125 307.6734 -3535.1618 4214.6134
310.0362 60.1923 56.9560 656151.2420 -19.7771
-19.7640
[14138]ENERGY: 16190000 3176.5097 5279.8290 5310.4769
342.7753 -15820.5096 -1782.1786 0.0000 0.0000
7650.5174 4157.4201 306.0589 -3493.0973 4214.2203
310.3209 191.5206 66.9764 656151.2420 -17.3541
-17.3857
[14177]ENERGY: 16200000 3156.5079 5252.0015 5288.0534
337.0391 -15854.8076 -1814.2917 0.0000 0.0000
7785.5205 4150.0232 311.4597 -3635.4973 4215.0152
310.2683 -75.0564 -99.9981 656151.2420 -18.0731
-18.0507
[14227]ENERGY: 16210000 3230.0655 5307.9048 5260.2880
356.8659 -15957.2290 -1747.3620 0.0000 0.0000
7706.4529 4156.9861 308.2966 -3549.4668 4215.8368
310.0848 21.4747 -8.3462 656151.2420 -11.1570
-11.1533
[14263]ENERGY: 16220000 3227.2256 5193.1469 5307.6625
342.6698 -15809.7247 -1828.6239 0.0000 0.0000
7720.5772 4152.9334 308.8617 -3567.6439 4215.5142
310.3274 -69.9566 -64.6393 656151.2420 -15.4882
-15.4934
[14313]ENERGY: 16230000 3214.7654 5091.5759 5285.9363
338.8699 -15819.3770 -1776.6110 0.0000 0.0000
7817.0000 4152.1595 312.7191 -3664.8405 4215.0866

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310.4652	-62.2755	-102.9838	656151.2420	-16.1583
-16.1715				
[14349]ENERGY: 16240000	3184.4784	5141.3599	5297.4565	
352.3387	-15856.1819	-1764.2980	0.0000	0.0000
7797.3091	4152.4628	311.9313	-3644.8463	4216.4632
310.4895	159.3525	134.0835	656151.2420	-15.1619
-15.1418				
[14399]ENERGY: 16250000	3262.8548	5304.4159	5201.3398	
348.4979	-15885.9889	-1788.1847	0.0000	0.0000
7712.6950	4155.6298	308.5464	-3557.0652	4216.7782
310.3535	-0.7921	27.8499	656151.2420	-13.6248
-13.6340				
[14435]ENERGY: 16260000	3198.6403	5207.5777	5265.6356	
322.8549	-15876.2133	-1717.8650	0.0000	0.0000
7754.5444	4155.1747	310.2205	-3599.3698	4217.0617
310.4848	174.2353	121.3323	656151.2420	-15.4948
-15.4871				
[14485]ENERGY: 16270000	3143.7348	5262.9235	5258.6313	
350.9489	-15833.3868	-1742.2181	0.0000	0.0000
7715.2022	4155.8358	308.6467	-3559.3664	4217.6669
310.3343	-100.7099	-60.1741	656151.2420	-15.0270
-15.0206				
[14521]ENERGY: 16280000	3186.7800	5259.5366	5267.0371	
374.7773	-15826.0207	-1818.0992	0.0000	0.0000
7714.0748	4158.0859	308.6016	-3555.9889	4218.8474
310.3574	-34.3348	-73.7867	656151.2420	-18.0109
-18.0302				
[14571]ENERGY: 16290000	3145.0025	5199.7414	5271.1349	
366.1929	-15769.8109	-1775.2945	0.0000	0.0000
7716.4958	4153.4622	308.6984	-3563.0335	4217.8939
310.4129	78.9065	39.7852	656151.2420	-12.9787
-12.9765				
[14610]ENERGY: 16300000	3231.0951	5273.9224	5264.2542	
346.1751	-15873.1363	-1790.9501	0.0000	0.0000
7705.6599	4157.0203	308.2649	-3548.6396	4218.3571
310.2637	-0.4762	11.1386	656151.2420	-21.0709
-21.0537				
[14660]ENERGY: 16310000	3128.4274	5181.5292	5286.9142	
340.6724	-15895.3218	-1722.6625	0.0000	0.0000
7833.0606	4152.6195	313.3616	-3680.4410	4218.2353
310.3006	-53.3581	-79.1721	656151.2420	-14.6387
-14.6524				
[14696]ENERGY: 16320000	3200.2694	5148.0676	5236.4179	
365.7270	-15898.1756	-1767.1567	0.0000	0.0000
7867.2166	4152.3663	314.7280	-3714.8503	4217.3623
310.4239	-119.7658	-43.4047	656151.2420	-19.1023
-19.0925				
[14746]ENERGY: 16330000	3218.3326	5152.5271	5276.9423	
334.8737	-15816.1666	-1811.0993	0.0000	0.0000
7798.3540	4153.7638	311.9732	-3644.5902	4219.2870
310.4408	62.5629	-30.9485	656151.2420	-12.8362
-12.8510				
[14782]ENERGY: 16340000	3202.3630	5181.1587	5261.3146	
336.3601	-15840.9662	-1701.2150	0.0000	0.0000

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7717.5997	4156.6150	308.7426	-3560.9848	4218.5031
310.5832	-90.5804	-61.7963	656151.2420	-15.9182
-15.9217				
[14832]ENERGY: 16350000	3140.2531	5388.5026	5244.2858	
327.7194	-15892.5126	-1823.7482	0.0000	0.0000
7773.9583	4158.4584	310.9972	-3615.4999	4219.5611
310.6573	-32.0144	-124.1003	656151.2420	-16.1604
-16.1620				
[14868]ENERGY: 16360000	3225.4955	5238.3774	5194.1315	
341.8582	-15830.9887	-1825.3079	0.0000	0.0000
7814.0218	4157.5878	312.5999	-3656.4340	4219.2539
310.4601	-118.2843	-79.2974	656151.2420	-13.1382
-13.1241				
[14918]ENERGY: 16370000	3174.3613	5202.2183	5269.0313	
341.2484	-15771.9910	-1849.7450	0.0000	0.0000
7791.9093	4157.0326	311.7153	-3634.8767	4219.3875
310.2870	204.6939	96.9699	656151.2420	-14.6021
-14.5968				
[14954]ENERGY: 16380000	3197.3396	5163.4614	5315.6702	
347.7947	-15877.0824	-1778.0830	0.0000	0.0000
7788.0900	4157.1906	311.5625	-3630.8994	4220.2409
310.4189	149.4232	101.9557	656151.2420	-16.2772
-16.2955				
[15004]ENERGY: 16390000	3229.9035	5223.0666	5293.9156	
337.8419	-15877.7453	-1794.4580	0.0000	0.0000
7744.7495	4157.2738	309.8287	-3587.4757	4221.2600
310.3255	40.6939	42.8174	656151.2420	-17.8638
-17.8610				
[15043]ENERGY: 16400000	3245.2016	5210.5828	5232.5423	
344.0595	-15820.6685	-1842.9057	0.0000	0.0000
7785.8996	4154.7116	311.4749	-3631.1880	4220.5404
310.5031	-41.9954	-84.5608	656151.2420	-15.5632
-15.5457				
[15093]ENERGY: 16410000	3154.3444	5244.5517	5292.9481	
360.9805	-15815.3381	-1790.4141	0.0000	0.0000
7714.6295	4161.7019	308.6238	-3552.9276	4220.6646
310.1885	25.5295	69.3287	656151.2420	-19.4041
-19.4143				
[15129]ENERGY: 16420000	3196.1788	5238.9900	5268.3014	
342.8252	-15871.1026	-1767.1099	0.0000	0.0000
7747.4759	4155.5588	309.9378	-3591.9170	4219.7151
310.1835	-31.9746	-38.1214	656151.2420	-20.9850
-20.9829				
[15179]ENERGY: 16430000	3251.2065	5285.6006	5274.0654	
340.6769	-15842.6580	-1837.7906	0.0000	0.0000
7684.8848	4155.9855	307.4338	-3528.8993	4220.5860
310.3832	77.2970	69.1814	656151.2420	-18.7874
-18.7848				
[15215]ENERGY: 16440000	3286.1452	5183.8455	5286.4887	
350.9548	-15830.8025	-1770.9673	0.0000	0.0000
7658.1309	4163.7952	306.3635	-3494.3357	4220.7456
310.3560	-56.1281	-130.0966	656151.2420	-21.7260
-21.7332				
[15265]ENERGY: 16450000	3182.3947	5275.2843	5316.3735	

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349.4985	-15867.3132	-1838.8438	0.0000	0.0000
7742.8386	4160.2326	309.7523	-3582.6060	4220.9829
310.4045	33.2260	-11.6762	656151.2420	-22.3913
-22.3885				
[15301]ENERGY: 16460000	3165.6392	5338.1482	5241.7842	
346.1948	-15907.9410	-1748.7298	0.0000	0.0000
7724.8470	4159.9425	309.0325	-3564.9045	4221.7217
310.5124	-120.7276	-69.5143	656151.2420	-21.6841
-21.6818				
[15351]ENERGY: 16470000	3205.4824	5218.4656	5270.9606	
333.7013	-15875.1377	-1767.0338	0.0000	0.0000
7773.0013	4159.4397	310.9589	-3613.5616	4221.5448
310.5307	63.5562	70.0857	656151.2420	-17.8683
-17.8673				
[15387]ENERGY: 16480000	3161.8495	5180.7294	5276.4459	
342.8066	-15850.8556	-1768.6744	0.0000	0.0000
7814.0130	4156.3144	312.5996	-3657.6986	4219.7931
310.6526	22.7162	16.5744	656151.2420	-21.5031
-21.5079				
[15437]ENERGY: 16490000	3205.5077	5234.4807	5319.2329	
324.1975	-15904.0299	-1780.9495	0.0000	0.0000
7760.0495	4158.4890	310.4408	-3601.5605	4221.8227
310.4764	-94.6463	-98.3990	656151.2420	-19.6710
-19.6863				
[15476]ENERGY: 16500000	3156.4028	5244.3332	5251.4683	
335.2423	-15875.4463	-1760.8979	0.0000	0.0000
7806.6924	4157.7948	312.3067	-3648.8976	4222.5003
310.4230	26.0006	-60.4537	656151.2420	-22.0500
-22.0335				
[15526]ENERGY: 16510000	3196.9319	5244.8262	5264.7211	
339.3514	-15808.5376	-1784.3930	0.0000	0.0000
7709.4446	4162.3446	308.4163	-3547.1000	4222.2657
310.1587	100.2868	60.7226	656151.2420	-26.5104
-26.5039				
[15562]ENERGY: 16520000	3166.2292	5239.5608	5256.4132	
361.5000	-15877.3287	-1743.8894	0.0000	0.0000
7754.6016	4157.0866	310.2228	-3597.5150	4223.0617
310.3232	79.1045	-18.3252	656151.2420	-18.6089
-18.6182				
[15612]ENERGY: 16530000	3157.0596	5201.2231	5203.5743	
340.1068	-15819.4603	-1759.4766	0.0000	0.0000
7835.0816	4158.1084	313.4424	-3676.9732	4221.9225
310.4275	53.1811	78.6475	656151.2420	-20.6357
-20.6233				
[15648]ENERGY: 16540000	3230.3587	5242.4181	5227.7577	
347.0632	-15881.1436	-1757.9999	0.0000	0.0000
7752.6434	4161.0977	310.1445	-3591.5457	4223.0691
310.4667	-141.7580	-141.4836	656151.2420	-21.2323
-21.2361				
[15698]ENERGY: 16550000	3171.1706	5195.9573	5242.1144	
337.7137	-15835.8216	-1764.4039	0.0000	0.0000
7812.8940	4159.6245	312.5548	-3653.2695	4223.1274
310.5661	8.3211	-54.3861	656151.2420	-17.9851
-17.9817				

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[15734]ENERGY: 16560000	3271.5096	5247.2600	5273.3081	
309.0882	-15883.6418	-1769.8079	0.0000	0.0000
7713.3500	4161.0663	308.5726	-3552.2838	4223.4662
310.3705	-91.4405	-155.2148	656151.2420	-19.1461
-19.1482				
[15784]ENERGY: 16570000	3182.7791	5235.3346	5241.4971	
346.4686	-15803.5440	-1753.2091	0.0000	0.0000
7713.0354	4162.3616	308.5600	-3550.6738	4223.2019
310.4905	-40.2789	-24.0388	656151.2420	-22.7821
-22.7783				
[15820]ENERGY: 16580000	3302.0108	5194.3185	5241.6333	
347.3326	-15847.8198	-1764.6435	0.0000	0.0000
7692.9548	4165.7867	307.7567	-3527.1682	4224.8513
310.3865	-10.6361	-74.7410	656151.2420	-23.4615
-23.4715				
[15870]ENERGY: 16590000	3203.6770	5281.6999	5199.7279	
341.3282	-15846.6235	-1800.6058	0.0000	0.0000
7780.1386	4159.3423	311.2444	-3620.7963	4224.7241
310.4691	100.6743	45.4518	656151.2420	-16.9302
-16.9422				
[15909]ENERGY: 16600000	3220.6194	5208.0959	5281.4395	
325.9022	-15803.0312	-1823.3924	0.0000	0.0000
7753.2110	4162.8446	310.1672	-3590.3664	4224.7200
310.5114	-113.5827	-136.9375	656151.2420	-19.1165
-19.1248				
[15959]ENERGY: 16610000	3218.6578	5234.9730	5260.2229	
347.4384	-15790.4363	-1779.6049	0.0000	0.0000
7671.4440	4162.6949	306.8961	-3508.7492	4224.8817
310.4255	-6.5950	-60.4529	656151.2420	-23.3976
-23.3826				
[15995]ENERGY: 16620000	3294.6717	5159.4218	5247.2743	
330.8627	-15852.3905	-1765.4309	0.0000	0.0000
7746.4392	4160.8484	309.8963	-3585.5908	4225.0834
310.4349	-150.8201	-159.8927	656151.2420	-18.3827
-18.3805				
[16045]ENERGY: 16630000	3178.4923	5176.7842	5251.6283	
353.7687	-15863.1465	-1771.4328	0.0000	0.0000
7835.2682	4161.3624	313.4499	-3673.9058	4225.0698
310.5965	84.2736	15.0269	656151.2420	-17.4056
-17.3989				
[16081]ENERGY: 16640000	3239.3638	5193.5237	5274.3163	
331.1894	-15799.8422	-1875.0209	0.0000	0.0000
7797.7223	4161.2525	311.9479	-3636.4699	4224.8575
310.5857	-99.7458	-122.5602	656151.2420	-16.2050
-16.2115				
[16131]ENERGY: 16650000	3129.3938	5186.8104	5298.4764	
364.1993	-15910.9728	-1734.0124	0.0000	0.0000
7825.1115	4159.0062	313.0436	-3666.1054	4225.6124
310.5425	181.6130	146.2044	656151.2420	-19.0656
-19.0612				
[16167]ENERGY: 16660000	3242.1562	5215.8849	5308.0329	
339.2489	-15742.8805	-1914.6001	0.0000	0.0000
7716.8044	4164.6468	308.7108	-3552.1577	4226.6512
310.6137	-85.8209	-55.7851	656151.2420	-16.4947

Supplementary Text 6

-16.5076
 [16217]ENERGY: 16670000 3174.6290 5271.1529 5300.8562
 338.5341 -15889.3865 -1763.9442 0.0000 0.0000
 7728.7344 4160.5760 309.1880 -3568.1584 4224.6092
 310.6743 -111.7052 -53.3012 656151.2420 -20.7589
 -20.7408
 [16253]ENERGY: 16680000 3229.4553 5173.4053 5237.4482
 361.2525 -15860.4214 -1778.2260 0.0000 0.0000
 7801.7603 4164.6743 312.1094 -3637.0860 4226.3048
 310.5137 63.2601 -60.4873 656151.2420 -19.3939
 -19.4002
 [16303]ENERGY: 16690000 3209.2247 5255.1913 5273.8309
 333.9383 -15896.4774 -1747.0510 0.0000 0.0000
 7737.0825 4165.7394 309.5220 -3571.3431 4226.2576
 310.5541 -18.6963 -23.0456 656151.2420 -17.9394
 -17.9516
 [16342]ENERGY: 16700000 3220.4428 5256.2049 5262.3605
 317.9402 -15810.7641 -1811.8610 0.0000 0.0000
 7731.7205 4166.0437 309.3075 -3565.6768 4225.9786
 310.7592 -116.9409 -147.3085 656151.2420 -22.8071
 -22.8015
 [16392]ENERGY: 16710000 3220.2378 5324.8138 5273.6908
 340.8417 -15945.9011 -1803.9701 0.0000 0.0000
 7753.1634 4162.8763 310.1653 -3590.2871 4224.9129
 310.7047 -271.2699 -211.6604 656151.2420 -16.2685
 -16.2418
 [16428]ENERGY: 16720000 3241.4230 5238.6574 5322.3456
 327.2841 -15876.1982 -1772.2753 0.0000 0.0000
 7682.2868 4163.5235 307.3299 -3518.7633 4225.7479
 310.6269 -15.9709 -38.7828 656151.2420 -22.4568
 -22.4728
 [16478]ENERGY: 16730000 3161.6212 5204.9393 5310.9328
 357.0058 -15803.2022 -1821.6595 0.0000 0.0000
 7756.9118 4166.5492 310.3153 -3590.3626 4228.1503
 310.5224 4.4132 -79.9542 656151.2420 -20.4444
 -20.4623
 [16514]ENERGY: 16740000 3229.2766 5283.6661 5264.5884
 351.4881 -15908.0533 -1765.9955 0.0000 0.0000
 7714.4665 4169.4370 308.6172 -3545.0295 4229.5697
 310.5575 109.2111 51.3602 656151.2420 -19.4943
 -19.4819
 [16564]ENERGY: 16750000 3209.4189 5298.8648 5233.0340
 352.8621 -15882.0334 -1786.1957 0.0000 0.0000
 7739.3317 4165.2823 309.6120 -3574.0493 4227.8167
 310.5852 95.1167 -26.2909 656151.2420 -18.5153
 -18.5183
 [16600]ENERGY: 16760000 3201.6175 5257.9799 5306.4531
 341.6959 -15944.7433 -1777.7757 0.0000 0.0000
 7779.5505 4164.7779 311.2209 -3614.7726 4227.9335
 310.5473 18.7752 48.8662 656151.2420 -19.9032
 -19.9129
 [16650]ENERGY: 16770000 3175.7996 5180.5107 5332.4951
 329.8109 -15917.8500 -1749.4609 0.0000 0.0000
 7811.3632 4162.6687 312.4936 -3648.6945 4227.7606

Supplementary Text 6

310.8260	169.1638	156.7680	656151.2420	-18.3488
-18.3407				
[16686]ENERGY: 16780000	3232.5844	5221.1536	5262.3397	
360.8385	-15909.8258	-1739.7380	0.0000	0.0000
7739.5298	4166.8822	309.6199	-3572.6476	4228.2338
310.9493	10.6872	-67.1124	656151.2420	-17.3682
-17.3673				
[16736]ENERGY: 16790000	3208.5744	5211.1910	5258.0599	
339.1337	-15891.7951	-1774.9915	0.0000	0.0000
7812.4531	4162.6254	312.5372	-3649.8277	4227.9294
310.7859	-44.1116	-90.0074	656151.2420	-22.8117
-22.8208				
[16775]ENERGY: 16800000	3261.3311	5149.2541	5282.2388	
368.9814	-15903.1643	-1795.1526	0.0000	0.0000
7800.9798	4164.4683	312.0782	-3636.5115	4228.6278
310.7691	-45.5493	-84.5234	656151.2420	-18.7740
-18.7661				
[16825]ENERGY: 16810000	3255.2896	5154.7713	5263.0586	
330.5245	-15872.8989	-1767.4866	0.0000	0.0000
7802.3903	4165.6489	312.1346	-3636.7414	4228.2107
310.7692	83.8872	-6.2723	656151.2420	-17.4561
-17.4567				
[16861]ENERGY: 16820000	3233.1804	5212.9792	5249.8806	
318.4334	-15803.8432	-1827.8565	0.0000	0.0000
7784.6524	4167.4262	311.4250	-3617.2261	4228.1592
310.5047	-36.8846	-52.7565	656151.2420	-24.0562
-24.0449				
[16911]ENERGY: 16830000	3249.1573	5208.7761	5262.0737	
330.3507	-15941.9101	-1714.6831	0.0000	0.0000
7773.2783	4167.0427	310.9700	-3606.2355	4228.5993
310.8415	52.5508	6.6877	656151.2420	-16.7042
-16.7054				
[16947]ENERGY: 16840000	3151.0709	5254.1797	5266.2714	
335.5174	-15762.8553	-1864.3516	0.0000	0.0000
7784.2705	4164.1030	311.4097	-3620.1675	4229.0505
310.7587	10.8060	30.7748	656151.2420	-21.1857
-21.1822				
[16997]ENERGY: 16850000	3203.8600	5162.3084	5279.8405	
340.2596	-15873.4043	-1768.0009	0.0000	0.0000
7820.8684	4165.7318	312.8738	-3655.1366	4228.6111
310.6377	-196.0746	-224.8897	656151.2420	-20.3726
-20.3866				
[17033]ENERGY: 16860000	3198.7843	5239.3127	5232.9571	
325.8623	-15864.1820	-1816.7379	0.0000	0.0000
7844.8512	4160.8476	313.8333	-3684.0036	4227.5337
310.5355	-148.5257	-114.0576	656151.2420	-20.7407
-20.7380				
[17083]ENERGY: 16870000	3222.0999	5400.0605	5251.3491	
346.9871	-15939.2006	-1849.5755	0.0000	0.0000
7736.4573	4168.1777	309.4970	-3568.2796	4229.5228
310.6453	-52.9540	-70.5804	656151.2420	-19.7703
-19.7691				
[17119]ENERGY: 16880000	3187.7201	5266.4743	5253.5221	
331.1158	-15830.7805	-1833.3284	0.0000	0.0000

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7788.8706	4163.5940	311.5938	-3625.2766	4229.4891
310.6950	150.5038	82.7154	656151.2420	-17.9801
-17.9801				
[17169]ENERGY: 16890000	3227.9365	5179.0915	5264.3387	
363.0214	-15894.9205	-1727.5230	0.0000	0.0000
7752.8341	4164.7787	310.1521	-3588.0554	4229.7479
310.6407	129.3704	76.1916	656151.2420	-19.1679
-19.1697				
[17208]ENERGY: 16900000	3194.0735	5244.1395	5209.5919	
347.7232	-15871.0938	-1805.8767	0.0000	0.0000
7846.7051	4165.2627	313.9074	-3681.4425	4228.6634
310.4226	-256.1559	-201.4197	656151.2420	-23.0831
-23.0671				
[17258]ENERGY: 16910000	3173.8895	5295.9522	5204.7084	
330.5203	-15903.6952	-1767.3508	0.0000	0.0000
7829.0157	4163.0401	313.1998	-3665.9757	4228.9130
310.6267	-1.3286	-79.2026	656151.2420	-21.3730
-21.3918				
[17294]ENERGY: 16920000	3171.1495	5346.7759	5299.6455	
354.6964	-15954.1822	-1825.2007	0.0000	0.0000
7771.3842	4164.2687	310.8942	-3607.1156	4229.8617
310.5489	84.3176	-0.7975	656151.2420	-19.1766
-19.1551				
[17344]ENERGY: 16930000	3252.8902	5209.0904	5261.8251	
335.7893	-15844.7110	-1699.1402	0.0000	0.0000
7656.2095	4171.9535	306.2867	-3484.2560	4229.1474
310.7337	18.1980	-21.9993	656151.2420	-19.7816
-19.8003				
[17380]ENERGY: 16940000	3242.3538	5221.0602	5292.6665	
340.4705	-15855.7659	-1756.7689	0.0000	0.0000
7687.8621	4171.8781	307.5529	-3515.9840	4229.0596
310.7720	-93.5367	-31.0334	656151.2420	-15.3892
-15.3805				
[17430]ENERGY: 16950000	3202.7278	5240.9907	5263.6468	
337.6611	-15832.1951	-1822.5021	0.0000	0.0000
7774.9444	4165.2735	311.0366	-3609.6709	4228.7221
310.7261	-59.8712	-95.9210	656151.2420	-21.3532
-21.3555				
[17466]ENERGY: 16960000	3227.3101	5220.1912	5358.2012	
349.5731	-15874.0223	-1800.2546	0.0000	0.0000
7687.0514	4168.0502	307.5205	-3519.0013	4230.1991
310.8848	-77.8118	-138.3258	656151.2420	-15.8714
-15.8907				
[17516]ENERGY: 16970000	3183.0416	5178.1422	5265.1612	
349.9370	-15911.3679	-1731.1204	0.0000	0.0000
7832.2806	4166.0743	313.3304	-3666.2063	4229.4578
310.8219	41.7633	32.8118	656151.2420	-22.6048
-22.5905				
[17552]ENERGY: 16980000	3181.0721	5314.7540	5341.8679	
352.1698	-15883.6848	-1865.6677	0.0000	0.0000
7725.6661	4166.1775	309.0653	-3559.4886	4230.8351
310.9704	-97.7380	-139.5612	656151.2420	-21.2695
-21.2973				
[17602]ENERGY: 16990000	3179.8175	5237.1839	5249.2372	

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342.1354	-15840.9887	-1813.2716	0.0000	0.0000
7813.1528	4167.2664	312.5652	-3645.8864	4229.8166
310.7742	251.2639	156.3589	656151.2420	-20.2059
-20.1675				
[17641]ENERGY: 17000000	3095.9415	5290.4952	5268.6509	
329.9174	-15877.0111	-1781.2642	0.0000	0.0000
7836.1540	4162.8836	313.4853	-3673.2704	4229.9426
310.6602	55.5550	67.8060	656151.2420	-15.8921
-15.8959				
[17691]ENERGY: 17010000	3221.8722	5199.4650	5279.4107	
345.5701	-15841.1509	-1759.8570	0.0000	0.0000
7725.9049	4171.2149	309.0748	-3554.6900	4230.2736
310.6252	16.1869	31.2089	656151.2420	-18.7989
-18.7979				
[17727]ENERGY: 17020000	3262.0532	5283.3560	5259.5525	
350.4422	-15907.6368	-1757.3283	0.0000	0.0000
7677.8700	4168.3089	307.1532	-3509.5611	4231.6207
310.6304	111.6998	80.5177	656151.2420	-16.4554
-16.4726				
[17777]ENERGY: 17030000	3244.9678	5303.1950	5251.5225	
334.3406	-15933.1582	-1775.8103	0.0000	0.0000
7747.3276	4172.3850	309.9318	-3574.9426	4232.1741
310.8560	30.4758	-31.2448	656151.2420	-21.8067
-21.8037				
[17813]ENERGY: 17040000	3172.3020	5282.4510	5269.8668	
335.2552	-15948.1550	-1727.2651	0.0000	0.0000
7782.2769	4166.7318	311.3300	-3615.5450	4231.2368
310.8821	30.9302	-26.2343	656151.2420	-23.3558
-23.3576				
[17863]ENERGY: 17050000	3145.2985	5338.0207	5308.1590	
339.7222	-15944.8048	-1790.8635	0.0000	0.0000
7769.9903	4165.5225	310.8385	-3604.4678	4230.4931
310.9621	23.9650	36.4140	656151.2420	-21.2036
-21.1976				
[17899]ENERGY: 17060000	3181.9734	5229.3276	5226.6991	
322.8734	-15900.3571	-1677.3432	0.0000	0.0000
7780.6575	4163.8307	311.2652	-3616.8268	4231.1473
310.8260	44.2892	-19.7065	656151.2420	-21.4019
-21.3969				
[17949]ENERGY: 17070000	3212.3844	5179.2065	5250.0445	
358.0362	-15813.5249	-1832.3130	0.0000	0.0000
7812.6394	4166.4732	312.5446	-3646.1662	4230.7902
310.8718	-145.5825	-139.9315	656151.2420	-18.0342
-18.0264				
[17985]ENERGY: 17080000	3263.3402	5234.1589	5241.7074	
322.1241	-15821.7056	-1786.7444	0.0000	0.0000
7718.0976	4170.9781	308.7625	-3547.1194	4230.9544
310.9060	-40.7942	-3.9509	656151.2420	-21.5872
-21.5959				
[18035]ENERGY: 17090000	3271.2357	5237.6639	5289.7829	
343.1240	-15951.8842	-1799.3133	0.0000	0.0000
7778.1906	4168.7996	311.1665	-3609.3911	4231.0676
310.9715	-218.3630	-153.1789	656151.2420	-22.5557
-22.5647				

Supplementary Text 6

[18074]ENERGY: 17100000	3231.2345	5210.4221	5238.2410
337.2585	-15843.2132	-1775.3438	0.0000
7769.9044	4168.5036	310.8350	-3601.4008
310.9309	-71.2448	-93.6807	656151.2420
-20.8967			-20.9034
[18124]ENERGY: 17110000	3105.0548	5226.7797	5287.9854
343.0885	-15826.7228	-1786.4951	0.0000
7816.7990	4166.4895	312.7110	-3650.3095
310.9366	70.9439	64.5003	656151.2420
-22.1586			-22.1733
[18160]ENERGY: 17120000	3206.8884	5155.5963	5265.4818
359.3482	-15778.0905	-1773.2578	0.0000
7732.7996	4168.7660	309.3506	-3564.0336
310.8877	-12.5325	-80.6687	656151.2420
-20.1864			-20.1728
[18210]ENERGY: 17130000	3178.3118	5215.0708	5216.9504
320.8887	-15893.5487	-1741.9050	0.0000
7873.0705	4168.8384	314.9622	-3704.2321
310.8497	77.8992	75.3055	656151.2420
-15.9217			-15.9404
[18246]ENERGY: 17140000	3179.0089	5259.6061	5270.2478
334.2099	-15830.4586	-1845.3335	0.0000
7800.8117	4168.0922	312.0715	-3632.7195
310.9568	11.3903	-49.4962	656151.2420
-20.3204			-20.3071
[18296]ENERGY: 17150000	3205.0325	5226.6838	5212.8303
332.2264	-15946.0651	-1693.0463	0.0000
7830.9935	4168.6551	313.2789	-3662.3384
310.8995	41.9867	4.5973	656151.2420
-19.0326			-19.0378
[18332]ENERGY: 17160000	3132.0849	5230.0000	5250.6812
356.7755	-15817.1134	-1732.1721	0.0000
7752.6632	4172.9192	310.1453	-3579.7439
310.7580	144.0405	133.5636	656151.2420
-16.7374			-16.7316
[18382]ENERGY: 17170000	3247.8879	5196.8168	5238.6703
348.0193	-15819.6869	-1775.7656	0.0000
7737.1497	4173.0915	309.5247	-3564.0581
310.8174	-115.2113	-51.2108	656151.2420
-19.6131			-19.6220
[18418]ENERGY: 17180000	3156.1170	5293.4920	5233.7746
368.5522	-15811.8194	-1829.2250	0.0000
7759.9181	4170.8095	310.4355	-3589.1085
310.8179	-1.1756	12.5909	656151.2420
-16.7295			-16.7137
[18468]ENERGY: 17190000	3231.4362	5287.3528	5264.6552
346.8367	-15889.3393	-1778.1311	0.0000
7712.7763	4175.5868	308.5496	-3537.1895
310.8559	-45.4597	-138.9153	656151.2420
-19.1433			-19.1535
[18507]ENERGY: 17200000	3202.2079	5257.0025	5272.1459
354.1787	-15917.3220	-1791.1879	0.0000
7796.6023	4173.6274	311.9031	-3622.9749
310.9220	-20.7260	64.0811	656151.2420
			-22.2571

Supplementary Text 6

-22.2672
 [18557]ENERGY: 17210000 3106.3191 5284.7818 5291.8837
 323.7770 -15914.1831 -1738.0796 0.0000 0.0000
 7816.1534 4170.6522 312.6852 -3645.5012 4235.9695
 310.9152 125.0638 31.0243 656151.2420 -19.4642
 -19.4569
 [18593]ENERGY: 17220000 3244.8441 5198.6377 5296.4516
 325.3573 -15910.1653 -1741.2985 0.0000 0.0000
 7759.8922 4173.7191 310.4345 -3586.1731 4235.3819
 310.8679 28.0124 -8.4349 656151.2420 -21.4151
 -21.4313
 [18643]ENERGY: 17230000 3231.0314 5249.0846 5244.1776
 324.7268 -15946.9056 -1745.7194 0.0000 0.0000
 7812.9119 4169.3074 312.5555 -3643.6046 4235.7893
 310.8981 -58.9549 -84.2018 656151.2420 -19.7711
 -19.7536
 [18679]ENERGY: 17240000 3166.7783 5195.2036 5286.9177
 365.2139 -15871.3974 -1813.0971 0.0000 0.0000
 7843.9327 4173.5516 313.7965 -3670.3811 4236.4923
 310.6488 -32.2767 -99.6479 656151.2420 -21.7603
 -21.7510
 [18729]ENERGY: 17250000 3184.5475 5192.2330 5291.2341
 374.7619 -15860.9538 -1796.1551 0.0000 0.0000
 7786.8126 4172.4802 311.5114 -3614.3324 4237.6306
 310.6462 69.7607 29.8535 656151.2420 -18.8461
 -18.8762
 [18765]ENERGY: 17260000 3243.9949 5169.5400 5300.4228
 361.2844 -15826.4430 -1808.4956 0.0000 0.0000
 7738.4211 4178.7245 309.5755 -3559.6966 4237.1473
 310.4866 12.3922 24.0185 656151.2420 -23.7361
 -23.7190
 [18815]ENERGY: 17270000 3186.0145 5336.9087 5304.5895
 346.4051 -15983.9294 -1831.0881 0.0000 0.0000
 7813.7154 4172.6158 312.5877 -3641.0996 4237.9715
 310.5156 -6.5507 -46.7421 656151.2420 -23.3897
 -23.3987
 [18851]ENERGY: 17280000 3265.8072 5233.6773 5219.9537
 294.7215 -15799.7140 -1838.5503 0.0000 0.0000
 7797.7382 4173.6335 311.9485 -3624.1046 4237.0917
 310.7208 -61.7006 -78.8111 656151.2420 -17.6252
 -17.6240
 [18901]ENERGY: 17290000 3143.8329 5275.0335 5277.8132
 348.9199 -15880.0202 -1800.4061 0.0000 0.0000
 7809.8902 4175.0634 312.4347 -3634.8268 4238.6010
 310.5577 5.4595 -52.4708 656151.2420 -22.5170
 -22.5094
 [18940]ENERGY: 17300000 3263.2125 5263.7773 5257.8037
 343.8094 -15886.6551 -1847.8012 0.0000 0.0000
 7782.3025 4176.4491 311.3310 -3605.8534 4237.3749
 310.7148 -18.3098 -99.4647 656151.2420 -28.3639
 -28.3617
 [18990]ENERGY: 17310000 3287.0413 5281.5059 5240.4350
 347.3655 -15870.4864 -1839.3500 0.0000 0.0000
 7728.0143 4174.5256 309.1592 -3553.4887 4238.6139

Supplementary Text 6

310.6164	-127.5799	-150.6237	656151.2420	-21.5228
-21.5356				
[19026]ENERGY: 17320000	3244.6999	5284.0735	5293.4103	
332.4988	-15908.3470	-1782.1063	0.0000	0.0000
7713.4994	4177.7286	308.5785	-3535.7708	4238.1875
310.7477	-164.6814	-54.4673	656151.2420	-23.5101
-23.5024				
[19076]ENERGY: 17330000	3213.6993	5222.2343	5270.1949	
333.2119	-15905.4714	-1779.8222	0.0000	0.0000
7819.7849	4173.8316	312.8305	-3645.9533	4238.6268
310.7092	-86.7719	-81.9043	656151.2420	-24.3320
-24.3269				
[19112]ENERGY: 17340000	3258.5943	5274.2887	5290.8736	
339.6854	-15884.7067	-1831.3421	0.0000	0.0000
7731.1144	4178.5077	309.2832	-3552.6068	4239.0459
310.5053	-45.8642	-80.0634	656151.2420	-23.2161
-23.2253				
[19162]ENERGY: 17350000	3248.5406	5227.6367	5305.3187	
344.3522	-15989.1768	-1730.0106	0.0000	0.0000
7768.2689	4174.9297	310.7696	-3593.3392	4239.6308
310.6559	-16.9291	-23.7952	656151.2420	-25.0886
-25.0657				
[19198]ENERGY: 17360000	3207.2914	5416.4688	5248.0268	
349.7514	-15811.9966	-1853.3385	0.0000	0.0000
7623.8486	4180.0519	304.9921	-3443.7968	4240.1990
310.6255	65.0302	80.2974	656151.2420	-20.8649
-20.8685				
[19248]ENERGY: 17370000	3211.9992	5241.2689	5251.1755	
343.5690	-15831.3321	-1863.3509	0.0000	0.0000
7819.9644	4173.2940	312.8377	-3646.6704	4239.1335
310.6104	-130.8900	-107.6209	656151.2420	-22.2620
-22.2658				
[19284]ENERGY: 17380000	3189.0539	5262.9685	5268.1777	
339.3454	-15882.7828	-1803.3171	0.0000	0.0000
7803.3836	4176.8291	312.1744	-3626.5545	4239.3781
310.6482	-16.3247	-77.4114	656151.2420	-22.9850
-22.9933				
[19334]ENERGY: 17390000	3277.4484	5235.5139	5288.3052	
336.0903	-15857.9317	-1816.3974	0.0000	0.0000
7716.5165	4179.5452	308.6992	-3536.9713	4240.2273
310.6354	-12.1783	-17.3829	656151.2420	-23.3532
-23.3476				
[19373]ENERGY: 17400000	3193.3221	5289.6962	5261.0743	
314.3594	-15863.5435	-1762.4941	0.0000	0.0000
7746.0539	4178.4682	309.8809	-3567.5857	4239.4413
310.6794	-40.6807	-48.4083	656151.2420	-23.8032
-23.8035				
[19423]ENERGY: 17410000	3182.2423	5145.6360	5304.4207	
353.7011	-15873.1648	-1720.3084	0.0000	0.0000
7783.7155	4176.2425	311.3875	-3607.4730	4239.5919
310.5028	36.3508	-30.9825	656151.2420	-23.6208
-23.6355				
[19459]ENERGY: 17420000	3179.4746	5272.9171	5244.4930	
353.1825	-15797.1572	-1836.3058	0.0000	0.0000

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7765.0349	4181.6391	310.6402	-3583.3958	4240.8557
310.6268	-9.9350	-4.8778	656151.2420	-19.7621
-19.7476				
[19509]ENERGY: 17430000	3232.4295	5277.3642	5253.8269	
359.7248	-15925.2672	-1772.8068	0.0000	0.0000
7749.3942	4174.6655	310.0145	-3574.7287	4240.4866
310.8319	45.7423	52.7940	656151.2420	-20.8540
-20.8541				
[19545]ENERGY: 17440000	3189.5779	5292.7635	5273.3497	
342.7111	-15869.1471	-1800.5753	0.0000	0.0000
7747.6836	4176.3635	309.9461	-3571.3201	4240.3037
310.8651	-8.4390	-43.6005	656151.2420	-22.4987
-22.4925				
[19595]ENERGY: 17450000	3182.4858	5295.6752	5264.8427	
346.6083	-15859.4168	-1825.3184	0.0000	0.0000
7772.4000	4177.2769	310.9349	-3595.1231	4241.0893
310.7136	88.4840	78.1827	656151.2420	-22.0097
-22.0233				
[19631]ENERGY: 17460000	3175.6760	5272.9622	5290.3718	
351.1267	-15855.6895	-1747.1809	0.0000	0.0000
7693.1901	4180.4564	307.7661	-3512.7337	4239.1371
310.6022	10.3614	-34.1788	656151.2420	-20.9775
-20.9973				
[19681]ENERGY: 17470000	3258.1608	5194.8341	5278.7259	
322.9558	-15855.8861	-1843.3881	0.0000	0.0000
7819.6216	4175.0240	312.8240	-3644.5976	4239.9668
310.6022	-100.9758	-178.6599	656151.2420	-22.4071
-22.3807				
[19717]ENERGY: 17480000	3192.4623	5245.0331	5261.4401	
317.4537	-15861.7508	-1784.1414	0.0000	0.0000
7809.5615	4180.0586	312.4215	-3629.5029	4241.2205
310.6551	-78.0648	-96.7393	656151.2420	-21.5749
-21.5724				
[19767]ENERGY: 17490000	3332.7069	5239.6071	5292.3933	
330.1781	-15866.5562	-1734.4066	0.0000	0.0000
7589.1554	4183.0781	303.6042	-3406.0773	4240.5063
310.7880	-32.1864	-13.6090	656151.2420	-19.3028
-19.3008				
[19806]ENERGY: 17500000	3209.7798	5223.8686	5283.6218	
333.1606	-15914.8203	-1725.6379	0.0000	0.0000
7767.8780	4177.8507	310.7540	-3590.0273	4240.2013
310.7796	-55.1818	-39.3264	656151.2420	-16.5093
-16.5250				
[19856]ENERGY: 17510000	3229.1297	5296.2333	5294.4794	
327.4190	-15916.1602	-1770.1247	0.0000	0.0000
7718.1710	4179.1475	308.7654	-3539.0235	4240.9638
310.8131	41.3898	-12.1665	656151.2420	-18.8128
-18.8197				
[19892]ENERGY: 17520000	3208.6984	5198.1097	5271.1958	
356.8377	-15900.3240	-1748.1760	0.0000	0.0000
7794.0849	4180.4266	311.8024	-3613.6583	4240.5445
310.7545	8.1154	5.0016	656151.2420	-16.9184
-16.9123				
[19942]ENERGY: 17530000	3237.1440	5299.7491	5224.8586	

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323.8275	-15758.6876	-1839.6886	0.0000	0.0000
7696.6999	4183.9029	307.9065	-3512.7970	4241.5701
310.8727	-10.3150	-46.1307	656151.2420	-14.9824
-14.9765				
[19978]ENERGY: 17540000	3264.4020	5276.7898	5285.5543	
334.7238	-15902.7113	-1772.3301	0.0000	0.0000
7692.4794	4178.9079	307.7376	-3513.5715	4241.9751
310.8136	-59.6382	-49.2045	656151.2420	-18.7248
-18.7147				
[20028]ENERGY: 17550000	3241.7200	5282.2564	5275.6828	
324.3763	-15847.7094	-1848.5410	0.0000	0.0000
7751.0470	4178.8320	310.0806	-3572.2150	4243.0984
310.8499	-81.6332	-53.7820	656151.2420	-15.9696
-15.9675				
[20064]ENERGY: 17560000	3178.5913	5214.1162	5326.9956	
338.0349	-15934.7531	-1733.5624	0.0000	0.0000
7789.6104	4179.0329	311.6234	-3610.5776	4240.5459
310.7514	-105.7306	-41.1581	656151.2420	-15.5109
-15.5271				
[20114]ENERGY: 17570000	3187.4284	5204.2310	5278.0065	
358.3039	-15840.6989	-1770.3849	0.0000	0.0000
7760.7839	4177.6699	310.4702	-3583.1140	4241.4158
310.7713	108.1882	69.0206	656151.2420	-19.4872
-19.4817				
[20150]ENERGY: 17580000	3222.6410	5236.7892	5244.2887	
323.6745	-15883.1057	-1700.4483	0.0000	0.0000
7734.9906	4178.8300	309.4383	-3556.1606	4240.4913
310.8969	-100.8253	1.3634	656151.2420	-14.6346
-14.6294				
[20200]ENERGY: 17590000	3145.7480	5140.7910	5299.2596	
315.1333	-15832.9949	-1759.8582	0.0000	0.0000
7870.7365	4178.8153	314.8688	-3691.9212	4241.0032
310.7651	88.7871	52.8540	656151.2420	-18.8127
-18.8218				
[20239]ENERGY: 17600000	3193.4759	5197.3762	5245.4044	
330.3635	-15869.8103	-1760.1552	0.0000	0.0000
7841.5873	4178.2419	313.7027	-3663.3455	4240.5537
310.7927	115.4427	81.6051	656151.2420	-19.9729
-19.9542				
[20289]ENERGY: 17610000	3263.4850	5161.1565	5272.5320	
357.3027	-15854.6489	-1763.7975	0.0000	0.0000
7745.4927	4181.5224	309.8584	-3563.9703	4243.0951
310.9745	-132.0007	-126.8661	656151.2420	-16.6762
-16.6896				
[20325]ENERGY: 17620000	3242.5186	5201.7958	5278.9699	
343.6016	-15924.2122	-1776.2783	0.0000	0.0000
7808.8545	4175.2499	312.3932	-3633.6045	4241.1779
311.0248	-55.0942	28.0064	656151.2420	-19.6899
-19.6898				
[20375]ENERGY: 17630000	3233.6344	5241.9683	5232.4803	
333.9554	-15878.5659	-1766.1134	0.0000	0.0000
7783.0395	4180.3985	311.3605	-3602.6410	4242.1610
310.9802	65.9076	23.2590	656151.2420	-17.5698
-17.5759				

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[20411]ENERGY: 17640000	3231.6795	5192.0811	5272.1437
341.8461	-15823.8492	-1775.7024	0.0000
7741.9085	4180.1074	309.7150	-3561.8012
310.7992	15.4223	-9.5329	656151.2420
-19.9445			-19.9560
[20461]ENERGY: 17650000	3210.8851	5301.2722	5256.7221
334.2693	-15815.6549	-1841.6553	0.0000
7737.0037	4182.8421	309.5188	-3554.1616
310.9801	-17.1727	-33.9625	656151.2420
-18.3556			-18.3417
[20497]ENERGY: 17660000	3192.7784	5213.4501	5285.0636
329.6647	-15877.4924	-1796.5756	0.0000
7831.8434	4178.7321	313.3129	-3653.1113
310.9011	-48.1232	-18.5134	656151.2420
-17.5209			-17.5403
[20547]ENERGY: 17670000	3191.5031	5236.5144	5277.1338
344.7781	-15940.8126	-1655.9447	0.0000
7726.4217	4179.5938	309.0955	-3546.8279
310.9374	287.1680	196.8269	656151.2420
-20.0859			-20.0695
[20583]ENERGY: 17680000	3201.2359	5270.6076	5197.3002
323.2811	-15843.2325	-1831.8402	0.0000
7865.8919	4183.2441	314.6750	-3682.6478
310.9719	-136.7449	-201.7181	656151.2420
-18.3060			-18.3011
[20633]ENERGY: 17690000	3225.6185	5263.8303	5311.9353
326.3551	-15795.4615	-1857.5157	0.0000
7706.4284	4181.1904	308.2957	-3525.2381
310.9876	-59.1302	-46.6961	656151.2420
-18.5782			-18.5968
[20672]ENERGY: 17700000	3195.8320	5245.6866	5300.1834
336.6968	-15885.1554	-1748.5406	0.0000
7739.1252	4183.8279	309.6037	-3555.2973
310.9139	-14.6870	68.0764	656151.2420
-24.2378			-24.2300
[20722]ENERGY: 17710000	3138.2127	5200.3225	5294.1102
324.3665	-15900.0838	-1732.7346	0.0000
7850.5973	4174.7907	314.0631	-3675.8066
311.1291	124.6545	46.8002	656151.2420
-22.6106			-22.6286
[20758]ENERGY: 17720000	3223.4844	5177.0092	5288.3031
330.9362	-15829.9934	-1765.1980	0.0000
7756.2811	4180.8227	310.2900	-3575.4584
311.0985	29.1774	-50.8067	656151.2420
-19.2114			-19.1896
[20808]ENERGY: 17730000	3192.6910	5194.7496	5270.0095
350.9720	-15799.7355	-1814.0573	0.0000
7783.0987	4177.7281	311.3629	-3605.3706
310.9496	-80.3490	-110.2865	656151.2420
-21.8179			-21.8077
[20844]ENERGY: 17740000	3154.0204	5275.7171	5257.8003
339.9182	-15826.0730	-1740.7996	0.0000
7721.7975	4182.3810	308.9105	-3539.4165
310.8505	115.3638	81.9444	656151.2420
			-17.7341

Supplementary Text 6

-17.7275
 [20894]ENERGY: 17750000 3158.1787 5236.9970 5259.8954
 329.1596 -15857.8410 -1751.2917 0.0000 0.0000
 7801.2024 4176.3005 312.0871 -3624.9019 4242.9992
 310.8319 145.7346 109.8133 656151.2420 -21.0923
 -21.0792
 [20930]ENERGY: 17760000 3182.4929 5248.9786 5240.3909
 349.7062 -15890.5214 -1781.1114 0.0000 0.0000
 7827.8858 4177.8216 313.1546 -3650.0642 4242.7682
 310.8831 36.8405 55.2305 656151.2420 -19.2314
 -19.2217
 [20980]ENERGY: 17770000 3287.9294 5214.1578 5239.0212
 344.0138 -15795.2037 -1833.4166 0.0000 0.0000
 7723.2808 4179.7827 308.9698 -3543.4981 4243.8352
 311.2330 -290.4132 -232.9177 656151.2420 -21.6296
 -21.6484
 [21016]ENERGY: 17780000 3227.4899 5306.1321 5249.0980
 376.7406 -15867.7457 -1756.1212 0.0000 0.0000
 7650.7431 4186.3367 306.0680 -3464.4064 4245.4077
 311.1393 74.8768 -6.3483 656151.2420 -20.8719
 -20.8615
 [21066]ENERGY: 17790000 3165.6908 5251.9628 5220.4244
 310.9629 -15850.6254 -1724.8452 0.0000 0.0000
 7808.8831 4182.4534 312.3944 -3626.4297 4244.6571
 311.1439 163.1393 85.2768 656151.2420 -19.8031
 -19.8135
 [21105]ENERGY: 17800000 3169.2823 5290.0427 5279.2421
 332.8645 -15880.6140 -1759.8954 0.0000 0.0000
 7754.7315 4185.6538 310.2280 -3569.0777 4245.5752
 311.0244 245.3996 81.3957 656151.2420 -22.2307
 -22.2470
 [21155]ENERGY: 17810000 3217.6255 5267.1320 5230.6300
 328.9286 -15850.3303 -1788.1579 0.0000 0.0000
 7774.3894 4180.2173 311.0144 -3594.1721 4244.8300
 310.9769 -27.0907 -103.6082 656151.2420 -20.8824
 -20.8616
 [21191]ENERGY: 17820000 3108.4892 5256.1989 5205.6862
 317.2654 -15821.8039 -1763.2464 0.0000 0.0000
 7878.4283 4181.0177 315.1765 -3697.4106 4246.3404
 311.0305 91.3505 22.1578 656151.2420 -18.7466
 -18.7454
 [21241]ENERGY: 17830000 3187.7513 5256.5203 5278.0514
 330.9397 -15897.8682 -1665.7975 0.0000 0.0000
 7697.7637 4187.3608 307.9490 -3510.4030 4246.1467
 311.0736 184.2457 84.6970 656151.2420 -21.2060
 -21.2134
 [21277]ENERGY: 17840000 3283.0552 5141.6295 5260.6993
 342.9047 -15917.8439 -1712.8169 0.0000 0.0000
 7788.2963 4185.9242 311.5708 -3602.3721 4246.5461
 311.2035 -54.2085 -107.5457 656151.2420 -17.0356
 -17.0361
 [21327]ENERGY: 17850000 3136.9381 5287.5112 5238.1241
 371.5034 -15806.7945 -1806.3390 0.0000 0.0000
 7761.2081 4182.1515 310.4871 -3579.0566 4246.1172

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311.1317	25.1526	13.3595	656151.2420	-15.8285
-15.8252				
[21363]ENERGY: 17860000	3195.5101	5200.1692	5231.3318	
332.7003	-15873.4912	-1745.1052	0.0000	0.0000
7842.0687	4183.1836	313.7220	-3658.8851	4245.9436
310.8472	116.9207	81.2338	656151.2420	-21.7684
-21.7706				
[21413]ENERGY: 17870000	3144.7203	5248.9967	5272.8175	
350.1388	-15781.2947	-1793.8626	0.0000	0.0000
7741.9954	4183.5114	309.7185	-3558.4840	4246.1382
310.9925	29.0703	-12.7122	656151.2420	-21.2467
-21.2611				
[21449]ENERGY: 17880000	3157.4625	5230.3974	5334.8184	
344.6100	-15843.4945	-1782.2131	0.0000	0.0000
7742.4844	4184.0651	309.7381	-3558.4193	4246.9056
311.0673	124.3004	2.4444	656151.2420	-20.6490
-20.6262				
[21499]ENERGY: 17890000	3235.6304	5161.6801	5275.3094	
351.6041	-15815.1361	-1819.8652	0.0000	0.0000
7798.1503	4187.3731	311.9650	-3610.7772	4247.6054
311.2319	210.1370	109.3306	656151.2420	-17.1164
-17.1269				
[21538]ENERGY: 17900000	3202.6299	5262.4204	5254.2185	
332.8490	-15886.1167	-1755.8978	0.0000	0.0000
7771.1170	4181.2204	310.8835	-3589.8966	4245.6908
311.1732	36.8919	98.0944	656151.2420	-19.8241
-19.8152				
[21588]ENERGY: 17910000	3208.7156	5186.7783	5302.0525	
332.3617	-15885.7004	-1748.7330	0.0000	0.0000
7785.4692	4180.9441	311.4577	-3604.5251	4245.3958
311.1602	6.3515	-22.7988	656151.2420	-17.6267
-17.6278				
[21624]ENERGY: 17920000	3165.8669	5289.6236	5259.0609	
352.1918	-15857.5785	-1805.4625	0.0000	0.0000
7778.5402	4182.2424	311.1805	-3596.2979	4247.2090
311.0775	-42.5836	-102.6461	656151.2420	-17.8617
-17.8676				
[21674]ENERGY: 17930000	3198.3246	5249.9392	5248.9862	
369.8704	-15863.0552	-1814.9448	0.0000	0.0000
7795.3817	4184.5021	311.8542	-3610.8796	4246.7015
311.2768	-38.2437	-5.2913	656151.2420	-18.0594
-18.0563				
[21710]ENERGY: 17940000	3223.2343	5291.4491	5268.9434	
327.7165	-15893.9321	-1758.8417	0.0000	0.0000
7723.4591	4182.0285	308.9770	-3541.4306	4246.2900
311.2838	-62.2342	-63.9690	656151.2420	-21.2317
-21.2323				
[21760]ENERGY: 17950000	3226.1834	5309.7378	5247.4138	
324.2704	-15910.7958	-1763.5228	0.0000	0.0000
7752.7359	4186.0227	310.1482	-3566.7132	4246.4522
311.2923	97.7199	40.4653	656151.2420	-22.3253
-22.3463				
[21796]ENERGY: 17960000	3182.1951	5171.7164	5295.7460	
355.7370	-15905.8848	-1754.9758	0.0000	0.0000

Supplementary Text 6

7833.5164	4178.0503	313.3798	-3655.4661	4246.8155
311.2082	119.5378	49.4677	656151.2420	-20.4237
-20.3984				
[21846]ENERGY: 17970000	3253.8324	5229.8277	5283.8735	
323.8073	-15980.2427	-1737.4122	0.0000	0.0000
7809.4441	4183.1301	312.4168	-3626.3140	4246.4516
311.0905	4.9211	14.3944	656151.2420	-20.2088
-20.2180				
[21882]ENERGY: 17980000	3236.1600	5156.2709	5280.9513	
335.0934	-15837.1782	-1780.1875	0.0000	0.0000
7790.6965	4181.8063	311.6668	-3608.8902	4246.2836
311.0758	-4.9536	74.1217	656151.2420	-21.8446
-21.8368				
[21932]ENERGY: 17990000	3211.7358	5333.9772	5265.6732	
308.2340	-15833.7123	-1858.3520	0.0000	0.0000
7757.3809	4184.9368	310.3340	-3572.4441	4246.8796
311.0697	-12.4917	-105.7053	656151.2420	-23.0281
-23.0335				
[21971]ENERGY: 18000000	3220.4241	5302.3782	5300.2244	
348.0062	-15870.1012	-1774.4717	0.0000	0.0000
7663.5403	4190.0003	306.5799	-3473.5401	4249.4616
311.1959	30.0186	-10.0013	656151.2420	-20.4985
-20.5057				
[22021]ENERGY: 18010000	3113.9640	5231.6759	5280.7696	
330.3778	-15896.0900	-1702.4192	0.0000	0.0000
7825.3245	4183.6025	313.0521	-3641.7219	4248.1499
310.9694	-35.4366	-72.9843	656151.2420	-20.5133
-20.4982				
[22057]ENERGY: 18020000	3217.2947	5158.9525	5251.8344	
308.6986	-15867.9477	-1732.5553	0.0000	0.0000
7847.9805	4184.2577	313.9585	-3663.7228	4248.1774
310.9543	-34.9822	-8.3711	656151.2420	-22.0258
-22.0528				
[22107]ENERGY: 18030000	3237.3085	5308.1106	5269.4668	
341.9738	-15940.7942	-1733.5211	0.0000	0.0000
7706.0258	4188.5702	308.2796	-3517.4556	4250.1011
311.1188	133.7147	61.6953	656151.2420	-22.7813
-22.7616				
[22143]ENERGY: 18040000	3169.7267	5260.5343	5276.4319	
352.7052	-15850.2164	-1782.9236	0.0000	0.0000
7759.6096	4185.8677	310.4232	-3573.7419	4249.4376
311.1248	2.2804	55.3282	656151.2420	-22.4899
-22.4812				
[22193]ENERGY: 18050000	3301.4224	5244.0831	5275.1065	
354.9551	-15987.7042	-1725.2352	0.0000	0.0000
7727.7068	4190.3345	309.1469	-3537.3723	4249.5853
311.1098	-80.3874	-116.6872	656151.2420	-23.8751
-23.8857				
[22229]ENERGY: 18060000	3206.3524	5204.1120	5280.0464	
344.2639	-15871.1507	-1765.1457	0.0000	0.0000
7789.5974	4188.0757	311.6228	-3601.5216	4250.8157
311.0709	73.4543	65.9589	656151.2420	-22.0295
-22.0190				
[22279]ENERGY: 18070000	3213.4943	5322.2640	5256.0588	

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335.6169	-16021.5793	-1790.7928	0.0000	0.0000
7867.7283	4182.7902	314.7485	-3684.9381	4249.8899
311.2385	38.6831	-16.0509	656151.2420	-20.1967
-20.2021				
[22315]ENERGY: 18080000	3192.6063	5194.4338	5289.4528	
357.0377	-15867.6293	-1754.3421	0.0000	0.0000
7776.0778	4187.6370	311.0820	-3588.4408	4250.6372
311.2322	28.1411	-0.2035	656151.2420	-21.9057
-21.8969				
[22365]ENERGY: 18090000	3154.6972	5290.7894	5229.5882	
351.3297	-15885.7997	-1745.1077	0.0000	0.0000
7792.1470	4187.6440	311.7248	-3604.5029	4251.0024
311.1770	-16.0960	4.2351	656151.2420	-21.9647
-21.9720				
[22404]ENERGY: 18100000	3216.8992	5276.7256	5226.7803	
356.4559	-15850.7389	-1798.1400	0.0000	0.0000
7757.8906	4185.8728	310.3544	-3572.0178	4250.6218
311.3728	-72.5177	-75.4348	656151.2420	-20.6411
-20.6429				
[22454]ENERGY: 18110000	3206.2218	5297.1529	5247.0174	
340.3239	-15831.3209	-1832.5318	0.0000	0.0000
7763.2711	4190.1344	310.5697	-3573.1367	4251.6263
311.2245	151.3996	95.8288	656151.2420	-22.6843
-22.6734				
[22490]ENERGY: 18120000	3243.0333	5194.5047	5277.9486	
346.4545	-15817.3253	-1826.2587	0.0000	0.0000
7770.3799	4188.7370	310.8540	-3581.6429	4251.7897
311.1803	-52.5735	-104.3692	656151.2420	-19.5320
-19.5429				
[22540]ENERGY: 18130000	3123.8172	5257.4332	5243.8611	
335.7110	-15732.1552	-1844.4006	0.0000	0.0000
7801.1225	4185.3893	312.0839	-3615.7332	4251.9207
311.3056	90.0427	5.9175	656151.2420	-20.9318
-20.9481				
[22576]ENERGY: 18140000	3250.6952	5275.8757	5292.2124	
345.0978	-16013.5844	-1695.9086	0.0000	0.0000
7732.0434	4186.4315	309.3204	-3545.6119	4250.4732
311.2937	5.9618	9.2699	656151.2420	-21.4476
-21.4325				
[22626]ENERGY: 18150000	3290.1789	5222.3392	5296.0009	
333.8087	-15959.1368	-1733.8710	0.0000	0.0000
7738.8714	4188.1912	309.5935	-3550.6801	4250.3399
311.2653	-108.1687	-34.1884	656151.2420	-24.1210
-24.1203				
[22662]ENERGY: 18160000	3252.6201	5232.2910	5197.4991	
358.5563	-15810.7329	-1760.0608	0.0000	0.0000
7721.2879	4191.4607	308.8901	-3529.8273	4251.7574
311.1292	-14.7194	-69.1671	656151.2420	-23.9685
-23.9695				
[22712]ENERGY: 18170000	3211.0855	5242.1224	5313.4381	
338.6192	-15808.8440	-1792.6114	0.0000	0.0000
7686.2873	4190.0972	307.4899	-3496.1901	4252.1563
311.2756	-82.5729	-47.7544	656151.2420	-20.9812
-20.9834				

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[22748]ENERGY: 18180000	3135.4693	5293.6655	5280.1729
335.2225	-15827.9360	-1727.5192	0.0000
7704.0501	4193.1252	308.2005	-3510.9249
311.2096	118.3131	16.8747	656151.2420
-25.5322			-25.5318
[22798]ENERGY: 18190000	3174.2237	5273.2053	5293.7020
340.3348	-15908.1870	-1784.4674	0.0000
7801.1888	4190.0001	312.0866	-3611.1887
311.0553	35.2077	57.4034	656151.2420
-23.5066			-23.5194
[22837]ENERGY: 18200000	3150.7507	5254.8212	5279.8162
358.2660	-15922.4413	-1769.8438	0.0000
7837.6337	4189.0027	313.5445	-3648.6310
311.3107	3.2577	-41.9341	656151.2420
-21.6062			-21.5995
[22887]ENERGY: 18210000	3236.1725	5291.0575	5198.4203
333.8263	-15883.2317	-1716.1045	0.0000
7728.4658	4188.6062	309.1773	-3539.8596
311.2036	84.9223	-28.6298	656151.2420
-24.2450			-24.2331
[22923]ENERGY: 18220000	3220.3523	5293.3704	5264.8218
366.8170	-15904.2764	-1803.3673	0.0000
7752.1702	4189.8880	310.1256	-3562.2822
311.2393	-7.9440	-105.8202	656151.2420
-24.5739			-24.5701
[22973]ENERGY: 18230000	3173.1195	5185.8815	5286.1290
328.8427	-15773.5684	-1788.6742	0.0000
7779.1681	4190.8983	311.2056	-3588.2699
311.0717	-48.7586	-64.8092	656151.2420
-24.3398			-24.3578
[23009]ENERGY: 18240000	3215.0399	5231.6024	5247.9098
353.5853	-15841.2126	-1832.6927	0.0000
7815.7012	4189.9333	312.6671	-3625.7679
311.0761	-55.0537	-4.1185	656151.2420
-27.3950			-27.3854
[23059]ENERGY: 18250000	3188.4741	5331.7899	5248.5402
339.7751	-15805.8121	-1793.2143	0.0000
7686.6573	4196.2103	307.5047	-3490.4471
311.3003	-26.0114	-29.1990	656151.2420
-23.4899			-23.4844
[23095]ENERGY: 18260000	3196.3799	5168.4361	5289.0132
358.4049	-15816.0092	-1804.6378	0.0000
7800.9664	4192.5535	312.0777	-3608.4128
311.2848	26.0194	-5.0648	656151.2420
-24.0437			-24.0524
[23145]ENERGY: 18270000	3241.4982	5141.3020	5260.1375
340.2965	-15802.5536	-1751.2783	0.0000
7763.4237	4192.8260	310.5758	-3570.5977
311.4200	-155.6518	-149.8233	656151.2420
-24.5285			-24.5386
[23181]ENERGY: 18280000	3181.3881	5237.4930	5289.1673
347.1472	-15856.6509	-1824.9130	0.0000
7816.3129	4189.9447	312.6916	-3626.3682
311.0822	-136.8955	-129.8079	656151.2420
			-21.7957

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-21.8015
[23231]ENERGY: 18290000 3232.1602 5300.0905 5300.7907
336.8615 -15961.8668 -1726.6485 0.0000 0.0000
7712.7510 4194.1387 308.5486 -3518.6123 4255.1257
311.1676 8.3476 1.1730 656151.2420 -23.1647
-23.1689
[23270]ENERGY: 18300000 3179.5981 5162.4267 5283.5926
340.2140 -15749.2182 -1768.2168 0.0000 0.0000
7749.3791 4197.7755 310.0139 -3551.6035 4255.9474
311.0879 18.9374 -40.9810 656151.2420 -22.6639
-22.6521
[23320]ENERGY: 18310000 3269.7110 5299.8125 5238.5426
362.1019 -15857.6088 -1806.4639 0.0000 0.0000
7690.3151 4196.4104 307.6511 -3493.9047 4255.7713
311.3201 -226.4143 -216.5043 656151.2420 -23.8132
-23.8233
[23356]ENERGY: 18320000 3130.7890 5190.4101 5316.0482
339.5156 -15813.0794 -1774.6357 0.0000 0.0000
7801.6773 4190.7251 312.1061 -3610.9522 4256.6620
311.1749 -250.5538 -95.5805 656151.2420 -20.6933
-20.6902
[23406]ENERGY: 18330000 3139.0622 5179.4125 5247.3204
358.4065 -15805.5817 -1795.7106 0.0000 0.0000
7869.2976 4192.2068 314.8112 -3677.0908 4256.9810
311.1794 137.1346 91.4735 656151.2420 -18.0548
-18.0540
[23442]ENERGY: 18340000 3244.0703 5183.5332 5244.3716
372.4888 -15883.2453 -1838.8012 0.0000 0.0000
7869.7732 4192.1906 314.8303 -3677.5826 4256.2561
311.1884 -20.7152 -47.9848 656151.2420 -24.0908
-24.0933
[23492]ENERGY: 18350000 3169.1360 5208.3050 5278.3349
353.5082 -15842.4812 -1747.4957 0.0000 0.0000
7778.4394 4197.7466 311.1765 -3580.6928 4257.5256
311.1028 -47.1950 -132.5688 656151.2420 -22.0368
-22.0357
[23528]ENERGY: 18360000 3157.4360 5146.0545 5297.7703
344.5201 -15842.6693 -1755.3592 0.0000 0.0000
7845.5808 4193.3333 313.8625 -3652.2474 4257.1036
311.1888 6.7590 -96.2868 656151.2420 -26.3803
-26.3893
[23578]ENERGY: 18370000 3242.5277 5271.0829 5240.7898
358.7936 -15953.9707 -1693.5810 0.0000 0.0000
7729.6268 4195.2691 309.2237 -3534.3576 4257.7684
311.2623 -0.6119 25.9782 656151.2420 -24.5426
-24.5215
[23614]ENERGY: 18380000 3254.1080 5142.7631 5269.0738
320.6219 -15744.1779 -1833.5550 0.0000 0.0000
7787.5643 4196.3981 311.5415 -3591.1662 4257.8783
311.1251 -100.0887 -147.9576 656151.2420 -24.8935
-24.9201
[23664]ENERGY: 18390000 3216.4769 5294.6533 5273.9491
334.7293 -15840.0953 -1854.2192 0.0000 0.0000
7768.0504 4193.5445 310.7609 -3574.5059 4258.5785

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311.3870	-70.1805	-59.4834	656151.2420	-26.2914
-26.2781				
[23703]ENERGY: 18400000	3230.5467	5250.7926	5223.2116	
334.5323	-15866.7630	-1735.4468	0.0000	0.0000
7756.7411	4193.6146	310.3084	-3563.1265	4258.5047
311.1232	119.2192	94.4343	656151.2420	-23.2996
-23.3037				
[23753]ENERGY: 18410000	3199.4494	5276.4482	5265.8712	
351.8315	-15933.1930	-1732.2084	0.0000	0.0000
7767.2625	4195.4612	310.7293	-3571.8012	4258.3886
311.2432	9.4176	9.0861	656151.2420	-24.5851
-24.5767				
[23789]ENERGY: 18420000	3210.2574	5265.3844	5235.0722	
363.3186	-15878.7932	-1761.5102	0.0000	0.0000
7762.9253	4196.6545	310.5558	-3566.2708	4259.4094
311.3634	143.0651	64.4394	656151.2420	-26.0392
-26.0379				
[23839]ENERGY: 18430000	3236.0237	5288.1618	5210.4836	
319.4482	-15824.0834	-1770.2308	0.0000	0.0000
7737.1318	4196.9348	309.5240	-3540.1970	4258.1743
311.4110	-110.0995	-179.7882	656151.2420	-24.8280
-24.8567				
[23875]ENERGY: 18440000	3207.9693	5176.5562	5229.2290	
331.9526	-15879.6377	-1718.1181	0.0000	0.0000
7845.6589	4193.6101	313.8656	-3652.0489	4257.9492
311.4385	-90.5194	-87.2569	656151.2420	-22.8386
-22.8078				
[23925]ENERGY: 18450000	3148.7212	5322.5845	5234.9121	
358.6297	-15893.5515	-1700.2025	0.0000	0.0000
7727.1746	4198.2681	309.1256	-3528.9065	4259.4736
311.3843	121.5574	92.3505	656151.2420	-26.2684
-26.2722				
[23961]ENERGY: 18460000	3228.6592	5223.8496	5247.6768	
330.3710	-15825.7906	-1837.7832	0.0000	0.0000
7827.4062	4194.3889	313.1354	-3633.0173	4260.5514
311.3913	-83.0887	-79.6934	656151.2420	-22.4120
-22.4222				
[24011]ENERGY: 18470000	3242.3389	5181.1555	5272.1043	
322.6440	-15801.7806	-1829.6938	0.0000	0.0000
7811.7102	4198.4785	312.5075	-3613.2317	4260.9022
311.1898	-139.7910	-215.0665	656151.2420	-24.3132
-24.3234				
[24047]ENERGY: 18480000	3170.6032	5298.0976	5248.6609	
346.9329	-15799.4970	-1845.9097	0.0000	0.0000
7779.9190	4198.8069	311.2357	-3581.1122	4260.8429
311.3288	-53.4726	24.1567	656151.2420	-20.7776
-20.7545				
[24097]ENERGY: 18490000	3204.9495	5272.2302	5306.1512	
342.8123	-15878.9629	-1776.5694	0.0000	0.0000
7730.1164	4200.7273	309.2433	-3529.3890	4262.3450
311.3258	4.1987	-39.6152	656151.2420	-14.3670
-14.3811				
[24136]ENERGY: 18500000	3188.9240	5175.6698	5251.8961	
336.2781	-15872.3694	-1672.5294	0.0000	0.0000

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7794.9421	4202.8113	311.8367	-3592.1308	4261.9251
311.4158	13.9923	6.0747	656151.2420	-15.1565
-15.1690				
[24186]ENERGY: 18510000	3258.2534	5193.8193	5290.7450	
314.5467	-15831.1452	-1814.4586	0.0000	0.0000
7789.2260	4200.9866	311.6080	-3588.2394	4263.5856
311.3829	-27.4879	-66.5688	656151.2420	-18.8662
-18.8529				
[24222]ENERGY: 18520000	3186.4449	5210.6786	5269.1525	
372.4317	-15834.7527	-1832.0097	0.0000	0.0000
7826.3482	4198.2934	313.0931	-3628.0547	4262.3057
311.3485	2.0505	-8.9624	656151.2420	-16.3078
-16.3051				
[24272]ENERGY: 18530000	3256.4429	5230.1089	5265.8253	
332.8689	-15915.8275	-1770.5653	0.0000	0.0000
7799.4564	4198.3097	312.0173	-3601.1467	4262.7855
311.4634	-21.9600	-41.9894	656151.2420	-21.0793
-21.0775				
[24308]ENERGY: 18540000	3261.5321	5239.9005	5289.2183	
345.8885	-15883.1136	-1870.7346	0.0000	0.0000
7816.7459	4199.4371	312.7089	-3617.3088	4263.9505
311.4275	-170.8362	-147.5692	656151.2420	-24.5747
-24.5716				
[24358]ENERGY: 18550000	3196.7637	5243.0360	5234.2907	
341.5551	-15764.6519	-1819.4253	0.0000	0.0000
7771.8216	4203.3899	310.9117	-3568.4318	4263.3307
311.3402	22.2363	-21.6162	656151.2420	-20.7232
-20.7420				
[24394]ENERGY: 18560000	3202.0902	5246.3685	5265.5910	
355.5751	-15861.8311	-1829.0490	0.0000	0.0000
7820.9332	4199.6779	312.8764	-3621.2554	4264.0549
311.5421	168.4477	42.9485	656151.2420	-22.8448
-22.8263				
[24444]ENERGY: 18570000	3150.9508	5171.1671	5239.7447	
324.2117	-15839.6300	-1708.1853	0.0000	0.0000
7860.1876	4198.4464	314.4468	-3661.7412	4264.5771
311.4890	15.0685	15.8200	656151.2420	-19.6501
-19.6641				
[24480]ENERGY: 18580000	3224.8324	5156.3105	5269.9865	
346.0063	-15883.3928	-1722.1069	0.0000	0.0000
7808.0924	4199.7284	312.3627	-3608.3640	4263.8447
311.5625	7.2119	-32.8445	656151.2420	-19.8393
-19.8148				
[24530]ENERGY: 18590000	3205.1308	5179.9768	5233.5194	
341.4324	-15900.2593	-1717.9256	0.0000	0.0000
7857.9858	4199.8602	314.3587	-3658.1255	4264.3472
311.5174	81.1697	16.7574	656151.2420	-23.7404
-23.7764				
[24569]ENERGY: 18600000	3269.1209	5329.9314	5232.2576	
315.5085	-15884.9041	-1821.3423	0.0000	0.0000
7761.0505	4201.6226	310.4808	-3559.4279	4265.8260
311.5903	-48.1135	-37.2641	656151.2420	-19.1839
-19.1577				
[24619]ENERGY: 18610000	3213.7232	5278.3893	5283.9160	

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343.0298	-15882.1823	-1802.0531	0.0000	0.0000
7765.9231	4200.7459	310.6758	-3565.1773	4265.0984
311.2966	-49.3131	-46.2455	656151.2420	-15.9917
-15.9847				
[24655]ENERGY: 18620000	3211.2856	5289.2275	5239.8078	
330.7408	-15828.7701	-1747.8322	0.0000	0.0000
7706.3163	4200.7759	308.2912	-3505.5404	4266.6246
311.3715	-67.5482	-3.7218	656151.2420	-19.4621
-19.4854				
[24705]ENERGY: 18630000	3171.8878	5234.8658	5278.9321	
339.4221	-15755.0542	-1775.7485	0.0000	0.0000
7714.4682	4208.7733	308.6173	-3505.6949	4267.5263
311.3947	88.2581	-6.3960	656151.2420	-19.3942
-19.3930				
[24741]ENERGY: 18640000	3208.9579	5282.4290	5261.3386	
344.6524	-15952.2568	-1708.2880	0.0000	0.0000
7770.1295	4206.9626	310.8440	-3563.1669	4267.3262
311.3761	145.7854	-18.6257	656151.2420	-21.3716
-21.3638				
[24791]ENERGY: 18650000	3266.7481	5264.1732	5282.6584	
327.1827	-15904.9553	-1789.4716	0.0000	0.0000
7761.2325	4207.5679	310.4881	-3553.6646	4267.8763
311.4534	-167.8865	-186.1061	656151.2420	-21.9257
-21.9325				
[24827]ENERGY: 18660000	3284.4900	5244.2294	5275.1540	
333.9417	-15906.1861	-1818.5542	0.0000	0.0000
7792.0620	4205.1368	311.7214	-3586.9251	4267.8498
311.4793	-11.8995	10.4141	656151.2420	-20.6446
-20.6374				
[24877]ENERGY: 18670000	3191.5026	5300.7362	5255.7861	
347.6851	-15853.3384	-1757.2914	0.0000	0.0000
7721.2914	4206.3717	308.8903	-3514.9198	4267.9038
311.5600	-0.2605	-20.3404	656151.2420	-23.1171
-23.1136				
[24913]ENERGY: 18680000	3248.2068	5274.8718	5285.3799	
343.6651	-15895.0868	-1795.7290	0.0000	0.0000
7744.3292	4205.6371	309.8119	-3538.6921	4268.0703
311.5068	2.6605	9.3098	656151.2420	-22.0519
-22.0543				
[24963]ENERGY: 18690000	3251.5660	5335.7703	5244.7094	
322.6511	-15954.2478	-1739.6169	0.0000	0.0000
7743.8861	4204.7182	309.7942	-3539.1680	4267.9693
311.6388	31.8715	68.0448	656151.2420	-18.8039
-18.7783				
[25002]ENERGY: 18700000	3266.6647	5247.4954	5301.5357	
331.9808	-15846.0245	-1783.0947	0.0000	0.0000
7688.7347	4207.2921	307.5878	-3481.4426	4267.1009
311.7135	-124.6301	-153.5718	656151.2420	-24.3873
-24.4225				
[25052]ENERGY: 18710000	3189.6325	5236.2253	5318.7087	
334.5655	-15868.7543	-1787.4883	0.0000	0.0000
7785.7627	4208.6521	311.4694	-3577.1106	4270.3368
311.5889	64.6183	35.0236	656151.2420	-22.6091
-22.6084				

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[25088]ENERGY: 18720000	3200.3864	5233.7494	5221.1766	
360.9096	-15894.1478	-1705.3675	0.0000	0.0000
7793.4260	4210.1327	311.7760	-3583.2932	4270.5457
311.4408	48.2659	-3.2683	656151.2420	-23.9731
-23.9589				
[25138]ENERGY: 18730000	3202.2772	5131.4210	5284.7424	
336.7094	-15855.5838	-1767.3234	0.0000	0.0000
7873.9947	4206.2375	314.9992	-3667.7572	4270.5616
311.4521	-202.5402	-186.3382	656151.2420	-23.9088
-23.8999				
[25174]ENERGY: 18740000	3192.9849	5177.2185	5251.4383	
323.9456	-15855.5043	-1762.1572	0.0000	0.0000
7879.3842	4207.3100	315.2148	-3672.0742	4271.3753
311.4646	-69.2691	-148.2279	656151.2420	-22.0279
-22.0447				
[25224]ENERGY: 18750000	3195.7670	5248.5526	5250.6723	
335.0680	-15901.8320	-1753.9367	0.0000	0.0000
7833.4054	4207.6966	313.3754	-3625.7088	4271.7909
311.5947	-98.2360	-101.9703	656151.2420	-23.8983
-23.8763				
[25260]ENERGY: 18760000	3248.6920	5144.5895	5238.3118	
339.1119	-15856.6853	-1743.1355	0.0000	0.0000
7839.4001	4210.2846	313.6152	-3629.1156	4270.5093
311.5533	37.7413	17.8193	656151.2420	-18.3109
-18.3162				
[25310]ENERGY: 18770000	3145.2523	5148.4521	5268.1190	
394.0451	-15814.5546	-1731.8438	0.0000	0.0000
7798.6027	4208.0729	311.9831	-3590.5299	4271.6187
311.5573	-96.9767	-63.4084	656151.2420	-22.4987
-22.5066				
[25346]ENERGY: 18780000	3166.9264	5206.8925	5275.1720	
328.5833	-15793.6116	-1800.1408	0.0000	0.0000
7825.4715	4209.2933	313.0580	-3616.1782	4271.4236
311.6472	-51.8525	-95.5492	656151.2420	-24.4049
-24.4091				
[25396]ENERGY: 18790000	3225.1947	5255.4523	5229.0709	
310.0809	-15865.2964	-1749.0416	0.0000	0.0000
7803.1384	4208.5992	312.1645	-3594.5392	4271.7219
311.5269	18.4320	-19.9582	656151.2420	-25.3975
-25.4156				
[25435]ENERGY: 18800000	3197.8927	5316.8302	5228.9011	
323.3791	-15853.2084	-1728.9506	0.0000	0.0000
7727.1304	4211.9745	309.1238	-3515.1559	4273.5633
311.1949	101.4114	-21.4231	656151.2420	-25.4616
-25.4421				
[25485]ENERGY: 18810000	3214.0973	5298.5369	5232.1436	
325.5821	-15889.5606	-1711.4160	0.0000	0.0000
7740.1907	4209.5740	309.6463	-3530.6167	4274.2797
311.4646	51.3580	6.2279	656151.2420	-21.4194
-21.4255				
[25521]ENERGY: 18820000	3171.2499	5229.3320	5245.7531	
338.3921	-15925.9280	-1702.3287	0.0000	0.0000
7855.4104	4211.8807	314.2557	-3643.5297	4274.4655
311.4550	198.6687	135.9164	656151.2420	-23.3701

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-23.3500
 [25571]ENERGY: 18830000 3249.3731 5256.4895 5257.2276
 351.9846 -15926.4738 -1796.4662 0.0000 0.0000
 7816.5284 4208.6632 312.7002 -3607.8652 4274.0501
 311.3120 -217.3022 -153.3817 656151.2420 -27.4467
 -27.4424
 [25607]ENERGY: 18840000 3243.7460 5247.7638 5227.2107
 342.4585 -15888.6404 -1724.1972 0.0000 0.0000
 7764.6294 4212.9708 310.6240 -3551.6586 4274.3657
 311.3267 134.6981 32.8906 656151.2420 -23.4099
 -23.4220
 [25657]ENERGY: 18850000 3261.9875 5273.0315 5236.6384
 326.1320 -15829.2669 -1800.5301 0.0000 0.0000
 7744.5014 4212.4938 309.8188 -3532.0076 4274.0200
 311.3694 -89.7018 -134.8475 656151.2420 -24.4592
 -24.4640
 [25693]ENERGY: 18860000 3170.6323 5243.6213 5260.5917
 349.3229 -15807.9798 -1801.3942 0.0000 0.0000
 7794.6662 4209.4604 311.8256 -3585.2058 4274.3976
 311.4207 -69.1057 -142.1179 656151.2420 -24.3086
 -24.3107
 [25743]ENERGY: 18870000 3205.6698 5281.2523 5270.4354
 308.2749 -15802.9702 -1821.1944 0.0000 0.0000
 7768.2441 4209.7120 310.7686 -3558.5322 4274.8721
 311.4927 -130.9347 -105.0386 656151.2420 -26.3222
 -26.3251
 [25779]ENERGY: 18880000 3228.2015 5207.6181 5241.8038
 342.6997 -15805.7727 -1805.5292 0.0000 0.0000
 7801.6086 4210.6299 312.1033 -3590.9787 4276.1066
 311.4672 -31.1676 -116.8420 656151.2420 -21.0729
 -21.0647
 [25829]ENERGY: 18890000 3214.4753 5236.3238 5229.2577
 335.7125 -15787.5703 -1727.0719 0.0000 0.0000
 7714.6299 4215.7569 308.6238 -3498.8730 4275.1351
 311.3772 -251.2220 -173.8620 656151.2420 -24.8280
 -24.8290
 [25868]ENERGY: 18900000 3270.8701 5243.6565 5244.7368
 326.4965 -15934.6338 -1705.1269 0.0000 0.0000
 7767.4380 4213.4371 310.7364 -3554.0008 4274.9252
 311.3119 62.8014 43.9184 656151.2420 -25.7227
 -25.7311
 [25918]ENERGY: 18910000 3186.2923 5274.5862 5254.8708
 334.0375 -15884.6443 -1770.8415 0.0000 0.0000
 7820.1435 4214.4445 312.8448 -3605.6990 4275.6005
 311.5136 7.4275 -7.6151 656151.2420 -27.2069
 -27.2100
 [25954]ENERGY: 18920000 3211.9576 5171.4808 5261.7004
 348.1306 -15771.9896 -1825.3462 0.0000 0.0000
 7816.3918 4212.3253 312.6948 -3604.0665 4275.9938
 311.6131 -139.6379 -116.6782 656151.2420 -23.8122
 -23.7966
 [26004]ENERGY: 18930000 3229.8767 5212.1297 5227.7846
 354.8447 -15871.6752 -1688.9263 0.0000 0.0000
 7750.1069 4214.1412 310.0430 -3535.9657 4274.8700

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311.5225	-1.5991	-0.8520	656151.2420	-17.8288
-17.8239				
[26040]ENERGY: 18940000	3274.3048	5221.7301	5255.7245	
328.3274	-15768.0672	-1752.4022	0.0000	0.0000
7656.8287	4216.4460	306.3114	-3440.3827	4274.7795
311.3706	37.9140	-23.3242	656151.2420	-19.1007
-19.1160				
[26090]ENERGY: 18950000	3170.0297	5387.2014	5251.1461	
337.6021	-15947.3424	-1760.7175	0.0000	0.0000
7772.7256	4210.6450	310.9479	-3562.0806	4273.7586
311.5085	12.0821	11.7159	656151.2420	-25.2121
-25.2031				
[26126]ENERGY: 18960000	3294.8892	5244.8565	5237.1547	
349.8718	-15858.8100	-1711.1032	0.0000	0.0000
7653.6144	4210.4733	306.1828	-3443.1411	4272.6254
311.6819	-132.6395	-43.9503	656151.2420	-21.5223
-21.5296				
[26176]ENERGY: 18970000	3160.6619	5261.2421	5243.0414	
334.9895	-15805.5977	-1776.1088	0.0000	0.0000
7789.6932	4207.9216	311.6267	-3581.7716	4273.0493
311.5832	11.1639	-5.8585	656151.2420	-24.4734
-24.4698				
[26212]ENERGY: 18980000	3238.1065	5145.8058	5344.9909	
356.1057	-15932.3947	-1740.1529	0.0000	0.0000
7793.7755	4206.2368	311.7900	-3587.5387	4272.6108
311.5511	-168.9727	-177.6174	656151.2420	-21.5334
-21.5468				
[26262]ENERGY: 18990000	3182.9210	5268.0933	5243.3434	
333.4008	-15838.7445	-1742.9050	0.0000	0.0000
7765.9817	4212.0907	310.6781	-3553.8910	4274.1258
311.6375	-27.0330	-60.1580	656151.2420	-19.2794
-19.2787				
[26301]ENERGY: 19000000	3189.0796	5164.3158	5276.9657	
341.3293	-15824.8158	-1731.9027	0.0000	0.0000
7793.5371	4208.5090	311.7805	-3585.0282	4274.6704
311.5290	90.2209	82.6468	656151.2420	-24.0524
-24.0473				
[26351]ENERGY: 19010000	3224.2466	5160.3881	5227.4206	
341.7625	-15784.4578	-1751.3502	0.0000	0.0000
7797.6570	4215.6668	311.9453	-3581.9902	4276.4295
311.6450	36.4705	-105.6456	656151.2420	-24.6516
-24.6571				
[26387]ENERGY: 19020000	3183.1314	5302.8879	5283.4156	
340.1460	-15906.1405	-1813.3864	0.0000	0.0000
7819.7838	4209.8378	312.8304	-3609.9460	4275.0890
311.5014	16.9885	32.0425	656151.2420	-19.4178
-19.3922				
[26437]ENERGY: 19030000	3199.4658	5229.7022	5222.6807	
346.6755	-15777.4650	-1835.2066	0.0000	0.0000
7827.0213	4212.8739	313.1200	-3614.1474	4275.9139
311.4647	-127.5479	-115.1918	656151.2420	-18.0224
-18.0497				
[26473]ENERGY: 19040000	3194.5716	5287.8677	5243.8412	
340.9909	-16020.9189	-1701.0132	0.0000	0.0000

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7863.4955	4208.8348	314.5791	-3654.6607	4274.8999
311.6197	256.7021	187.2748	656151.2420	-21.4317
-21.4052				
[26523]ENERGY: 19050000	3284.1013	5170.3669	5290.6477	
341.3316	-15893.0757	-1679.8525	0.0000	0.0000
7701.0542	4214.5736	308.0807	-3486.4806	4274.5937
311.6010	-108.7429	-101.9125	656151.2420	-19.7767
-19.7803				
[26559]ENERGY: 19060000	3206.0148	5274.4291	5236.7657	
354.9142	-15864.5555	-1753.4356	0.0000	0.0000
7757.3867	4211.5194	310.3343	-3545.8673	4275.4412
311.4001	15.0917	27.0114	656151.2420	-24.5982
-24.6191				
[26609]ENERGY: 19070000	3265.1346	5247.7343	5256.3639	
345.3480	-15892.6742	-1724.4739	0.0000	0.0000
7716.3452	4213.7778	308.6924	-3502.5674	4276.1611
311.4778	-99.3241	-64.5508	656151.2420	-23.4916
-23.4689				
[26645]ENERGY: 19080000	3200.1407	5268.6147	5242.1454	
343.8944	-15854.4221	-1753.7125	0.0000	0.0000
7764.2059	4210.8664	310.6071	-3553.3395	4276.1113
311.2723	-120.1771	-51.4345	656151.2420	-25.1688
-25.1870				
[26695]ENERGY: 19090000	3236.2474	5203.8582	5245.6263	
337.0956	-15843.4117	-1712.8261	0.0000	0.0000
7747.8779	4214.4675	309.9539	-3533.4105	4276.1053
311.4253	83.4756	58.9030	656151.2420	-20.7452
-20.7416				
[26734]ENERGY: 19100000	3205.4690	5184.8996	5295.4348	
342.2954	-15863.0626	-1795.9012	0.0000	0.0000
7843.0988	4212.2338	313.7632	-3630.8650	4276.8101
311.2960	39.0614	24.0937	656151.2420	-28.0838
-28.0889				
[26784]ENERGY: 19110000	3196.0461	5296.5292	5305.1510	
314.5281	-15963.5995	-1780.9804	0.0000	0.0000
7849.2325	4216.9070	314.0085	-3632.3255	4277.8200
311.4080	-17.9314	19.7886	656151.2420	-24.2401
-24.2175				
[26820]ENERGY: 19120000	3295.5793	5245.9626	5253.0520	
349.5825	-15950.1451	-1716.7708	0.0000	0.0000
7739.9592	4217.2197	309.6371	-3522.7395	4278.7209
311.4490	-76.7263	-37.3451	656151.2420	-24.5475
-24.5677				
[26870]ENERGY: 19130000	3193.8483	5203.0495	5268.4371	
348.5596	-15882.7383	-1813.6709	0.0000	0.0000
7896.2027	4213.6879	315.8876	-3682.5148	4279.0109
311.6205	7.3125	-113.0690	656151.2420	-22.8630
-22.8864				
[26906]ENERGY: 19140000	3272.0464	5235.5085	5241.1680	
354.0783	-15870.0319	-1789.1319	0.0000	0.0000
7773.4058	4217.0432	310.9751	-3556.3626	4278.4021
311.3720	27.4638	16.9690	656151.2420	-24.0067
-23.9812				
[26956]ENERGY: 19150000	3260.0710	5293.3313	5214.9341	

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351.9111	-15917.6856	-1745.0620	0.0000	0.0000
7760.6539	4218.1539	310.4650	-3542.5000	4280.1955
311.6747	-96.8709	-81.1634	656151.2420	-20.1828
-20.1931				
[26992]ENERGY: 19160000	3263.1202	5140.0939	5219.9425	
348.9760	-15819.0764	-1767.5388	0.0000	0.0000
7832.0037	4217.5212	313.3193	-3614.4826	4279.8573
311.6586	-145.7125	-139.2259	656151.2420	-18.2215
-18.2050				
[27042]ENERGY: 19170000	3206.2302	5338.8910	5231.7267	
327.4381	-15893.3389	-1730.8154	0.0000	0.0000
7734.5339	4214.6656	309.4200	-3519.8683	4280.1657
311.5332	219.2379	173.0345	656151.2420	-22.6252
-22.6316				
[27078]ENERGY: 19180000	3214.0562	5241.5386	5218.8507	
363.7949	-15890.5050	-1753.3207	0.0000	0.0000
7821.8980	4216.3128	312.9150	-3605.5853	4280.3467
311.5400	55.0408	36.8110	656151.2420	-25.9534
-25.9462				
[27128]ENERGY: 19190000	3214.7398	5252.1349	5278.4612	
332.2008	-15918.7850	-1778.1329	0.0000	0.0000
7835.8022	4216.4210	313.4713	-3619.3813	4279.8358
311.8432	22.9951	-107.8060	656151.2420	-21.2626
-21.2662				
[27167]ENERGY: 19200000	3201.2542	5199.9208	5309.9979	
345.6076	-15815.2956	-1800.5979	0.0000	0.0000
7772.0574	4212.9443	310.9212	-3559.1131	4280.3089
311.4727	38.4889	32.3253	656151.2420	-23.2313
-23.2398				
[27217]ENERGY: 19210000	3160.3832	5224.3222	5267.2114	
351.6191	-15803.4361	-1791.0824	0.0000	0.0000
7810.8096	4219.8270	312.4714	-3590.9826	4280.1784
311.4342	8.0982	-18.7026	656151.2420	-23.7788
-23.7844				
[27253]ENERGY: 19220000	3229.5213	5210.4153	5234.2209	
340.2770	-15865.2603	-1751.2078	0.0000	0.0000
7818.2702	4216.2366	312.7699	-3602.0336	4279.3776
311.7809	-63.5178	-55.7835	656151.2420	-21.5493
-21.5386				
[27303]ENERGY: 19230000	3235.3855	5296.3837	5234.4577	
350.1561	-15816.8993	-1841.1712	0.0000	0.0000
7760.1837	4218.4961	310.4461	-3541.6876	4280.0794
311.7419	106.1315	50.0173	656151.2420	-25.8421
-25.8429				
[27339]ENERGY: 19240000	3287.3462	5208.6881	5210.2899	
340.1385	-15849.6056	-1756.2016	0.0000	0.0000
7780.8555	4221.5109	311.2731	-3559.3445	4281.0672
311.8698	36.3616	-67.5661	656151.2420	-24.1373
-24.1446				
[27389]ENERGY: 19250000	3195.4484	5299.8418	5229.6295	
313.0798	-15796.0463	-1764.5901	0.0000	0.0000
7739.3990	4216.7621	309.6147	-3522.6369	4279.6537
311.8573	76.6070	32.7130	656151.2420	-25.3421
-25.3199				

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[27425]ENERGY: 19260000	3110.9221	5268.1949	5257.9015	
350.1967	-15769.2982	-1794.5075	0.0000	0.0000
7789.7946	4213.2042	311.6307	-3576.5904	4279.0996
311.6738	4.9748	-58.9518	656151.2420	-27.7709
-27.7902				
[27475]ENERGY: 19270000	3133.5651	5307.2050	5229.1794	
327.1923	-15781.5229	-1801.6092	0.0000	0.0000
7800.1605	4214.1701	312.0454	-3585.9904	4279.6069
311.7744	42.3324	41.5807	656151.2420	-23.2692
-23.2642				
[27511]ENERGY: 19280000	3293.5029	5190.0008	5222.1453	
353.8404	-15915.9177	-1732.5233	0.0000	0.0000
7809.8950	4220.9434	312.4348	-3588.9516	4279.4989
311.7851	29.0233	-110.5827	656151.2420	-26.9406
-26.9268				
[27561]ENERGY: 19290000	3257.6422	5181.5049	5243.2702	
326.7295	-15858.9905	-1751.9547	0.0000	0.0000
7823.3081	4221.5097	312.9714	-3601.7984	4280.0789
311.8250	7.6231	-144.6620	656151.2420	-26.6209
-26.6416				
[27600]ENERGY: 19300000	3254.7353	5261.3226	5202.1242	
340.7223	-15884.2798	-1703.9094	0.0000	0.0000
7748.6362	4219.3515	309.9842	-3529.2847	4279.9490
311.9230	76.9126	111.0202	656151.2420	-28.3111
-28.3016				
[27650]ENERGY: 19310000	3279.5156	5144.9839	5243.6457	
322.7341	-15787.1510	-1718.8032	0.0000	0.0000
7735.9308	4220.8560	309.4759	-3515.0749	4281.7964
311.8664	-59.6674	-16.3214	656151.2420	-25.1921
-25.1773				
[27686]ENERGY: 19320000	3166.1788	5308.5373	5253.2590	
346.9180	-15851.3060	-1785.2153	0.0000	0.0000
7778.5807	4216.9524	311.1821	-3561.6283	4281.8275
311.5602	-52.0830	-92.5625	656151.2420	-26.3212
-26.3520				
[27736]ENERGY: 19330000	3238.7644	5220.1907	5244.5167	
310.2946	-15874.7775	-1750.7196	0.0000	0.0000
7826.0206	4214.2899	313.0800	-3611.7307	4280.7156
311.8109	69.7951	92.4710	656151.2420	-27.0674
-27.0618				
[27772]ENERGY: 19340000	3292.6222	5307.4435	5174.9287	
360.8677	-15816.9549	-1790.4159	0.0000	0.0000
7693.6095	4222.1009	307.7828	-3471.5086	4281.9829
311.9615	-81.8465	-25.4011	656151.2420	-23.8456
-23.8332				
[27822]ENERGY: 19350000	3194.2976	5266.7123	5210.6805	
328.1151	-15849.3788	-1765.0545	0.0000	0.0000
7832.0480	4217.4201	313.3211	-3614.6279	4281.1022
311.7458	-32.9101	-82.0927	656151.2420	-27.8274
-27.8225				
[27858]ENERGY: 19360000	3214.1766	5190.8648	5281.5670	
346.3248	-15831.7926	-1754.0909	0.0000	0.0000
7773.8367	4220.8864	310.9923	-3552.9503	4281.6349
311.8495	50.5319	-9.0741	656151.2420	-23.4606

Supplementary Text 6

-23.4804
 [27908]ENERGY: 19370000 3188.3874 5311.2695 5265.6926
 370.4713 -15883.7159 -1802.7619 0.0000 0.0000
 7771.8060 4221.1489 310.9111 -3550.6571 4282.6785
 311.8783 64.4285 -26.9987 656151.2420 -24.9406
 -24.9239
 [27944]ENERGY: 19380000 3145.6498 5225.3348 5256.2208
 375.1961 -15825.1135 -1742.2023 0.0000 0.0000
 7785.1515 4220.2371 311.4450 -3564.9144 4281.7579
 311.5879 -51.3396 -23.2891 656151.2420 -24.3420
 -24.3346
 [27994]ENERGY: 19390000 3170.2477 5282.9546 5271.9495
 324.3537 -15866.1767 -1796.5165 0.0000 0.0000
 7832.7622 4219.5744 313.3496 -3613.1878 4283.6629
 312.0267 197.5447 151.3329 656151.2420 -26.1080
 -26.1142
 [28033]ENERGY: 19400000 3222.6288 5189.1262 5247.5181
 351.5285 -15811.1239 -1863.0367 0.0000 0.0000
 7876.5687 4213.2096 315.1021 -3663.3591 4282.4601
 311.8589 -41.5828 -20.0974 656151.2420 -28.5249
 -28.5265
 [28083]ENERGY: 19410000 3278.8128 5259.6941 5266.2396
 342.0083 -15922.1196 -1803.4685 0.0000 0.0000
 7797.7805 4218.9473 311.9502 -3578.8332 4283.1432
 311.9706 -131.8596 -86.6573 656151.2420 -23.4964
 -23.4978
 [28119]ENERGY: 19420000 3233.1141 5158.4197 5244.3559
 341.1492 -15843.5820 -1769.5482 0.0000 0.0000
 7853.2916 4217.2003 314.1709 -3636.0913 4283.1023
 311.6457 -246.8226 -251.3678 656151.2420 -24.7611
 -24.7600
 [28169]ENERGY: 19430000 3262.5316 5220.6243 5212.7341
 348.4960 -15815.1533 -1748.1611 0.0000 0.0000
 7737.5134 4218.5850 309.5392 -3518.9284 4282.8126
 311.6688 90.9554 73.1617 656151.2420 -20.1331
 -20.1278
 [28205]ENERGY: 19440000 3257.9766 5157.4112 5308.3344
 346.0990 -15873.5311 -1785.9883 0.0000 0.0000
 7812.1009 4222.4026 312.5231 -3589.6983 4283.6851
 311.8052 -90.6011 -140.2652 656151.2420 -21.0137
 -21.0222
 [28255]ENERGY: 19450000 3231.8418 5208.5398 5297.2972
 328.2108 -15829.6030 -1811.3494 0.0000 0.0000
 7795.6542 4220.5913 311.8651 -3575.0629 4283.7801
 311.9222 9.9158 -54.2803 656151.2420 -15.2595
 -15.2676
 [28291]ENERGY: 19460000 3233.8918 5262.8480 5260.1037
 333.2257 -15857.7148 -1828.8857 0.0000 0.0000
 7814.1816 4217.6503 312.6063 -3596.5313 4283.8860
 311.9551 45.1169 48.2532 656151.2420 -15.6025
 -15.5847
 [28341]ENERGY: 19470000 3265.9894 5216.2040 5274.1312
 330.8982 -15798.5673 -1858.1606 0.0000 0.0000
 7791.1429 4221.6378 311.6847 -3569.5050 4282.6061

Supplementary Text 6

312.0912	-3.8650	-37.2810	656151.2420	-16.1510
-16.1582				
[28377]ENERGY: 19480000	3173.5528	5378.3296	5253.7648	
311.6267	-15894.9596	-1729.1848	0.0000	0.0000
7727.6160	4220.7455	309.1433	-3506.8705	4283.1954
312.2121	118.4221	72.5537	656151.2420	-18.5347
-18.5497				
[28427]ENERGY: 19490000	3215.9716	5256.3289	5280.9394	
332.7349	-15891.1555	-1762.6164	0.0000	0.0000
7788.0143	4220.2171	311.5595	-3567.7972	4283.7074
312.1972	-26.3525	35.8979	656151.2420	-17.6873
-17.6640				
[28466]ENERGY: 19500000	3147.5495	5212.2463	5262.1458	
336.6796	-15779.4938	-1832.6671	0.0000	0.0000
7872.9580	4219.4183	314.9577	-3653.5397	4283.3057
312.1468	-164.0291	-143.3503	656151.2420	-14.4446
-14.4634				
[28516]ENERGY: 19510000	3165.2758	5195.0144	5269.6395	
331.1165	-15797.4071	-1776.0307	0.0000	0.0000
7831.5236	4219.1319	313.3001	-3612.3917	4284.4802
312.2430	261.2361	49.2591	656151.2420	-13.9492
-13.9627				
[28552]ENERGY: 19520000	3211.2565	5246.5674	5274.8613	
345.1939	-15831.3943	-1767.5949	0.0000	0.0000
7743.5112	4222.4011	309.7792	-3521.1101	4285.0824
312.2713	125.3531	163.0991	656151.2420	-18.4889
-18.4731				
[28602]ENERGY: 19530000	3267.8623	5305.1290	5206.2687	
342.1396	-15884.6804	-1786.6180	0.0000	0.0000
7773.2708	4223.3720	310.9697	-3549.8989	4285.0348
312.3409	-38.7898	-89.3084	656151.2420	-15.4597
-15.4632				
[28638]ENERGY: 19540000	3163.1558	5253.1806	5331.0115	
331.7991	-15865.6363	-1781.0286	0.0000	0.0000
7790.0528	4222.5349	311.6411	-3567.5179	4283.6576
312.2943	112.7261	76.0017	656151.2420	-16.1693
-16.1645				
[28688]ENERGY: 19550000	3233.4738	5315.5959	5307.0291	
368.8957	-15934.3409	-1872.7115	0.0000	0.0000
7801.5023	4219.4444	312.0991	-3582.0579	4283.7251
312.3808	-214.8423	-71.2398	656151.2420	-14.9411
-14.9277				
[28724]ENERGY: 19560000	3279.8392	5241.2549	5310.6243	
332.5991	-15841.5746	-1830.6280	0.0000	0.0000
7728.3809	4220.4958	309.1739	-3507.8850	4283.9591
312.3472	-77.7328	-126.2182	656151.2420	-21.4768
-21.4802				
[28774]ENERGY: 19570000	3171.2568	5280.3371	5315.7223	
332.4800	-15813.3829	-1776.7804	0.0000	0.0000
7709.6227	4219.2555	308.4235	-3490.3672	4284.7286
312.1665	34.9828	53.7508	656151.2420	-11.7786
-11.7737				
[28810]ENERGY: 19580000	3205.1312	5326.5313	5313.8146	
348.7038	-15942.3570	-1779.6884	0.0000	0.0000

Supplementary Text 6

7748.9025	4221.0379	309.9948	-3527.8646	4285.6431
312.1774	129.4010	93.1829	656151.2420	-16.0106
-16.0232				
[28860]ENERGY: 19590000	3263.6903	5153.8980	5255.2410	
324.4805	-15836.9673	-1749.8931	0.0000	0.0000
7812.5903	4223.0398	312.5427	-3589.5505	4286.3877
312.3453	33.4558	-80.1577	656151.2420	-15.3820
-15.3852				
[28899]ENERGY: 19600000	3274.5723	5329.1147	5268.7974	
326.9829	-15923.5613	-1773.4543	0.0000	0.0000
7721.3465	4223.7981	308.8925	-3497.5484	4285.1801
312.3370	-90.9927	-98.3212	656151.2420	-15.1803
-15.1876				
[28949]ENERGY: 19610000	3212.3778	5312.7599	5257.0592	
340.4838	-15909.8653	-1787.4433	0.0000	0.0000
7797.5545	4222.9266	311.9412	-3574.6279	4286.0698
312.2311	28.1252	-0.4895	656151.2420	-20.4566
-20.4542				
[28985]ENERGY: 19620000	3151.0706	5279.9167	5261.5416	
341.9950	-15794.4827	-1778.1427	0.0000	0.0000
7761.5000	4223.3984	310.4988	-3538.1016	4285.7693
312.3371	76.0211	19.9925	656151.2420	-14.4108
-14.4237				
[29035]ENERGY: 19630000	3149.8316	5227.6012	5243.8892	
342.7893	-15865.6331	-1712.3586	0.0000	0.0000
7835.8606	4221.9803	313.4736	-3613.8804	4285.3833
312.3813	299.1514	156.0523	656151.2420	-18.3031
-18.2853				
[29071]ENERGY: 19640000	3217.2791	5244.4886	5286.2157	
335.5956	-15868.6486	-1801.8323	0.0000	0.0000
7809.8995	4222.9976	312.4350	-3586.9019	4287.0837
312.3036	72.8109	-36.8190	656151.2420	-16.9306
-16.9331				
[29121]ENERGY: 19650000	3234.2109	5300.5627	5290.7583	
333.7280	-15995.5922	-1797.9813	0.0000	0.0000
7859.8954	4225.5818	314.4351	-3634.3136	4286.1802
312.3873	150.7687	92.6181	656151.2420	-16.7155
-16.7087				
[29157]ENERGY: 19660000	3239.7580	5236.9224	5227.4853	
338.6991	-15789.6905	-1816.1046	0.0000	0.0000
7792.2671	4229.3369	311.7296	-3562.9303	4288.5137
312.2653	83.5106	-2.5234	656151.2420	-20.5773
-20.5879				
[29207]ENERGY: 19670000	3233.0365	5282.9742	5272.7878	
352.2081	-15930.1612	-1728.3276	0.0000	0.0000
7740.1841	4222.7020	309.6461	-3517.4822	4286.0767
312.2968	-42.3307	30.5869	656151.2420	-14.4765
-14.4694				
[29243]ENERGY: 19680000	3242.4439	5331.4659	5271.8453	
336.2076	-15883.5479	-1881.5227	0.0000	0.0000
7809.7995	4226.6916	312.4310	-3583.1079	4287.3778
312.3286	-172.0435	-182.0212	656151.2420	-23.5509
-23.5451				
[29293]ENERGY: 19690000	3199.1256	5239.1129	5276.4070	

Supplementary Text 6

346.9068	-15854.6631	-1790.8501	0.0000	0.0000
7809.4564	4225.4955	312.4173	-3583.9609	4287.0914
312.1707	0.8634	16.4612	656151.2420	-18.4196
-18.4145				
[29332]ENERGY: 19700000	3272.6397	5220.7889	5250.0633	
341.8325	-15852.6678	-1798.5201	0.0000	0.0000
7793.3333	4227.4699	311.7723	-3565.8635	4287.6164
312.1857	-63.1285	-23.8646	656151.2420	-18.0461
-18.0452				
[29382]ENERGY: 19710000	3238.0622	5215.1324	5240.7061	
365.4446	-15833.5828	-1791.8731	0.0000	0.0000
7788.5801	4222.4696	311.5821	-3566.1106	4287.1126
312.0902	-171.8146	-148.5688	656151.2420	-18.9035
-18.9100				
[29418]ENERGY: 19720000	3176.5707	5205.2084	5276.7190	
330.3560	-15857.6582	-1769.1782	0.0000	0.0000
7859.4327	4221.4503	314.4166	-3637.9824	4286.9593
312.2061	179.2933	85.4315	656151.2420	-14.9486
-14.9432				
[29468]ENERGY: 19730000	3320.2078	5294.1633	5239.8555	
341.1001	-15957.1686	-1778.6794	0.0000	0.0000
7762.4952	4221.9739	310.5386	-3540.5213	4287.5880
312.3880	38.7299	18.2027	656151.2420	-22.4400
-22.4365				
[29504]ENERGY: 19740000	3298.2102	5191.7687	5262.7229	
339.1909	-15922.9017	-1747.8106	0.0000	0.0000
7805.9615	4227.1418	312.2775	-3578.8197	4288.7121
312.4479	-66.5527	-62.9010	656151.2420	-16.3663
-16.3753				
[29554]ENERGY: 19750000	3294.1965	5207.8588	5267.3816	
342.0765	-15901.3012	-1791.3487	0.0000	0.0000
7808.2253	4227.0889	312.3681	-3581.1364	4288.8460
312.3633	-42.3701	-19.5549	656151.2420	-19.8934
-19.8862				
[29590]ENERGY: 19760000	3164.0854	5302.0396	5306.6861	
350.1564	-15926.9753	-1793.9654	0.0000	0.0000
7821.9754	4224.0022	312.9181	-3597.9732	4289.1143
312.4589	-96.2725	-51.2494	656151.2420	-19.7763
-19.7870				
[29640]ENERGY: 19770000	3127.8609	5283.3227	5229.2273	
343.7230	-15783.4232	-1829.5162	0.0000	0.0000
7853.6735	4224.8680	314.1862	-3628.8055	4289.6529
312.4064	-26.7125	-49.8428	656151.2420	-16.0161
-16.0146				
[29676]ENERGY: 19780000	3217.9017	5252.7956	5318.4678	
342.7554	-15822.0685	-1776.7087	0.0000	0.0000
7694.6062	4227.7495	307.8227	-3466.8566	4289.7817
312.6569	-86.8294	-62.8510	656151.2420	-16.4725
-16.4736				
[29726]ENERGY: 19790000	3231.7435	5188.4530	5287.2435	
360.1132	-15941.7351	-1748.5361	0.0000	0.0000
7848.5947	4225.8768	313.9830	-3622.7179	4289.2539
312.3594	-111.4778	-75.4965	656151.2420	-18.9917
-19.0032				

Supplementary Text 6

[29765]ENERGY: 19800000	3197.6503	5273.3607	5259.8490	
326.7265	-15871.7482	-1748.8457	0.0000	0.0000
7788.5320	4225.5245	311.5802	-3563.0075	4288.8099
312.2376	137.6705	141.8958	656151.2420	-17.8972
-17.8887				
[29815]ENERGY: 19810000	3243.5788	5284.1572	5239.7033	
365.4578	-15906.7271	-1767.9423	0.0000	0.0000
7767.2278	4225.4555	310.7279	-3541.7723	4289.5215
312.2864	19.8975	20.3660	656151.2420	-17.7940
-17.7854				
[29851]ENERGY: 19820000	3228.0803	5318.0387	5285.8924	
362.6870	-15888.2941	-1776.7611	0.0000	0.0000
7698.8486	4228.4919	307.9924	-3470.3567	4289.7711
312.1692	9.3482	-46.8143	656151.2420	-20.7139
-20.7187				
[29901]ENERGY: 19830000	3277.1478	5280.7334	5263.0033	
347.8879	-15892.0713	-1871.8105	0.0000	0.0000
7817.8582	4222.7488	312.7534	-3595.1094	4289.6599
312.3676	-14.1479	-52.5221	656151.2420	-15.3749
-15.3724				
[29937]ENERGY: 19840000	3188.4166	5280.9397	5293.6097	
336.1471	-15803.9833	-1840.7675	0.0000	0.0000
7771.0666	4225.4288	310.8815	-3545.6377	4290.5042
312.3119	-1.9495	-45.4848	656151.2420	-18.8935
-18.9103				
[29987]ENERGY: 19850000	3219.1801	5355.9837	5288.0857	
353.6447	-15915.8616	-1819.8323	0.0000	0.0000
7746.8684	4228.0688	309.9135	-3518.7996	4288.7824
312.5257	22.5320	-26.8351	656151.2420	-17.4288
-17.4056				
[30023]ENERGY: 19860000	3233.3057	5313.7255	5264.6940	
338.3155	-15889.3958	-1767.2131	0.0000	0.0000
7735.9743	4229.4061	309.4776	-3506.5682	4287.6003
312.4948	132.3026	191.4573	656151.2420	-20.5992
-20.5973				
[30073]ENERGY: 19870000	3220.3135	5189.2123	5310.7647	
332.6122	-15904.8733	-1666.3065	0.0000	0.0000
7746.6298	4228.3528	309.9039	-3518.2770	4288.6067
312.2832	200.7948	156.8744	656151.2420	-16.0546
-16.0541				
[30109]ENERGY: 19880000	3221.9377	5252.8985	5299.3492	
351.5108	-15904.2515	-1760.0848	0.0000	0.0000
7765.1868	4226.5466	310.6463	-3538.6402	4288.2095
312.2430	152.7555	-64.5070	656151.2420	-18.9011
-18.9383				
[30159]ENERGY: 19890000	3233.9653	5216.5914	5257.0063	
352.7545	-15786.2598	-1780.8260	0.0000	0.0000
7734.6613	4227.8931	309.4251	-3506.7683	4288.6749
312.3463	50.8713	78.1651	656151.2420	-17.8112
-17.7650				
[30198]ENERGY: 19900000	3232.9015	5276.0677	5229.5685	
333.6224	-15879.3839	-1765.3645	0.0000	0.0000
7800.9828	4228.3946	312.0783	-3572.5883	4288.6470
312.4223	56.5940	47.9220	656151.2420	-15.1066

Supplementary Text 6

-15.1284
 [30248]ENERGY: 19910000 3238.0490 5285.2707 5229.1813
 354.0407 -15919.5231 -1819.9813 0.0000 0.0000
 7858.0730 4225.1104 314.3622 -3632.9627 4289.2293
 312.3712 28.7156 -66.5686 656151.2420 -21.3035
 -21.3067
 [30284]ENERGY: 19920000 3165.1953 5234.6274 5296.1968
 357.9667 -15864.6222 -1801.5468 0.0000 0.0000
 7836.2688 4224.0860 313.4899 -3612.1828 4288.8531
 312.4620 -64.3921 -73.2207 656151.2420 -12.4777
 -12.4676
 [30334]ENERGY: 19930000 3281.8117 5245.7775 5252.0760
 358.8082 -15915.2632 -1807.6774 0.0000 0.0000
 7814.6334 4230.1661 312.6244 -3584.4673 4290.7430
 312.3421 126.7584 44.3698 656151.2420 -17.4089
 -17.4152
 [30370]ENERGY: 19940000 3224.4660 5203.4118 5250.0100
 334.0202 -15824.7266 -1726.1572 0.0000 0.0000
 7766.8956 4227.9197 310.7147 -3538.9758 4288.9067
 312.4898 100.1055 95.7456 656151.2420 -12.0720
 -12.0621
 [30420]ENERGY: 19950000 3249.4184 5209.2065 5248.6792
 354.7241 -15852.3370 -1809.6506 0.0000 0.0000
 7827.4767 4227.5172 313.1382 -3599.9595 4290.5575
 312.4134 -43.4568 -67.5047 656151.2420 -13.8916
 -13.8994
 [30456]ENERGY: 19960000 3163.6552 5264.9813 5250.1333
 316.6500 -15797.5973 -1778.6156 0.0000 0.0000
 7806.6432 4225.8502 312.3048 -3580.7930 4290.3958
 312.5051 -102.5682 -133.8402 656151.2420 -14.3776
 -14.3907
 [30506]ENERGY: 19970000 3193.8147 5235.0979 5266.5453
 350.8349 -15896.7484 -1729.0964 0.0000 0.0000
 7807.2148 4227.6628 312.3276 -3579.5520 4290.6163
 312.5562 191.1727 85.5751 656151.2420 -17.1206
 -17.1240
 [30542]ENERGY: 19980000 3267.4370 5213.8100 5323.3868
 335.0350 -15981.6173 -1741.3324 0.0000 0.0000
 7811.5083 4228.2275 312.4994 -3583.2808 4290.6674
 312.3913 1.8106 0.3797 656151.2420 -13.4739
 -13.4564
 [30592]ENERGY: 19990000 3244.5913 5197.9735 5274.2000
 332.2703 -15888.4338 -1768.8485 0.0000 0.0000
 7836.1142 4227.8672 313.4837 -3608.2471 4290.9975
 312.3670 -0.1967 -57.7561 656151.2420 -12.2882
 -12.2988
 [30631]ENERGY: 20000000 3240.3107 5209.5283 5248.1129
 332.7802 -15858.3173 -1741.5292 0.0000 0.0000
 7798.1638 4229.0494 311.9655 -3569.1144 4291.8761
 312.3900 -15.7796 -41.2510 656151.2420 -15.5698
 -15.5580

40.1ns Q9ZSP9 SIMULATION DATA

Supplementary Text 6

	TS	BOND	ANGLE	DIHED	IMPRP
	ELECT	VDW	BOUNDARY	MISC	KINETIC
	TOTAL	TEMP	POTENTIAL	TOTAL3	TEMPAVG
	PRESSURE	GPRESSURE	VOLUME	PRESSAVG	GPRESSAVG
[191]ENERGY:	0	5073.0363	5427.9798	5983.4735	309.4550
	-9980.3682	-1816.1227	0.0000	0.0000	7946.2271
	12943.6807	296.3993	4997.4536	13055.9770	296.3993
	2833.7005	382.3025	723302.9074	2833.7005	382.3025
[279]ENERGY:	10000	3342.0155	5587.7607	5892.8456	317.6694
	-14480.9974	-1705.4155	0.0000	0.0000	8076.4840
	7030.3623	301.2580	-1046.1217	7096.5297	321.6125
	43.7578	40.2904	664265.7895	0.4459	0.5699
[235]ENERGY:	20000	3418.9013	5580.8599	5842.2846	352.7421
	-14424.5274	-1764.7867	0.0000	0.0000	8027.2712
	7032.7449	299.4556	-994.5263	7092.9904	303.3488
	-20.5344	-51.7714	664265.7895	-16.5787	-16.5267
[275]ENERGY:	30000	3382.5313	5566.4984	5965.5370	343.0036
	-14656.2553	-1775.4386	0.0000	0.0000	8203.1826
	7029.0590	306.0180	-1174.1236	7092.7689	305.2949
	90.4211	106.5638	664265.7895	1.0384	1.0323
[327]ENERGY:	40000	3472.1499	5600.3683	5934.7610	333.3618
	-14749.3830	-1839.6015	0.0000	0.0000	8275.5335
	7027.1901	308.7170	-1248.3434	7093.3753	307.6098
	-124.3150	-180.6324	664265.7895	-0.0262	-0.0386
[365]ENERGY:	50000	3462.3405	5503.0111	5959.5111	333.4270
	-14737.1868	-1732.6371	0.0000	0.0000	8243.1006
	7031.5665	307.5071	-1211.5341	7093.5946	308.5614
	105.6737	46.6620	664265.7895	-0.3793	-0.3797
[417]ENERGY:	60000	3453.9569	5521.6268	5958.9751	353.2740
	-14768.3274	-1772.5940	0.0000	0.0000	8283.2603
	7030.1718	309.0052	-1253.0885	7094.0431	309.4929
	-117.9982	-36.7381	664265.7895	-0.0619	-0.0524
[455]ENERGY:	70000	3398.4719	5643.5556	5983.7572	366.4920
	-14774.1420	-1841.1488	0.0000	0.0000	8252.5886
	7029.5744	307.8610	-1223.0142	7093.6368	309.8919
	9.9800	-40.3286	664265.7895	1.1050	1.1160
[506]ENERGY:	80000	3425.9042	5656.4920	5944.0189	369.4807
	-14892.8200	-1831.1339	0.0000	0.0000	8355.0148
	7026.9568	311.6820	-1328.0580	7093.6973	310.1831
	-214.7604	-156.5696	664265.7895	-0.1272	-0.1416
[543]ENERGY:	90000	3458.3705	5559.6670	5912.0512	355.6389
	-14883.2247	-1676.0441	0.0000	0.0000	8301.5055
	7027.9642	309.6859	-1273.5413	7092.7699	310.5325
	124.9259	82.1909	664265.7895	-0.3062	-0.2982
[596]ENERGY:	100000	3498.9873	5536.9068	5984.7780	346.9289
	-14778.1562	-1869.2356	0.0000	0.0000	8308.9444
	7029.1536	309.9634	-1279.7908	7095.0474	311.3199
	-0.8254	-64.5480	664265.7895	0.5862	0.5672
[633]ENERGY:	110000	3354.5402	5580.0216	6010.4190	339.9427
	-14856.3055	-1770.8349	0.0000	0.0000	8368.5542
	7026.3373	312.1871	-1342.2169	7094.1564	311.4881
	148.5714	61.7723	664265.7895	-0.6868	-0.6864
[684]ENERGY:	120000	3362.2428	5540.6680	5955.2676	362.7671
	-14711.5950	-1844.6917	0.0000	0.0000	8364.1928

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	7028.8516	312.0244	-1335.3412	7094.2070	311.6584
	133.4142	74.0909	664265.7895	-1.4073	-1.3979
[720]ENERGY:	130000	3378.5010	5674.1238	5923.9499	354.4580
	-14826.1319	-1791.4470	0.0000	0.0000	8311.8927
	7025.3464	310.0734	-1286.5463	7094.7611	312.0327
	-47.7801	-31.4960	664265.7895	1.1020	1.1170
[770]ENERGY:	140000	3418.7666	5585.6806	5917.0779	349.1934
	-14786.4274	-1773.4511	0.0000	0.0000	8317.4428
	7028.2828	310.2804	-1289.1599	7093.2355	312.2614
	154.8482	21.1624	664265.7895	0.5689	0.5536
[806]ENERGY:	150000	3453.5642	5657.1076	5945.6558	347.7770
	-14931.2233	-1800.4422	0.0000	0.0000	8353.4800
	7025.9191	311.6248	-1327.5609	7093.0133	312.4295
	-19.6620	39.7204	664265.7895	-1.6620	-1.6466
[856]ENERGY:	160000	3356.3727	5593.5944	5904.1684	367.9491
	-14866.0838	-1748.1921	0.0000	0.0000	8417.5876
	7025.3962	314.0163	-1392.1914	7093.1953	312.2536
	134.9477	177.1515	664265.7895	0.8241	0.8182
[892]ENERGY:	170000	3423.0840	5593.6260	5940.7059	353.2931
	-14955.9119	-1730.3597	0.0000	0.0000	8399.5915
	7024.0288	313.3450	-1375.5626	7092.3347	312.4072
	-6.3173	35.6338	664265.7895	0.7369	0.7547
[942]ENERGY:	180000	3479.3787	5627.0509	5922.4013	360.6234
	-14990.8356	-1766.4699	0.0000	0.0000	8388.1563
	7020.3050	312.9184	-1367.8512	7091.6054	312.4546
	-85.0531	-111.7388	664265.7895	0.7807	0.7800
[978]ENERGY:	190000	3451.5107	5626.9474	5905.8200	330.9721
	-14809.1390	-1784.3500	0.0000	0.0000	8308.4136
	7030.1749	309.9436	-1278.2387	7093.2817	312.6460
	184.2557	68.2342	664265.7895	0.1553	0.1282
[1031]ENERGY:	200000	3454.5656	5625.4577	5912.9153	
	347.2812	-14931.4533	-1781.5473	0.0000	0.0000
	8396.0307	7023.2499	313.2121	-1372.7808	7092.9323
	312.4531	-133.4435	-50.0877	664265.7895	-2.7826
	-2.7618				
[1067]ENERGY:	210000	3417.4345	5622.5866	5911.9118	
	339.3518	-14846.5477	-1804.9872	0.0000	0.0000
	8387.8253	7027.5752	312.9060	-1360.2501	7094.4733
	312.6080	150.5638	52.8787	664265.7895	2.4164
	2.4103				
[1117]ENERGY:	220000	3442.2155	5644.7992	5952.5391	
	363.6215	-14899.7258	-1771.2540	0.0000	0.0000
	8295.3299	7027.5253	309.4555	-1267.8046	7092.8979
	312.7279	-24.0479	-17.5427	664265.7895	-1.0636
	-1.0676				
[1153]ENERGY:	230000	3478.2782	5589.3416	5948.4686	
	363.0481	-15000.9260	-1761.3792	0.0000	0.0000
	8408.6824	7025.5137	313.6841	-1383.1687	7094.0783
	312.8479	159.4751	66.6615	664265.7895	2.0973
	2.0837				
[1203]ENERGY:	240000	3396.6622	5663.4599	5870.4773	
	374.2320	-14957.4475	-1671.9988	0.0000	0.0000
	8350.0189	7025.4041	311.4957	-1324.6148	7092.7515
	312.7832	17.5592	7.1169	664265.7895	-0.2247

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-0.2100
 [1239]ENERGY: 250000 3477.3138 5467.6613 5959.4749
 373.8198 -14899.7554 -1805.8269 0.0000 0.0000
 8449.2018 7021.8893 315.1957 -1427.3125 7092.5918
 312.6537 -130.7939 -174.6160 664265.7895 -2.5012
 -2.5049
 [1289]ENERGY: 260000 3415.0112 5673.4153 5928.1314
 350.0087 -14995.8932 -1694.1107 0.0000 0.0000
 8346.2748 7022.8374 311.3560 -1323.4373 7092.3157
 312.8114 35.2435 80.2719 664265.7895 3.4384
 3.4426
 [1325]ENERGY: 270000 3413.9162 5598.4195 5950.8047
 352.5311 -14952.3604 -1750.6401 0.0000 0.0000
 8415.5757 7028.2468 313.9412 -1387.3290 7093.4714
 313.1717 -1.8647 99.3010 664265.7895 -0.6749
 -0.6687
 [1375]ENERGY: 280000 3416.5381 5631.0102 5999.6039
 352.0292 -14970.0983 -1785.2447 0.0000 0.0000
 8382.4988 7026.3373 312.7073 -1356.1615 7093.1153
 313.3336 -34.1182 -88.7563 664265.7895 1.5623
 1.5427
 [1411]ENERGY: 290000 3404.5179 5580.8342 5921.6985
 367.9392 -14996.1412 -1731.2741 0.0000 0.0000
 8477.6536 7025.2280 316.2570 -1452.4256 7093.6795
 313.2834 -29.6551 -19.8791 664265.7895 -3.0673
 -3.0530
 [1464]ENERGY: 300000 3525.0202 5638.2335 5923.6474
 329.4026 -14937.0556 -1829.2907 0.0000 0.0000
 8375.0880 7025.0453 312.4309 -1350.0427 7093.6043
 313.4812 -162.6649 -232.9050 664265.7895 -0.2224
 -0.2412
 [1500]ENERGY: 310000 3515.3765 5635.5826 5873.6993
 354.1562 -14974.8726 -1813.3861 0.0000 0.0000
 8433.8424 7024.3983 314.6227 -1409.4441 7093.4288
 313.5080 55.2201 116.9883 664265.7895 0.8410
 0.8491
 [1550]ENERGY: 320000 3495.8964 5644.1755 5917.4150
 346.5828 -14955.4561 -1779.1726 0.0000 0.0000
 8357.0568 7026.4978 311.7582 -1330.5591 7094.6134
 313.6912 -21.6245 -39.0512 664265.7895 -0.1438
 -0.1366
 [1586]ENERGY: 330000 3509.8707 5704.1406 5879.2907
 372.3326 -15135.9314 -1698.5280 0.0000 0.0000
 8396.1721 7027.3472 313.2174 -1368.8249 7094.9145
 313.9618 99.1836 63.6825 664265.7895 0.3853
 0.3890
 [1636]ENERGY: 340000 3429.4163 5593.7688 5912.8179
 374.3610 -14962.7986 -1786.8183 0.0000 0.0000
 8465.9375 7026.6846 315.8200 -1439.2529 7095.4181
 314.1327 30.9340 -40.2014 664265.7895 -0.2713
 -0.2946
 [1672]ENERGY: 350000 3458.1400 5656.1178 5972.9692
 340.3582 -15008.7841 -1791.6956 0.0000 0.0000
 8403.3654 7030.4709 313.4857 -1372.8945 7094.4157

Supplementary Text 6

314.3730	142.0180	77.8973	664265.7895	-0.3699
-0.3674				
[1722]ENERGY:	360000	3385.6095	5663.2529	5919.4145
340.3764	-14972.3407	-1767.4069	0.0000	0.0000
8458.1830	7027.0888	315.5307	-1431.0942	7094.4813
314.2972	149.2979	120.3622	664265.7895	0.1659
0.1898				
[1758]ENERGY:	370000	3490.4504	5686.4463	5972.1755
365.3797	-15124.1112	-1736.4893	0.0000	0.0000
8377.7173	7031.5687	312.5289	-1346.1486	7095.8687
314.1990	11.2771	-15.4018	664265.7895	0.5514
0.5404				
[1808]ENERGY:	380000	3434.8474	5732.4348	5919.4548
348.9513	-15155.7993	-1727.0716	0.0000	0.0000
8470.8384	7023.6559	316.0028	-1447.1825	7094.3868
314.3058	45.9010	87.8050	664265.7895	-0.8854
-0.8831				
[1844]ENERGY:	390000	3428.1535	5693.6210	5902.7471
371.7121	-15139.8955	-1732.2227	0.0000	0.0000
8500.6012	7024.7168	317.1131	-1475.8844	7095.1500
314.4479	-122.0283	-126.3984	664265.7895	1.7559
1.7708				
[1897]ENERGY:	400000	3479.2372	5574.1573	5861.8107
366.3262	-14952.7250	-1719.7782	0.0000	0.0000
8424.4422	7033.4703	314.2720	-1390.9718	7096.8301
314.2233	3.7254	10.1544	664265.7895	-0.4491
-0.4572				
[1933]ENERGY:	410000	3384.5830	5677.8802	5928.2009
368.1859	-15000.1269	-1713.6697	0.0000	0.0000
8386.9323	7031.9856	312.8727	-1354.9466	7096.6445
314.2037	122.2791	36.7316	664265.7895	-1.8312
-1.8296				
[1983]ENERGY:	420000	3467.4521	5621.9570	5925.9536
356.2904	-15019.3828	-1752.0229	0.0000	0.0000
8427.8364	7028.0837	314.3986	-1399.7527	7095.9638
314.5345	133.5841	31.1702	664265.7895	1.0517
1.0284				
[2019]ENERGY:	430000	3490.4044	5687.6761	5902.4849
337.6334	-15120.2324	-1772.9044	0.0000	0.0000
8501.2590	7026.3211	317.1376	-1474.9380	7096.0183
314.7168	51.7702	41.3323	664265.7895	-0.1746
-0.1587				
[2069]ENERGY:	440000	3458.6501	5621.9201	5888.5541
359.4718	-14906.5982	-1791.7014	0.0000	0.0000
8398.6210	7028.9175	313.3087	-1369.7035	7096.8992
314.7156	9.5139	44.0388	664265.7895	1.3889
1.3898				
[2105]ENERGY:	450000	3504.6352	5606.2943	5911.1319
339.7664	-15030.2437	-1742.8733	0.0000	0.0000
8438.9375	7027.6483	314.8127	-1411.2892	7096.6519
314.5703	-40.6374	-15.2886	664265.7895	-1.2900
-1.2799				
[2155]ENERGY:	460000	3504.2789	5603.9684	5870.1601
355.7414	-14937.3076	-1796.7311	0.0000	0.0000

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8428.6502	7028.7604	314.4290	-1399.8898	7097.5014
314.6200	83.7596	33.5908	664265.7895	-0.4930
-0.5105				
[2191]ENERGY:	470000	3465.2708	5495.8180	5921.1250
354.3204	-14891.9588	-1760.1125	0.0000	0.0000
8444.0816	7028.5445	315.0046	-1415.5370	7096.5948
314.6419	-3.7176	-25.6913	664265.7895	-0.2606
-0.2661				
[2241]ENERGY:	480000	3424.1069	5661.1575	5921.9167
345.6306	-15043.5106	-1785.6422	0.0000	0.0000
8505.7173	7029.3762	317.3040	-1476.3411	7098.1577
314.7609	101.8586	75.9857	664265.7895	1.6593
1.6707				
[2277]ENERGY:	490000	3444.5570	5578.8679	5900.4965
350.4550	-14941.0392	-1843.1926	0.0000	0.0000
8533.3858	7023.5303	318.3361	-1509.8555	7096.6064
314.8496	-145.3379	-107.8231	664265.7895	-1.2928
-1.2782				
[2330]ENERGY:	500000	3487.2389	5667.3582	5858.0840
357.7218	-15045.1850	-1749.1863	0.0000	0.0000
8453.3109	7029.3426	315.3489	-1423.9683	7097.5420
315.0739	119.5225	46.5591	664265.7895	-0.0877
-0.0914				
[2366]ENERGY:	510000	3476.0016	5697.6239	5905.7599
349.1858	-15050.6183	-1827.8371	0.0000	0.0000
8477.4749	7027.5907	316.2504	-1449.8842	7097.4391
315.5300	-35.4453	48.6519	664265.7895	0.4028
0.3862				
[2416]ENERGY:	520000	3507.8379	5667.1834	5880.6571
366.0487	-15053.6747	-1833.1861	0.0000	0.0000
8495.0894	7029.9557	316.9075	-1465.1337	7096.1354
315.6829	-83.8960	-55.0878	664265.7895	-1.1281
-1.1117				
[2452]ENERGY:	530000	3488.1047	5646.7752	5890.9418
343.7699	-15150.4333	-1725.9326	0.0000	0.0000
8534.5927	7027.8183	318.3811	-1506.7743	7097.9110
315.5950	63.1087	127.0445	664265.7895	-0.0939
-0.1146				
[2502]ENERGY:	540000	3530.9746	5712.4240	5870.7602
331.5287	-15046.5461	-1838.4459	0.0000	0.0000
8467.1340	7027.8294	315.8646	-1439.3046	7098.2868
315.3944	-102.5668	-63.4853	664265.7895	0.5915
0.6029				
[2538]ENERGY:	550000	3519.5807	5581.3255	5915.8518
344.0924	-15071.9012	-1821.4751	0.0000	0.0000
8558.4895	7025.9637	319.2726	-1532.5258	7098.9491
315.7802	-10.5139	-31.7730	664265.7895	1.6705
1.6761				
[2588]ENERGY:	560000	3559.0511	5610.9117	5915.7312
345.8857	-14930.0688	-1825.2098	0.0000	0.0000
8353.8274	7030.1285	311.6377	-1323.6989	7099.0122
315.6052	7.8680	-51.4340	664265.7895	-0.9586
-0.9595				
[2624]ENERGY:	570000	3549.5997	5613.3541	5849.5486

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377.5072	-15055.0877	-1792.1509	0.0000	0.0000
8488.0187	7030.7896	316.6437	-1457.2291	7098.4799
315.6000	-46.5827	-9.5565	664265.7895	-1.0327
-1.0465				
[2674]ENERGY:	580000	3497.3842	5660.5698	5938.8816
358.7590	-15130.2138	-1684.1869	0.0000	0.0000
8389.9064	7031.1003	312.9837	-1358.8061	7098.5577
315.7796	26.6157	37.4878	664265.7895	1.1548
1.1733				
[2710]ENERGY:	590000	3438.1716	5694.2998	5857.1450
336.8451	-15010.4626	-1794.0046	0.0000	0.0000
8506.6402	7028.6345	317.3384	-1478.0057	7099.3781
315.7765	-5.0254	-92.1295	664265.7895	-0.4974
-0.5086				
[2763]ENERGY:	600000	3526.6934	5722.3610	5864.9842
349.5862	-15185.4442	-1747.2604	0.0000	0.0000
8498.2847	7029.2049	317.0267	-1469.0798	7100.1043
315.6800	-71.1317	16.6351	664265.7895	0.7726
0.7780				
[2799]ENERGY:	610000	3502.8917	5668.8584	5829.6393
336.9871	-15097.4033	-1606.8863	0.0000	0.0000
8400.7419	7034.8288	313.3879	-1365.9131	7099.9107
315.6279	61.9704	55.8452	664265.7895	-0.5782
-0.5879				
[2849]ENERGY:	620000	3517.1397	5633.9086	5902.0187
326.2668	-15118.3496	-1716.4203	0.0000	0.0000
8485.7442	7030.3080	316.5589	-1455.4362	7099.3772
315.6203	22.8445	30.7259	664265.7895	0.2709
0.2700				
[2885]ENERGY:	630000	3523.6628	5622.9389	5866.4028
373.7067	-14988.1503	-1824.9466	0.0000	0.0000
8459.2920	7032.9063	315.5721	-1426.3857	7099.4792
315.5317	-41.6063	-36.3369	664265.7895	0.2673
0.2701				
[2935]ENERGY:	640000	3444.3025	5686.6034	5884.3779
347.4349	-15023.5751	-1749.8577	0.0000	0.0000
8443.4891	7032.7751	314.9825	-1410.7141	7099.5514
315.3725	57.8553	81.4800	664265.7895	-1.2318
-1.2373				
[2971]ENERGY:	650000	3471.6304	5643.6510	5905.8847
348.6054	-15006.9213	-1811.9286	0.0000	0.0000
8480.4891	7031.4107	316.3628	-1449.0783	7100.8517
315.3990	-183.9839	-132.4794	664265.7895	2.1196
2.1191				
[3021]ENERGY:	660000	3405.2740	5600.0344	5891.7160
342.6803	-15007.1157	-1708.2374	0.0000	0.0000
8504.6670	7029.0186	317.2648	-1475.6484	7100.2784
315.7165	48.2915	41.2437	664265.7895	-1.8848
-1.8759				
[3057]ENERGY:	670000	3441.5492	5677.1271	5917.6022
356.8931	-15051.6053	-1808.3340	0.0000	0.0000
8495.5053	7028.7377	316.9230	-1466.7676	7100.9463
315.7515	-19.6828	-54.1698	664265.7895	1.2326
1.2243				

Supplementary Text 6

[3107]ENERGY:	680000	3576.0727	5597.7818	5885.3415	
	341.7638	-15093.1127	-1772.3836	0.0000	0.0000
	8497.7555	7033.2191	317.0069	-1464.5364	7101.8095
	315.8756	-8.5349	-116.7475	664265.7895	1.4003
	1.3964				
[3143]ENERGY:	690000	3415.9382	5722.3415	5875.8222	
	366.7277	-15017.3217	-1741.6022	0.0000	0.0000
	8411.8584	7033.7640	313.8026	-1378.0943	7101.9977
	315.9023	189.7015	89.6214	664265.7895	-2.0165
	-1.9995				
[3196]ENERGY:	700000	3448.5534	5655.0110	5930.3891	
	357.4769	-14950.3290	-1838.6841	0.0000	0.0000
	8430.7469	7033.1642	314.5072	-1397.5827	7101.5855
	315.9360	-99.6142	-50.8892	664265.7895	0.3004
	0.3122				
[3232]ENERGY:	710000	3444.1711	5700.1376	5893.8210	
	362.7736	-15028.1184	-1754.8687	0.0000	0.0000
	8416.9189	7034.8352	313.9913	-1382.0837	7103.6086
	315.9506	165.0241	120.2987	664265.7895	-2.6409
	-2.6749				
[3282]ENERGY:	720000	3544.7315	5720.1996	5918.4480	
	350.7104	-15084.6187	-1817.0976	0.0000	0.0000
	8404.1770	7036.5502	313.5160	-1367.6269	7103.4173
	316.2871	148.3087	76.0740	664265.7895	-2.1091
	-2.0781				
[3318]ENERGY:	730000	3453.3476	5743.4209	5882.2231	
	368.1552	-15202.8537	-1788.0633	0.0000	0.0000
	8574.1401	7030.3699	319.8564	-1543.7702	7101.5928
	317.0615	-83.2123	22.6712	664265.7895	-5.6970
	-5.6926				
[3368]ENERGY:	740000	3556.2968	5629.8658	5952.1065	
	341.7107	-15206.6296	-1781.6841	0.0000	0.0000
	8543.7856	7035.4516	318.7241	-1508.3340	7100.3995
	318.0858	41.3474	68.0264	664265.7895	-6.4541
	-6.4810				
[3404]ENERGY:	750000	3559.3608	5779.5642	5906.5039	
	352.5989	-15187.1281	-1865.4322	0.0000	0.0000
	8489.9830	7035.4506	316.7170	-1454.5324	7102.1589
	318.6641	21.0793	39.0401	664265.7895	-8.6660
	-8.6388				
[3454]ENERGY:	760000	3481.1441	5640.8714	5872.0603	
	365.1531	-15066.0515	-1836.4745	0.0000	0.0000
	8575.7931	7032.4961	319.9181	-1543.2970	7101.2487
	318.7074	-29.8927	-88.4980	664265.7895	-8.5268
	-8.5466				
[3490]ENERGY:	770000	3581.9971	5647.3814	5923.8627	
	356.5404	-15163.1157	-1871.0973	0.0000	0.0000
	8559.2402	7034.8088	319.3006	-1524.4314	7101.6359
	318.8478	34.4097	5.4662	664265.7895	-5.7521
	-5.7545				
[3540]ENERGY:	780000	3514.7610	5650.1971	5875.3809	
	332.2029	-15113.3349	-1801.8097	0.0000	0.0000
	8579.1822	7036.5795	320.0445	-1542.6027	7101.0198
	318.8377	-58.5613	-145.8306	664265.7895	-20.9937

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-20.9911
 [3576]ENERGY: 790000 3537.8558 5810.7267 5863.7652
 335.9187 -15155.8188 -1867.3949 0.0000 0.0000
 8508.7799 7033.8326 317.4182 -1474.9474 7100.2804
 319.0549 -4.1505 -50.5991 664265.7895 -16.5709
 -16.5708
 [3629]ENERGY: 800000 3616.8274 5766.3376 5909.0216
 342.6012 -15232.8778 -1865.7372 0.0000 0.0000
 8499.6549 7035.8278 317.0778 -1463.8272 7100.8748
 319.1513 -41.1238 -41.0475 664265.7895 -12.2574
 -12.2567
 [3665]ENERGY: 810000 3507.5212 5782.6241 5945.0767
 343.4092 -15193.1336 -1849.4133 0.0000 0.0000
 8495.7638 7031.8482 316.9326 -1463.9157 7101.3661
 319.0911 11.8848 -91.9358 664265.7895 -10.6035
 -10.6057
 [3715]ENERGY: 820000 3505.0028 5652.1712 5912.8391
 356.2163 -15231.1848 -1777.1719 0.0000 0.0000
 8612.3701 7030.2429 321.2826 -1582.1273 7100.9467
 319.1255 71.6419 22.5304 664265.7895 -12.0511
 -12.0502
 [3751]ENERGY: 830000 3514.5419 5796.3343 5890.9073
 365.9597 -15243.9558 -1868.4503 0.0000 0.0000
 8578.9529 7034.2900 320.0360 -1544.6629 7103.3504
 319.0159 -67.9961 -94.3753 664265.7895 -18.5286
 -18.5140
 [3801]ENERGY: 840000 3461.8941 5753.4333 5896.9793
 355.2193 -15199.6908 -1803.0320 0.0000 0.0000
 8569.4875 7034.2907 319.6829 -1535.1968 7103.6506
 319.3140 14.5487 20.9285 664265.7895 -12.6724
 -12.6923
 [3837]ENERGY: 850000 3509.2203 5727.7650 5867.5497
 356.0214 -15220.3322 -1816.7348 0.0000 0.0000
 8610.3157 7033.8051 321.2060 -1576.5106 7104.3608
 319.4057 -68.6115 -94.6259 664265.7895 -8.7787
 -8.7689
 [3887]ENERGY: 860000 3491.3698 5790.8622 5904.0445
 362.0689 -15171.9917 -1904.9002 0.0000 0.0000
 8560.7667 7032.2203 319.3576 -1528.5464 7104.0561
 319.3661 -28.4422 35.9736 664265.7895 -9.5496
 -9.5433
 [3923]ENERGY: 870000 3562.5579 5702.8449 5917.8733
 347.9722 -15208.2889 -1756.0968 0.0000 0.0000
 8470.0203 7036.8829 315.9723 -1433.1374 7104.1437
 319.5286 -173.3270 -147.7073 664265.7895 -15.9202
 -15.9148
 [3973]ENERGY: 880000 3518.4842 5728.9699 5834.5221
 343.0513 -15211.6274 -1787.2288 0.0000 0.0000
 8605.9825 7032.1537 321.0443 -1573.8287 7103.5142
 319.4771 74.6796 2.1260 664265.7895 -13.0934
 -13.0989
 [4009]ENERGY: 890000 3599.4617 5712.1056 5938.2489
 362.5761 -15182.4169 -1854.1161 0.0000 0.0000
 8462.8229 7038.6822 315.7038 -1424.1406 7104.7008

Supplementary Text 6

319.3378	46.8203	-7.9414	664265.7895	-19.5268
-19.5281				
[4062]ENERGY:	900000	3626.5064	5735.7517	5892.3665
320.9385	-15246.5343	-1842.8171	0.0000	0.0000
8548.5021	7034.7137	318.9000	-1513.7884	7104.9435
319.4514	-292.8328	-201.0221	664265.7895	-12.0086
-12.0068				
[4098]ENERGY:	910000	3413.9841	5668.8063	5848.1856
359.5440	-15080.2927	-1882.1202	0.0000	0.0000
8702.8277	7030.9349	324.6571	-1671.8928	7105.4797
319.2143	83.1398	-131.2131	664265.7895	-18.2312
-18.2406				
[4148]ENERGY:	920000	3568.9714	5817.9294	5822.2992
348.9902	-15141.0064	-1882.9597	0.0000	0.0000
8501.8282	7036.0524	317.1589	-1465.7759	7104.8168
319.4367	-123.1863	-79.4961	664265.7895	-9.6287
-9.6296				
[4184]ENERGY:	930000	3516.7154	5722.1642	5915.7171
340.7575	-15120.6515	-1801.2659	0.0000	0.0000
8463.7262	7037.1629	315.7375	-1426.5633	7105.8488
319.6707	-186.6561	-154.4953	664265.7895	-14.2192
-14.2042				
[4234]ENERGY:	940000	3543.7145	5741.8177	5881.0229
344.2853	-15191.9263	-1827.0940	0.0000	0.0000
8543.7856	7035.6057	318.7241	-1508.1799	7104.9774
319.5157	-82.3702	-79.1339	664265.7895	-11.5187
-11.5367				
[4270]ENERGY:	950000	3446.6829	5666.2125	5920.3264
343.3813	-15159.9937	-1760.4399	0.0000	0.0000
8580.5939	7036.7635	320.0972	-1543.8304	7106.7193
319.5164	-10.5715	-29.3883	664265.7895	-13.3131
-13.3155				
[4320]ENERGY:	960000	3499.0998	5756.6720	5931.2613
374.6202	-15139.2273	-1867.2720	0.0000	0.0000
8485.4773	7040.6313	316.5489	-1444.8460	7107.9948
319.6811	-91.7567	-64.6145	664265.7895	-11.0963
-11.0933				
[4356]ENERGY:	970000	3497.1715	5719.8019	5889.4242
366.1482	-15129.4946	-1797.4611	0.0000	0.0000
8492.7054	7038.2956	316.8185	-1454.4099	7105.6118
319.6248	-105.8279	-69.0651	664265.7895	-17.0783
-17.0673				
[4406]ENERGY:	980000	3471.9856	5824.7955	5885.0843
337.1295	-15097.7732	-1932.9456	0.0000	0.0000
8549.3867	7037.6628	318.9330	-1511.7239	7107.1958
319.6647	50.5128	38.4516	664265.7895	-13.9892
-13.9948				
[4442]ENERGY:	990000	3536.1770	5769.1191	5813.0235
338.7831	-15154.3641	-1855.1158	0.0000	0.0000
8594.1497	7041.7724	320.6029	-1552.3773	7107.7315
319.6894	26.0554	-5.9328	664265.7895	-18.4870
-18.5019				
[4495]ENERGY:	1000000	3499.6059	5702.5003	5890.1385
338.9883	-15213.0103	-1736.1932	0.0000	0.0000

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8557.7974	7039.8270	319.2468	-1517.9704	7105.7492
319.6962	148.2703	132.3973	664265.7895	-19.5908
-19.5890				
[268]ENERGY: 1010000	3564.6794	5636.7333	5883.2314	364.5394
-15195.6911	-1812.9826	0.0000	0.0000	8597.2648
7037.7746	320.7191	-1559.4902	7107.4515	319.8131
-25.1495	-1.5146	664265.7895	-18.5601	-18.5383
[307]ENERGY: 1020000	3539.1870	5733.9983	5908.9809	364.2276
-15152.0874	-1861.4279	0.0000	0.0000	8506.7057
7039.5843	317.3408	-1467.1214	7107.3758	319.8780
-15.0692	-3.0424	664265.7895	-22.6391	-22.6636
[359]ENERGY: 1030000	3561.3961	5718.2051	5949.9086	340.2536
-15294.1332	-1860.2648	0.0000	0.0000	8620.1959
7035.5612	321.5746	-1584.6347	7108.1381	319.8159
-263.7548	-231.4252	664265.7895	-17.1114	-17.0863
[397]ENERGY: 1040000	3498.8255	5680.5072	5917.6178	349.7783
-15175.7446	-1805.5473	0.0000	0.0000	8571.3137
7036.7507	319.7510	-1534.5630	7106.9737	319.9228
54.6470	-11.2181	664265.7895	-19.9948	-20.0108
[449]ENERGY: 1050000	3579.7145	5603.8946	5911.4611	361.1449
-15179.7602	-1787.5962	0.0000	0.0000	8551.1605
7040.0193	318.9992	-1511.1412	7108.0197	319.9869
-5.3298	-38.3186	664265.7895	-19.4509	-19.4521
[487]ENERGY: 1060000	3601.5803	5719.2849	5894.6315	354.3160
-15223.6474	-1852.6753	0.0000	0.0000	8545.3564
7038.8463	318.7827	-1506.5101	7108.0574	320.0449
-109.6301	-162.3144	664265.7895	-19.4080	-19.3994
[538]ENERGY: 1070000	3476.3177	5841.3469	5894.3097	364.8748
-15258.7830	-1828.7240	0.0000	0.0000	8547.3857
7036.7278	318.8584	-1510.6579	7108.2686	319.7146
-17.1275	-163.4269	664265.7895	-16.4862	-16.4929
[575]ENERGY: 1080000	3497.5837	5740.4164	5905.0440	359.5358
-15157.9047	-1829.8781	0.0000	0.0000	8525.7851
7040.5821	318.0526	-1485.2030	7108.5263	319.7312
-106.1282	-148.0595	664265.7895	-18.6974	-18.7102
[626]ENERGY: 1090000	3518.9351	5819.4921	5895.6763	360.8016
-15164.6724	-1876.7929	0.0000	0.0000	8491.9418
7045.3817	316.7901	-1446.5602	7109.5680	319.8603
19.1135	-33.8778	664265.7895	-18.9984	-18.9878
[666]ENERGY: 1100000	3584.1196	5700.6215	5874.8279	341.9818
-15221.6115	-1734.7433	0.0000	0.0000	8495.3769
7040.5727	316.9182	-1454.8042	7107.7743	320.0457
42.6461	-5.1171	664265.7895	-6.6738	-6.6917
[717]ENERGY: 1110000	3518.9188	5659.7129	5870.5463	354.4174
-15195.7767	-1750.3719	0.0000	0.0000	8586.3020
7043.7488	320.3101	-1542.5532	7110.7501	320.1200
124.1860	37.4778	664265.7895	-10.4170	-10.3876
[753]ENERGY: 1120000	3471.0286	5768.0088	5889.7671	355.3761
-15152.5339	-1885.2228	0.0000	0.0000	8592.9864
7039.4103	320.5595	-1553.5761	7110.9557	320.0420
80.9906	-97.2689	664265.7895	-12.5648	-12.5733
[803]ENERGY: 1130000	3435.9600	5699.8953	5910.9633	381.3902
-15159.0212	-1795.2813	0.0000	0.0000	8569.5647
7043.4711	319.6858	-1526.0936	7111.0585	320.0710

Supplementary Text 6

	68.9083	50.7349	664265.7895	-10.9169	-10.9370
[839]ENERGY:	1140000	3502.5752	5807.6131	5885.2333	318.8968
	-15161.6131	-1870.6254	0.0000	0.0000	8559.3601
	7041.4400	319.3051	-1517.9201	7110.9308	320.1090
	-42.7024	-8.6703	664265.7895	-19.2689	-19.2472
[889]ENERGY:	1150000	3491.5365	5662.8597	5839.3721	338.1243
	-15069.3814	-1799.4754	0.0000	0.0000	8579.6444
	7042.6802	320.0618	-1536.9641	7112.6492	319.8924
	63.1068	1.1657	664265.7895	-20.3419	-20.3351
[925]ENERGY:	1160000	3591.6218	5792.0661	5833.8578	361.7915
	-15251.9507	-1860.8104	0.0000	0.0000	8578.4561
	7045.0323	320.0175	-1533.4239	7113.7996	320.1325
	-31.0692	-32.7593	664265.7895	-15.5410	-15.5515
[975]ENERGY:	1170000	3542.5982	5710.3730	5880.3072	371.4318
	-15222.4932	-1838.5349	0.0000	0.0000	8600.1077
	7043.7898	320.8252	-1556.3179	7112.6522	319.9752
	-40.9827	-58.5018	664265.7895	-9.1255	-9.1144
[1011]ENERGY:	1180000	3508.9449	5774.1153	5858.8860	
	358.8004	-15255.0269	-1805.5606	0.0000	0.0000
	8602.7481	7042.9073	320.9237	-1559.8408	7112.1472
	319.8381	73.5895	83.6402	664265.7895	-19.5487
	-19.5517				
[1061]ENERGY:	1190000	3504.9802	5715.2261	5909.5015	
	349.4420	-15158.6095	-1798.5787	0.0000	0.0000
	8522.3095	7044.2711	317.9229	-1478.0384	7112.7955
	320.1978	-31.2041	-6.1329	664265.7895	-20.3718
	-20.3595				
[1100]ENERGY:	1200000	3475.6924	5813.2420	5867.2523	
	358.1195	-15193.3903	-1869.2116	0.0000	0.0000
	8589.6660	7041.3703	320.4356	-1548.2957	7113.8952
	320.0507	7.1894	-94.9941	664265.7895	-27.9058
	-27.9289				
[1150]ENERGY:	1210000	3577.6200	5876.3549	5873.2994	
	347.3084	-15232.5877	-1908.4490	0.0000	0.0000
	8511.2319	7044.7779	317.5097	-1466.4540	7114.3645
	320.0200	-39.8836	-114.1344	664265.7895	-22.9513
	-22.9408				
[1186]ENERGY:	1220000	3487.8093	5759.4313	5945.9985	
	351.6881	-15249.5186	-1789.3095	0.0000	0.0000
	8542.4275	7048.5266	318.6734	-1493.9009	7114.8257
	319.9593	247.8329	133.8605	664265.7895	-25.5673
	-25.5667				
[1236]ENERGY:	1230000	3517.1222	5802.6077	5825.5201	
	381.8810	-15221.9951	-1843.8655	0.0000	0.0000
	8586.7335	7048.0039	320.3262	-1538.7296	7115.8143
	319.9594	41.8841	-66.7678	664265.7895	-20.7481
	-20.7364				
[1272]ENERGY:	1240000	3501.2589	5763.6245	5861.4110	
	365.9635	-15202.4031	-1846.3198	0.0000	0.0000
	8600.9263	7044.4613	320.8557	-1556.4650	7116.6493
	319.8745	226.7908	93.5937	664265.7895	-23.1520
	-23.1683				
[1322]ENERGY:	1250000	3459.1379	5810.8587	5819.6034	
	348.3431	-15263.1979	-1780.0072	0.0000	0.0000

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8650.5987	7045.3367	322.7087	-1605.2620	7116.4573
320.0514	116.1518	146.7744	664265.7895	-21.2440
-21.2478				
[1358]ENERGY: 1260000	3530.5558	5722.9480	5910.5475	
343.7053	-15171.3021	-1871.2751	0.0000	0.0000
8584.6458	7049.8253	320.2484	-1534.8206	7116.8825
320.0977	-22.2522	-9.8360	664265.7895	-21.3673
-21.3526				
[1408]ENERGY: 1270000	3566.0445	5677.4739	5935.5859	
364.1915	-15219.4859	-1838.9355	0.0000	0.0000
8564.3551	7049.2296	319.4914	-1515.1256	7118.5424
320.0941	-13.5412	-42.9238	664265.7895	-19.0537
-19.0639				
[1444]ENERGY: 1280000	3436.6314	5743.6115	5856.7717	
355.2969	-15209.8004	-1806.1872	0.0000	0.0000
8667.6661	7043.9899	323.3454	-1623.6761	7118.4317
320.1054	64.9006	44.8133	664265.7895	-23.3793
-23.3808				
[1494]ENERGY: 1290000	3563.5740	5725.2614	5941.0141	
352.4272	-15275.7057	-1785.4317	0.0000	0.0000
8531.7639	7052.9032	318.2756	-1478.8608	7120.7389
320.2454	-17.5710	-47.9249	664265.7895	-19.6110
-19.6147				
[1533]ENERGY: 1300000	3532.4835	5768.8007	5883.5067	
381.5877	-15239.3193	-1822.1533	0.0000	0.0000
8546.8944	7051.8004	318.8401	-1495.0940	7120.0624
320.0627	89.7438	67.2490	664265.7895	-10.1712
-10.1695				
[1583]ENERGY: 1310000	3517.7578	5697.9903	5917.9903	
368.5535	-15100.4036	-1905.7042	0.0000	0.0000
8552.0664	7048.2505	319.0330	-1503.8159	7121.0588
320.1531	-162.8877	-192.3068	664265.7895	-18.3914
-18.3890				
[1619]ENERGY: 1320000	3488.0742	5747.7218	5819.2086	
344.7252	-15264.4300	-1775.9468	0.0000	0.0000
8686.5690	7045.9220	324.0506	-1640.6469	7118.2550
320.5028	30.7346	101.8870	664265.7895	-24.8245
-24.8134				
[1669]ENERGY: 1330000	3594.6184	5803.3080	5878.4078	
356.3332	-15275.2269	-1821.0281	0.0000	0.0000
8516.2588	7052.6712	317.6972	-1463.5876	7121.8025
320.4080	-25.8492	-50.0525	664265.7895	-23.1547
-23.1575				
[1705]ENERGY: 1340000	3538.1865	5698.0571	5911.4366	
358.3058	-15204.9775	-1828.0174	0.0000	0.0000
8577.1426	7050.1337	319.9685	-1527.0088	7120.1359
320.6866	-207.5441	-140.7946	664265.7895	-23.6114
-23.6306				
[1755]ENERGY: 1350000	3591.2585	5647.7553	5912.9134	
363.7485	-15235.9268	-1804.2950	0.0000	0.0000
8580.6073	7056.0611	320.0977	-1524.5462	7121.7178
320.6344	-85.3739	-47.9436	664265.7895	-19.1986
-19.1970				
[1791]ENERGY: 1360000	3557.8690	5664.0475	5932.5978	

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361.4980	-15180.2751	-1875.8412	0.0000	0.0000
8593.2935	7053.1896	320.5710	-1540.1039	7121.8662
320.5870	-87.8386	-37.4284	664265.7895	-17.9577
-17.9418				
[1841]ENERGY: 1370000	3526.6662	5809.6324	5852.3374	
342.5855	-15279.4332	-1819.9555	0.0000	0.0000
8619.4579	7051.2907	321.5470	-1568.1673	7120.9808
320.5687	-106.2685	-101.4249	664265.7895	-17.3634
-17.3644				
[1877]ENERGY: 1380000	3501.3534	5738.6762	5892.9504	
350.1227	-15219.8459	-1741.8603	0.0000	0.0000
8533.8842	7055.2807	318.3547	-1478.6035	7122.3028
320.5362	37.6860	59.9820	664265.7895	-21.1874
-21.1869				
[1927]ENERGY: 1390000	3577.5940	5718.6635	5865.3023	
321.9701	-15131.5939	-1884.1892	0.0000	0.0000
8589.3369	7057.0837	320.4234	-1532.2532	7124.9600
320.5245	69.0103	-99.1834	664265.7895	-19.3684
-19.3788				
[1966]ENERGY: 1400000	3522.6388	5683.2454	5919.6151	
356.3209	-15232.7997	-1788.5378	0.0000	0.0000
8592.5576	7053.0403	320.5435	-1539.5173	7123.3037
320.4654	193.4962	170.5582	664265.7895	-16.5867
-16.5771				
[2016]ENERGY: 1410000	3610.8563	5716.8469	5923.5734	
359.3075	-15243.1856	-1845.2000	0.0000	0.0000
8534.0485	7056.2470	318.3608	-1477.8015	7124.4065
320.6297	-18.5118	-39.5433	664265.7895	-19.1129
-19.1149				
[2052]ENERGY: 1420000	3540.1689	5854.3447	5882.1188	
327.2890	-15273.7161	-1881.1867	0.0000	0.0000
8603.7621	7052.7808	320.9615	-1550.9813	7124.0079
320.9556	-183.2567	-219.4508	664265.7895	-16.2450
-16.2412				
[2102]ENERGY: 1430000	3572.6490	5735.0638	5857.5870	
366.2123	-15217.6753	-1833.9352	0.0000	0.0000
8575.8890	7055.7906	319.9217	-1520.0984	7125.0419
320.6456	49.5867	6.3094	664265.7895	-20.5994
-20.6104				
[2138]ENERGY: 1440000	3533.9785	5702.3843	5867.9825	
360.4956	-15271.8578	-1802.7951	0.0000	0.0000
8663.8794	7054.0672	323.2042	-1609.8121	7124.8956
320.6471	-134.7325	-57.0019	664265.7895	-11.9038
-11.8931				
[2188]ENERGY: 1450000	3384.9111	5691.1033	5934.8058	
362.1186	-15175.1667	-1813.1426	0.0000	0.0000
8670.0800	7054.7096	323.4355	-1615.3705	7124.4236
320.6569	128.9118	136.2106	664265.7895	-10.5710
-10.5578				
[2224]ENERGY: 1460000	3569.3994	5706.4514	5885.9650	
346.0225	-15258.0911	-1787.2905	0.0000	0.0000
8591.7325	7054.1892	320.5127	-1537.5433	7124.7868
320.7066	-26.2689	8.9060	664265.7895	-16.1120
-16.1270				

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[2274]ENERGY: 1470000	3538.8208	5699.9593	5909.4533	
377.4529	-15273.6499	-1814.1781	0.0000	0.0000
8615.0909	7052.9492	321.3841	-1562.1418	7123.3740
320.6406	-33.1178	-50.6229	664265.7895	-17.9998
-18.0119				
[2310]ENERGY: 1480000	3603.0117	5770.9225	5835.3733	
342.1215	-15196.9649	-1767.7784	0.0000	0.0000
8471.9819	7058.6676	316.0455	-1413.3142	7123.3067
320.4948	-42.1490	-17.7973	664265.7895	-22.2224
-22.2062				
[2360]ENERGY: 1490000	3539.1244	5727.2972	5901.3946	
360.8847	-15235.8757	-1863.2877	0.0000	0.0000
8624.9027	7054.4402	321.7501	-1570.4625	7123.7768
320.9066	-50.5853	-86.9255	664265.7895	-17.3216
-17.3509				
[2399]ENERGY: 1500000	3467.0605	5678.8655	5917.8883	
374.5596	-15224.5719	-1755.6627	0.0000	0.0000
8595.0954	7053.2346	320.6382	-1541.8608	7122.9940
320.9812	168.4652	142.5561	664265.7895	-20.0361
-20.0281				
[2449]ENERGY: 1510000	3572.3070	5744.5193	5835.0554	
344.8028	-15237.8430	-1874.0244	0.0000	0.0000
8673.8873	7058.7044	323.5775	-1615.1830	7125.3837
320.8387	-26.1315	-61.7735	664265.7895	-22.2211
-22.2124				
[2485]ENERGY: 1520000	3484.8290	5725.1753	5871.2173	
364.4997	-15139.3312	-1792.9754	0.0000	0.0000
8547.3505	7060.7653	318.8571	-1486.5852	7125.8791
321.0702	39.8936	-49.5388	664265.7895	-16.4296
-16.4336				
[2535]ENERGY: 1530000	3510.9318	5779.7883	6003.8147	
363.9789	-15339.2115	-1780.0314	0.0000	0.0000
8515.5289	7054.7997	317.6700	-1460.7292	7125.6287
320.8877	73.2589	-8.1432	664265.7895	-13.8150
-13.8220				
[2571]ENERGY: 1540000	3511.5519	5733.3232	5855.5768	
366.9196	-15263.3373	-1756.8107	0.0000	0.0000
8606.6633	7053.8869	321.0697	-1552.7764	7123.9293
320.9415	44.1092	6.1685	664265.7895	-7.7698
-7.7494				
[2621]ENERGY: 1550000	3586.4640	5768.8501	5885.6667	
363.5462	-15220.4880	-1852.1192	0.0000	0.0000
8527.8603	7059.7801	318.1300	-1468.0802	7123.1574
321.0507	-98.6470	-110.8486	664265.7895	-11.0575
-11.0551				
[2657]ENERGY: 1560000	3497.9171	5679.5647	5796.3758	
341.5850	-15190.0210	-1800.9655	0.0000	0.0000
8728.0484	7052.5044	325.5980	-1675.5439	7123.8818
320.9293	-77.9328	-46.4855	664265.7895	-12.5744
-12.5803				
[2707]ENERGY: 1570000	3556.7884	5690.7268	5874.3789	
374.6618	-15218.1014	-1801.9667	0.0000	0.0000
8578.1273	7054.6151	320.0052	-1523.5122	7123.3400
320.7110	44.5977	73.4039	664265.7895	-17.9183

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-17.9303
 [2743]ENERGY: 1580000 3569.9994 5786.2069 5884.2976
 336.9465 -15204.8864 -1862.1868 0.0000 0.0000
 8546.3255 7056.7027 318.8188 -1489.6228 7124.8890
 320.9150 -56.6500 -80.8053 664265.7895 -15.1429
 -15.1321
 [2793]ENERGY: 1590000 3505.1245 5688.6357 5933.5425
 358.0735 -15147.4637 -1884.4668 0.0000 0.0000
 8597.6487 7051.0943 320.7334 -1546.5543 7124.2144
 320.6200 -28.9193 -74.1860 664265.7895 -28.4350
 -28.4465
 [2832]ENERGY: 1600000 3534.2014 5632.3973 5924.2474
 367.6179 -15262.4557 -1812.2808 0.0000 0.0000
 8667.7782 7051.5057 323.3496 -1616.2726 7123.7313
 320.9676 0.1533 45.8452 664265.7895 -19.4354
 -19.4172
 [2882]ENERGY: 1610000 3563.0825 5796.3932 5844.4506
 351.8791 -15287.3288 -1769.4588 0.0000 0.0000
 8554.8076 7053.8254 319.1353 -1500.9821 7124.0220
 320.6292 105.9901 117.6842 664265.7895 -25.0123
 -25.0205
 [2918]ENERGY: 1620000 3555.6325 5706.4035 5856.0266
 352.5595 -15152.8549 -1843.2698 0.0000 0.0000
 8583.5486 7058.0460 320.2074 -1525.5026 7124.7308
 320.7556 -187.1543 -104.2606 664265.7895 -24.0846
 -24.0710
 [2968]ENERGY: 1630000 3546.6443 5767.6694 5902.3954
 369.5883 -15240.5915 -1856.2801 0.0000 0.0000
 8568.5649 7057.9907 319.6485 -1510.5742 7125.2576
 320.8774 203.4181 192.7973 664265.7895 -15.4639
 -15.4761
 [3004]ENERGY: 1640000 3553.0686 5709.5954 5846.3004
 360.6043 -15199.7129 -1783.8971 0.0000 0.0000
 8575.2929 7061.2517 319.8995 -1514.0412 7125.7847
 320.8750 -63.4268 -62.2007 664265.7895 -23.5489
 -23.5409
 [3054]ENERGY: 1650000 3580.8847 5691.2822 5916.5993
 354.7852 -15206.3225 -1808.9720 0.0000 0.0000
 8530.1436 7058.4004 318.2152 -1471.7433 7125.3031
 320.7165 -101.8751 -25.9588 664265.7895 -23.7836
 -23.7863
 [3090]ENERGY: 1660000 3517.0288 5772.2394 5918.1499
 366.7265 -15292.5417 -1810.1154 0.0000 0.0000
 8583.5823 7055.0698 320.2087 -1528.5125 7126.2213
 320.9257 21.0045 -13.1698 664265.7895 -24.4310
 -24.4461
 [3140]ENERGY: 1670000 3596.1439 5728.2310 5888.5654
 366.9125 -15262.3765 -1850.5683 0.0000 0.0000
 8594.6236 7061.5316 320.6206 -1533.0920 7126.3182
 320.7597 -30.4886 -105.4642 664265.7895 -22.8140
 -22.8008
 [3176]ENERGY: 1680000 3510.4375 5755.6320 5942.6844
 364.0425 -15199.2449 -1832.4458 0.0000 0.0000
 8520.0559 7061.1616 317.8388 -1458.8942 7128.0043

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320.6904	187.8388	162.6133	664265.7895	-18.1712
-18.1708				
[3226]ENERGY: 1690000	3517.7988	5715.8724	5903.7202	
365.7676	-15133.5572	-1908.5361	0.0000	0.0000
8597.1106	7058.1763	320.7134	-1538.9343	7127.7922
320.7427	-115.8712	-50.8329	664265.7895	-20.0808
-20.0901				
[3265]ENERGY: 1700000	3580.4542	5832.4632	5868.7378	
345.6558	-15257.7884	-1798.2833	0.0000	0.0000
8487.0599	7058.2992	316.6079	-1428.7607	7126.8085
320.6998	-41.3140	-90.3796	664265.7895	-20.1754
-20.1692				
[3315]ENERGY: 1710000	3539.8063	5727.4966	5904.3024	
371.3663	-15287.1054	-1847.9538	0.0000	0.0000
8648.0623	7055.9746	322.6141	-1592.0876	7127.4371
320.8329	-39.2390	-94.2939	664265.7895	-21.9906
-21.9946				
[3351]ENERGY: 1720000	3567.4332	5802.8814	5849.1987	
342.6554	-15385.7960	-1763.5254	0.0000	0.0000
8644.2238	7057.0711	322.4709	-1587.1527	7126.5909
321.0492	-187.5685	-147.7950	664265.7895	-19.0296
-19.0242				
[3401]ENERGY: 1730000	3542.8514	5813.1807	5868.6133	
346.5503	-15234.5358	-1839.9186	0.0000	0.0000
8563.5270	7060.2684	319.4605	-1503.2587	7125.8359
320.9475	-115.1168	-114.0398	664265.7895	-17.8281
-17.8305				
[3437]ENERGY: 1740000	3478.1048	5807.6352	5865.3370	
344.7425	-15250.8674	-1755.4485	0.0000	0.0000
8568.3516	7057.8553	319.6405	-1510.4963	7127.0550
320.7319	276.0430	181.2160	664265.7895	-6.9634
-6.9764				
[3487]ENERGY: 1750000	3546.9946	5657.7823	5953.0884	
365.2126	-15284.7003	-1811.7159	0.0000	0.0000
8629.4976	7056.1592	321.9215	-1573.3383	7126.7558
320.8121	-74.4845	-50.5367	664265.7895	-6.0079
-6.0025				
[3523]ENERGY: 1760000	3560.8836	5810.8139	5855.0471	
324.4383	-15310.3851	-1748.8371	0.0000	0.0000
8567.5308	7059.4914	319.6099	-1508.0394	7127.2732
320.5860	-16.7125	56.3957	664265.7895	-8.9510
-8.9372				
[3573]ENERGY: 1770000	3532.0681	5691.2302	5803.7424	
365.7019	-15103.6959	-1807.3008	0.0000	0.0000
8576.9192	7058.6651	319.9601	-1518.2541	7127.2157
320.8777	146.8273	76.7069	664265.7895	-14.0124
-14.0240				
[3609]ENERGY: 1780000	3534.9116	5650.1121	5877.8978	
378.3965	-15206.4330	-1823.9568	0.0000	0.0000
8649.6877	7060.6159	322.6747	-1589.0717	7128.5947
320.9126	84.6182	25.8069	664265.7895	-11.7932
-11.7861				
[3659]ENERGY: 1790000	3518.1780	5710.3934	5865.6433	
352.2544	-15129.2754	-1806.7327	0.0000	0.0000

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8553.2904	7063.7514	319.0787	-1489.5390	7129.8817
320.7528	22.5024	-29.0172	664265.7895	-10.8239
-10.8237				
[3698]ENERGY: 1800000	3504.0011	5673.6773	5874.6380	
346.2247	-15208.8084	-1766.1373	0.0000	0.0000
8638.1016	7061.6971	322.2425	-1576.4045	7128.8192
320.7407	-12.1221	50.7539	664265.7895	-22.2380
-22.2462				
[3748]ENERGY: 1810000	3525.1463	5830.9255	5907.8384	
359.9465	-15217.0247	-1864.7758	0.0000	0.0000
8520.8656	7062.9217	317.8691	-1457.9439	7128.3576
320.6090	-151.3520	-66.7500	664265.7895	-23.2907
-23.2775				
[3784]ENERGY: 1820000	3461.9605	5769.5502	5905.5114	
336.6158	-15208.9008	-1792.7136	0.0000	0.0000
8590.2652	7062.2887	320.4580	-1527.9765	7128.3754
320.5949	-25.1123	-21.1450	664265.7895	-18.6792
-18.6774				
[3834]ENERGY: 1830000	3577.6788	5735.0053	5909.5368	
348.3919	-15324.3669	-1841.1401	0.0000	0.0000
8653.3291	7058.4349	322.8106	-1594.8942	7129.3411
320.7723	-94.7614	-127.3462	664265.7895	-15.3844
-15.3842				
[3870]ENERGY: 1840000	3553.5626	5729.5311	5847.2998	
356.4731	-15170.2208	-1778.7545	0.0000	0.0000
8523.0346	7060.9259	317.9500	-1462.1087	7129.7056
320.7840	102.5097	17.3514	664265.7895	-15.7745
-15.7910				
[3920]ENERGY: 1850000	3515.3080	5704.9909	5900.2751	
342.2101	-15216.5556	-1773.7173	0.0000	0.0000
8590.1942	7062.7054	320.4553	-1527.4888	7129.7077
321.0174	157.5389	96.8668	664265.7895	-17.4378
-17.4450				
[3956]ENERGY: 1860000	3642.9791	5740.6116	5890.0811	
356.7854	-15279.9234	-1786.7575	0.0000	0.0000
8506.2490	7070.0252	317.3238	-1436.2238	7137.3528
320.7976	45.8658	-35.3535	664265.7895	-20.6162
-20.5971				
[4006]ENERGY: 1870000	3644.7890	5791.7224	5864.7634	
355.2268	-15383.3134	-1764.6827	0.0000	0.0000
8560.6777	7069.1832	319.3542	-1491.4945	7135.8695
321.0046	29.2069	-29.7735	664265.7895	-20.2030
-20.2174				
[4042]ENERGY: 1880000	3554.7070	5724.2863	5917.8285	
351.3205	-15242.0185	-1840.2856	0.0000	0.0000
8600.6016	7066.4399	320.8436	-1534.1618	7138.1031
320.8902	-113.7618	-131.6534	664265.7895	-20.7617
-20.7445				
[4092]ENERGY: 1890000	3540.9236	5772.1898	5852.1863	
342.0886	-15266.9948	-1784.8423	0.0000	0.0000
8610.4511	7066.0022	321.2110	-1544.4489	7137.7338
320.9587	12.8391	-23.5590	664265.7895	-20.3234
-20.3235				
[4131]ENERGY: 1900000	3579.7381	5804.3430	5857.2177	

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370.3299	-15336.8533	-1761.5790	0.0000	0.0000
8557.7530	7070.9492	319.2451	-1486.8037	7136.1428
321.3285	-86.0027	-20.5398	664265.7895	-24.1835
-24.1820				
[4181]ENERGY: 1910000	3544.9520	5667.7862	5915.7637	
390.8187	-15302.3953	-1815.2156	0.0000	0.0000
8667.3127	7069.0223	323.3322	-1598.2904	7137.2686
321.7332	79.1529	12.9575	664265.7895	-19.6344
-19.6342				
[4217]ENERGY: 1920000	3536.9547	5699.7059	5853.8143	
368.6976	-15303.4930	-1802.9679	0.0000	0.0000
8712.9974	7065.7090	325.0365	-1647.2884	7136.8581
321.6571	123.5753	94.3713	664265.7895	-18.8664
-18.8778				
[4267]ENERGY: 1930000	3514.6106	5714.6918	5904.2631	
383.7208	-15255.8171	-1763.4939	0.0000	0.0000
8570.3581	7068.3334	319.7154	-1502.0247	7138.7888
321.7733	15.4487	11.1828	664265.7895	-17.7119
-17.7137				
[4303]ENERGY: 1940000	3575.1932	5747.9427	5933.0975	
347.7090	-15301.8469	-1840.4962	0.0000	0.0000
8608.2010	7069.8004	321.1271	-1538.4006	7138.3295
321.7670	97.6841	-2.2737	664265.7895	-17.6806
-17.6710				
[4353]ENERGY: 1950000	3548.9027	5751.7761	5860.0521	
351.7461	-15168.2519	-1884.3374	0.0000	0.0000
8609.3120	7069.1998	321.1685	-1540.1122	7138.6095
321.7738	-48.2513	-121.3822	664265.7895	-19.7105
-19.7196				
[4389]ENERGY: 1960000	3614.5183	5729.2590	5855.2577	
357.1529	-15244.5695	-1828.6512	0.0000	0.0000
8585.0535	7068.0207	320.2636	-1517.0328	7138.7571
321.9434	-14.2616	-55.4968	664265.7895	-18.5720
-18.5694				
[4439]ENERGY: 1970000	3571.4645	5768.4593	5860.5260	
337.2951	-15378.3267	-1773.4443	0.0000	0.0000
8682.9699	7068.9439	323.9163	-1614.0260	7138.7150
322.1725	17.5115	54.5618	664265.7895	-21.5969
-21.5945				
[4475]ENERGY: 1980000	3552.7870	5804.0497	5926.6925	
355.6712	-15399.4172	-1745.2817	0.0000	0.0000
8575.6679	7070.1695	319.9134	-1505.4984	7138.5889
321.9278	101.1926	105.7105	664265.7895	-19.6178
-19.6066				
[4525]ENERGY: 1990000	3553.2714	5667.3171	5890.0727	
361.5728	-15266.5307	-1772.3105	0.0000	0.0000
8636.8400	7070.2330	322.1955	-1566.6071	7137.6714
321.9946	-82.5980	-75.7442	664265.7895	-23.9068
-23.9277				
[4564]ENERGY: 2000000	3491.0399	5779.1320	5898.5485	
375.2215	-15246.1816	-1906.2353	0.0000	0.0000
8677.9368	7069.4619	323.7286	-1608.4749	7139.2229
322.1122	-20.7182	-19.5589	664265.7895	-17.2602
-17.2412				

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[4614]ENERGY: 2010000	3535.5320	5738.4869	5924.3877	
390.7110	-15301.1927	-1876.4113	0.0000	0.0000
8660.2508	7071.7643	323.0688	-1588.4864	7140.0552
321.7860	4.2832	-43.5940	664265.7895	-19.2526
-19.2466				
[4650]ENERGY: 2020000	3479.4844	5715.6702	5908.1341	
351.9176	-15252.6863	-1943.2581	0.0000	0.0000
8806.8831	7066.1449	328.5389	-1740.7381	7141.5186
321.9165	-13.5204	-86.1575	664265.7895	-19.0974
-19.1224				
[4700]ENERGY: 2030000	3524.9122	5774.0348	5925.2775	
356.9382	-15308.3201	-1887.1825	0.0000	0.0000
8683.6191	7069.2793	323.9405	-1614.3399	7141.2017
322.0708	-70.4117	-79.7124	664265.7895	-20.6885
-20.6743				
[4736]ENERGY: 2040000	3549.4555	5760.7878	5895.9742	
365.4635	-15195.9830	-1785.4497	0.0000	0.0000
8484.6509	7074.8992	316.5181	-1409.7517	7142.2709
321.7754	-23.2608	14.4460	664265.7895	-17.6311
-17.6453				
[4786]ENERGY: 2050000	3550.9264	5810.8036	5982.6864	
343.1244	-15327.7549	-1856.0238	0.0000	0.0000
8569.5054	7073.2676	319.6836	-1496.2378	7140.8783
322.0249	63.7656	-8.1664	664265.7895	-14.9185
-14.9138				
[4822]ENERGY: 2060000	3569.4139	5816.6203	5994.9509	
379.8467	-15365.9028	-1803.9836	0.0000	0.0000
8485.9683	7076.9137	316.5672	-1409.0546	7142.0284
321.9530	130.1527	70.3092	664265.7895	-12.3667
-12.3719				
[4872]ENERGY: 2070000	3484.2434	5786.6766	5892.1601	
359.1687	-15317.5261	-1841.8265	0.0000	0.0000
8709.2138	7072.1099	324.8953	-1637.1038	7141.7236
322.1464	-24.2822	-54.9627	664265.7895	-9.7433
-9.7366				
[4908]ENERGY: 2080000	3510.9463	5672.2698	5899.6486	
360.7632	-15198.9237	-1813.5085	0.0000	0.0000
8639.2852	7070.4808	322.2867	-1568.8043	7142.2886
322.3692	122.2162	42.4251	664265.7895	-15.8579
-15.8556				
[4958]ENERGY: 2090000	3546.2478	5766.3004	5930.9156	
379.4140	-15316.0220	-1831.7172	0.0000	0.0000
8600.2517	7075.3902	320.8305	-1524.8615	7142.5464
322.1362	-62.3721	-50.0295	664265.7895	-9.4167
-9.4036				
[4997]ENERGY: 2100000	3514.7100	5769.7202	5867.6422	
337.9216	-15231.9614	-1875.8224	0.0000	0.0000
8688.3708	7070.5811	324.1178	-1617.7898	7142.0126
322.0192	51.4719	-50.4641	664265.7895	-11.7831
-11.7969				
[5047]ENERGY: 2110000	3531.1515	5801.9748	5843.6574	
343.6973	-15302.2628	-1828.2457	0.0000	0.0000
8679.7906	7069.7632	323.7977	-1610.0275	7141.6300
322.3093	103.8527	53.6366	664265.7895	-12.7766

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-12.7791
[5083]ENERGY: 2120000 3559.6266 5742.1567 5883.9183
354.0508 -15357.6479 -1831.2564 0.0000 0.0000
8719.7813 7070.6294 325.2896 -1649.1519 7141.9752
322.5334 -27.3822 -85.7975 664265.7895 -7.3739
-7.3678
[5133]ENERGY: 2130000 3603.2348 5770.3651 5869.1604
376.5730 -15336.4893 -1794.3683 0.0000 0.0000
8582.1324 7070.6081 320.1546 -1511.5243 7140.0234
322.5065 50.9411 64.6332 664265.7895 -9.2739
-9.2855
[5169]ENERGY: 2140000 3514.1505 5792.6904 5865.8883
326.6960 -15251.7867 -1833.1277 0.0000 0.0000
8658.5258 7073.0366 323.0044 -1585.4891 7142.2533
322.5625 168.1621 151.0764 664265.7895 -5.8980
-5.8945
[5219]ENERGY: 2150000 3535.8962 5844.2683 5930.6256
359.1495 -15366.5638 -1836.8236 0.0000 0.0000
8603.8729 7070.4252 320.9656 -1533.4477 7141.8073
322.6224 41.1765 12.8018 664265.7895 -11.9775
-11.9772
[5255]ENERGY: 2160000 3585.4177 5798.2838 5922.7715
355.9203 -15362.3728 -1830.3522 0.0000 0.0000
8602.7734 7072.4417 320.9246 -1530.3317 7142.2556
322.7256 44.8106 115.3353 664265.7895 -11.4883
-11.4698
[5305]ENERGY: 2170000 3564.9158 5792.0942 5911.5633
361.2896 -15352.0898 -1781.4447 0.0000 0.0000
8579.4141 7075.7426 320.0532 -1503.6716 7141.7870
322.6563 -8.3410 -25.0713 664265.7895 -12.0351
-12.0413
[5341]ENERGY: 2180000 3501.2643 5781.0418 5865.8597
376.3443 -15304.9279 -1802.8037 0.0000 0.0000
8654.0835 7070.8620 322.8387 -1583.2216 7141.8360
322.7339 150.9758 34.4981 664265.7895 -10.0360
-10.0471
[5391]ENERGY: 2190000 3512.0948 5904.7039 5880.3484
373.4913 -15352.5590 -1833.6505 0.0000 0.0000
8587.4106 7071.8395 320.3515 -1515.5711 7142.4886
322.7051 -126.3361 -117.2109 664265.7895 -10.7149
-10.7127
[5430]ENERGY: 2200000 3597.9321 5719.1059 5910.5386
355.2131 -15237.2851 -1881.1541 0.0000 0.0000
8610.9413 7075.2917 321.2293 -1535.6496 7143.3649
322.5422 -204.6709 -123.8520 664265.7895 -13.0212
-13.0106
[5480]ENERGY: 2210000 3595.5159 5744.2006 5918.5423
350.6837 -15316.6657 -1803.7736 0.0000 0.0000
8587.7366 7076.2397 320.3637 -1511.4969 7141.7411
322.5588 39.8617 52.8217 664265.7895 -13.7870
-13.8081
[5516]ENERGY: 2220000 3581.7055 5681.3398 5932.7085
357.0865 -15241.4017 -1803.2189 0.0000 0.0000
8567.0375 7075.2573 319.5915 -1491.7803 7141.6350

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322.5047	-20.1337	-35.4608	664265.7895	-13.7064
-13.6965				
[5566]ENERGY: 2230000	3457.7666	5899.4150	5885.6214	
360.7392	-15233.8363	-1872.5368	0.0000	0.0000
8575.6012	7072.7703	319.9110	-1502.8309	7143.0851
322.3400	-135.3248	-82.2538	664265.7895	-15.8307
-15.8177				
[5602]ENERGY: 2240000	3446.3232	5851.4476	5928.8868	
387.3443	-15284.2802	-1867.3085	0.0000	0.0000
8612.7011	7075.1142	321.2950	-1537.5869	7143.5878
322.3895	44.7967	89.6688	664265.7895	-12.6047
-12.6107				
[5652]ENERGY: 2250000	3534.5439	5704.5087	5941.9054	
348.8570	-15337.2183	-1791.2575	0.0000	0.0000
8671.7059	7073.0450	323.4961	-1598.6608	7142.3756
322.5530	111.6971	62.2636	664265.7895	-15.3640
-15.3744				
[5688]ENERGY: 2260000	3536.1869	5768.2512	5922.6429	
358.1238	-15279.9173	-1882.7462	0.0000	0.0000
8653.5679	7076.1094	322.8195	-1577.4585	7143.2110
322.5874	-145.3270	-126.0847	664265.7895	-11.2491
-11.2439				
[5738]ENERGY: 2270000	3556.0374	5857.8220	5930.4400	
361.8937	-15425.6381	-1767.1402	0.0000	0.0000
8562.0329	7075.4478	319.4048	-1486.5852	7144.0103
322.5849	104.0690	20.2120	664265.7895	-15.5956
-15.5928				
[5774]ENERGY: 2280000	3526.6858	5803.8885	5919.0113	
382.2429	-15327.9998	-1810.4190	0.0000	0.0000
8585.0640	7078.4737	320.2640	-1506.5903	7145.1517
322.5588	-15.6975	-58.2367	664265.7895	-12.9643
-12.9655				
[5824]ENERGY: 2290000	3476.6880	5787.2658	5877.2625	
385.9672	-15297.0865	-1786.4877	0.0000	0.0000
8631.1793	7074.7885	321.9843	-1556.3908	7145.5123
322.4567	195.7629	164.9340	664265.7895	-15.6962
-15.6806				
[5863]ENERGY: 2300000	3474.0434	5748.0276	5904.5171	
376.0372	-15254.4891	-1859.0079	0.0000	0.0000
8688.1785	7077.3069	324.1106	-1610.8717	7146.3950
322.4145	-23.0258	-34.4106	664265.7895	-10.9751
-11.0003				
[5913]ENERGY: 2310000	3549.6984	5690.9150	5940.3414	
377.7863	-15350.3854	-1805.9312	0.0000	0.0000
8674.7356	7077.1601	323.6091	-1597.5754	7147.0799
322.4319	165.6932	101.2325	664265.7895	-9.8493
-9.8511				
[5949]ENERGY: 2320000	3463.8906	5883.7617	5882.3792	
342.1725	-15310.8870	-1878.5664	0.0000	0.0000
8693.1132	7075.8639	324.2947	-1617.2493	7146.9632
322.3756	-30.9121	-55.0295	664265.7895	-11.5764
-11.5814				
[5999]ENERGY: 2330000	3595.6495	5860.8236	5941.4837	
361.8429	-15375.3642	-1784.2816	0.0000	0.0000

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8478.8205	7078.9743	316.3006	-1399.8462	7145.5897
322.4518	67.2164	17.0546	664265.7895	-14.4726
-14.4621				
[6035]ENERGY: 2340000	3480.4426	5737.0114	5898.9237	
370.6019	-15242.0978	-1857.0644	0.0000	0.0000
8686.0186	7073.8361	324.0301	-1612.1826	7146.5422
322.4604	-49.2022	-27.9823	664265.7895	-15.4813
-15.4624				
[6085]ENERGY: 2350000	3469.7188	5697.4864	5855.2164	
328.8566	-15243.1410	-1737.2333	0.0000	0.0000
8705.1858	7076.0896	324.7451	-1629.0962	7146.7318
322.6726	90.4328	53.8621	664265.7895	-20.6148
-20.6439				
[6121]ENERGY: 2360000	3503.6429	5756.7516	5970.6691	
375.3012	-15304.9062	-1851.9967	0.0000	0.0000
8628.8885	7078.3504	321.8988	-1550.5381	7146.7121
322.5610	114.5278	160.5414	664265.7895	-18.7316
-18.7202				
[6171]ENERGY: 2370000	3559.9238	5710.6363	5946.4017	
374.1081	-15188.4520	-1881.2464	0.0000	0.0000
8561.3470	7082.7185	319.3792	-1478.6285	7147.3257
322.4706	-195.5355	-176.9319	664265.7895	-17.4291
-17.4240				
[6207]ENERGY: 2380000	3518.9092	5607.0707	5951.2599	
339.1406	-15255.7047	-1860.2161	0.0000	0.0000
8774.8246	7075.2843	327.3429	-1699.5404	7148.2371
322.6236	-87.7240	-77.9178	664265.7895	-14.8343
-14.8140				
[6257]ENERGY: 2390000	3531.2487	5819.4623	5892.4492	
364.1224	-15382.5920	-1859.0964	0.0000	0.0000
8711.8332	7077.4273	324.9931	-1634.4058	7148.1886
322.5885	38.6202	7.6854	664265.7895	-8.7536
-8.7815				
[6296]ENERGY: 2400000	3633.4618	5734.2903	5930.6116	
355.6751	-15433.7562	-1793.2365	0.0000	0.0000
8655.0989	7082.1449	322.8766	-1572.9539	7147.5471
322.6678	-79.9643	-112.4902	664265.7895	-13.0246
-13.0110				
[6346]ENERGY: 2410000	3493.5693	5699.3607	5898.6536	
352.3204	-15321.5153	-1720.1157	0.0000	0.0000
8678.2651	7080.5382	323.7408	-1597.7270	7147.5116
322.5567	30.3805	43.5002	664265.7895	-3.2945
-3.3047				
[6382]ENERGY: 2420000	3444.2583	5688.2321	5913.1838	
364.1471	-15189.0802	-1824.3571	0.0000	0.0000
8680.6919	7077.0759	323.8313	-1603.6161	7147.8786
322.6218	264.9288	184.7593	664265.7895	-6.4107
-6.4124				
[6432]ENERGY: 2430000	3595.5593	5794.2278	5936.2096	
360.1667	-15396.4632	-1831.2045	0.0000	0.0000
8619.2429	7077.7385	321.5390	-1541.5044	7147.2357
322.9440	-34.0515	117.7727	664265.7895	-0.6410
-0.6146				
[6468]ENERGY: 2440000	3539.1152	5757.2410	5858.9427	

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350.9174	-15418.3227	-1759.8075	0.0000	0.0000
8750.4634	7078.5496	326.4342	-1671.9138	7147.8216
323.0687	-5.2957	52.6081	664265.7895	-3.4082
-3.4151				
[6518]ENERGY: 2450000	3592.7935	5908.6566	5883.6811	
357.4330	-15345.9709	-1872.8831	0.0000	0.0000
8558.6347	7082.3448	319.2780	-1476.2899	7149.3956
323.0382	72.7014	9.6706	664265.7895	1.6616
1.6477				
[6554]ENERGY: 2460000	3495.8189	5834.9847	5873.2460	
383.5204	-15321.8445	-1894.7946	0.0000	0.0000
8711.1291	7082.0600	324.9668	-1629.0691	7149.5377
322.9277	-136.8502	-100.7458	664265.7895	-2.4721
-2.4648				
[6604]ENERGY: 2470000	3494.7656	5848.6591	5919.0952	
375.9658	-15346.2421	-1861.5492	0.0000	0.0000
8649.6348	7080.3293	322.6728	-1569.3055	7149.9134
323.0305	82.6289	70.3645	664265.7895	-1.7212
-1.7342				
[6640]ENERGY: 2480000	3511.1017	5787.7003	5927.8296	
356.2559	-15398.6159	-1779.8592	0.0000	0.0000
8672.6371	7077.0494	323.5309	-1595.5877	7150.3216
323.1217	172.1248	171.6337	664265.7895	2.8200
2.8164				
[6690]ENERGY: 2490000	3514.6078	5688.5326	5941.6849	
367.0679	-15284.9135	-1794.1618	0.0000	0.0000
8645.5971	7078.4151	322.5221	-1567.1821	7151.1799
322.9407	84.1556	147.3420	664265.7895	-1.2225
-1.2164				
[6729]ENERGY: 2500000	3560.4506	5847.4570	5932.5751	
389.4061	-15381.4995	-1886.4686	0.0000	0.0000
8618.7014	7080.6222	321.5188	-1538.0792	7151.5221
322.9367	38.7263	-10.2217	664265.7895	-3.8841
-3.8778				
[6779]ENERGY: 2510000	3551.9940	5734.9667	5909.9396	
362.4040	-15380.5774	-1755.6907	0.0000	0.0000
8657.9240	7080.9602	322.9820	-1576.9638	7152.4895
323.0189	27.2915	7.6058	664265.7895	-1.5648
-1.5722				
[6815]ENERGY: 2520000	3506.8105	5847.1780	5900.3521	
323.2676	-15319.0682	-1862.5813	0.0000	0.0000
8683.0127	7078.9713	323.9179	-1604.0414	7151.3754
322.9974	12.1805	59.8880	664265.7895	0.8511
0.8614				
[6865]ENERGY: 2530000	3552.8940	5834.0823	5905.9122	
372.9474	-15315.6323	-1854.5856	0.0000	0.0000
8590.0106	7085.6287	320.4485	-1504.3819	7153.2643
323.0638	53.7666	29.2711	664265.7895	-2.0497
-2.0598				
[6901]ENERGY: 2540000	3485.9250	5856.0714	5882.7700	
349.6692	-15369.1176	-1762.6472	0.0000	0.0000
8640.8709	7083.5418	322.3458	-1557.3291	7153.0501
323.0392	10.4604	38.8528	664265.7895	-2.7421
-2.7352				

Supplementary Text 6

[6951]ENERGY: 2550000	3603.0643	5786.9405	5906.8061	
362.4698	-15344.6611	-1866.5413	0.0000	0.0000
8637.1663	7085.2446	322.2076	-1551.9217	7152.9467
323.1047	-138.3121	-134.2258	664265.7895	-1.8495
-1.8487				
[6987]ENERGY: 2560000	3526.5826	5728.3898	5915.3937	
365.4975	-15339.3569	-1846.8253	0.0000	0.0000
8729.3291	7079.0104	325.6457	-1650.3187	7152.6774
323.0120	3.6731	-13.8023	664265.7895	-5.7326
-5.7328				
[7037]ENERGY: 2570000	3554.4398	5734.6995	5880.2795	
346.2919	-15293.6516	-1838.6576	0.0000	0.0000
8696.6381	7080.0395	324.4262	-1616.5986	7152.0781
323.0839	-56.3132	-6.5146	664265.7895	-8.3351
-8.3307				
[7073]ENERGY: 2580000	3603.7969	5793.9448	5889.3313	
363.7158	-15295.0359	-1861.2486	0.0000	0.0000
8593.4948	7087.9992	320.5785	-1505.4957	7153.1517
323.1285	-11.2577	-12.1696	664265.7895	-1.0160
-1.0334				
[7123]ENERGY: 2590000	3520.2874	5761.0121	5887.6481	
367.7160	-15329.4430	-1774.5904	0.0000	0.0000
8654.6383	7087.2684	322.8594	-1567.3699	7153.2924
323.3006	201.5289	211.8551	664265.7895	-3.2604
-3.2537				
[7162]ENERGY: 2600000	3596.3854	5803.4705	5945.3572	
376.5700	-15302.8122	-1922.5624	0.0000	0.0000
8591.5838	7087.9922	320.5072	-1503.5916	7154.2563
323.3791	-152.6569	-207.3993	664265.7895	-4.8590
-4.8589				
[7212]ENERGY: 2610000	3525.3549	5772.7696	5945.8981	
370.7785	-15299.5266	-1866.2368	0.0000	0.0000
8634.6806	7083.7183	322.1149	-1550.9623	7153.8731
323.2216	-21.7304	-16.0251	664265.7895	0.7960
0.8036				
[7248]ENERGY: 2620000	3565.1642	5726.7393	5945.2430	
365.1905	-15345.5070	-1856.8037	0.0000	0.0000
8681.5624	7081.5887	323.8638	-1599.9737	7156.7032
323.2679	2.3533	-2.7279	664265.7895	1.6516
1.6462				
[7298]ENERGY: 2630000	3608.0616	5839.4420	5827.7512	
368.3787	-15461.2312	-1750.9914	0.0000	0.0000
8652.9655	7084.3763	322.7970	-1568.5891	7155.2932
323.4108	-19.3593	8.3873	664265.7895	-0.0449
-0.0394				
[7334]ENERGY: 2640000	3465.0268	5717.5926	5936.4033	
359.1940	-15292.7856	-1819.6771	0.0000	0.0000
8720.4033	7086.1573	325.3128	-1634.2460	7156.2951
323.3916	90.5704	30.7020	664265.7895	1.2293
1.2198				
[7384]ENERGY: 2650000	3599.6444	5732.4216	5918.2016	
366.4366	-15336.3079	-1874.5313	0.0000	0.0000
8679.0656	7084.9306	323.7707	-1594.1349	7157.5073
323.5966	88.0228	-83.9018	664265.7895	-0.3812

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-0.3770

[7420]ENERGY: 2660000	3477.0477	5820.8976	5936.8264	
366.2958	-15279.3754	-1816.0732	0.0000	0.0000
8581.6296	7087.2484	320.1358	-1494.3812	7158.2007
323.4809	-78.7321	-33.4208	664265.7895	-2.0219

-2.0101

[7470]ENERGY: 2670000	3532.7579	5710.5652	5891.2463	
353.6004	-15311.1399	-1789.2658	0.0000	0.0000
8698.6139	7086.3780	324.4999	-1612.2359	7157.6916
323.4335	-8.7520	42.0295	664265.7895	3.3379

3.3274

[7506]ENERGY: 2680000	3499.8892	5770.5605	5937.3603	
350.0922	-15303.2808	-1829.5772	0.0000	0.0000
8663.5344	7088.5787	323.1913	-1574.9558	7159.3805
323.3243	174.9013	79.4573	664265.7895	1.3113

1.3102

[7556]ENERGY: 2690000	3463.4402	5766.8418	5926.2306	
380.3825	-15407.3989	-1712.1257	0.0000	0.0000
8668.7665	7086.1370	323.3865	-1582.6295	7158.2559
323.5614	290.5287	197.5396	664265.7895	3.9877

3.9770

[7595]ENERGY: 2700000	3638.7077	5808.7312	5878.6213	
378.5793	-15444.9315	-1829.7320	0.0000	0.0000
8660.2115	7090.1875	323.0673	-1570.0240	7159.4300
323.7622	221.0284	186.7824	664265.7895	1.4252

1.4220

[7645]ENERGY: 2710000	3664.3235	5719.8784	5949.8340	
382.0614	-15480.0610	-1785.5184	0.0000	0.0000
8638.9605	7089.4783	322.2746	-1549.4822	7159.2522
323.4992	22.0890	-40.8203	664265.7895	3.3175

3.3341

[7681]ENERGY: 2720000	3577.0278	5797.4675	5896.5259	
367.1002	-15356.1269	-1885.4287	0.0000	0.0000
8692.6546	7089.2203	324.2776	-1603.4342	7160.3965
323.5683	-55.3861	-119.3545	664265.7895	-2.2397

-2.2421

[7731]ENERGY: 2730000	3548.6411	5756.5025	5928.5041	
389.4361	-15368.5230	-1838.9849	0.0000	0.0000
8674.7101	7090.2858	323.6082	-1584.4242	7160.4236
323.5938	129.9785	94.7709	664265.7895	-0.4097

-0.4062

[7767]ENERGY: 2740000	3537.4673	5753.2114	5945.7807	
376.2916	-15407.8138	-1789.6469	0.0000	0.0000
8677.3993	7092.6895	323.7085	-1584.7098	7161.0002
323.5169	170.7761	105.5756	664265.7895	-0.1606

-0.1609

[7817]ENERGY: 2750000	3553.2221	5734.6051	5969.7125	
388.5370	-15383.8024	-1864.6693	0.0000	0.0000
8693.2389	7090.8439	324.2994	-1602.3950	7161.5508
323.5479	72.0111	-13.0146	664265.7895	0.0846

0.0815

[7853]ENERGY: 2760000	3582.0189	5693.4341	5924.0564	
355.9392	-15345.4034	-1740.7917	0.0000	0.0000
8624.8704	7094.1241	321.7489	-1530.7464	7161.7365

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323.4910	55.3591	99.9185	664265.7895	1.2142
1.2268				
[7903]ENERGY: 2770000	3523.7877	5776.9999	5901.8521	
345.7854	-15356.2597	-1818.9978	0.0000	0.0000
8719.4810	7092.6486	325.2784	-1626.8324	7160.6313
323.4236	54.6446	10.9887	664265.7895	-2.4038
-2.4025				
[7939]ENERGY: 2780000	3531.0850	5821.7628	5925.6032	
358.0782	-15322.1045	-1828.1636	0.0000	0.0000
8607.0174	7093.2786	321.0829	-1513.7388	7160.6882
323.4116	57.5346	-5.0731	664265.7895	0.7199
0.6819				
[7989]ENERGY: 2790000	3602.5334	5859.0840	5942.1661	
368.3792	-15435.6916	-1824.3044	0.0000	0.0000
8582.1460	7094.3128	320.1551	-1487.8332	7161.2508
323.4221	-6.9662	-11.5963	664265.7895	-2.4861
-2.4574				
[8028]ENERGY: 2800000	3609.6996	5763.0647	5944.5700	
360.3837	-15343.4601	-1874.9283	0.0000	0.0000
8634.5578	7093.8873	322.1103	-1540.6704	7160.6478
323.6376	-32.1619	-14.1151	664265.7895	-1.3699
-1.3799				
[8078]ENERGY: 2810000	3619.2238	5762.2529	5927.2091	
360.4306	-15403.6417	-1798.7319	0.0000	0.0000
8628.5316	7095.2745	321.8855	-1533.2572	7161.0126
323.7695	76.9355	144.1306	664265.7895	-0.1585
-0.1438				
[8114]ENERGY: 2820000	3562.1568	5795.7347	5949.5453	
352.6038	-15318.5531	-1888.9827	0.0000	0.0000
8643.6117	7096.1165	322.4481	-1547.4953	7161.7046
323.7051	-110.0422	-49.2501	664265.7895	3.1422
3.1452				
[8164]ENERGY: 2830000	3536.3926	5818.5344	5876.6320	
355.3154	-15322.9015	-1797.3907	0.0000	0.0000
8624.0802	7090.6623	321.7195	-1533.4179	7160.3026
323.7648	142.9877	113.8901	664265.7895	0.5268
0.5040				
[8200]ENERGY: 2840000	3571.3825	5688.6481	5919.7258	
361.5537	-15317.2484	-1880.1662	0.0000	0.0000
8744.4761	7088.3718	326.2108	-1656.1043	7162.7417
323.5923	-32.5954	-141.7161	664265.7895	-0.5523
-0.5393				
[8250]ENERGY: 2850000	3625.8224	5730.5363	5932.2116	
343.3048	-15372.3433	-1836.3519	0.0000	0.0000
8668.8917	7092.0714	323.3911	-1576.8202	7164.3537
323.8292	-50.3291	-132.9972	664265.7895	0.6918
0.7010				
[8286]ENERGY: 2860000	3626.7479	5715.9766	5906.7210	
354.2179	-15412.1249	-1798.3723	0.0000	0.0000
8700.8549	7094.0211	324.5835	-1606.8339	7162.8533
323.8677	-103.9636	-83.1442	664265.7895	-2.4970
-2.5050				
[8336]ENERGY: 2870000	3559.8243	5855.3903	5911.4747	
358.4798	-15421.3447	-1892.1573	0.0000	0.0000

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8720.2261	7091.8931	325.3062	-1628.3330	7163.2577
323.9839	-45.2007	-31.8817	664265.7895	-0.7922
-0.7970				
[8372]ENERGY: 2880000	3541.3801	5760.5409	5933.0432	
359.4172	-15351.0598	-1834.9740	0.0000	0.0000
8685.1639	7093.5115	323.9982	-1591.6524	7163.7883
324.0424	-167.4098	-176.6238	664265.7895	0.4040
0.4021				
[8422]ENERGY: 2890000	3493.0392	5814.9511	5939.6987	
399.4358	-15401.3263	-1827.7162	0.0000	0.0000
8674.8202	7092.9025	323.6123	-1581.9177	7165.3867
323.9254	81.5249	-10.9873	664265.7895	0.7864
0.8099				
[8461]ENERGY: 2900000	3600.4431	5817.5567	5923.5561	
354.3877	-15365.5889	-1850.9030	0.0000	0.0000
8615.3372	7094.7889	321.3933	-1520.5483	7164.6172
323.8293	57.5855	4.3486	664265.7895	-5.0255
-5.0634				
[8511]ENERGY: 2910000	3596.3626	5754.9238	5881.8379	
360.2709	-15305.5848	-1904.8960	0.0000	0.0000
8709.5074	7092.4218	324.9063	-1617.0856	7163.9635
323.8333	-60.8633	-53.6727	664265.7895	-3.3371
-3.3052				
[8547]ENERGY: 2920000	3503.7517	5829.4830	5872.8270	
372.6395	-15299.0802	-1886.8120	0.0000	0.0000
8698.5167	7091.3256	324.4963	-1607.1911	7164.6990
323.9091	-119.3248	-68.4581	664265.7895	-4.5486
-4.5588				
[8597]ENERGY: 2930000	3530.2981	5709.9370	5967.7388	
340.7750	-15420.1136	-1830.1488	0.0000	0.0000
8795.9414	7094.4279	328.1307	-1701.5135	7165.5410
323.9974	0.5886	-8.4291	664265.7895	-2.8777
-2.8761				
[8633]ENERGY: 2940000	3540.3831	5896.3834	5845.1430	
354.7881	-15394.3113	-1885.8314	0.0000	0.0000
8741.6813	7098.2362	326.1065	-1643.4451	7166.4607
323.9515	24.8565	-74.1135	664265.7895	-6.9305
-6.9554				
[8683]ENERGY: 2950000	3519.3334	5789.9646	5970.5100	
361.3959	-15383.8279	-1812.6098	0.0000	0.0000
8649.8300	7094.5961	322.6800	-1555.2339	7165.3727
323.8164	41.6769	79.0932	664265.7895	-2.6029
-2.5809				
[8719]ENERGY: 2960000	3580.1099	5762.2554	5864.4535	
335.1529	-15318.8924	-1865.6495	0.0000	0.0000
8736.8547	7094.2844	325.9265	-1642.5702	7167.0620
323.9298	100.4491	47.3856	664265.7895	-2.1675
-2.1724				
[8769]ENERGY: 2970000	3563.4940	5731.2325	5917.8927	
378.3646	-15327.2938	-1852.9315	0.0000	0.0000
8685.5906	7096.3491	324.0141	-1589.2414	7168.1581
324.2116	35.6230	-58.7199	664265.7895	-7.3258
-7.3305				
[8805]ENERGY: 2980000	3555.0899	5758.1951	5836.9797	

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346.8091	-15290.7558	-1834.7264	0.0000	0.0000
8724.6961	7096.2877	325.4729	-1628.4084	7166.2721
323.9630	140.9574	146.7094	664265.7895	-6.3664
-6.3427				
[8855]ENERGY: 2990000	3586.5845	5748.1214	5879.5214	
370.1452	-15329.8139	-1861.9415	0.0000	0.0000
8704.5903	7097.2075	324.7229	-1607.3829	7167.6097
324.1885	62.4264	44.5746	664265.7895	-5.0523
-5.0730				
[8894]ENERGY: 3000000	3559.8746	5707.5592	5933.2417	
369.8574	-15354.5397	-1834.9415	0.0000	0.0000
8718.5662	7099.6180	325.2442	-1618.9482	7168.6382
323.9552	122.9405	66.9559	664265.7895	-5.1286
-5.1306				
[8944]ENERGY: 3010000	3533.1912	5833.6316	5906.9072	
353.6618	-15350.9364	-1878.6037	0.0000	0.0000
8701.6700	7099.5217	324.6139	-1602.1483	7170.1169
324.1169	59.7764	33.0439	664265.7895	-4.0981
-4.0937				
[8980]ENERGY: 3020000	3587.5434	5690.3261	5898.0165	
366.6942	-15403.6583	-1791.9580	0.0000	0.0000
8752.3143	7099.2781	326.5032	-1653.0362	7168.9757
323.9127	100.5827	129.5669	664265.7895	-4.4444
-4.4413				
[9030]ENERGY: 3030000	3553.9919	5935.9710	5820.5735	
373.4014	-15340.9737	-1836.3311	0.0000	0.0000
8593.2236	7099.8565	320.5684	-1493.3671	7169.0034
323.9344	124.4710	46.5756	664265.7895	-2.4811
-2.5023				
[9066]ENERGY: 3040000	3571.3237	5815.7075	5909.2209	
351.6808	-15340.6526	-1847.3059	0.0000	0.0000
8637.9177	7097.8919	322.2357	-1540.0258	7169.7439
323.8765	8.7609	-20.7594	664265.7895	-6.2221
-6.1858				
[9116]ENERGY: 3050000	3624.2760	5909.2421	5909.3514	
364.1650	-15303.9178	-1857.2551	0.0000	0.0000
8455.8508	7101.7124	315.4437	-1354.1384	7170.1468
323.9047	-38.9711	31.2060	664265.7895	-1.7212
-1.7335				
[9152]ENERGY: 3060000	3603.9853	5722.5315	5901.8200	
374.1998	-15445.0767	-1792.0106	0.0000	0.0000
8735.1602	7100.6094	325.8633	-1634.5508	7168.7383
323.9469	23.5899	37.8376	664265.7895	-5.7404
-5.7444				
[9202]ENERGY: 3070000	3500.3967	5737.6998	5893.7794	
376.6969	-15271.8087	-1836.4175	0.0000	0.0000
8699.0808	7099.4273	324.5173	-1599.6535	7168.9881
323.8874	98.2267	106.8052	664265.7895	-5.2682
-5.2705				
[9238]ENERGY: 3080000	3585.1882	5831.2960	5908.3728	
358.3367	-15407.3528	-1823.5174	0.0000	0.0000
8646.9521	7099.2755	322.5727	-1547.6765	7170.8063
323.9812	77.4261	-21.6600	664265.7895	-5.3830
-5.3747				

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[9288]ENERGY: 3090000	3596.0515	5715.8132	5963.0263	
375.7553	-15365.2369	-1778.5799	0.0000	0.0000
8598.6575	7105.4869	320.7711	-1493.1705	7170.8451
324.0409	115.5157	76.3053	664265.7895	-6.1200
-6.1380				
[9327]ENERGY: 3100000	3545.3055	5805.7027	5865.4073	
311.5498	-15307.8662	-1820.7134	0.0000	0.0000
8703.3403	7102.7261	324.6762	-1600.6142	7171.2395
323.9665	-154.6844	-57.9982	664265.7895	-5.7875
-5.7676				
[9377]ENERGY: 3110000	3549.7221	5832.7788	5928.5372	
323.3785	-15386.4179	-1878.1169	0.0000	0.0000
8727.6176	7097.4994	325.5819	-1630.1182	7169.3037
324.1235	58.3974	41.0133	664265.7895	-5.9169
-5.9219				
[9413]ENERGY: 3120000	3610.5324	5836.4326	5873.6218	
352.1413	-15312.3572	-1872.8955	0.0000	0.0000
8616.5983	7104.0738	321.4403	-1512.5245	7171.6886
324.0251	-142.2922	-84.2917	664265.7895	-8.7155
-8.7290				
[9463]ENERGY: 3130000	3533.4294	5777.9723	5886.8704	
362.9895	-15406.9547	-1807.3470	0.0000	0.0000
8752.7410	7099.7009	326.5191	-1653.0402	7171.5427
323.9471	3.0780	55.2398	664265.7895	-8.7326
-8.7287				
[9499]ENERGY: 3140000	3562.1156	5814.4942	5876.4346	
368.1227	-15379.0583	-1863.1790	0.0000	0.0000
8718.6020	7097.5318	325.2456	-1621.0702	7171.1342
324.0418	-48.0055	24.1897	664265.7895	-6.8527
-6.8543				
[9549]ENERGY: 3150000	3606.3467	5764.2882	5964.6078	
366.1866	-15365.7378	-1879.4163	0.0000	0.0000
8646.5700	7102.8451	322.5584	-1543.7249	7171.4889
323.8287	-16.8318	26.5480	664265.7895	-7.8246
-7.8187				
[9585]ENERGY: 3160000	3629.7788	5819.7522	5887.2088	
331.6974	-15368.3196	-1858.2181	0.0000	0.0000
8661.3770	7103.2764	323.1108	-1558.1006	7171.9401
323.7865	-60.8029	-94.8758	664265.7895	-6.4716
-6.4737				
[9635]ENERGY: 3170000	3510.6505	5771.3388	5905.1890	
348.4075	-15281.0613	-1811.7366	0.0000	0.0000
8658.3035	7101.0914	322.9961	-1557.2121	7171.6696
323.9745	28.2265	-34.6646	664265.7895	-7.8298
-7.8402				
[9671]ENERGY: 3180000	3469.2843	5825.9999	5941.5124	
368.5248	-15327.5968	-1779.5616	0.0000	0.0000
8602.7204	7100.8834	320.9226	-1501.8371	7172.5826
324.0356	111.1925	74.5620	664265.7895	-9.4553
-9.4402				
[9721]ENERGY: 3190000	3534.3567	5868.2984	5865.0219	
384.8781	-15336.8516	-1869.5011	0.0000	0.0000
8655.6477	7101.8501	322.8971	-1553.7975	7171.5665
324.0987	182.9780	87.6156	664265.7895	-7.6070

Supplementary Text 6

-7.6160
 [9760]ENERGY: 3200000 3525.1122 5727.0876 5917.9218
 373.8217 -15299.2336 -1857.3738 0.0000 0.0000
 8715.9416 7103.2776 325.1463 -1612.6640 7172.1396
 324.1776 66.4292 89.0490 664265.7895 -8.2522
 -8.2367
 [9810]ENERGY: 3210000 3610.4521 5870.4353 5870.7161
 364.2747 -15360.8724 -1880.4679 0.0000 0.0000
 8635.3190 7109.8569 322.1387 -1525.4621 7174.7543
 324.0938 -55.7546 -115.5975 664265.7895 -10.0841
 -10.0956
 [9846]ENERGY: 3220000 3594.0332 5878.3785 5886.3908
 368.4568 -15399.8298 -1847.1995 0.0000 0.0000
 8624.5914 7104.8214 321.7385 -1519.7700 7173.6326
 324.3085 -17.0295 5.1774 664265.7895 -7.8533
 -7.8592
 [9896]ENERGY: 3230000 3598.2447 5921.6463 5875.9397
 368.4215 -15458.9316 -1880.1969 0.0000 0.0000
 8680.9467 7106.0703 323.8408 -1574.8764 7174.8633
 324.1026 -103.5887 -90.1318 664265.7895 -11.7948
 -11.7864
 [9932]ENERGY: 3240000 3598.2367 5815.6708 5920.6234
 350.2289 -15376.9612 -1794.8275 0.0000 0.0000
 8595.2628 7108.2339 320.6444 -1487.0289 7175.4124
 323.8462 -26.7650 -70.5281 664265.7895 -10.4111
 -10.4286
 [9982]ENERGY: 3250000 3593.2742 5895.4498 5879.4569
 362.4441 -15377.1423 -1951.5589 0.0000 0.0000
 8705.2060 7107.1298 324.7458 -1598.0762 7177.1358
 324.0802 -251.4468 -243.1929 664265.7895 -8.1824
 -8.1638
 [10018]ENERGY: 3260000 3484.2681 5806.3076 5932.0512
 363.8279 -15298.7084 -1910.5696 0.0000 0.0000
 8727.0723 7104.2490 325.5616 -1622.8233 7177.8698
 323.9825 -89.7861 -108.9202 664265.7895 -10.8561
 -10.8486
 [10068]ENERGY: 3270000 3542.5733 5720.4089 5926.0712
 360.8829 -15306.8419 -1873.1441 0.0000 0.0000
 8734.6312 7104.5815 325.8435 -1630.0497 7176.3102
 323.9908 138.6551 110.9576 664265.7895 -7.3024
 -7.3018
 [10104]ENERGY: 3280000 3580.0140 5730.3955 5953.3971
 359.8583 -15329.8092 -1870.7254 0.0000 0.0000
 8683.4236 7106.5538 323.9332 -1576.8698 7177.8351
 323.8568 203.1066 90.3925 664265.7895 -9.6495
 -9.6628
 [10154]ENERGY: 3290000 3647.6719 5836.8852 5882.7730
 353.6801 -15381.2405 -1904.3949 0.0000 0.0000
 8671.1796 7106.5544 323.4765 -1564.6252 7177.9020
 324.0034 -148.8553 -155.3564 664265.7895 -8.6830
 -8.6871
 [10193]ENERGY: 3300000 3547.3270 5769.8822 5891.9912
 377.2372 -15301.8778 -1826.9489 0.0000 0.0000
 8649.8158 7107.4267 322.6795 -1542.3891 7177.8830

Supplementary Text 6

323.9942	-23.0030	-33.6385	664265.7895	-10.2752
-10.2639				
[10243]ENERGY: 3310000	3537.0764	5803.5694	5906.6107	
363.8079	-15331.1940	-1891.4723	0.0000	0.0000
8717.2063	7105.6045	325.1935	-1611.6019	7176.7974
323.8962	113.2110	134.0169	664265.7895	-10.2040
-10.2038				
[10279]ENERGY: 3320000	3600.5373	5910.1381	5923.4849	
373.9519	-15391.6178	-1896.3527	0.0000	0.0000
8591.3195	7111.4613	320.4973	-1479.8583	7178.1580
324.0055	88.0769	-1.0565	664265.7895	-10.0986
-10.0905				
[10329]ENERGY: 3330000	3556.6650	5864.5673	5982.6044	
380.3738	-15441.0206	-1890.3831	0.0000	0.0000
8653.6099	7106.4166	322.8211	-1547.1932	7177.5247
323.9607	63.1438	60.6002	664265.7895	-9.3666
-9.3719				
[10365]ENERGY: 3340000	3613.4875	5855.2419	5833.3045	
376.1759	-15312.7838	-1842.9399	0.0000	0.0000
8585.3843	7107.8705	320.2759	-1477.5138	7177.3680
323.9752	-53.5670	-14.0779	664265.7895	-7.6081
-7.6180				
[10415]ENERGY: 3350000	3630.7587	5794.6144	5860.4689	
331.8215	-15294.8949	-1900.4997	0.0000	0.0000
8687.4749	7109.7439	324.0844	-1577.7310	7177.9607
324.1527	33.2605	-51.9801	664265.7895	-6.1889
-6.1884				
[10451]ENERGY: 3360000	3630.4933	5861.7975	5936.0277	
371.0993	-15379.6204	-1881.3909	0.0000	0.0000
8573.2331	7111.6396	319.8226	-1461.5935	7179.8344
324.3155	45.6595	-43.3024	664265.7895	6.0052
5.9907				
[10501]ENERGY: 3370000	3540.0689	5743.0377	5899.7252	
369.6504	-15291.2662	-1822.0714	0.0000	0.0000
8669.9161	7109.0606	323.4294	-1560.8555	7181.2222
324.0624	231.4141	135.1986	664265.7895	3.4011
3.4210				
[10537]ENERGY: 3380000	3526.6953	5759.4384	5936.8309	
349.8902	-15270.9983	-1908.8228	0.0000	0.0000
8718.7880	7111.8217	325.2525	-1606.9663	7179.9536
324.0184	-17.6279	-82.3823	664265.7895	-0.3397
-0.3340				
[10587]ENERGY: 3390000	3489.4930	5836.4362	5912.2455	
373.6011	-15382.8895	-1792.8340	0.0000	0.0000
8675.0657	7111.1180	323.6215	-1563.9477	7179.2657
324.1097	146.7154	93.9824	664265.7895	0.1222
0.1196				
[10626]ENERGY: 3400000	3539.2337	5726.1659	5934.6617	
356.3228	-15287.9620	-1845.3149	0.0000	0.0000
8687.5456	7110.6529	324.0870	-1576.8927	7180.0492
324.2808	151.9962	66.3483	664265.7895	0.0753
0.0482				
[10676]ENERGY: 3410000	3576.2905	5788.1402	5927.7454	
359.5151	-15320.6320	-1871.9127	0.0000	0.0000

Supplementary Text 6

8650.4281	7109.5746	322.7024	-1540.8535	7180.7145
324.1457	-16.5872	-156.3033	664265.7895	-10.7308
-10.7124				
[10712]ENERGY: 3420000	3618.1166	5759.1282	5920.4829	
351.1744	-15382.9655	-1876.0868	0.0000	0.0000
8718.3706	7108.2205	325.2369	-1610.1501	7180.0823
324.1704	-117.3758	-124.1277	664265.7895	-11.1936
-11.1965				
[10762]ENERGY: 3430000	3469.0119	5755.1592	5908.1920	
352.2612	-15251.4812	-1849.8014	0.0000	0.0000
8723.1948	7106.5365	325.4169	-1616.6583	7179.5405
323.8767	5.2069	62.1305	664265.7895	-9.0377
-9.0216				
[10798]ENERGY: 3440000	3567.4596	5878.3832	5859.3203	
376.1948	-15344.4755	-1935.0535	0.0000	0.0000
8705.9161	7107.7450	324.7723	-1598.1712	7180.7176
324.1254	-205.4314	-158.8073	664265.7895	-7.4583
-7.4635				
[10848]ENERGY: 3450000	3503.5821	5812.8788	5918.8527	
356.8412	-15343.4995	-1839.5484	0.0000	0.0000
8700.1673	7109.2742	324.5579	-1590.8931	7179.3199
324.0140	55.9158	-3.2983	664265.7895	-10.4960
-10.5077				
[10884]ENERGY: 3460000	3520.8606	5820.6912	5905.0971	
385.2524	-15378.2859	-1854.4947	0.0000	0.0000
8708.5343	7107.6549	324.8700	-1600.8794	7180.1125
324.0055	116.0702	66.8342	664265.7895	-5.1749
-5.1591				
[10934]ENERGY: 3470000	3639.6734	5700.9445	5924.3863	
338.0197	-15310.6484	-1866.2328	0.0000	0.0000
8687.3293	7113.4720	324.0789	-1573.8573	7180.9123
323.9207	143.3583	77.4880	664265.7895	-9.3792
-9.3999				
[10970]ENERGY: 3480000	3467.4013	5743.5047	5919.6659	
379.9986	-15289.0746	-1826.6030	0.0000	0.0000
8713.8689	7108.7618	325.0690	-1605.1070	7179.9611
324.1493	245.3356	162.0192	664265.7895	-5.2539
-5.2290				
[11020]ENERGY: 3490000	3601.3917	5753.3583	5934.3072	
371.5158	-15383.5416	-1827.4793	0.0000	0.0000
8664.7967	7114.3488	323.2384	-1550.4479	7179.7850
324.2648	123.3944	159.3582	664265.7895	0.9956
0.9857				
[11059]ENERGY: 3500000	3561.5810	5810.5141	5900.7055	
386.8848	-15328.6342	-1848.3492	0.0000	0.0000
8628.3660	7111.0679	321.8793	-1517.2981	7180.0574
323.9733	37.8288	1.8707	664265.7895	-4.2652
-4.2647				
[11109]ENERGY: 3510000	3491.0622	5885.4942	5975.4115	
345.8831	-15376.1303	-1857.1917	0.0000	0.0000
8647.5702	7112.0992	322.5957	-1535.4709	7182.3161
324.2008	70.9185	60.6540	664265.7895	-1.4199
-1.4200				
[11145]ENERGY: 3520000	3608.0139	5685.2125	5914.0076	

Supplementary Text 6

350.9063	-15370.8115	-1819.6596	0.0000	0.0000
8742.5438	7110.2130	326.1387	-1632.3308	7180.3423
324.2271	182.1383	106.3440	664265.7895	1.6749
1.6525				
[11195]ENERGY: 3530000	3619.6596	5789.7221	5956.3611	
359.7620	-15343.7904	-1868.1752	0.0000	0.0000
8598.0232	7111.5624	320.7474	-1486.4608	7181.0453
324.0984	60.2910	47.1304	664265.7895	0.6839
0.7022				
[11231]ENERGY: 3540000	3520.7640	5820.2173	5893.1493	
389.9813	-15292.2049	-1893.4756	0.0000	0.0000
8678.0674	7116.4988	323.7334	-1561.5686	7183.1224
324.0527	-64.4737	15.6391	664265.7895	-11.7354
-11.7297				
[11281]ENERGY: 3550000	3499.0475	5855.1869	5896.2043	
352.6331	-15314.5866	-1920.5370	0.0000	0.0000
8740.4454	7108.3936	326.0604	-1632.0519	7182.8467
324.2004	146.2766	90.3361	664265.7895	-12.3673
-12.3694				
[11317]ENERGY: 3560000	3517.5928	5770.9834	5886.4095	
341.9241	-15289.7274	-1811.5524	0.0000	0.0000
8695.4167	7111.0467	324.3806	-1584.3700	7184.0057
324.2372	49.8421	8.9233	664265.7895	-3.2048
-3.2074				
[11367]ENERGY: 3570000	3614.4351	5809.8765	5897.2071	
341.9312	-15329.1155	-1875.6573	0.0000	0.0000
8656.9164	7115.5934	322.9444	-1541.3229	7185.7008
324.2332	88.3512	82.1022	664265.7895	-4.7919
-4.8009				
[11403]ENERGY: 3580000	3535.2910	5759.6235	5924.9709	
367.4640	-15398.5867	-1761.3597	0.0000	0.0000
8687.9473	7115.3503	324.1020	-1572.5970	7186.4231
324.2113	147.3850	61.0796	664265.7895	-0.4764
-0.4693				
[11453]ENERGY: 3590000	3583.5437	5769.8789	5877.6020	
366.2376	-15266.4871	-1858.8096	0.0000	0.0000
8645.1001	7117.0656	322.5036	-1528.0345	7186.2311
324.5003	154.5418	116.6571	664265.7895	-2.6761
-2.6680				
[11492]ENERGY: 3600000	3584.7974	5713.1174	5913.8842	
358.4321	-15336.3666	-1822.4716	0.0000	0.0000
8701.7783	7113.1711	324.6180	-1588.6072	7185.9308
324.4579	142.8619	62.4117	664265.7895	-3.2114
-3.2159				
[11542]ENERGY: 3610000	3634.3989	5764.9041	5947.9111	
367.9523	-15381.5495	-1847.9849	0.0000	0.0000
8629.4597	7115.0918	321.9201	-1514.3679	7185.7526
324.4093	-105.7577	-82.9886	664265.7895	-3.1032
-3.1100				
[11578]ENERGY: 3620000	3517.5960	5817.3474	5918.9118	
362.7082	-15339.4531	-1812.3051	0.0000	0.0000
8650.5048	7115.3099	322.7052	-1535.1949	7184.7095
324.3165	112.1368	101.7819	664265.7895	-0.8532
-0.8313				

Supplementary Text 6

[11628]ENERGY: 3630000	3512.4964	5782.4967	5902.2989	
358.5518	-15320.2014	-1818.9758	0.0000	0.0000
8697.5953	7114.2618	324.4619	-1583.3334	7186.1735
324.3577	195.4522	125.7390	664265.7895	-7.9876
-8.0045				
[11664]ENERGY: 3640000	3553.8954	5949.0449	5875.4244	
378.8376	-15378.2649	-1871.3821	0.0000	0.0000
8607.5367	7115.0918	321.1023	-1492.4449	7185.3475
324.2323	-34.5904	-35.4880	664265.7895	-14.1315
-14.1248				
[11714]ENERGY: 3650000	3553.0482	5736.7122	5874.3493	
349.9871	-15309.1736	-1881.7504	0.0000	0.0000
8790.1019	7113.2747	327.9129	-1676.8272	7186.0421
324.2988	95.5110	30.2777	664265.7895	-11.0705
-11.0867				
[11750]ENERGY: 3660000	3524.3122	5823.5554	5874.7271	
378.5543	-15346.2327	-1852.3100	0.0000	0.0000
8710.0776	7112.6839	324.9276	-1597.3937	7185.2859
324.2383	20.7834	-74.7821	664265.7895	-13.0902
-13.0854				
[11800]ENERGY: 3670000	3544.6155	5833.1113	5855.6008	
387.1906	-15399.3831	-1741.6238	0.0000	0.0000
8633.6956	7113.2068	322.0782	-1520.4888	7184.4888
324.4589	42.7875	22.1174	664265.7895	-1.4211
-1.4154				
[11836]ENERGY: 3680000	3572.8208	5782.8675	5934.3147	
365.5167	-15387.2096	-1912.1315	0.0000	0.0000
8760.0765	7116.2552	326.7928	-1643.8213	7185.7250
324.4837	99.6883	14.3048	664265.7895	-1.1601
-1.1693				
[11886]ENERGY: 3690000	3583.3476	5882.4235	5884.2415	
356.5154	-15350.0571	-1871.1364	0.0000	0.0000
8629.7806	7115.1151	321.9321	-1514.6655	7184.7303
324.4353	-111.7222	-13.1143	664265.7895	-11.0933
-11.0877				
[11925]ENERGY: 3700000	3563.5341	5823.6698	5941.2154	
363.8295	-15376.5454	-1815.9555	0.0000	0.0000
8614.3870	7114.1350	321.3579	-1500.2521	7184.1647
324.4478	-31.1143	-53.0512	664265.7895	0.2681
0.2646				
[11975]ENERGY: 3710000	3512.4388	5772.9399	5862.3026	
355.0963	-15344.9432	-1825.7193	0.0000	0.0000
8779.9514	7112.0664	327.5342	-1667.8850	7184.5597
324.4206	106.9480	29.9070	664265.7895	-4.4039
-4.3928				
[12011]ENERGY: 3720000	3591.0131	5832.6465	5861.0083	
397.2868	-15358.8498	-1883.8948	0.0000	0.0000
8676.5258	7115.7358	323.6759	-1560.7899	7184.9276
324.5712	22.4409	-69.9810	664265.7895	-2.0569
-2.0642				
[12061]ENERGY: 3730000	3544.6725	5751.9301	5910.9050	
353.5191	-15259.4768	-1911.3569	0.0000	0.0000
8726.9551	7117.1481	325.5572	-1609.8069	7186.5110
324.5254	316.5728	131.1819	664265.7895	0.3057

Supplementary Text 6

0.3110
 [12097]ENERGY: 3740000 3493.7585 5780.6584 5889.6691
 377.8054 -15312.0897 -1828.5198 0.0000 0.0000
 8714.6374 7115.9194 325.0977 -1598.7181 7186.1498
 324.4021 196.2377 107.7543 664265.7895 -1.2529
 -1.2447
 [12147]ENERGY: 3750000 3498.9388 5870.6230 5956.3335
 355.6414 -15423.1999 -1859.9027 0.0000 0.0000
 8716.0249 7114.4589 325.1494 -1601.5660 7185.1982
 324.4225 37.5650 30.6391 664265.7895 2.7792
 2.7833
 [12183]ENERGY: 3760000 3571.2179 5773.9961 5897.3411
 360.0837 -15319.1718 -1905.4027 0.0000 0.0000
 8736.7452 7114.8095 325.9224 -1621.9358 7186.8283
 324.3435 -48.9263 -144.1770 664265.7895 -1.3192
 -1.3230
 [12233]ENERGY: 3770000 3487.6817 5826.9182 5849.8547
 346.5271 -15338.1800 -1826.8991 0.0000 0.0000
 8770.5552 7116.4578 327.1837 -1654.0974 7185.4706
 324.2831 29.4842 15.7062 664265.7895 -2.3914
 -2.4109
 [12269]ENERGY: 3780000 3521.5160 5815.5744 5914.9435
 344.5016 -15358.0689 -1846.6770 0.0000 0.0000
 8723.1622 7114.9518 325.4157 -1608.2104 7185.7331
 324.5907 22.0961 -13.7140 664265.7895 -6.9911
 -6.9590
 [12319]ENERGY: 3790000 3551.9950 5864.7387 5893.5693
 352.9068 -15390.0933 -1852.9226 0.0000 0.0000
 8696.4232 7116.6171 324.4182 -1579.8061 7186.6209
 324.3540 -117.9564 -39.2110 664265.7895 -0.7139
 -0.7524
 [12358]ENERGY: 3800000 3549.5719 5738.3008 5919.3750
 340.1578 -15300.8332 -1957.4500 0.0000 0.0000
 8823.9262 7113.0486 329.1747 -1710.8776 7187.8118
 324.5581 -150.9440 -168.1618 664265.7895 -4.0373
 -4.0170
 [12408]ENERGY: 3810000 3618.6711 5875.3270 5832.2275
 359.9954 -15349.5224 -1839.8152 0.0000 0.0000
 8620.9984 7117.8816 321.6045 -1503.1167 7186.2140
 324.4146 -44.7228 -117.4982 664265.7895 -2.9239
 -2.9318
 [12444]ENERGY: 3820000 3556.4318 5875.1254 5874.0115
 362.4433 -15415.8739 -1843.1166 0.0000 0.0000
 8704.3257 7113.3472 324.7130 -1590.9785 7187.3755
 324.3247 -49.6819 -39.0510 664265.7895 -0.1404
 -0.1318
 [12494]ENERGY: 3830000 3548.5131 5745.1909 5862.5668
 364.0667 -15285.2036 -1801.0945 0.0000 0.0000
 8681.9541 7115.9935 323.8784 -1565.9606 7186.6772
 324.2858 -24.0464 23.6838 664265.7895 -3.7567
 -3.7565
 [12530]ENERGY: 3840000 3649.2009 5837.9976 5870.1718
 378.2902 -15448.7475 -1836.6601 0.0000 0.0000
 8666.9976 7117.2506 323.3205 -1549.7471 7186.8652

Supplementary Text 6

324.4358	77.5475	65.8000	664265.7895	-3.9550
-3.9593				
[12580]ENERGY: 3850000	3569.2255	5872.2580	5934.4597	
372.2919	-15373.5256	-1876.3659	0.0000	0.0000
8621.9478	7120.2914	321.6399	-1501.6564	7188.1754
324.4982	157.4442	73.6708	664265.7895	-3.7908
-3.7920				
[12616]ENERGY: 3860000	3589.1299	5838.2909	5867.3707	
355.7678	-15324.1504	-1946.5288	0.0000	0.0000
8736.9941	7116.8743	325.9317	-1620.1198	7188.1313
324.6729	-89.5423	-128.4527	664265.7895	-1.8858
-1.8852				
[12666]ENERGY: 3870000	3603.5495	5829.5496	5943.8789	
357.3004	-15413.1011	-1881.8196	0.0000	0.0000
8677.8445	7117.2022	323.7251	-1560.6423	7187.6127
324.6329	4.2339	32.9665	664265.7895	-6.7550
-6.7383				
[12702]ENERGY: 3880000	3534.9821	5796.1474	5849.9920	
360.1050	-15351.1430	-1818.7902	0.0000	0.0000
8747.5598	7118.8530	326.3258	-1628.7068	7188.9199
324.5913	116.0781	43.3182	664265.7895	-4.0333
-4.0451				
[12752]ENERGY: 3890000	3522.7493	5738.9610	5912.0593	
365.8693	-15405.5097	-1816.4238	0.0000	0.0000
8799.4451	7117.1504	328.2614	-1682.2947	7189.9981
324.5796	60.7505	74.3220	664265.7895	-3.5242
-3.5244				
[12791]ENERGY: 3900000	3524.0229	5839.9693	5855.4040	
372.2766	-15366.7970	-1758.6982	0.0000	0.0000
8654.1874	7120.3651	322.8426	-1533.8223	7190.7289
324.5359	220.6251	146.3226	664265.7895	-7.1637
-7.1622				
[12841]ENERGY: 3910000	3663.9587	5939.5338	5880.5908	
353.6843	-15383.7398	-1949.7645	0.0000	0.0000
8617.1273	7121.3906	321.4601	-1495.7368	7189.9122
324.6264	-35.9411	-71.7389	664265.7895	-6.6196
-6.6323				
[12877]ENERGY: 3920000	3519.0785	5785.4172	5993.8274	
336.5727	-15345.8888	-1851.4841	0.0000	0.0000
8680.0253	7117.5482	323.8065	-1562.4771	7189.6445
324.6649	107.3355	66.3579	664265.7895	-1.8199
-1.8165				
[12927]ENERGY: 3930000	3566.3263	5744.5379	5895.9819	
348.9704	-15266.6890	-1865.2441	0.0000	0.0000
8694.8028	7118.6861	324.3577	-1576.1167	7189.7402
324.4323	65.2239	-42.7942	664265.7895	-3.5196
-3.5271				
[12963]ENERGY: 3940000	3557.4340	5843.8849	5936.8169	
335.6020	-15406.2445	-1927.2867	0.0000	0.0000
8779.9686	7120.1751	327.5348	-1659.7936	7190.7717
324.6251	-167.5057	-145.6986	664265.7895	-3.6670
-3.6629				
[13013]ENERGY: 3950000	3572.4653	5739.8713	5964.2215	
357.4595	-15334.1367	-1839.5384	0.0000	0.0000

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8661.3034	7121.6458	323.1081	-1539.6575	7190.7149
324.6325	83.3575	70.4330	664265.7895	-4.6685
-4.6754				
[13049]ENERGY: 3960000	3632.1243	5687.7377	5883.0483	
355.2230	-15232.9819	-1829.7675	0.0000	0.0000
8628.7453	7124.1292	321.8935	-1504.6161	7191.0765
324.6889	-53.6739	-43.9702	664265.7895	-3.5710
-3.5656				
[13099]ENERGY: 3970000	3487.1243	5835.2766	5921.9284	
368.9409	-15310.7206	-1886.5869	0.0000	0.0000
8704.2699	7120.2326	324.7109	-1584.0373	7190.2525
324.5136	41.3086	53.7475	664265.7895	-3.9934
-3.9733				
[13135]ENERGY: 3980000	3545.7770	5921.6074	5830.1429	
371.8737	-15375.6743	-1866.5119	0.0000	0.0000
8695.8562	7123.0709	324.3970	-1572.7853	7193.0844
324.5940	129.2765	58.7125	664265.7895	-7.4915
-7.5046				
[13185]ENERGY: 3990000	3598.1044	5825.8299	5962.8429	
328.2268	-15335.9659	-1888.3978	0.0000	0.0000
8633.3485	7123.9887	322.0652	-1509.3597	7193.5958
324.5357	-36.6719	-106.4061	664265.7895	-3.9917
-4.0042				
[13224]ENERGY: 4000000	3538.4315	5780.6697	5866.1864	
373.6898	-15234.3391	-1885.9441	0.0000	0.0000
8683.1214	7121.8155	323.9220	-1561.3060	7193.4720
324.4364	4.7207	-17.6997	664265.7895	-4.0489
-4.0187				
[13274]ENERGY: 4010000	3515.3490	5775.0437	5893.3769	
358.8477	-15370.4910	-1837.4520	0.0000	0.0000
8788.6043	7123.2786	327.8570	-1665.3258	7192.1293
324.3638	-12.8926	42.3276	664265.7895	-5.5111
-5.5303				
[13310]ENERGY: 4020000	3539.1025	5708.6374	5940.3199	
366.9614	-15237.5505	-1861.1447	0.0000	0.0000
8669.3746	7125.7007	323.4091	-1543.6739	7194.1655
324.4686	37.2294	7.4337	664265.7895	-5.2666
-5.2632				
[13360]ENERGY: 4030000	3602.4533	5846.2213	5907.3425	
361.7065	-15326.8881	-1849.0353	0.0000	0.0000
8586.0457	7127.8460	320.3006	-1458.1997	7193.8762
324.6113	-14.1419	-71.7809	664265.7895	-2.0630
-2.0817				
[13396]ENERGY: 4040000	3519.4142	5871.6486	5897.4332	
360.2442	-15355.8139	-1867.7498	0.0000	0.0000
8694.6370	7119.8136	324.3516	-1574.8234	7193.7926
324.6979	-87.8605	-77.7480	664265.7895	-3.9963
-3.9811				
[13446]ENERGY: 4050000	3560.3382	5721.8374	5912.2134	
363.5739	-15275.3788	-1827.4438	0.0000	0.0000
8669.7716	7124.9119	323.4240	-1544.8597	7193.3899
324.6948	4.9410	14.8554	664265.7895	-3.9283
-3.9303				
[13482]ENERGY: 4060000	3520.3882	5805.9876	5896.8012	

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346.5742	-15341.8047	-1821.4687	0.0000	0.0000
8715.7960	7122.2736	325.1409	-1593.5223	7193.9774
324.5057	58.2086	-15.1888	664265.7895	-5.1093
-5.1008				
[13532]ENERGY: 4070000	3505.2921	5882.5200	5889.6148	
359.8902	-15279.5300	-1898.6395	0.0000	0.0000
8661.3538	7120.5014	323.1099	-1540.8524	7194.7745
324.2422	91.8267	57.8456	664265.7895	-1.2073
-1.2204				
[13568]ENERGY: 4080000	3559.7413	5844.8408	5949.7765	
353.9149	-15270.2085	-1930.8714	0.0000	0.0000
8621.9530	7129.1467	321.6401	-1492.8063	7196.3959
324.2901	-29.8871	-92.2779	664265.7895	-2.3969
-2.3852				
[13618]ENERGY: 4090000	3548.5579	5803.5408	5851.6926	
399.0557	-15292.7562	-1887.0363	0.0000	0.0000
8703.8447	7126.8992	324.6951	-1576.9455	7195.2738
324.1638	-106.8674	-102.9238	664265.7895	-4.2607
-4.2515				
[13657]ENERGY: 4100000	3494.4054	5815.0023	5851.7537	
357.7518	-15360.8302	-1786.6165	0.0000	0.0000
8755.7928	7127.2594	326.6330	-1628.5334	7195.2879
324.3495	64.5252	-11.0418	664265.7895	-8.3428
-8.3642				
[13707]ENERGY: 4110000	3502.4853	5742.4608	5916.4661	
357.4709	-15227.5269	-1919.1278	0.0000	0.0000
8748.9703	7121.1987	326.3785	-1627.7716	7196.8077
324.2521	-24.3851	-77.4099	664265.7895	-12.6671
-12.6521				
[13743]ENERGY: 4120000	3578.4285	5677.6598	5930.3607	
366.8123	-15299.3678	-1847.4256	0.0000	0.0000
8718.3124	7124.7805	325.2348	-1593.5320	7196.5983
324.3115	49.7438	-6.4022	664265.7895	-6.1913
-6.2077				
[13793]ENERGY: 4130000	3560.8496	5802.5513	5856.8278	
365.2955	-15261.8696	-1885.7300	0.0000	0.0000
8686.4039	7124.3285	324.0444	-1562.0754	7196.8077
324.1467	-78.5148	-61.4537	664265.7895	-7.6397
-7.6320				
[13829]ENERGY: 4140000	3521.3722	5685.5096	5938.4382	
347.6521	-15283.4748	-1821.2509	0.0000	0.0000
8733.0996	7121.3460	325.7864	-1611.7535	7195.2551
324.1308	53.5845	37.1900	664265.7895	0.4196
0.4015				
[13879]ENERGY: 4150000	3624.2458	5774.1320	5889.4958	
343.1551	-15304.5801	-1927.5890	0.0000	0.0000
8727.1535	7126.0131	325.5646	-1601.1404	7197.2421
324.1515	-166.9250	-148.3173	664265.7895	-2.2426
-2.2081				
[13915]ENERGY: 4160000	3561.7952	5764.6352	5850.0251	
366.4672	-15296.5238	-1900.1787	0.0000	0.0000
8775.7400	7121.9600	327.3771	-1653.7799	7196.9518
324.1963	-121.7572	-104.7966	664265.7895	-7.0192
-7.0162				

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[13965]ENERGY: 4170000	3539.1420	5734.4967	5961.0525	
358.1418	-15278.6558	-1782.6285	0.0000	0.0000
8599.5271	7131.0757	320.8035	-1468.4513	7198.2044
324.1639	-32.4893	-57.5093	664265.7895	-10.2287
-10.2270				
[14001]ENERGY: 4180000	3639.9835	5780.0528	5877.4391	
354.9131	-15349.8854	-1819.1848	0.0000	0.0000
8645.2543	7128.5727	322.5094	-1516.6816	7198.6083
324.1226	-20.7938	-87.6297	664265.7895	-7.9558
-7.9924				
[14051]ENERGY: 4190000	3638.5648	5786.1826	5879.7054	
360.9144	-15292.6434	-1883.8341	0.0000	0.0000
8639.6417	7128.5314	322.3000	-1511.1103	7198.7788
324.2541	69.5663	68.3852	664265.7895	-9.4550
-9.4217				
[14090]ENERGY: 4200000	3606.7468	5805.6896	5903.8944	
369.7508	-15400.8199	-1829.1063	0.0000	0.0000
8674.0960	7130.2513	323.5853	-1543.8447	7197.6890
324.3237	-21.0507	-13.8459	664265.7895	-10.1666
-10.1656				
[14140]ENERGY: 4210000	3544.0225	5752.8356	5919.0343	
336.5917	-15309.3638	-1845.8523	0.0000	0.0000
8730.9295	7128.1975	325.7054	-1602.7320	7199.6170
324.4233	145.3296	79.3193	664265.7895	-3.4475
-3.4670				
[14176]ENERGY: 4220000	3513.1439	5805.2785	5882.2468	
351.1372	-15359.9078	-1838.5181	0.0000	0.0000
8770.3449	7123.7253	327.1758	-1646.6196	7199.9222
324.5219	147.0694	125.2313	664265.7895	-5.6114
-5.6129				
[14226]ENERGY: 4230000	3542.1998	5787.0693	5873.2704	
351.1373	-15392.9215	-1763.3328	0.0000	0.0000
8731.7422	7129.1647	325.7358	-1602.5775	7198.8758
324.5057	-104.2529	-70.8597	664265.7895	-2.4211
-2.4240				
[14262]ENERGY: 4240000	3500.7037	5765.1862	5879.0244	
374.4382	-15340.4592	-1835.1631	0.0000	0.0000
8783.8255	7127.5557	327.6787	-1656.2698	7197.8491
324.2761	-59.5924	-44.7159	664265.7895	-4.1223
-4.1139				
[14312]ENERGY: 4250000	3554.4995	5859.3244	5923.9348	
335.6581	-15316.2682	-1890.7763	0.0000	0.0000
8664.7059	7131.0784	323.2350	-1533.6275	7198.6648
324.3818	-38.7291	-46.0001	664265.7895	-1.2859
-1.2838				
[14348]ENERGY: 4260000	3598.6475	5794.8806	5914.5721	
359.7216	-15332.3517	-1896.0826	0.0000	0.0000
8689.9215	7129.3090	324.1756	-1560.6125	7198.8723
324.3837	-328.8106	-288.7415	664265.7895	-3.0892
-3.0758				
[14398]ENERGY: 4270000	3491.7996	5792.9352	5975.1006	
363.0948	-15340.7786	-1775.1089	0.0000	0.0000
8625.6808	7132.7235	321.7792	-1492.9573	7200.1452
324.4720	29.1149	61.0472	664265.7895	-5.6988

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-5.7052

[14434]ENERGY: 4280000	3555.2196	5815.2635	5896.2373
343.3976	-15285.3044	-1856.3457	0.0000
8664.9021	7133.3701	323.2423	-1531.5321
324.3440	35.3638	-75.5217	664265.7895

-6.1395

[14484]ENERGY: 4290000	3495.6512	5789.4957	5905.1038
331.7303	-15351.0687	-1804.3585	0.0000
8760.3419	7126.8957	326.8027	-1633.4462
324.2630	169.7318	116.3388	664265.7895

-1.6186

[14523]ENERGY: 4300000	3591.2231	5794.3343	5887.0402
347.9219	-15354.9469	-1817.4840	0.0000
8684.9700	7133.0585	323.9909	-1551.9115
324.3364	-48.3450	-40.7608	664265.7895

-5.2015

[14573]ENERGY: 4310000	3518.8929	5866.0601	5806.9819
352.6855	-15341.9683	-1857.4887	0.0000
8784.4264	7129.5898	327.7011	-1654.8366
324.6256	169.1745	78.0889	664265.7895

-3.1966

[14609]ENERGY: 4320000	3549.7762	5752.6338	5870.0786
313.2983	-15331.0581	-1856.4553	0.0000
8827.1862	7125.4597	329.2963	-1701.7265
324.3956	-31.2489	-75.9543	664265.7895

-4.1145

[14659]ENERGY: 4330000	3601.9722	5878.6497	5888.7810
347.8142	-15404.5894	-1826.9746	0.0000
8647.8302	7133.4833	322.6054	-1514.3469
324.4019	134.4470	161.6235	664265.7895

-4.2263

[14695]ENERGY: 4340000	3616.2680	5836.2125	5856.1133
354.6700	-15366.4006	-1853.0754	0.0000
8686.9258	7130.7137	324.0639	-1556.2121
324.2116	93.0799	12.5087	664265.7895

-1.4922

[14745]ENERGY: 4350000	3613.1157	5786.2640	5917.4739
348.5350	-15401.7845	-1826.0492	0.0000
8695.0913	7132.6462	324.3685	-1562.4450
324.3030	-29.5856	17.4837	664265.7895

0.7088

[14781]ENERGY: 4360000	3548.4285	5991.9637	5888.5449
337.5427	-15515.3551	-1819.9171	0.0000
8701.1161	7132.3236	324.5933	-1568.7925
324.5275	-23.1518	-42.6686	664265.7895

2.1815

[14831]ENERGY: 4370000	3492.9641	5726.2909	5908.1030
366.2652	-15311.0092	-1824.0599	0.0000
8772.1032	7130.6574	327.2414	-1641.4458
324.4604	150.3517	111.7589	664265.7895

-1.3331

[14867]ENERGY: 4380000	3620.6401	5825.8771	5891.4482
355.3346	-15326.5137	-1868.1912	0.0000
8638.3970	7136.9922	322.2535	-1501.4048

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324.4802	-62.5475	-179.7568	664265.7895	0.0142
0.0167				
[14917]ENERGY: 4390000	3579.6912	5782.5421	5869.1859	
360.4449	-15389.9123	-1783.2065	0.0000	0.0000
8716.1494	7134.8948	325.1541	-1581.2546	7204.2977
324.4801	39.1114	96.7703	664265.7895	7.2166
7.2082				
[14956]ENERGY: 4400000	3572.5061	5821.7227	5878.8142	
373.2556	-15358.3855	-1904.1338	0.0000	0.0000
8750.0225	7133.8018	326.4177	-1616.2208	7205.1321
324.4394	-86.3726	-67.9674	664265.7895	2.2479
2.2258				
[15006]ENERGY: 4410000	3630.6230	5848.5748	5878.9763	
386.3063	-15375.6796	-1846.0735	0.0000	0.0000
8614.0970	7136.8243	321.3470	-1477.2727	7205.5897
324.5647	-115.7350	-144.6111	664265.7895	5.6993
5.7149				
[15042]ENERGY: 4420000	3516.5079	5864.9428	5899.5241	
351.9056	-15352.5579	-1857.1450	0.0000	0.0000
8714.4341	7137.6116	325.0901	-1576.8225	7206.2639
324.3518	-64.1675	-83.7518	664265.7895	4.7744
4.7851				
[15092]ENERGY: 4430000	3494.7449	5804.2980	5925.2921	
354.2994	-15351.9011	-1837.5205	0.0000	0.0000
8746.0408	7135.2537	326.2692	-1610.7871	7204.5644
324.4356	128.0426	84.0510	664265.7895	-0.4826
-0.4971				
[15128]ENERGY: 4440000	3558.4920	5719.5939	5878.4285	
343.7676	-15323.4775	-1821.8675	0.0000	0.0000
8781.1026	7136.0394	327.5771	-1645.0631	7205.2390
324.7783	133.3112	109.7472	664265.7895	0.8620
0.8741				
[15178]ENERGY: 4450000	3654.8530	5846.1286	5943.7663	
359.9060	-15422.0181	-1841.8376	0.0000	0.0000
8598.2820	7139.0802	320.7571	-1459.2018	7206.2273
324.7043	-33.3974	-27.9169	664265.7895	4.9449
4.9366				
[15214]ENERGY: 4460000	3658.8873	5844.8193	5929.5034	
327.9396	-15336.4355	-1907.8206	0.0000	0.0000
8619.3896	7136.2832	321.5445	-1483.1064	7205.4455
324.8990	-64.0157	-154.4767	664265.7895	0.4938
0.4940				
[15264]ENERGY: 4470000	3549.8023	5780.3541	5919.9163	
342.0773	-15245.6161	-1922.8400	0.0000	0.0000
8713.0975	7136.7914	325.0402	-1576.3062	7205.1440
324.8812	44.9551	13.6383	664265.7895	1.6307
1.6283				
[15300]ENERGY: 4480000	3481.9067	5855.5689	5905.6759	
367.0816	-15284.9669	-1866.1601	0.0000	0.0000
8677.1483	7136.2543	323.6991	-1540.8940	7205.1452
324.7310	-43.2312	-31.9284	664265.7895	2.5373
2.5542				
[15350]ENERGY: 4490000	3535.2952	5789.1444	5924.6056	
349.6779	-15294.9234	-1894.4020	0.0000	0.0000

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8724.8976	7134.2954	325.4804	-1590.6023	7205.9258
324.8039	133.0136	101.6882	664265.7895	2.9458
2.9381				
[15389]ENERGY: 4500000	3623.1912	5733.1270	5933.8125	
357.3000	-15365.6154	-1929.7930	0.0000	0.0000
8784.4889	7136.5111	327.7035	-1647.9778	7206.7418
325.0819	-55.8410	-128.5019	664265.7895	0.1149
0.1209				
[15439]ENERGY: 4510000	3637.1362	5671.7559	5916.4437	
361.8849	-15375.5767	-1821.2861	0.0000	0.0000
8746.5040	7136.8620	326.2864	-1609.6421	7207.0738
325.2487	-31.2945	-6.6463	664265.7895	0.9998
0.9945				
[15475]ENERGY: 4520000	3580.7192	5734.6696	5894.6503	
367.0834	-15285.3078	-1826.5222	0.0000	0.0000
8671.6044	7136.8969	323.4923	-1534.7075	7207.4422
325.2800	58.6930	6.1764	664265.7895	3.0496
3.0407				
[15525]ENERGY: 4530000	3634.7127	5810.9502	5887.3970	
343.7359	-15396.6174	-1794.4982	0.0000	0.0000
8656.3418	7142.0220	322.9230	-1514.3198	7208.0636
325.1602	-84.9806	-81.5641	664265.7895	-2.1191
-2.1136				
[15561]ENERGY: 4540000	3552.2232	5892.1915	5921.7053	
363.1032	-15390.2802	-1894.2454	0.0000	0.0000
8695.6037	7140.3012	324.3876	-1555.3025	7209.7520
325.3134	3.7544	-17.6213	664265.7895	3.4444
3.4381				
[15611]ENERGY: 4550000	3550.9623	5843.0967	5879.7965	
372.1268	-15358.8975	-1814.2054	0.0000	0.0000
8669.6036	7142.4830	323.4177	-1527.1206	7210.1755
325.3010	78.3915	104.6143	664265.7895	0.1726
0.1769				
[15647]ENERGY: 4560000	3509.9204	5835.7054	5850.2881	
353.3244	-15269.6437	-1845.0444	0.0000	0.0000
8709.6770	7144.2272	324.9126	-1565.4498	7211.1404
325.2043	98.7465	28.3995	664265.7895	-2.7355
-2.7336				
[15697]ENERGY: 4570000	3521.5817	5826.8144	5901.7679	
358.1749	-15432.4204	-1821.3882	0.0000	0.0000
8786.1491	7140.6794	327.7654	-1645.4697	7211.7992
325.2450	98.4320	42.7134	664265.7895	3.2972
3.3009				
[15733]ENERGY: 4580000	3560.6526	5851.9458	5849.0131	
329.6232	-15392.8802	-1785.6706	0.0000	0.0000
8730.2450	7142.9291	325.6799	-1587.3160	7211.0689
325.3819	131.2670	196.8507	664265.7895	2.9653
2.9672				
[15783]ENERGY: 4590000	3572.1145	5889.5702	5848.7773	
366.8831	-15417.8091	-1855.8713	0.0000	0.0000
8738.1685	7141.8331	325.9755	-1596.3354	7212.8084
325.3052	45.4559	125.1921	664265.7895	3.2191
3.2197				
[15822]ENERGY: 4600000	3632.5119	5873.3700	5938.0283	

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363.1742	-15434.7200	-1943.7762	0.0000	0.0000
8711.5647	7140.1530	324.9830	-1571.4117	7211.8994
325.3425	-92.3675	-49.9434	664265.7895	-4.3651
-4.3471				
[15872]ENERGY: 4610000	3510.7213	5830.5180	5878.9142	
354.8244	-15370.9695	-1837.9750	0.0000	0.0000
8775.6642	7141.6976	327.3743	-1633.9666	7213.9071
325.3875	140.7721	120.1191	664265.7895	0.2490
0.2461				
[15908]ENERGY: 4620000	3664.1266	5840.0874	5871.7884	
367.1577	-15369.2178	-1890.0015	0.0000	0.0000
8661.0158	7144.9566	323.0973	-1516.0592	7215.2233
325.3668	-134.5958	-123.0243	664265.7895	-1.3672
-1.3670				
[15958]ENERGY: 4630000	3563.1877	5881.6920	5884.6758	
358.7816	-15343.1826	-1849.7764	0.0000	0.0000
8651.9169	7147.2950	322.7579	-1504.6219	7215.6574
325.4247	-88.4961	13.8113	664265.7895	-0.0501
-0.0688				
[15994]ENERGY: 4640000	3567.9812	5691.7022	5919.8409	
385.7403	-15360.5236	-1819.9666	0.0000	0.0000
8765.0091	7149.7835	326.9768	-1615.2256	7215.7251
325.3982	155.8447	111.1720	664265.7895	3.4643
3.4641				
[16044]ENERGY: 4650000	3501.7708	5813.2325	5886.8743	
348.6991	-15357.4649	-1882.6271	0.0000	0.0000
8832.2645	7142.7491	329.4857	-1689.5154	7215.1713
324.9952	5.8629	-14.7444	664265.7895	2.1391
2.1364				
[16080]ENERGY: 4660000	3579.6132	5774.1666	5907.5681	
345.9664	-15285.9789	-1904.8324	0.0000	0.0000
8728.2669	7144.7700	325.6061	-1583.4969	7216.4014
325.3173	-172.9402	-172.3828	664265.7895	3.8064
3.8265				
[16130]ENERGY: 4670000	3554.6016	5836.4200	5871.5629	
380.4518	-15392.9175	-1875.8201	0.0000	0.0000
8771.9272	7146.2259	327.2349	-1625.7013	7218.3345
325.2329	-18.4544	-206.4823	664265.7895	7.3868
7.3720				
[16166]ENERGY: 4680000	3593.8693	5821.6716	5862.9004	
372.9955	-15353.8263	-1917.8266	0.0000	0.0000
8764.7150	7144.4990	326.9658	-1620.2161	7218.1217
325.3727	107.9638	57.6981	664265.7895	-1.7386
-1.7344				
[16216]ENERGY: 4690000	3498.8230	5872.2866	5880.6574	
365.2779	-15331.4133	-1852.3850	0.0000	0.0000
8719.0376	7152.2842	325.2618	-1566.7534	7218.2330
325.3900	119.6532	-10.5751	664265.7895	1.7614
1.7664				
[16255]ENERGY: 4700000	3674.6757	5833.0849	5915.9268	
332.6950	-15433.1379	-1773.4438	0.0000	0.0000
8598.8367	7148.6375	320.7778	-1450.1992	7217.2626
325.2167	-175.7204	-55.9543	664265.7895	0.3939
0.3864				

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[16305]ENERGY: 4710000	3669.7337	5842.6078	5958.8435	
364.6703	-15425.5701	-1877.7738	0.0000	0.0000
8616.1795	7148.6909	321.4247	-1467.4886	7219.6510
325.2603	-78.1050	-111.9459	664265.7895	1.8050
1.8081				
[16341]ENERGY: 4720000	3574.2354	5786.5469	5941.3564	
377.3238	-15306.7291	-1897.3015	0.0000	0.0000
8673.5846	7149.0166	323.5662	-1524.5681	7220.5994
325.2986	117.5766	109.8509	664265.7895	-1.4507
-1.4483				
[16391]ENERGY: 4730000	3566.4381	5762.0214	5938.0959	
362.4394	-15365.1235	-1850.9441	0.0000	0.0000
8736.2620	7149.1894	325.9044	-1587.0727	7219.4891
325.3628	25.7897	36.0569	664265.7895	1.0161
1.0245				
[16427]ENERGY: 4740000	3500.5751	5843.6665	5934.2892	
377.6441	-15390.8303	-1837.2289	0.0000	0.0000
8720.3698	7148.4854	325.3115	-1571.8844	7221.7718
325.2424	79.6736	33.1785	664265.7895	2.4125
2.4108				
[16477]ENERGY: 4750000	3606.7618	5824.5672	5919.2397	
350.7917	-15289.0708	-1888.8883	0.0000	0.0000
8630.6446	7154.0459	321.9643	-1476.5987	7223.1741
325.2627	-156.4654	-202.5637	664265.7895	-0.6993
-0.7169				
[16513]ENERGY: 4760000	3631.1309	5900.3303	5911.7453	
367.6950	-15373.7929	-1917.7374	0.0000	0.0000
8634.0407	7153.4119	322.0910	-1480.6288	7223.4673
325.4676	-131.5374	-99.4231	664265.7895	5.9509
5.9671				
[16563]ENERGY: 4770000	3545.2967	5877.6883	5901.2695	
364.3491	-15349.0851	-1902.8301	0.0000	0.0000
8715.8625	7152.5508	325.1434	-1563.3117	7222.1692
325.6828	64.5911	75.8363	664265.7895	2.3101
2.2863				
[16599]ENERGY: 4780000	3550.8810	5804.4613	5947.9790	
354.2607	-15339.3092	-1891.7231	0.0000	0.0000
8723.1576	7149.7073	325.4155	-1573.4504	7222.0396
325.2294	-69.9145	-96.0611	664265.7895	6.4223
6.4276				
[16649]ENERGY: 4790000	3553.2805	5825.9630	5892.3647	
367.2461	-15394.0924	-1827.7825	0.0000	0.0000
8732.2959	7149.2753	325.7564	-1583.0206	7219.9185
325.0341	-39.9719	-127.4632	664265.7895	4.1638
4.1738				
[16688]ENERGY: 4800000	3545.6241	5785.9262	5908.3131	
350.2529	-15315.2404	-1870.0188	0.0000	0.0000
8743.5234	7148.3805	326.1753	-1595.1429	7219.5821
325.4660	8.3265	80.5619	664265.7895	-1.5605
-1.5691				
[16738]ENERGY: 4810000	3586.2725	5827.3868	5938.9677	
371.4616	-15313.1386	-1951.4208	0.0000	0.0000
8694.6311	7154.1603	324.3513	-1540.4708	7221.2525
325.5578	110.0088	0.1888	664265.7895	5.4883

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5.4961
 [16774]ENERGY: 4820000 3523.0029 5800.1277 5889.3304
 338.8424 -15296.8805 -1880.0696 0.0000 0.0000
 8773.6311 7147.9843 327.2984 -1625.6467 7220.1798
 325.5196 145.6794 38.4857 664265.7895 -3.5050
 -3.5139
 [16824]ENERGY: 4830000 3545.2815 5849.6338 5920.9170
 361.8880 -15385.8764 -1902.2666 0.0000 0.0000
 8760.1199 7149.6971 326.7944 -1610.4228 7220.3004
 325.5341 113.8702 36.5727 664265.7895 -3.4930
 -3.4869
 [16860]ENERGY: 4840000 3585.1081 5762.7664 5946.2891
 372.9907 -15380.6042 -1819.9665 0.0000 0.0000
 8683.9982 7150.5819 323.9547 -1533.4163 7219.3184
 325.5367 182.6570 170.4175 664265.7895 -8.5970
 -8.5868
 [16910]ENERGY: 4850000 3579.5807 5901.1382 5862.3723
 350.8024 -15403.5832 -1808.8754 0.0000 0.0000
 8669.2771 7150.7120 323.4055 -1518.5651 7219.9197
 325.5784 42.1689 -20.7055 664265.7895 -5.7761
 -5.7924
 [16946]ENERGY: 4860000 3562.4498 5876.6689 5928.6409
 371.1602 -15292.1776 -1949.6512 0.0000 0.0000
 8655.4695 7152.5604 322.8904 -1502.9091 7220.0666
 325.3863 21.8882 -34.2694 664265.7895 -5.8093
 -5.7837
 [16996]ENERGY: 4870000 3597.6715 5854.6409 5872.9984
 372.5629 -15400.3971 -1808.4059 0.0000 0.0000
 8662.2325 7151.3035 323.1427 -1510.9291 7219.5433
 325.3986 63.8063 53.7480 664265.7895 -5.9365
 -5.9487
 [17032]ENERGY: 4880000 3608.4066 5902.5546 5869.8841
 398.6309 -15423.9008 -1901.4542 0.0000 0.0000
 8696.3796 7150.5009 324.4166 -1545.8788 7220.7181
 325.3717 -1.0153 -57.6000 664265.7895 -5.2730
 -5.2709
 [17082]ENERGY: 4890000 3604.5569 5827.7458 5925.2903
 349.5487 -15353.4759 -1894.4527 0.0000 0.0000
 8692.6492 7151.8622 324.2774 -1540.7870 7219.4111
 325.1977 -112.3644 -55.2162 664265.7895 -8.6009
 -8.6130
 [17121]ENERGY: 4900000 3540.6317 5797.4625 5914.2675
 359.5564 -15303.1436 -1853.3269 0.0000 0.0000
 8694.1386 7149.5861 324.3330 -1544.5524 7219.3443
 325.0875 -174.3050 -172.3587 664265.7895 -4.5147
 -4.5088
 [17171]ENERGY: 4910000 3551.0258 5835.5825 5877.7193
 355.1205 -15269.3047 -1879.7221 0.0000 0.0000
 8680.7039 7151.1252 323.8318 -1529.5787 7221.0009
 325.3882 63.3047 0.0557 664265.7895 -7.6435
 -7.6271
 [17207]ENERGY: 4920000 3593.1312 5730.6083 5859.3136
 352.6838 -15325.0472 -1801.3832 0.0000 0.0000
 8743.5205 7152.8269 326.1751 -1590.6936 7219.9150

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325.6288	44.3795	22.4948	664265.7895	-6.0877
-6.1028				
[17257]ENERGY: 4930000	3527.8462	5825.0938	5865.1057	
367.8140	-15388.1485	-1838.1541	0.0000	0.0000
8787.6071	7147.1641	327.8198	-1640.4429	7220.4936
325.6120	18.1659	41.7459	664265.7895	-4.8388
-4.8414				
[17293]ENERGY: 4940000	3523.1400	5765.6867	5888.0046	
364.5388	-15312.1147	-1876.7836	0.0000	0.0000
8797.7724	7150.2442	328.1990	-1647.5282	7221.5815
325.5262	72.1095	-19.9579	664265.7895	-6.4418
-6.4555				
[17343]ENERGY: 4950000	3541.4163	5768.9054	5931.3782	
374.8524	-15365.2395	-1823.8757	0.0000	0.0000
8724.5209	7151.9580	325.4664	-1572.5629	7219.7412
325.2767	47.1668	67.9101	664265.7895	-2.1530
-2.0958				
[17379]ENERGY: 4960000	3596.8323	5791.7119	5841.4020	
348.6549	-15442.8638	-1765.8544	0.0000	0.0000
8779.6459	7149.5289	327.5228	-1630.1171	7221.0890
325.4141	14.3528	54.2734	664265.7895	-1.3726
-1.4190				
[17429]ENERGY: 4970000	3564.0597	5839.2755	5906.5006	
345.6006	-15352.6815	-1847.4281	0.0000	0.0000
8696.0358	7151.3625	324.4037	-1544.6733	7221.0222
325.3946	-161.0456	-107.6510	664265.7895	-5.2313
-5.2360				
[17465]ENERGY: 4980000	3575.1688	5892.3186	5856.8577	
349.8371	-15373.8912	-1852.7188	0.0000	0.0000
8705.3985	7152.9706	324.7530	-1552.4279	7221.0401
325.5431	5.8616	-51.9821	664265.7895	-2.0269
-2.0424				
[17515]ENERGY: 4990000	3586.2962	5827.8222	5875.9667	
367.3646	-15346.2398	-1794.4553	0.0000	0.0000
8635.4241	7152.1787	322.1426	-1483.2454	7222.8874
325.5497	140.3181	43.2201	664265.7895	-0.6358
-0.6179				
[17554]ENERGY: 5000000	3584.5100	5857.5275	5798.9922	
353.9776	-15403.8172	-1781.8114	0.0000	0.0000
8742.4577	7151.8364	326.1355	-1590.6213	7222.6743
325.6278	-36.5670	-49.9545	664265.7895	-9.6049
-9.5996				
[17604]ENERGY: 5010000	3535.7806	5880.6962	5877.4896	
350.1832	-15480.2317	-1775.2016	0.0000	0.0000
8761.9766	7150.6929	326.8636	-1611.2837	7223.7638
325.6858	70.2552	-16.7862	664265.7895	-1.4385
-1.4486				
[17640]ENERGY: 5020000	3632.6518	5778.8087	5859.0296	
356.8833	-15392.3966	-1819.6524	0.0000	0.0000
8740.2642	7155.5884	326.0537	-1584.6757	7222.6080
325.7071	112.7121	48.7550	664265.7895	-4.4379
-4.4173				
[17690]ENERGY: 5030000	3520.9160	5882.8502	5878.5480	
325.2511	-15416.0907	-1894.4824	0.0000	0.0000

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8855.2872	7152.2794	330.3446	-1703.0078	7224.0353
325.7000	-54.2144	-67.2177	664265.7895	-1.8757
-1.8914				
[17726]ENERGY: 5040000	3606.3149	5838.4676	5945.5256	
359.4995	-15414.9391	-1787.2874	0.0000	0.0000
8603.6597	7151.2407	320.9577	-1452.4190	7224.7729
325.5981	38.9623	4.4774	664265.7895	-0.2994
-0.2904				
[17776]ENERGY: 5050000	3431.0623	5778.8496	5921.1241	
368.5432	-15286.4740	-1827.8442	0.0000	0.0000
8769.6920	7154.9529	327.1515	-1614.7390	7225.1905
325.3003	87.3478	20.9883	664265.7895	-1.5699
-1.5697				
[17812]ENERGY: 5060000	3594.0193	5711.0695	5930.6014	
366.3337	-15350.5720	-1870.4295	0.0000	0.0000
8775.3995	7156.4220	327.3644	-1618.9775	7226.6591
325.5093	-98.5946	-129.4195	664265.7895	0.4059
0.4104				
[17862]ENERGY: 5070000	3421.3748	5849.5440	5844.6690	
369.1085	-15304.5886	-1810.5798	0.0000	0.0000
8783.5897	7153.1175	327.6699	-1630.4722	7224.7149
325.7573	76.9816	45.4978	664265.7895	-3.7090
-3.7112				
[17898]ENERGY: 5080000	3556.5440	5811.2949	5942.6142	
383.4370	-15377.8675	-1886.0233	0.0000	0.0000
8728.5904	7158.5897	325.6182	-1570.0006	7228.1841
325.7134	64.2490	-45.0436	664265.7895	-3.9763
-3.9907				
[17948]ENERGY: 5090000	3484.6293	5759.2343	5885.9685	
360.7443	-15319.8216	-1817.9833	0.0000	0.0000
8802.6114	7155.3829	328.3795	-1647.2285	7226.3902
325.6823	-42.6814	-26.0989	664265.7895	-1.4122
-1.3881				
[17987]ENERGY: 5100000	3572.6411	5774.9003	5912.6094	
365.2444	-15440.5304	-1771.6272	0.0000	0.0000
8744.3106	7157.5482	326.2046	-1586.7624	7227.1373
325.8616	27.9792	47.1570	664265.7895	0.4225
0.4077				
[18037]ENERGY: 5110000	3561.0995	5918.5762	5891.2221	
343.5620	-15368.3315	-1878.9005	0.0000	0.0000
8688.1782	7155.4061	324.1106	-1532.7721	7228.1567
325.8572	-23.5489	-79.8572	664265.7895	0.3544
0.3574				
[18073]ENERGY: 5120000	3605.8797	5803.6826	5871.4593	
359.9897	-15362.5654	-1857.3075	0.0000	0.0000
8734.2882	7155.4267	325.8307	-1578.8615	7228.2411
325.8457	-145.2894	-35.9133	664265.7895	1.2596
1.2544				
[18123]ENERGY: 5130000	3574.7445	5780.8257	5907.5075	
338.9331	-15388.3512	-1867.1785	0.0000	0.0000
8813.3129	7159.7940	328.7787	-1653.5189	7228.1867
325.6725	0.0814	34.8352	664265.7895	-3.1694
-3.1659				
[18159]ENERGY: 5140000	3532.1929	5913.3631	5853.6048	

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366.3946	-15458.0395	-1766.5142	0.0000	0.0000
8719.2012	7160.2029	325.2679	-1558.9983	7228.8432
325.6126	54.4405	22.8892	664265.7895	-2.4236
-2.4310				
[18209]ENERGY: 5150000	3591.7217	5756.1877	5853.7822	
367.1807	-15320.6487	-1830.2251	0.0000	0.0000
8738.4292	7156.4277	325.9852	-1582.0014	7228.7642
325.7718	34.2132	-58.8502	664265.7895	0.2528
0.2474				
[18245]ENERGY: 5160000	3616.2296	5885.4494	5884.6857	
358.3949	-15415.5808	-1829.9918	0.0000	0.0000
8658.5143	7157.7011	323.0040	-1500.8131	7226.8059
325.6343	9.5565	-37.8399	664265.7895	-0.5946
-0.5650				
[18295]ENERGY: 5170000	3607.5074	5814.0829	5903.2682	
365.3298	-15392.4167	-1840.7738	0.0000	0.0000
8701.7175	7158.7152	324.6157	-1543.0023	7228.5308
325.5233	83.4770	55.4774	664265.7895	2.7499
2.7457				
[18331]ENERGY: 5180000	3623.7982	5810.2175	5868.3705	
361.9740	-15372.8696	-1826.5828	0.0000	0.0000
8696.3061	7161.2138	324.4138	-1535.0923	7227.4756
325.4867	99.4158	68.0113	664265.7895	2.5069
2.5140				
[18381]ENERGY: 5190000	3618.4204	5789.1598	5858.4761	
372.0897	-15402.1128	-1865.1833	0.0000	0.0000
8786.5684	7157.4184	327.7810	-1629.1501	7228.0339
325.6125	88.6907	5.2505	664265.7895	0.8468
0.8203				
[18420]ENERGY: 5200000	3611.0965	5789.5797	5875.9002	
363.5753	-15380.2988	-1775.6356	0.0000	0.0000
8673.0609	7157.2782	323.5467	-1515.7827	7227.9773
325.3849	187.6317	141.9674	664265.7895	0.0930
0.1133				
[18470]ENERGY: 5210000	3564.4016	5798.8101	5969.5128	
363.6261	-15312.5559	-1849.9486	0.0000	0.0000
8626.4561	7160.3021	321.8081	-1466.1540	7229.8596
325.3666	57.9648	20.3661	664265.7895	-0.2418
-0.2669				
[18506]ENERGY: 5220000	3565.0792	5744.9135	5925.2257	
363.8309	-15303.8438	-1844.9814	0.0000	0.0000
8711.8065	7162.0306	324.9921	-1549.7760	7230.9116
325.3179	140.9766	67.0671	664265.7895	-5.0694
-5.0576				
[18556]ENERGY: 5230000	3593.7026	5766.0438	5885.8360	
353.5870	-15398.3196	-1819.7942	0.0000	0.0000
8778.4395	7159.4952	327.4778	-1618.9443	7229.5659
325.4209	186.6137	110.9558	664265.7895	-0.7288
-0.7442				
[18592]ENERGY: 5240000	3548.3511	5853.6519	5841.1902	
355.3544	-15386.0608	-1829.5659	0.0000	0.0000
8774.9981	7157.9189	327.3494	-1617.0792	7230.3785
325.5734	-46.4798	-80.4217	664265.7895	-1.5932
-1.5585				

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[18642]ENERGY: 5250000	3543.3636	5755.5802	5930.1702	
349.9488	-15271.9287	-1918.9418	0.0000	0.0000
8771.5756	7159.7678	327.2217	-1611.8078	7230.0551
325.7503	-8.6089	-54.0454	664265.7895	3.6351
3.5912				
[18678]ENERGY: 5260000	3578.3525	5809.4118	5917.4311	
367.2958	-15358.3817	-1867.1512	0.0000	0.0000
8709.9880	7156.9463	324.9242	-1553.0417	7230.9435
325.7378	-78.2879	-82.3975	664265.7895	0.6778
0.6955				
[18728]ENERGY: 5270000	3584.6716	5786.7018	5896.5068	
350.0599	-15317.7683	-1885.9255	0.0000	0.0000
8746.7645	7161.0108	326.2962	-1585.7537	7231.0113
325.4122	65.0836	18.1452	664265.7895	6.6464
6.6576				
[18764]ENERGY: 5280000	3549.5592	5820.4396	5930.6979	
372.1784	-15382.3324	-1855.9671	0.0000	0.0000
8723.5791	7158.1548	325.4312	-1565.4243	7230.1003
325.3173	-63.8007	-58.8425	664265.7895	-3.1627
-3.1630				
[18814]ENERGY: 5290000	3548.1087	5864.2572	5860.6154	
379.2601	-15291.0345	-1844.2362	0.0000	0.0000
8644.2631	7161.2338	322.4724	-1483.0293	7230.6531
325.4817	15.1126	31.6516	664265.7895	-2.0611
-2.0597				
[18853]ENERGY: 5300000	3592.8248	5826.4367	5857.1887	
333.3376	-15308.9132	-1821.0784	0.0000	0.0000
8681.7625	7161.5587	323.8713	-1520.2038	7230.6694
325.4642	199.5536	59.3776	664265.7895	1.4855
1.4783				
[18903]ENERGY: 5310000	3600.1231	5771.5445	5935.4506	
341.1670	-15323.8948	-1812.7288	0.0000	0.0000
8647.9938	7159.6553	322.6115	-1488.3385	7230.9983
325.5675	-160.3856	-86.7192	664265.7895	-7.2191
-7.2074				
[18939]ENERGY: 5320000	3525.9312	5829.6678	5907.8908	
362.8510	-15280.7383	-1872.3958	0.0000	0.0000
8687.6641	7160.8709	324.0914	-1526.7932	7231.0491
325.7592	133.2190	3.4060	664265.7895	-3.9513
-3.9807				
[18989]ENERGY: 5330000	3567.0904	5801.1694	5920.1368	
343.0455	-15311.3343	-1875.1775	0.0000	0.0000
8714.1864	7159.1168	325.0808	-1555.0696	7231.0006
325.8038	-170.0510	-213.6307	664265.7895	0.5378
0.5786				
[19025]ENERGY: 5340000	3562.3154	5815.0796	5903.3968	
382.8837	-15336.9123	-1867.4881	0.0000	0.0000
8701.3897	7160.6649	324.6035	-1540.7249	7231.4352
325.9743	-64.8569	-178.7269	664265.7895	0.1409
0.1201				
[19075]ENERGY: 5350000	3647.3305	5837.1101	5888.0285	
357.5299	-15416.1758	-1828.0168	0.0000	0.0000
8677.2424	7163.0489	323.7027	-1514.1935	7230.4329
325.6170	-135.6536	-107.0156	664265.7895	-2.2823

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-2.2863
 [19111]ENERGY: 5360000 3551.2117 5887.4160 5906.1668
 364.5655 -15411.6650 -1892.9262 0.0000 0.0000
 8755.7712 7160.5401 326.6322 -1595.2311 7232.1167
 325.6687 96.1681 123.9339 664265.7895 -3.0543
 -3.0459
 [19161]ENERGY: 5370000 3506.6054 5893.6776 5888.3116
 382.8131 -15370.8392 -1818.9223 0.0000 0.0000
 8679.8382 7161.4844 323.7995 -1518.3537 7232.0702
 325.8609 118.9113 71.4452 664265.7895 -6.3241
 -6.3411
 [19197]ENERGY: 5380000 3617.2614 5738.2055 5955.5970
 377.4131 -15381.3453 -1842.4488 0.0000 0.0000
 8693.6075 7158.2905 324.3132 -1535.3170 7232.3540
 325.7797 -103.1985 -54.3226 664265.7895 -12.1703
 -12.1424
 [19247]ENERGY: 5390000 3610.3324 5771.0234 5898.3320
 360.3654 -15414.6086 -1848.6427 0.0000 0.0000
 8786.2946 7163.0966 327.7708 -1623.1980 7234.1830
 325.8075 -8.9748 -82.7350 664265.7895 -14.8391
 -14.8685
 [19286]ENERGY: 5400000 3580.7751 5863.8546 5847.6758
 359.3932 -15457.9541 -1778.5738 0.0000 0.0000
 8748.2886 7163.4594 326.3530 -1584.8292 7234.4524
 325.6304 107.6282 9.4184 664265.7895 -14.9015
 -14.8922
 [19336]ENERGY: 5410000 3577.8226 5770.0119 5884.6469
 358.4886 -15378.7812 -1839.0732 0.0000 0.0000
 8790.0460 7163.1616 327.9108 -1626.8844 7232.4616
 325.6864 -89.9854 -37.8462 664265.7895 -12.1484
 -12.1427
 [19372]ENERGY: 5420000 3672.8739 5731.9352 5888.3442
 359.0961 -15353.7339 -1904.8946 0.0000 0.0000
 8772.6400 7166.2609 327.2614 -1606.3791 7235.9016
 325.9934 -190.0364 -196.4016 664265.7895 -12.7006
 -12.7017
 [19422]ENERGY: 5430000 3588.7123 5778.9367 5919.0472
 354.1246 -15350.8593 -1820.8105 0.0000 0.0000
 8698.2869 7167.4379 324.4877 -1530.8490 7234.2681
 325.9703 64.7898 -20.0479 664265.7895 -10.5489
 -10.5669
 [19458]ENERGY: 5440000 3554.7079 5825.6917 5890.4085
 365.2444 -15344.5146 -1858.0553 0.0000 0.0000
 8733.0480 7166.5305 325.7845 -1566.5175 7235.0083
 326.1491 175.6201 126.6755 664265.7895 -12.5522
 -12.5384
 [19508]ENERGY: 5450000 3655.7394 5691.5108 5895.7272
 373.3275 -15465.7763 -1786.3056 0.0000 0.0000
 8800.0805 7164.3036 328.2851 -1635.7769 7233.7237
 326.0305 -50.8123 -115.4322 664265.7895 -9.8011
 -9.7939
 [19544]ENERGY: 5460000 3575.2781 5816.7572 5927.6434
 355.2632 -15351.8392 -1872.9793 0.0000 0.0000
 8715.1120 7165.2354 325.1154 -1549.8765 7235.3063

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326.1792	-147.3131	-82.7474	664265.7895	-12.7921
-12.7959				
[19594]ENERGY: 5470000	3518.2503	5831.0100	5885.4221	
356.0420	-15304.3493	-1877.0714	0.0000	0.0000
8754.5500	7163.8537	326.5866	-1590.6963	7235.8754
326.0341	113.7524	46.6619	664265.7895	-14.8379
-14.8489				
[19630]ENERGY: 5480000	3585.7184	5890.3649	5946.2701	
393.4021	-15434.8199	-1870.7973	0.0000	0.0000
8656.8653	7167.0035	322.9425	-1489.8617	7236.3010
326.1461	96.3135	24.1003	664265.7895	-15.3946
-15.3999				
[19680]ENERGY: 5490000	3617.3232	5822.9209	5933.0312	
339.7321	-15354.0568	-1898.1446	0.0000	0.0000
8705.8621	7166.6681	324.7703	-1539.1940	7235.1693
326.3633	-148.7788	-87.1065	664265.7895	-18.3158
-18.3101				
[19719]ENERGY: 5500000	3592.7573	5772.2975	5889.2019	
367.0539	-15345.1786	-1935.2043	0.0000	0.0000
8821.3935	7162.3212	329.0802	-1659.0723	7236.6279
326.4640	-2.8029	-10.5912	664265.7895	-13.2200
-13.2213				
[19769]ENERGY: 5510000	3624.6953	5780.0768	5876.0604	
365.8983	-15312.8458	-1873.8478	0.0000	0.0000
8708.1386	7168.1759	324.8552	-1539.9627	7236.4940
326.2453	-36.0338	-58.9736	664265.7895	-16.1793
-16.1572				
[19805]ENERGY: 5520000	3619.3654	5833.2368	5953.2688	
349.9371	-15476.6894	-1845.2649	0.0000	0.0000
8729.0570	7162.9108	325.6356	-1566.1463	7236.7865
326.3008	-24.6586	7.5915	664265.7895	-13.4272
-13.4444				
[19855]ENERGY: 5530000	3510.1681	5855.1048	5912.7009	
350.6427	-15345.8741	-1862.7559	0.0000	0.0000
8744.8808	7164.8673	326.2259	-1580.0135	7237.6008
326.3220	-124.6873	-33.6117	664265.7895	-14.1909
-14.1873				
[19891]ENERGY: 5540000	3559.5490	5795.0302	5873.4219	
378.6508	-15407.9002	-1831.4739	0.0000	0.0000
8798.7628	7166.0407	328.2360	-1632.7221	7235.8741
326.0740	47.8385	14.7924	664265.7895	-16.3974
-16.4062				
[19941]ENERGY: 5550000	3639.2222	5845.1649	5936.3230	
327.7259	-15384.2659	-1887.6469	0.0000	0.0000
8691.6486	7168.1719	324.2401	-1523.4767	7236.5605
326.3720	107.0237	49.4331	664265.7895	-16.6042
-16.6060				
[19977]ENERGY: 5560000	3552.4341	5836.0479	5864.3426	
344.0768	-15390.6032	-1830.3256	0.0000	0.0000
8790.9641	7166.9366	327.9450	-1624.0275	7235.6967
326.2725	29.6520	19.2507	664265.7895	-16.9560
-16.9304				
[20027]ENERGY: 5570000	3488.3171	5901.5877	5850.6429	
363.6602	-15346.6149	-1803.8638	0.0000	0.0000

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8714.6864	7168.4155	325.0995	-1546.2709	7234.9642
326.1844	71.8592	87.5502	664265.7895	-11.2870
-11.2854				
[20063]ENERGY: 5580000	3624.2787	5852.5413	5903.7161	
345.2156	-15263.2834	-1934.1752	0.0000	0.0000
8636.3295	7164.6225	322.1764	-1471.7070	7236.1111
326.0647	-73.1694	-116.3984	664265.7895	-14.8329
-14.8568				
[20113]ENERGY: 5590000	3622.2294	5899.8835	5865.3558	
375.6746	-15341.6469	-1936.6973	0.0000	0.0000
8681.9260	7166.7251	323.8774	-1515.2009	7237.4243
326.4236	64.5622	-26.7582	664265.7895	-13.3332
-13.3206				
[20152]ENERGY: 5600000	3593.4884	5823.8023	5936.8764	
362.0400	-15422.4275	-1914.8046	0.0000	0.0000
8784.5513	7163.5264	327.7058	-1621.0249	7236.3361
326.5321	64.8513	-41.6088	664265.7895	-17.6176
-17.6097				
[20202]ENERGY: 5610000	3622.5105	5831.3519	5898.6630	
361.7395	-15360.4963	-1837.2645	0.0000	0.0000
8651.5858	7168.0899	322.7455	-1483.4959	7236.7423
326.3862	38.8348	0.1719	664265.7895	-18.5290
-18.5340				
[20238]ENERGY: 5620000	3544.8837	5899.5678	5853.7546	
381.0810	-15407.1293	-1828.6734	0.0000	0.0000
8722.6536	7166.1380	325.3967	-1556.5157	7236.3265
326.5129	-7.5868	-44.5211	664265.7895	-15.6293
-15.6532				
[20288]ENERGY: 5630000	3568.0720	5861.2211	5897.7159	
336.1713	-15367.7880	-1861.7139	0.0000	0.0000
8734.4280	7168.1063	325.8360	-1566.3216	7236.1859
326.2811	14.9066	4.9769	664265.7895	-17.4415
-17.4192				
[20324]ENERGY: 5640000	3568.3515	5757.2225	5873.8651	
357.3943	-15357.2886	-1887.8896	0.0000	0.0000
8853.5715	7165.2266	330.2806	-1688.3449	7237.5178
326.2662	27.0418	-15.3284	664265.7895	-14.5057
-14.5144				
[20374]ENERGY: 5650000	3607.7241	5819.1544	5919.4929	
365.5878	-15317.2199	-1893.5722	0.0000	0.0000
8666.6303	7167.7973	323.3068	-1498.8330	7236.4376
326.1185	12.5751	-6.4243	664265.7895	-20.3025
-20.2968				
[20410]ENERGY: 5660000	3660.6503	5706.3888	5898.6331	
345.5212	-15253.6672	-1896.3219	0.0000	0.0000
8703.8472	7165.0514	324.6951	-1538.7958	7236.3438
326.1709	-29.8070	-76.2136	664265.7895	-16.9866
-16.9974				
[20460]ENERGY: 5670000	3628.5666	5775.8887	5855.3765	
366.2056	-15326.0765	-1860.6894	0.0000	0.0000
8727.4519	7166.7234	325.5757	-1560.7284	7238.2022
326.3537	50.9756	43.8091	664265.7895	-19.6577
-19.6574				
[20496]ENERGY: 5680000	3585.0765	5741.1299	5905.2128	

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354.8109	-15334.8326	-1861.7315	0.0000	0.0000
8775.8513	7165.5172	327.3812	-1610.3341	7237.0740
326.4603	-51.6437	9.8431	664265.7895	-17.5200
-17.5141				
[20546]ENERGY: 5690000	3649.5248	5856.3524	5887.3526	
354.7135	-15397.3126	-1853.5438	0.0000	0.0000
8671.0805	7168.1674	323.4728	-1502.9131	7237.0273
326.5646	-75.8457	-109.2546	664265.7895	-14.6282
-14.6264				
[20585]ENERGY: 5700000	3536.0360	5846.0767	5899.1413	
370.1300	-15362.3829	-1828.4590	0.0000	0.0000
8707.5105	7168.0525	324.8318	-1539.4579	7236.3303
326.2996	-24.3890	-85.1813	664265.7895	-15.8288
-15.8463				
[20635]ENERGY: 5710000	3668.6200	5790.1505	5896.0965	
360.8688	-15407.3130	-1861.2914	0.0000	0.0000
8715.6603	7162.7916	325.1358	-1552.8687	7235.4438
326.3087	-237.2530	-90.6011	664265.7895	-20.7227
-20.7043				
[20671]ENERGY: 5720000	3664.5580	5864.0347	5867.1113	
372.2939	-15395.8047	-1871.1077	0.0000	0.0000
8668.7292	7169.8146	323.3851	-1498.9146	7236.7721
326.5114	-103.0071	-85.1723	664265.7895	-11.5468
-11.5443				
[20721]ENERGY: 5730000	3589.4507	5864.8905	5898.7601	
351.1804	-15441.6070	-1840.5053	0.0000	0.0000
8742.2680	7164.4375	326.1284	-1577.8306	7236.1320
326.3288	114.4749	109.0459	664265.7895	-9.5963
-9.6003				
[20757]ENERGY: 5740000	3572.4753	5740.7765	5914.7888	
359.9416	-15277.0310	-1890.3571	0.0000	0.0000
8749.2835	7169.8775	326.3901	-1579.4060	7238.6527
326.1091	-108.5115	-111.7754	664265.7895	-10.7451
-10.7505				
[20807]ENERGY: 5750000	3623.7955	5881.7529	5859.8198	
339.6629	-15316.7845	-1913.1700	0.0000	0.0000
8691.8785	7166.9552	324.2487	-1524.9233	7238.1912
326.1713	-129.8622	-35.1523	664265.7895	-13.0172
-12.9966				
[20843]ENERGY: 5760000	3603.4385	5834.4838	5899.0148	
347.9558	-15325.7447	-1850.5381	0.0000	0.0000
8661.1902	7169.8003	323.1038	-1491.3899	7238.6522
326.1150	11.9391	-18.8326	664265.7895	-11.2538
-11.2834				
[20893]ENERGY: 5770000	3543.9961	5934.0074	5893.2660	
362.6309	-15338.7061	-1879.6084	0.0000	0.0000
8655.0111	7170.5970	322.8733	-1484.4141	7238.1598
326.4459	183.6111	219.9544	664265.7895	-13.4581
-13.4567				
[20929]ENERGY: 5780000	3635.1148	5823.2994	5877.4381	
374.4834	-15340.5719	-1950.5288	0.0000	0.0000
8751.1065	7170.3416	326.4581	-1580.7649	7240.0211
326.2946	-48.2132	-137.3763	664265.7895	-15.7719
-15.7585				

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[20979]ENERGY: 5790000	3623.2008	5786.1473	5848.6192	
345.3551	-15351.2619	-1827.8139	0.0000	0.0000
8746.4635	7170.7100	326.2849	-1575.7535	7238.8801
326.5269	-44.2260	-5.7679	664265.7895	-7.0967
-7.0921				
[21018]ENERGY: 5800000	3574.4895	5890.1538	5899.7674	
354.1422	-15455.6217	-1824.2795	0.0000	0.0000
8731.5038	7170.1555	325.7269	-1561.3483	7239.7208
326.4495	-55.8027	-41.1664	664265.7895	-12.2876
-12.2985				
[21068]ENERGY: 5810000	3547.9120	5831.0263	5898.0179	
360.1454	-15344.1697	-1844.0491	0.0000	0.0000
8723.5257	7172.4084	325.4292	-1551.1173	7239.6371
326.4726	77.3525	-0.5090	664265.7895	-6.5870
-6.5841				
[21104]ENERGY: 5820000	3596.9742	5932.7324	5917.7185	
348.0485	-15447.4635	-1913.9965	0.0000	0.0000
8735.5990	7169.6127	325.8796	-1565.9864	7238.9329
326.3950	-91.0028	-104.6949	664265.7895	-11.2976
-11.3063				
[21154]ENERGY: 5830000	3543.1216	5855.8911	5919.0215	
373.8936	-15375.5600	-1883.9558	0.0000	0.0000
8737.2597	7169.6716	325.9416	-1567.5882	7239.8741
326.4396	124.4476	53.4443	664265.7895	-9.0347
-9.0365				
[21190]ENERGY: 5840000	3533.3585	5908.9966	5898.3885	
361.0825	-15404.0574	-1916.6035	0.0000	0.0000
8783.6680	7164.8331	327.6728	-1618.8349	7238.3056
326.1401	34.5688	53.8548	664265.7895	-10.6529
-10.6346				
[21240]ENERGY: 5850000	3566.4641	5897.1869	5911.5619	
353.7816	-15369.5973	-1893.7695	0.0000	0.0000
8704.6893	7170.3171	324.7266	-1534.3722	7240.4271
326.3480	209.7094	106.7783	664265.7895	-14.3938
-14.4046				
[21276]ENERGY: 5860000	3601.0734	5896.1331	5878.8792	
351.8230	-15413.7741	-1812.3363	0.0000	0.0000
8668.6554	7170.4536	323.3823	-1498.2018	7238.8906
326.2054	8.9587	31.2591	664265.7895	-10.4846
-10.5049				
[21326]ENERGY: 5870000	3708.2391	5878.8313	5885.1093	
350.2601	-15440.4417	-1902.6588	0.0000	0.0000
8690.5223	7169.8615	324.1981	-1520.6608	7239.9781
326.2962	-83.3184	-151.2258	664265.7895	-11.0400
-11.0162				
[21362]ENERGY: 5880000	3542.5040	5770.3417	5910.3036	
369.8785	-15330.5660	-1822.4857	0.0000	0.0000
8730.4158	7170.3919	325.6863	-1560.0239	7240.7738
326.1251	175.3260	142.3370	664265.7895	-12.7719
-12.7819				
[21412]ENERGY: 5890000	3576.6019	5821.2847	5935.8141	
362.1046	-15435.5908	-1862.1516	0.0000	0.0000
8774.6036	7172.6665	327.3347	-1601.9371	7240.2089
326.2489	22.0348	22.1143	664265.7895	-10.4457

Supplementary Text 6

-10.4355
[21451]ENERGY: 5900000 3541.5831 5853.9531 5874.1668
346.6521 -15323.4648 -1901.2834 0.0000 0.0000
8777.8615 7169.4684 327.4562 -1608.3932 7240.4572
326.1569 45.6491 41.3628 664265.7895 -14.3923
-14.3822
[21501]ENERGY: 5910000 3551.9715 5768.6238 5966.3560
355.7759 -15366.0288 -1928.1288 0.0000 0.0000
8819.8666 7168.4362 329.0232 -1651.4303 7239.6585
326.1812 -65.8963 3.5432 664265.7895 -10.6738
-10.6702
[21537]ENERGY: 5920000 3610.0686 5832.4958 5935.1482
358.4227 -15459.6895 -1859.2931 0.0000 0.0000
8755.7833 7172.9362 326.6326 -1582.8471 7241.3895
326.2055 58.3211 -105.6066 664265.7895 -15.1961
-15.2172
[21587]ENERGY: 5930000 3626.6797 5861.9205 5938.8084
343.8723 -15469.5659 -1883.9402 0.0000 0.0000
8751.7223 7169.4972 326.4811 -1582.2251 7241.1052
326.3519 35.0930 -36.9111 664265.7895 -14.6753
-14.6672
[21623]ENERGY: 5940000 3542.1456 5760.5924 5930.4742
359.7742 -15369.7919 -1866.6949 0.0000 0.0000
8814.5513 7171.0509 328.8249 -1643.5003 7241.6058
326.2071 52.0373 -100.9469 664265.7895 -14.1949
-14.2067
[21673]ENERGY: 5950000 3665.6348 5842.6217 5994.4031
375.5518 -15426.6386 -1930.5746 0.0000 0.0000
8654.4842 7175.4825 322.8537 -1479.0017 7241.3612
326.0799 -103.5676 -122.7361 664265.7895 -14.9410
-14.9336
[21709]ENERGY: 5960000 3640.6838 5894.8447 5896.7473
371.8779 -15440.9905 -1906.8963 0.0000 0.0000
8716.0450 7172.3117 325.1502 -1543.7332 7240.1735
326.0953 -53.7475 -39.6346 664265.7895 -13.3298
-13.3269
[21759]ENERGY: 5970000 3611.0142 5796.2842 5855.9794
362.0622 -15361.9297 -1871.7388 0.0000 0.0000
8781.1423 7172.8138 327.5786 -1608.3285 7241.2555
326.4665 -188.1163 -223.3853 664265.7895 -13.9296
-13.9289
[21795]ENERGY: 5980000 3612.6498 5733.1341 5930.0674
354.7023 -15365.5497 -1841.5265 0.0000 0.0000
8742.7998 7166.2773 326.1483 -1576.5225 7240.5008
326.6319 169.1684 61.6283 664265.7895 -14.3627
-14.3480
[21845]ENERGY: 5990000 3552.8702 5902.6131 5921.6453
356.7242 -15418.5296 -1867.8597 0.0000 0.0000
8721.6446 7169.1081 325.3591 -1552.5366 7240.3212
326.4472 99.7438 64.1511 664265.7895 -13.7533
-13.7721
[21884]ENERGY: 6000000 3520.5340 5874.9767 5960.5393
331.5135 -15378.5630 -1892.6602 0.0000 0.0000
8756.4666 7172.8069 326.6581 -1583.6597 7240.9359

Supplementary Text 6

326.4237	-127.6414	-104.8939	664265.7895	-9.2332
-9.2356				
[21934]ENERGY: 6010000	3654.6907	5901.0032	5867.9965	
364.2313	-15391.9086	-1909.1439	0.0000	0.0000
8684.0759	7170.9451	323.9576	-1513.1308	7242.1113
326.4967	-196.4010	-214.6720	664265.7895	-9.3547
-9.3485				
[21970]ENERGY: 6020000	3612.2060	5773.4832	5873.4905	
350.5095	-15391.2155	-1872.7061	0.0000	0.0000
8824.5550	7170.3226	329.1981	-1654.2323	7241.2448
326.4265	6.5086	-40.2516	664265.7895	-11.8721
-11.8680				
[22020]ENERGY: 6030000	3575.8111	5834.8565	5949.2084	
361.9587	-15386.8213	-1872.1021	0.0000	0.0000
8709.3996	7172.3108	324.9023	-1537.0888	7240.7170
326.6285	14.3134	29.5183	664265.7895	-13.2082
-13.1870				
[22056]ENERGY: 6040000	3646.5965	5806.1815	5918.2030	
365.9285	-15376.7906	-1906.8325	0.0000	0.0000
8719.4472	7172.7336	325.2771	-1546.7136	7242.6152
326.6459	-200.9105	-153.4000	664265.7895	-12.0148
-12.0357				
[22106]ENERGY: 6050000	3539.0283	5752.3042	5946.9201	
360.4810	-15380.8083	-1824.3583	0.0000	0.0000
8778.2343	7171.8011	327.4701	-1606.4331	7242.1431
326.5609	-28.3720	-9.5149	664265.7895	-13.2248
-13.2223				
[22142]ENERGY: 6060000	3513.2175	5857.9508	5868.1972	
327.4122	-15262.8975	-1893.9154	0.0000	0.0000
8758.6992	7168.6641	326.7414	-1590.0351	7243.4010
326.4650	27.8414	44.1520	664265.7895	-14.0586
-14.0701				
[22192]ENERGY: 6070000	3653.4447	5823.3549	5876.8342	
367.9315	-15319.6638	-1884.8878	0.0000	0.0000
8664.6819	7181.6956	323.2341	-1482.9863	7245.3127
326.4655	-121.9374	-137.2991	664265.7895	-16.8491
-16.8541				
[22228]ENERGY: 6080000	3592.1408	5833.6532	5931.5741	
364.7211	-15374.9041	-1865.3100	0.0000	0.0000
8693.9443	7175.8194	324.3257	-1518.1250	7245.6182
326.5088	-110.3125	-112.5043	664265.7895	-19.4266
-19.4035				
[22278]ENERGY: 6090000	3590.6674	5824.2300	5871.6294	
360.5730	-15445.7798	-1846.0965	0.0000	0.0000
8816.1555	7171.3790	328.8848	-1644.7765	7245.0815
326.6061	28.6843	-17.3728	664265.7895	-17.1732
-17.1641				
[22317]ENERGY: 6100000	3610.5157	5834.4363	5931.6965	
367.9487	-15334.4296	-1876.3418	0.0000	0.0000
8643.7743	7177.6000	322.4541	-1466.1743	7246.5325
326.3226	-5.4495	-96.5363	664265.7895	-17.3603
-17.3852				
[22367]ENERGY: 6110000	3660.7331	5803.2640	5968.3130	
344.5008	-15430.4638	-1880.5240	0.0000	0.0000

Supplementary Text 6

8708.7394	7174.5626	324.8776	-1534.1768	7245.1074
326.5380	-129.8404	-70.0938	664265.7895	-19.5294
-19.5049				
[22403]ENERGY: 6120000	3623.2793	5892.4139	5841.9718	
373.7003	-15463.5453	-1791.6704	0.0000	0.0000
8696.0337	7172.1833	324.4037	-1523.8504	7246.4514
326.2819	97.9126	97.6003	664265.7895	-18.0945
-18.1045				
[22453]ENERGY: 6130000	3569.9765	5912.5154	5919.6829	
365.0673	-15358.8491	-1975.2512	0.0000	0.0000
8743.6574	7176.7992	326.1803	-1566.8582	7247.1932
326.4163	-136.0285	-110.4236	664265.7895	-16.4293
-16.4474				
[22489]ENERGY: 6140000	3588.7049	5811.3976	5832.0788	
377.0392	-15365.8282	-1813.2754	0.0000	0.0000
8747.8834	7178.0004	326.3379	-1569.8831	7246.6999
326.5755	224.5651	87.7273	664265.7895	-14.6941
-14.6829				
[22539]ENERGY: 6150000	3562.4170	5805.0104	5871.3869	
369.1799	-15386.8497	-1825.6784	0.0000	0.0000
8780.6748	7176.1410	327.5612	-1604.5339	7246.5921
326.5925	-90.9171	5.4664	664265.7895	-15.8965
-15.8952				
[22575]ENERGY: 6160000	3655.6360	5877.6687	5880.0387	
349.9773	-15376.7601	-1867.5991	0.0000	0.0000
8661.1681	7180.1296	323.1030	-1481.0385	7248.5445
326.5581	42.4489	-17.6680	664265.7895	-15.9993
-16.0208				
[22625]ENERGY: 6170000	3645.1899	5838.2528	5908.9374	
357.6264	-15444.3939	-1833.9597	0.0000	0.0000
8708.3325	7179.9854	324.8625	-1528.3471	7248.0916
326.5866	-19.3357	36.1061	664265.7895	-16.1315
-16.1090				
[22661]ENERGY: 6180000	3625.7070	5767.6482	5840.6444	
390.0178	-15394.2370	-1832.8075	0.0000	0.0000
8776.7817	7173.7546	327.4160	-1603.0272	7246.5939
326.5929	-46.8250	-44.4129	664265.7895	-16.8130
-16.8227				
[22711]ENERGY: 6190000	3587.2098	5799.5495	5889.0564	
332.3972	-15321.4552	-1876.3614	0.0000	0.0000
8764.4308	7174.8270	326.9552	-1589.6038	7249.0935
326.7397	-9.7691	-0.1450	664265.7895	-18.4058
-18.3984				
[22750]ENERGY: 6200000	3480.8759	5782.3159	5890.8371	
346.2616	-15365.2535	-1821.9726	0.0000	0.0000
8862.1749	7175.2393	330.6015	-1686.9356	7248.5912
326.6197	168.6081	191.6698	664265.7895	-18.9181
-18.9207				
[22800]ENERGY: 6210000	3627.4267	5733.2004	5923.7992	
361.4087	-15382.5831	-1813.8441	0.0000	0.0000
8727.9946	7177.4024	325.5960	-1550.5921	7247.6243
326.4381	2.1869	-13.9963	664265.7895	-19.4432
-19.4243				
[22836]ENERGY: 6220000	3581.2635	5846.0878	5860.6966	

Supplementary Text 6

357.3991	-15415.0183	-1845.8873	0.0000	0.0000
8791.0620	7175.6035	327.9487	-1615.4585	7248.1767
326.4154	-45.2329	-62.5518	664265.7895	-15.7853
-15.7958				
[22886]ENERGY: 6230000	3653.7652	5795.6644	5932.1086	
343.3788	-15391.4801	-1841.1647	0.0000	0.0000
8687.5116	7179.7839	324.0857	-1507.7277	7248.8958
326.5047	-75.3848	-99.7991	664265.7895	-19.2489
-19.2411				
[22922]ENERGY: 6240000	3560.3912	5821.3892	5909.0956	
364.8443	-15449.3655	-1776.2170	0.0000	0.0000
8747.4252	7177.5629	326.3208	-1569.8623	7249.4685
326.2827	182.4400	118.4571	664265.7895	-18.8148
-18.8100				
[22972]ENERGY: 6250000	3511.9176	5917.6834	5879.8992	
358.0034	-15374.7698	-1832.5681	0.0000	0.0000
8715.4826	7175.6482	325.1292	-1539.8344	7248.2545
326.5235	161.0653	130.7545	664265.7895	-17.6472
-17.6519				
[23008]ENERGY: 6260000	3655.6755	5765.3158	5917.1705	
354.0939	-15391.4059	-1915.2948	0.0000	0.0000
8791.4013	7176.9563	327.9613	-1614.4450	7248.4079
326.7042	-69.4213	28.0214	664265.7895	-17.8173
-17.8202				
[23058]ENERGY: 6270000	3521.2068	5894.6989	5895.3284	
359.5857	-15453.6047	-1769.2917	0.0000	0.0000
8729.3568	7177.2803	325.6468	-1552.0765	7248.4339
326.6740	159.1959	66.6074	664265.7895	-17.1906
-17.2082				
[23094]ENERGY: 6280000	3624.2409	5852.0825	5908.1262	
352.8762	-15416.6950	-1878.5309	0.0000	0.0000
8737.0020	7179.1020	325.9320	-1557.9000	7248.4312
326.7366	108.9928	-33.5377	664265.7895	-11.6247
-11.6147				
[23144]ENERGY: 6290000	3570.9336	5829.7671	5908.0879	
353.4882	-15363.2810	-1914.9334	0.0000	0.0000
8794.1304	7178.1929	328.0631	-1615.9375	7248.4720
326.6895	33.7154	25.3657	664265.7895	-18.8871
-18.8875				
[23183]ENERGY: 6300000	3595.6506	5908.4864	5905.4288	
353.9985	-15412.4603	-1856.4002	0.0000	0.0000
8684.7829	7179.4868	323.9840	-1505.2961	7248.5873
326.6475	65.5276	87.4023	664265.7895	-14.9744
-14.9728				
[23233]ENERGY: 6310000	3692.2128	5824.7811	5907.7035	
368.2977	-15446.8738	-1847.1906	0.0000	0.0000
8681.7047	7180.6353	323.8691	-1501.0693	7248.5303
326.8555	39.3677	47.2622	664265.7895	-18.3350
-18.3474				
[23269]ENERGY: 6320000	3760.4163	5656.3067	5857.2137	
336.1740	-15406.5680	-1826.6284	0.0000	0.0000
8801.8032	7178.7175	328.3494	-1623.0857	7248.8230
326.8245	-161.3310	-165.0525	664265.7895	-19.4019
-19.3947				

Supplementary Text 6

[23319]ENERGY: 6330000	3598.1229	5743.8320	5974.5900	
362.7978	-15452.8727	-1852.8391	0.0000	0.0000
8803.8200	7177.4509	328.4246	-1626.3691	7250.4921
326.7227	-70.0389	-78.4974	664265.7895	-17.4010
-17.3981				
[23355]ENERGY: 6340000	3545.3331	5840.6666	5947.7802	
345.0837	-15399.2050	-1868.5494	0.0000	0.0000
8768.3334	7179.4427	327.1008	-1588.8907	7251.3324
326.7619	44.0492	124.4586	664265.7895	-15.4472
-15.4487				
[23405]ENERGY: 6350000	3508.2761	5873.3539	5941.0739	
372.3324	-15440.3306	-1889.3295	0.0000	0.0000
8813.8442	7179.2203	328.7986	-1634.6239	7251.1946
326.6550	79.6594	14.6624	664265.7895	-16.0051
-16.0312				
[23441]ENERGY: 6360000	3554.3595	5792.0219	5872.8878	
375.0159	-15362.6272	-1856.7246	0.0000	0.0000
8805.1553	7180.0888	328.4744	-1625.0666	7251.4326
326.6303	-102.0561	-110.3846	664265.7895	-10.6657
-10.6392				
[23491]ENERGY: 6370000	3602.6549	5734.1072	5872.4151	
329.9573	-15284.5251	-1893.4999	0.0000	0.0000
8819.0219	7180.1314	328.9917	-1638.8905	7251.7558
326.3442	49.1459	-64.2689	664265.7895	-15.2968
-15.2962				
[23527]ENERGY: 6380000	3634.2997	5772.9318	5889.8937	
344.5918	-15493.3971	-1799.4743	0.0000	0.0000
8828.9510	7177.7966	329.3621	-1651.1544	7249.6338
326.4421	30.0378	59.0669	664265.7895	-18.1644
-18.1643				
[23577]ENERGY: 6390000	3493.1713	5777.8183	5919.0901	
363.9893	-15280.9690	-1837.5452	0.0000	0.0000
8741.1752	7176.7300	326.0877	-1564.4453	7248.5589
326.4732	-30.3603	-0.5966	664265.7895	-18.8989
-18.8831				
[23616]ENERGY: 6400000	3583.6165	5830.7456	5850.3855	
354.5441	-15342.7902	-1852.2155	0.0000	0.0000
8756.4257	7180.7116	326.6566	-1575.7141	7249.3982
326.5650	139.8924	60.9741	664265.7895	-19.2059
-19.2302				
[23666]ENERGY: 6410000	3552.4939	5866.3957	5834.7017	
361.8856	-15351.8333	-1904.2841	0.0000	0.0000
8820.0750	7179.4343	329.0310	-1640.6406	7250.1520
326.9749	-31.4529	12.2521	664265.7895	-21.8852
-21.8777				
[23702]ENERGY: 6420000	3674.4665	5801.4727	5879.8163	
385.5282	-15366.6012	-1868.2121	0.0000	0.0000
8674.6367	7181.1071	323.6055	-1493.5296	7249.2874
327.0322	-80.4083	-87.8043	664265.7895	-22.7161
-22.7052				
[23752]ENERGY: 6430000	3685.6162	5854.5033	5869.8219	
356.1447	-15428.6263	-1883.2397	0.0000	0.0000
8722.9140	7177.1341	325.4064	-1545.7799	7249.3526
326.7977	-40.7576	-17.8137	664265.7895	-25.0900

Supplementary Text 6

-25.1118
 [23788]ENERGY: 6440000 3589.4336 5828.0652 5914.2000
 333.1509 -15307.0242 -1893.3194 0.0000 0.0000
 8711.7229 7176.2290 324.9889 -1535.4939 7249.5544
 326.7838 -94.6012 -161.4884 664265.7895 -20.1541
 -20.1401
 [23838]ENERGY: 6450000 3619.4567 5803.2815 5919.0188
 349.4177 -15416.2955 -1842.8556 0.0000 0.0000
 8745.0965 7177.1199 326.2339 -1567.9765 7249.2867
 326.6976 -157.2185 -128.6319 664265.7895 -20.3156
 -20.3235
 [23874]ENERGY: 6460000 3596.5634 5873.1299 5868.2292
 345.5715 -15445.3375 -1861.3169 0.0000 0.0000
 8799.7058 7176.5455 328.2711 -1623.1603 7250.2022
 326.8639 81.7548 55.7118 664265.7895 -16.0265
 -16.0333
 [23924]ENERGY: 6470000 3552.3610 5819.2340 5871.2994
 383.4457 -15345.7342 -1909.9165 0.0000 0.0000
 8803.0948 7173.7842 328.3976 -1629.3106 7250.6217
 326.7941 -63.6923 -96.9363 664265.7895 -20.2605
 -20.2466
 [23960]ENERGY: 6480000 3608.5919 5875.3550 5903.4336
 345.3016 -15493.5387 -1835.2503 0.0000 0.0000
 8774.0937 7177.9868 327.3157 -1596.1069 7251.3266
 326.6003 -199.6881 -155.6529 664265.7895 -16.7532
 -16.7422
 [24010]ENERGY: 6490000 3551.0791 5826.9430 5938.5999
 370.4839 -15382.4381 -1845.1799 0.0000 0.0000
 8722.5383 7182.0262 325.3924 -1540.5121 7252.4920
 326.7084 -81.5194 -53.7840 664265.7895 -17.4311
 -17.4368
 [24049]ENERGY: 6500000 3560.7369 5863.9946 5890.1037
 366.0784 -15383.5760 -1802.7183 0.0000 0.0000
 8687.9548 7182.5741 324.1023 -1505.3807 7251.3754
 326.6085 -68.0470 -89.0805 664265.7895 -18.2757
 -18.2749
 [24099]ENERGY: 6510000 3629.0721 5868.6113 5862.7306
 368.1782 -15408.6355 -1887.2558 0.0000 0.0000
 8749.4078 7182.1087 326.3948 -1567.2991 7251.8308
 326.7384 182.8134 58.9448 664265.7895 -16.4786
 -16.4902
 [24135]ENERGY: 6520000 3566.9393 5880.1390 5940.6555
 386.4662 -15517.9536 -1854.8577 0.0000 0.0000
 8779.2534 7180.6421 327.5082 -1598.6113 7250.1942
 327.0003 -23.3345 34.7980 664265.7895 -10.2185
 -10.1870
 [24185]ENERGY: 6530000 3579.3321 5782.3326 5925.1189
 383.1088 -15399.6879 -1869.4926 0.0000 0.0000
 8779.2520 7179.9639 327.5081 -1599.2881 7251.3443
 326.8907 87.4024 66.7488 664265.7895 -11.8304
 -11.8604
 [24221]ENERGY: 6540000 3614.1458 5824.3209 5952.3923
 358.9562 -15393.7341 -1915.3882 0.0000 0.0000
 8741.9875 7182.6803 326.1180 -1559.3072 7252.7941

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326.7566	-34.8757	-42.5580	664265.7895	-15.4703
-15.4669				
[24271]ENERGY: 6550000	3654.2888	5840.6943	5939.3914	
375.2493	-15349.7040	-1931.4773	0.0000	0.0000
8659.9643	7188.4069	323.0581	-1471.5574	7253.4643
326.7843	31.6123	-30.3568	664265.7895	-18.0503
-18.0506				
[24307]ENERGY: 6560000	3609.7562	5819.8477	5925.8118	
355.3011	-15332.0963	-1861.7535	0.0000	0.0000
8669.0704	7185.9376	323.3978	-1483.1328	7253.3608
326.6756	132.9912	62.3297	664265.7895	-17.8223
-17.8368				
[24357]ENERGY: 6570000	3588.0015	5787.8798	5905.9738	
354.2337	-15367.8532	-1878.8464	0.0000	0.0000
8793.0634	7182.4525	328.0233	-1610.6109	7252.8120
326.6628	54.1639	-48.5607	664265.7895	-16.9411
-16.9268				
[24393]ENERGY: 6580000	3631.8554	5857.6220	5961.8947	
387.3147	-15471.9019	-1839.3152	0.0000	0.0000
8657.7735	7185.2432	322.9764	-1472.5303	7253.7309
326.5771	163.4038	168.6800	664265.7895	-15.8738
-15.8655				
[24443]ENERGY: 6590000	3590.8269	5748.3252	5913.2755	
335.1365	-15352.3317	-1858.1188	0.0000	0.0000
8806.8544	7183.9682	328.5378	-1622.8863	7253.9593
326.6395	-96.0983	-98.8028	664265.7895	-18.3041
-18.3132				
[24482]ENERGY: 6600000	3603.8132	5761.0494	5923.6268	
357.1663	-15373.6095	-1821.0608	0.0000	0.0000
8735.4234	7186.4089	325.8731	-1549.0145	7253.9933
326.7786	36.5368	105.3964	664265.7895	-11.7298
-11.7372				
[24532]ENERGY: 6610000	3593.8346	5785.9719	5885.1509	
343.8818	-15367.2123	-1847.0824	0.0000	0.0000
8791.9568	7186.5013	327.9821	-1605.4555	7254.0284
326.8704	106.1304	78.9613	664265.7895	-11.1648
-11.1636				
[24568]ENERGY: 6620000	3619.1854	5832.2000	5963.1991	
346.2042	-15433.9079	-1896.7689	0.0000	0.0000
8753.1098	7183.2217	326.5329	-1569.8881	7254.0656
326.8566	16.9411	-50.1216	664265.7895	-12.4587
-12.4759				
[24618]ENERGY: 6630000	3591.6409	5788.0494	5921.2962	
370.8275	-15389.4318	-1833.6051	0.0000	0.0000
8734.5719	7183.3490	325.8413	-1551.2229	7255.2419
327.0881	6.5754	-38.3226	664265.7895	-12.2096
-12.1895				
[24654]ENERGY: 6640000	3609.9116	5799.7581	5982.8195	
355.2289	-15504.1347	-1846.3335	0.0000	0.0000
8781.9495	7179.1994	327.6087	-1602.7501	7254.5432
326.6923	13.5942	-33.1326	664265.7895	-13.0495
-13.0572				
[24704]ENERGY: 6650000	3545.6914	5809.5549	5874.6068	
359.2223	-15375.9918	-1815.5474	0.0000	0.0000

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8786.4394	7183.9756	327.7762	-1602.4637	7253.9218
326.8215	11.9179	-57.1084	664265.7895	-13.2763
-13.2759				
[24740]ENERGY: 6660000	3644.0939	5861.7475	5925.1325	
336.3792	-15420.5391	-1883.0939	0.0000	0.0000
8717.6747	7181.3947	325.2110	-1536.2800	7252.5324
326.8341	-139.9287	-164.0442	664265.7895	-5.5975
-5.5929				
[24790]ENERGY: 6670000	3602.4796	5832.2300	5897.4211	
342.2975	-15353.1828	-1892.3822	0.0000	0.0000
8755.9020	7184.7653	326.6370	-1571.1368	7255.3479
326.8837	134.1911	98.9722	664265.7895	-8.1110
-8.1107				
[24826]ENERGY: 6680000	3558.4082	5806.8083	5896.7934	
345.8722	-15326.4090	-1838.7948	0.0000	0.0000
8743.7527	7186.4310	326.1838	-1557.3217	7257.2754
326.8006	140.2935	83.9341	664265.7895	-9.8547
-9.8550				
[24876]ENERGY: 6690000	3615.1797	5952.6949	5905.6315	
352.3475	-15411.4812	-1911.2324	0.0000	0.0000
8682.9227	7186.0628	323.9146	-1496.8599	7255.7434
326.7959	-39.2072	-40.9212	664265.7895	-13.0716
-13.0601				
[24915]ENERGY: 6700000	3581.9732	5874.0512	5911.6951	
345.2066	-15353.7818	-1850.3393	0.0000	0.0000
8677.8109	7186.6158	323.7239	-1491.1950	7256.9064
326.6762	-38.0279	-103.8978	664265.7895	-15.9417
-15.9590				
[24965]ENERGY: 6710000	3637.7423	5843.7273	5915.5795	
341.9452	-15451.3777	-1858.9823	0.0000	0.0000
8759.5195	7188.1538	326.7720	-1571.3657	7256.9080
326.7330	-81.3966	-135.3173	664265.7895	-17.1303
-17.1247				
[25001]ENERGY: 6720000	3620.3714	5734.6084	5894.0189	
371.8677	-15311.3331	-1896.6541	0.0000	0.0000
8773.4134	7186.2926	327.2903	-1587.1208	7256.6727
326.8851	-51.4441	-37.9988	664265.7895	-14.9692
-14.9711				
[25051]ENERGY: 6730000	3757.0667	5835.1650	5940.9691	
351.2056	-15415.9459	-1962.9585	0.0000	0.0000
8681.4705	7186.9724	323.8604	-1494.4981	7257.0229
326.9687	-273.8605	-234.8621	664265.7895	-16.3011
-16.3050				
[25087]ENERGY: 6740000	3535.2956	5921.2074	5896.9623	
353.4472	-15368.7063	-1848.3093	0.0000	0.0000
8697.7959	7187.6928	324.4694	-1510.1032	7259.2598
327.1474	-8.5877	17.1834	664265.7895	-17.9479
-17.9467				
[25137]ENERGY: 6750000	3549.9163	5905.5861	5915.6177	
350.2539	-15503.9403	-1813.2503	0.0000	0.0000
8780.4166	7184.6000	327.5516	-1595.8166	7259.4615
326.8172	102.4229	73.8261	664265.7895	-15.7322
-15.7271				
[25173]ENERGY: 6760000	3570.3282	5830.5859	5923.2389	

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371.2859	-15388.7657	-1873.9011	0.0000	0.0000
8755.4319	7188.2041	326.6195	-1567.2279	7258.9337
326.7960	-2.7473	-15.9381	664265.7895	-17.7213
-17.6969				
[25223]ENERGY: 6770000	3603.2876	5817.9952	5933.4926	
379.1882	-15374.6617	-1878.6095	0.0000	0.0000
8710.9559	7191.6483	324.9603	-1519.3076	7258.7832
327.1665	-24.0081	18.3526	664265.7895	-13.9413
-13.9508				
[25259]ENERGY: 6780000	3508.2221	5819.4808	5894.6285	
341.3796	-15446.9151	-1800.2932	0.0000	0.0000
8866.3364	7182.8390	330.7568	-1683.4974	7258.8182
327.1256	66.2976	33.8283	664265.7895	-19.8722
-19.8842				
[25309]ENERGY: 6790000	3585.8908	5724.2229	5944.3132	
344.2387	-15407.1121	-1918.1422	0.0000	0.0000
8909.5915	7183.0029	332.3704	-1726.5886	7258.9155
326.9019	-38.3039	-52.9671	664265.7895	-16.2987
-16.2984				
[25348]ENERGY: 6800000	3666.2414	5771.0005	5940.6382	
355.7174	-15358.7458	-1904.2388	0.0000	0.0000
8719.8788	7190.4917	325.2932	-1529.3871	7259.7955
326.9361	-134.8973	-100.1877	664265.7895	-14.3176
-14.3083				
[25398]ENERGY: 6810000	3651.4491	5810.6068	5957.1965	
341.2226	-15460.5818	-1820.2147	0.0000	0.0000
8711.0521	7190.7305	324.9639	-1520.3216	7258.6071
327.2004	-78.2519	18.5473	664265.7895	-16.8419
-16.8336				
[25434]ENERGY: 6820000	3578.7770	5838.0034	5895.6130	
364.6988	-15460.2020	-1881.7281	0.0000	0.0000
8850.0999	7185.2621	330.1511	-1664.8378	7259.1666
327.3037	-7.5834	-70.5101	664265.7895	-12.5513
-12.5688				
[25484]ENERGY: 6830000	3555.6387	5786.4891	5876.0044	
386.4541	-15348.7705	-1800.0186	0.0000	0.0000
8732.2095	7188.0066	325.7532	-1544.2028	7259.4293
326.8525	43.0934	-14.5452	664265.7895	-13.5079
-13.5074				
[25520]ENERGY: 6840000	3612.3838	5741.4500	5919.7571	
343.3059	-15337.8117	-1877.1615	0.0000	0.0000
8789.1292	7191.0528	327.8766	-1598.0764	7260.1427
326.9409	-152.9587	-155.2226	664265.7895	-18.6644
-18.6712				
[25570]ENERGY: 6850000	3583.1077	5772.7511	5860.2704	
353.1318	-15331.5229	-1865.2298	0.0000	0.0000
8816.2323	7188.7407	328.8876	-1627.4916	7262.7005
326.9498	-70.0170	-77.1376	664265.7895	-15.9563
-15.9542				
[25606]ENERGY: 6860000	3562.1780	5800.2130	5849.2403	
376.0448	-15293.5750	-1899.5878	0.0000	0.0000
8798.4981	7193.0114	328.2261	-1605.4867	7265.4008
327.1044	-54.6051	-115.2960	664265.7895	-15.2216
-15.2225				

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[25656]ENERGY: 6870000	3514.4365	5792.6364	5873.7426	
358.5723	-15342.8403	-1880.3016	0.0000	0.0000
8874.2420	7190.4879	331.0517	-1683.7541	7263.4749
327.2929	7.3854	5.6313	664265.7895	-14.5057
-14.4899				
[25692]ENERGY: 6880000	3521.0652	5769.9873	5899.2937	
349.0331	-15330.9802	-1875.2292	0.0000	0.0000
8860.2149	7193.3848	330.5284	-1666.8300	7264.0624
327.0665	16.3694	79.3877	664265.7895	-19.4982
-19.5015				
[25742]ENERGY: 6890000	3643.0395	5758.2507	5877.3322	
361.6202	-15343.2754	-1884.2758	0.0000	0.0000
8780.5988	7193.2901	327.5583	-1587.3086	7266.7175
327.1118	30.1653	-14.7519	664265.7895	-16.9306
-16.9535				
[25781]ENERGY: 6900000	3593.3200	5730.2732	5831.1247	
357.2706	-15316.3114	-1897.9768	0.0000	0.0000
8894.3430	7192.0433	331.8015	-1702.2996	7266.9689
327.1343	-28.0329	-42.8644	664265.7895	-16.4231
-16.4151				
[25831]ENERGY: 6910000	3553.2708	5871.6620	5952.4973	
329.8837	-15469.8080	-1839.6758	0.0000	0.0000
8797.7338	7195.5637	328.1976	-1602.1700	7268.1285
327.1140	155.1506	69.7836	664265.7895	-14.5773
-14.5765				
[25867]ENERGY: 6920000	3621.5064	5767.1888	5974.6516	
374.0080	-15441.2331	-1828.5098	0.0000	0.0000
8730.1182	7197.7302	325.6752	-1532.3880	7267.8389
327.1371	-66.1245	-145.8273	664265.7895	-15.7375
-15.7240				
[25917]ENERGY: 6930000	3616.3720	5803.4823	5921.4158	
350.6259	-15330.9708	-1873.7661	0.0000	0.0000
8713.1914	7200.3505	325.0437	-1512.8410	7268.5638
326.9558	-24.8419	50.9971	664265.7895	-18.5414
-18.5219				
[25953]ENERGY: 6940000	3577.6393	5860.4032	5938.1126	
347.8833	-15406.2825	-1865.3058	0.0000	0.0000
8746.4233	7198.8736	326.2834	-1547.5497	7269.0656
327.0054	49.8200	3.7549	664265.7895	-16.3973
-16.4418				
[26003]ENERGY: 6950000	3645.2597	5776.7519	5911.7029	
342.1397	-15322.2778	-1833.7480	0.0000	0.0000
8681.5061	7201.3346	323.8617	-1480.1715	7268.9745
326.9256	1.9522	-37.4468	664265.7895	-17.1736
-17.1578				
[26039]ENERGY: 6960000	3578.6188	5770.1612	5849.6619	
373.2821	-15252.5245	-1808.8177	0.0000	0.0000
8690.5672	7200.9489	324.1997	-1489.6183	7267.7654
326.8582	72.0083	-35.8862	664265.7895	-18.8663
-18.8804				
[26089]ENERGY: 6970000	3619.3528	5906.5545	5937.9673	
351.9834	-15470.4730	-1895.4923	0.0000	0.0000
8749.1454	7199.0379	326.3850	-1550.1074	7270.6723
327.0311	-200.2502	-124.8708	664265.7895	-18.0994

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-18.0839
 [26125]ENERGY: 6980000 3555.7928 5868.0424 5933.8610
 348.5648 -15464.0294 -1838.6687 0.0000 0.0000
 8795.3451 7198.9080 328.1085 -1596.4371 7270.3623
 327.0584 -102.5366 -98.4743 664265.7895 -16.3064
 -16.2978
 [26175]ENERGY: 6990000 3540.4747 5818.4280 5896.8781
 351.5640 -15365.8246 -1873.4022 0.0000 0.0000
 8828.5864 7196.7045 329.3485 -1631.8820 7270.3434
 326.9516 26.3120 11.6385 664265.7895 -21.5265
 -21.5186
 [26214]ENERGY: 7000000 3582.8810 5906.3623 5935.9308
 380.6244 -15407.3326 -1839.4348 0.0000 0.0000
 8639.1779 7198.2089 322.2827 -1440.9690 7270.7442
 326.9557 -52.5796 -69.8131 664265.7895 -19.9129
 -19.9418
 [26264]ENERGY: 7010000 3610.9637 5867.3276 5890.7360
 373.1837 -15396.4527 -1829.7076 0.0000 0.0000
 8681.8821 7197.9327 323.8757 -1483.9494 7269.9410
 327.0432 12.3125 16.2573 664265.7895 -8.2505
 -8.2572
 [26300]ENERGY: 7020000 3573.2955 5830.4228 5896.9325
 365.9056 -15294.2471 -1809.8907 0.0000 0.0000
 8640.1474 7202.5660 322.3188 -1437.5814 7271.6935
 326.9326 -9.6104 -6.4851 664265.7895 -15.5761
 -15.5671
 [26350]ENERGY: 7030000 3483.7422 5713.2787 5885.7855
 346.1206 -15161.8893 -1901.2433 0.0000 0.0000
 8834.1614 7199.9557 329.5565 -1634.2057 7271.9601
 326.7149 84.4723 12.6125 664265.7895 -15.0598
 -15.0613
 [26386]ENERGY: 7040000 3613.2228 5708.1508 5885.6084
 363.3407 -15268.5143 -1857.8670 0.0000 0.0000
 8756.8636 7200.8050 326.6729 -1556.0587 7271.4129
 326.6442 -144.3705 -83.5515 664265.7895 -20.0621
 -20.0493
 [26436]ENERGY: 7050000 3636.0751 5862.4985 5892.1288
 345.1575 -15324.1389 -1894.8546 0.0000 0.0000
 8686.9655 7203.8319 324.0654 -1483.1336 7272.9787
 326.7718 -179.7306 -34.4568 664265.7895 -17.1178
 -17.0943
 [26472]ENERGY: 7060000 3600.7573 5707.3054 5882.8654
 347.0974 -15276.7019 -1768.8761 0.0000 0.0000
 8712.2586 7204.7061 325.0089 -1507.5525 7272.3530
 326.7070 258.4100 227.4650 664265.7895 -18.7814
 -18.8112
 [26522]ENERGY: 7070000 3563.3645 5805.9809 5886.8011
 376.1101 -15319.4936 -1874.6199 0.0000 0.0000
 8766.8872 7205.0303 327.0468 -1561.8569 7273.7314
 326.9271 22.0757 -3.3624 664265.7895 -18.3857
 -18.3822
 [26558]ENERGY: 7080000 3635.6741 5735.7575 5927.5127
 373.5332 -15366.8996 -1865.8787 0.0000 0.0000
 8761.3928 7201.0921 326.8419 -1560.3007 7272.3983

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326.7938	20.2359	-13.7547	664265.7895	-16.3109
-16.3041				
[26608]ENERGY: 7090000	3638.6585	5825.2811	5866.6354	
349.4560	-15404.9881	-1837.6184	0.0000	0.0000
8764.1299	7201.5543	326.9440	-1562.5755	7273.2840
327.0828	12.4162	-49.8009	664265.7895	-14.5629
-14.5598				
[26647]ENERGY: 7100000	3607.5189	5742.4519	5926.3605	
372.0260	-15340.3490	-1885.5342	0.0000	0.0000
8778.1810	7200.6550	327.4681	-1577.5259	7272.5990
327.0659	-87.3077	-15.6162	664265.7895	-17.2573
-17.2484				
[26697]ENERGY: 7110000	3635.6233	5819.8995	5900.2288	
348.8217	-15300.0138	-1866.3356	0.0000	0.0000
8670.4686	7208.6924	323.4500	-1461.7762	7274.5660
327.1710	152.5674	-41.4010	664265.7895	-20.4930
-20.5026				
[26733]ENERGY: 7120000	3612.8994	5986.6852	5866.9117	
337.3792	-15403.8222	-1895.3854	0.0000	0.0000
8700.2797	7204.9476	324.5621	-1495.3321	7274.6369
326.9242	-10.8395	46.9065	664265.7895	-17.9653
-17.9623				
[26783]ENERGY: 7130000	3506.7478	5843.5557	5910.0085	
372.1280	-15301.1028	-1799.0732	0.0000	0.0000
8674.4597	7206.7236	323.5989	-1467.7361	7273.6501
326.7572	117.2652	104.1046	664265.7895	-17.7427
-17.7500				
[26819]ENERGY: 7140000	3572.3408	5867.9442	5928.7372	
360.9351	-15399.1924	-1844.7091	0.0000	0.0000
8719.0534	7205.1091	325.2624	-1513.9443	7272.3063
326.9556	7.1149	36.5708	664265.7895	-19.3412
-19.3493				
[26869]ENERGY: 7150000	3581.3928	5709.5733	5890.2340	
346.2629	-15389.6250	-1786.5664	0.0000	0.0000
8851.0485	7202.3201	330.1865	-1648.7284	7272.6989
326.7867	104.6474	2.3866	664265.7895	-18.1575
-18.1533				
[26905]ENERGY: 7160000	3542.7836	5822.3109	5908.9097	
359.0312	-15416.1422	-1814.0178	0.0000	0.0000
8798.6956	7201.5710	328.2334	-1597.1246	7273.8732
326.9855	6.6784	23.8537	664265.7895	-18.1134
-18.1094				
[26955]ENERGY: 7170000	3606.7220	5834.1512	5890.5071	
339.0142	-15305.1082	-1872.8722	0.0000	0.0000
8711.4068	7203.8207	324.9772	-1507.5860	7272.5728
327.2861	22.9448	56.7322	664265.7895	-19.8568
-19.8608				
[26991]ENERGY: 7180000	3562.4540	5828.6761	5962.7834	
361.1803	-15327.9401	-1873.9248	0.0000	0.0000
8693.0808	7206.3096	324.2935	-1486.7712	7272.7281
327.2525	-81.0717	-73.2078	664265.7895	-15.0259
-15.0229				
[27041]ENERGY: 7190000	3519.4473	5758.6227	5944.6035	
357.6569	-15250.8854	-1874.8818	0.0000	0.0000

Supplementary Text 6

8752.6824	7207.2456	326.5169	-1545.4368	7274.6957
327.1576	113.5774	64.0524	664265.7895	-16.7267
-16.7458				
[27080]ENERGY: 7200000	3501.8066	5780.0172	5946.6639	
345.4985	-15301.9492	-1863.9057	0.0000	0.0000
8797.4048	7205.5361	328.1853	-1591.8687	7275.0856
327.1158	92.9705	58.7524	664265.7895	-17.2338
-17.2043				
[27130]ENERGY: 7210000	3579.8067	5871.1762	5903.7070	
373.4485	-15436.3648	-1899.7256	0.0000	0.0000
8808.9399	7200.9879	328.6156	-1607.9520	7275.0091
327.1999	148.6327	65.3302	664265.7895	-18.9468
-18.9646				
[27166]ENERGY: 7220000	3534.6374	5849.5830	5902.0016	
381.3115	-15389.7587	-1868.6718	0.0000	0.0000
8790.4322	7199.5352	327.9252	-1590.8971	7272.9665
327.2539	-92.8601	-42.2091	664265.7895	-15.8045
-15.7997				
[27216]ENERGY: 7230000	3558.4316	5854.9789	5926.3104	
360.9498	-15348.9050	-1876.5449	0.0000	0.0000
8728.9233	7204.1441	325.6306	-1524.7792	7274.6178
327.2295	-29.2645	27.0555	664265.7895	-16.1751
-16.1701				
[27252]ENERGY: 7240000	3602.1155	5853.5669	5831.1224	
345.8624	-15320.5786	-1849.2400	0.0000	0.0000
8742.2755	7205.1241	326.1287	-1537.1514	7275.1723
327.1115	107.8990	38.3950	664265.7895	-14.1447
-14.1435				
[27302]ENERGY: 7250000	3596.8467	5812.6637	5858.9996	
357.5417	-15324.4819	-1883.4066	0.0000	0.0000
8786.6158	7204.7790	327.7828	-1581.8368	7273.2736
327.2205	-113.3623	-77.5744	664265.7895	-19.7593
-19.7462				
[27338]ENERGY: 7260000	3609.2207	5710.2446	5890.5917	
376.9554	-15373.1382	-1859.2562	0.0000	0.0000
8844.2099	7198.8277	329.9313	-1645.3821	7272.4763
327.3728	56.5513	22.7752	664265.7895	-22.4662
-22.4891				
[27388]ENERGY: 7270000	3550.7954	5856.3487	5902.3828	
368.2155	-15416.7494	-1825.8847	0.0000	0.0000
8771.5234	7206.6316	327.2198	-1564.8918	7273.3371
327.2003	68.3206	46.7888	664265.7895	-23.2119
-23.1933				
[27424]ENERGY: 7280000	3572.6765	5855.5230	5918.4192	
360.6484	-15454.2594	-1851.8926	0.0000	0.0000
8795.7848	7196.8999	328.1249	-1598.8849	7273.6347
327.2055	-85.9055	-100.4640	664265.7895	-17.2887
-17.3026				
[27474]ENERGY: 7290000	3534.5454	5758.4854	5882.8113	
377.1628	-15329.5287	-1857.1961	0.0000	0.0000
8835.7577	7202.0378	329.6160	-1633.7198	7275.1966
327.0397	4.8483	-55.4180	664265.7895	-18.6027
-18.6126				
[27513]ENERGY: 7300000	3644.8470	5826.4860	5836.6950	

Supplementary Text 6

360.3363	-15388.0732	-1866.0408	0.0000	0.0000
8789.4706	7203.7210	327.8893	-1585.7495	7275.1372
327.2193	152.2672	45.7823	664265.7895	-17.7571
-17.7488				
[27563]ENERGY: 7310000	3615.5280	5760.4134	5910.1749	
360.1259	-15395.9207	-1811.1390	0.0000	0.0000
8769.5386	7208.7211	327.1457	-1560.8175	7275.9485
327.1615	27.6611	-51.0062	664265.7895	-22.1332
-22.1300				
[27599]ENERGY: 7320000	3695.1898	5793.5632	5910.5944	
360.6049	-15433.8407	-1858.7369	0.0000	0.0000
8739.8754	7207.2501	326.0392	-1532.6253	7273.7201
327.1791	-202.8772	-116.4720	664265.7895	-17.7546
-17.7459				
[27649]ENERGY: 7330000	3586.2409	5821.1992	5907.4671	
353.3239	-15314.1449	-1853.0244	0.0000	0.0000
8706.1302	7207.1920	324.7803	-1498.9382	7276.2132
327.1311	-112.8649	-56.6777	664265.7895	-15.4103
-15.4137				
[27685]ENERGY: 7340000	3669.3719	5747.8097	5857.1240	
382.4297	-15343.0827	-1825.7031	0.0000	0.0000
8715.5603	7203.5098	325.1321	-1512.0505	7274.4953
327.0846	80.4699	85.2082	664265.7895	-15.3766
-15.3907				
[27735]ENERGY: 7350000	3557.1785	5739.9995	5891.0646	
333.9991	-15291.8130	-1864.4345	0.0000	0.0000
8834.4315	7200.4258	329.5666	-1634.0057	7275.1413
327.1591	98.2845	-60.1441	664265.7895	-19.4144
-19.4049				
[27771]ENERGY: 7360000	3575.7535	5654.7095	5869.0082	
365.4469	-15279.6331	-1854.5129	0.0000	0.0000
8870.8593	7201.6313	330.9255	-1669.2280	7276.2545
327.0646	-51.9830	-70.6837	664265.7895	-14.6722
-14.6730				
[27821]ENERGY: 7370000	3560.7434	5846.8696	5901.8599	
355.0400	-15266.1502	-1901.7364	0.0000	0.0000
8712.9952	7209.6215	325.0364	-1503.3737	7276.3599
326.9210	73.2836	-16.9477	664265.7895	-15.8032
-15.8031				
[27857]ENERGY: 7380000	3566.8073	5791.9383	5872.6772	
370.8138	-15291.0166	-1808.9082	0.0000	0.0000
8703.5986	7205.9105	324.6859	-1497.6881	7274.4620
326.9373	40.6839	50.5339	664265.7895	-17.9223
-17.9186				
[27907]ENERGY: 7390000	3572.5091	5792.5327	5894.1068	
360.5976	-15386.1980	-1886.6387	0.0000	0.0000
8854.9450	7201.8545	330.3318	-1653.0905	7274.5094
326.9484	-179.4778	-156.6848	664265.7895	-16.1797
-16.1730				
[27946]ENERGY: 7400000	3615.8891	5831.7279	5866.8396	
340.4173	-15288.9504	-1906.3436	0.0000	0.0000
8747.2947	7206.8747	326.3159	-1540.4200	7275.4584
327.1554	-8.3443	-74.3658	664265.7895	-11.5195
-11.5304				

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[27996]ENERGY: 7410000	3523.4083	5899.9358	5908.2337	
364.5251	-15401.8764	-1985.7615	0.0000	0.0000
8894.0198	7202.4848	331.7895	-1691.5350	7276.7885
327.2306	151.5572	53.8283	664265.7895	-11.4919
-11.4879				
[28032]ENERGY: 7420000	3581.3264	5868.1866	5893.9608	
324.2618	-15351.0619	-1857.1493	0.0000	0.0000
8745.6375	7205.1620	326.2541	-1540.4755	7275.9027
327.2275	-232.2428	-139.4893	664265.7895	-9.9804
-9.9910				
[28082]ENERGY: 7430000	3626.2763	5832.2689	5894.5593	
333.1025	-15272.4992	-1958.6993	0.0000	0.0000
8753.0562	7208.0646	326.5309	-1544.9916	7275.9602
327.0344	-179.2164	-153.4693	664265.7895	-11.6103
-11.6028				
[28118]ENERGY: 7440000	3594.9581	5793.2706	5937.7797	
370.3395	-15375.9598	-1907.2309	0.0000	0.0000
8791.0838	7204.2410	327.9495	-1586.8428	7275.7776
327.5462	-120.7598	-205.0618	664265.7895	-9.8311
-9.8309				
[28168]ENERGY: 7450000	3670.2354	5772.6751	5879.7123	
350.3450	-15317.3533	-1881.6296	0.0000	0.0000
8731.2240	7205.2088	325.7164	-1526.0152	7276.5865
327.5851	-147.7973	-144.8280	664265.7895	-6.1954
-6.2095				
[28204]ENERGY: 7460000	3613.0923	5857.1771	5849.0679	
353.4916	-15420.7371	-1875.8936	0.0000	0.0000
8829.9329	7206.1311	329.3987	-1623.8018	7276.8991
327.5183	-27.3231	-81.7017	664265.7895	-8.4331
-8.4308				
[28254]ENERGY: 7470000	3579.3339	5861.9201	5969.1294	
344.2230	-15370.8875	-1920.5713	0.0000	0.0000
8740.1176	7203.2651	326.0482	-1536.8525	7276.9586
327.4346	14.5709	-60.4700	664265.7895	-9.9127
-9.9023				
[28290]ENERGY: 7480000	3574.8931	5859.0016	5841.5303	
346.0696	-15352.6299	-1890.0354	0.0000	0.0000
8826.8101	7205.6393	329.2822	-1621.1708	7278.0181
327.5922	2.4778	-87.4920	664265.7895	-11.3221
-11.3406				
[28340]ENERGY: 7490000	3644.7182	5792.7611	5875.5080	
355.3584	-15373.2662	-1887.9675	0.0000	0.0000
8799.1150	7206.2270	328.2491	-1592.8879	7277.8069
327.5271	-91.7746	-76.6787	664265.7895	-8.2655
-8.2319				
[28379]ENERGY: 7500000	3604.2400	5813.7046	5907.5042	
363.8957	-15414.9170	-1792.8807	0.0000	0.0000
8728.7603	7210.3071	325.6245	-1518.4532	7278.5629
327.3362	-19.4998	20.9233	664265.7895	-8.7893
-8.7984				
[28429]ENERGY: 7510000	3595.8576	5866.7397	5861.4346	
376.0393	-15419.0784	-1832.3527	0.0000	0.0000
8758.6428	7207.2829	326.7393	-1551.3599	7276.4555
327.3305	-47.6766	7.5681	664265.7895	-3.9839

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-4.0070

[28465]ENERGY: 7520000	3614.7904	5905.5990	5858.1586
353.2042	-15379.3987	-1894.6773	0.0000 0.0000
8747.0475	7204.7236	326.3067	-1542.3238 7277.7422
327.4365	10.5069	66.4535	664265.7895 -6.3297

-6.2967

[28515]ENERGY: 7530000	3606.6904	6023.3746	5852.7992
370.1458	-15312.1089	-1981.4315	0.0000 0.0000
8649.5262	7208.9957	322.6687	-1440.5305 7279.2089
327.3437	-77.5349	-77.2767	664265.7895 -9.6506

-9.6594

[28551]ENERGY: 7540000	3637.3052	5815.5466	5905.5407
362.9994	-15350.2820	-1924.3488	0.0000 0.0000
8762.9198	7209.6809	326.8988	-1553.2389 7278.7638
327.2066	131.0296	91.7614	664265.7895 -7.2221

-7.2397

[28601]ENERGY: 7550000	3596.8756	5772.7636	5887.6486
382.4618	-15353.9912	-1846.0100	0.0000 0.0000
8771.9184	7211.6668	327.2345	-1560.2516 7279.6923
327.3509	-73.6334	-76.7826	664265.7895 -9.1408

-9.1583

[28637]ENERGY: 7560000	3544.0272	5942.7223	5859.5671
385.8821	-15407.6982	-1853.6738	0.0000 0.0000
8738.9307	7209.7573	326.0039	-1529.1733 7279.8627
327.5583	145.6901	21.8938	664265.7895 -8.7845

-8.7886

[28687]ENERGY: 7570000	3591.6374	5909.1905	5885.3311
375.5956	-15368.8723	-1947.1348	0.0000 0.0000
8765.0898	7210.8373	326.9798	-1554.2526 7281.2083
327.5878	-115.4321	-19.1397	664265.7895 -7.9096

-7.8808

[28723]ENERGY: 7580000	3564.0638	5839.0933	5888.0768
372.7734	-15420.8531	-1785.5020	0.0000 0.0000
8757.6160	7215.2682	326.7010	-1542.3478 7282.3769
327.5671	175.2596	92.5184	664265.7895 -11.8532

-11.8607

[28773]ENERGY: 7590000	3537.8391	5799.1905	5879.4893
353.3207	-15352.2830	-1850.0612	0.0000 0.0000
8845.5550	7213.0504	329.9815	-1632.5046 7283.3170
327.5735	127.8433	10.5099	664265.7895 -8.3628

-8.3537

[28812]ENERGY: 7600000	3513.7092	5804.0013	5924.9304
356.3851	-15376.7921	-1842.4072	0.0000 0.0000
8831.4102	7211.2369	329.4539	-1620.1733 7282.3741
327.6420	160.2501	204.7227	664265.7895 -9.6323

-9.6322

[28862]ENERGY: 7610000	3620.5555	5758.8521	5848.0160
357.1828	-15264.8244	-1896.9685	0.0000 0.0000
8790.3258	7213.1393	327.9212	-1577.1865 7281.4856
327.4910	-19.1201	-24.5453	664265.7895 -4.3876

-4.3854

[28898]ENERGY: 7620000	3578.5050	5717.4136	5912.7078
402.9215	-15373.8918	-1797.0225	0.0000 0.0000
8767.6714	7208.3051	327.0761	-1559.3663 7282.0251

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327.4509	133.6339	98.5376	664265.7895	-11.9278
-11.9264				
[28948]ENERGY: 7630000	3573.1040	5843.5421	5936.2082	
348.6305	-15406.2102	-1873.4933	0.0000	0.0000
8783.8310	7205.6123	327.6789	-1578.2187	7281.0403
327.5834	-71.2013	-73.1622	664265.7895	-9.5443
-9.5430				
[28984]ENERGY: 7640000	3547.1225	5783.0265	5907.7853	
362.0802	-15357.8104	-1850.6840	0.0000	0.0000
8820.0514	7211.5716	329.0301	-1608.4798	7280.7249
327.6098	134.7311	59.2129	664265.7895	-9.6485
-9.6672				
[29034]ENERGY: 7650000	3613.2620	5820.7461	5921.3600	
353.3521	-15339.9581	-1955.0520	0.0000	0.0000
8796.3161	7210.0261	328.1447	-1586.2900	7282.5705
327.6070	-189.5837	-103.1513	664265.7895	-6.6283
-6.6131				
[29070]ENERGY: 7660000	3636.9106	5777.7713	5904.3096	
367.7333	-15367.9071	-1875.1287	0.0000	0.0000
8769.5657	7213.2547	327.1468	-1556.3110	7282.8307
327.5701	-43.4520	-43.8171	664265.7895	-10.8336
-10.8303				
[29120]ENERGY: 7670000	3480.0744	5753.3293	5869.0881	
348.8094	-15396.3006	-1824.0036	0.0000	0.0000
8976.1506	7207.1476	334.8534	-1769.0030	7282.2751
327.5194	180.6381	212.2698	664265.7895	-8.8465
-8.8395				
[29156]ENERGY: 7680000	3603.9942	5827.9973	5917.7309	
353.1366	-15440.0348	-1852.0145	0.0000	0.0000
8804.3266	7215.1364	328.4435	-1589.1902	7281.4010
327.5867	-89.3718	-63.3162	664265.7895	-10.9855
-10.9928				
[29206]ENERGY: 7690000	3573.1686	5866.9561	5904.7451	
349.6621	-15360.4262	-1877.1656	0.0000	0.0000
8751.9516	7208.8917	326.4897	-1543.0599	7282.8417
327.6936	-21.5026	11.9673	664265.7895	-8.5776
-8.5784				
[29245]ENERGY: 7700000	3535.6534	5814.2715	5874.7656	
376.1295	-15349.8499	-1840.9335	0.0000	0.0000
8804.3858	7214.4223	328.4457	-1589.9634	7283.5967
327.7249	350.3178	201.7953	664265.7895	-12.7536
-12.7637				
[29295]ENERGY: 7710000	3621.4515	5956.6356	5848.1729	
339.3037	-15437.6068	-1881.1363	0.0000	0.0000
8766.9595	7213.7801	327.0495	-1553.1794	7283.1853
327.7539	100.8197	20.5018	664265.7895	-8.1705
-8.1472				
[29331]ENERGY: 7720000	3621.9120	5706.4128	5932.2142	
335.5525	-15339.7588	-1855.6157	0.0000	0.0000
8814.5802	7215.2972	328.8260	-1599.2830	7282.3849
327.7189	0.3933	-33.5225	664265.7895	-10.4103
-10.4320				
[29381]ENERGY: 7730000	3581.1898	5758.2251	5896.8334	
367.3868	-15344.8336	-1890.6347	0.0000	0.0000

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8844.7743	7212.9412	329.9524	-1631.8331	7284.1876
327.7036	-115.7150	-79.4409	664265.7895	-10.3740
-10.3592				
[29417]ENERGY: 7740000	3680.8046	5810.2354	5954.5268	
356.6133	-15402.3601	-1893.5170	0.0000	0.0000
8706.2451	7212.5481	324.7846	-1493.6970	7284.6214
327.7822	-45.7690	-37.7736	664265.7895	-10.5603
-10.5869				
[29467]ENERGY: 7750000	3618.2680	5777.2862	5915.3314	
366.4058	-15355.3262	-1885.3084	0.0000	0.0000
8779.8304	7216.4872	327.5297	-1563.3432	7284.6415
327.4267	31.6010	17.5935	664265.7895	-5.8021
-5.7787				
[29503]ENERGY: 7760000	3573.8803	5878.0577	5913.3241	
374.8582	-15405.3695	-1914.6394	0.0000	0.0000
8793.6844	7213.7959	328.0465	-1579.8885	7285.2931
327.6657	31.0922	-14.6893	664265.7895	-12.4158
-12.4033				
[29553]ENERGY: 7770000	3548.5097	5800.9952	5864.7192	
337.8805	-15316.6887	-1830.2643	0.0000	0.0000
8806.7341	7211.8857	328.5333	-1594.8484	7285.8264
327.6730	-20.4886	-56.4846	664265.7895	-8.2307
-8.2404				
[29589]ENERGY: 7780000	3591.1891	5907.6004	5837.9176	
357.6083	-15422.0292	-1838.1983	0.0000	0.0000
8780.1689	7214.2568	327.5423	-1565.9121	7285.7778
327.5367	-11.4257	-31.2679	664265.7895	-5.9912
-6.0006				
[29639]ENERGY: 7790000	3528.6497	5842.8619	5870.8287	
365.0649	-15293.2246	-1861.4062	0.0000	0.0000
8757.6854	7210.4598	326.7036	-1547.2256	7285.1788
327.5726	92.1928	33.1615	664265.7895	-11.7210
-11.7173				
[29678]ENERGY: 7800000	3537.0179	5902.4532	5850.5378	
365.4453	-15399.8102	-1813.5723	0.0000	0.0000
8772.2160	7214.2878	327.2456	-1557.9282	7284.2632
327.7357	87.5329	29.4138	664265.7895	-13.1187
-13.1247				
[29728]ENERGY: 7810000	3603.6905	5872.9757	5872.9203	
366.0520	-15304.3860	-1934.4275	0.0000	0.0000
8737.1226	7213.9476	325.9365	-1523.1750	7285.7179
327.9588	-71.7163	-86.6514	664265.7895	-10.1108
-10.1041				
[29764]ENERGY: 7820000	3514.8118	5888.4301	5854.1269	
347.7471	-15365.3462	-1871.1475	0.0000	0.0000
8843.4164	7212.0385	329.9017	-1631.3779	7285.0381
327.8358	171.9164	145.2045	664265.7895	-11.8778
-11.8793				
[29814]ENERGY: 7830000	3514.2177	5837.8566	5960.3134	
373.9062	-15392.8979	-1883.9161	0.0000	0.0000
8805.0993	7214.5791	328.4723	-1590.5202	7286.5378
327.7677	26.2825	41.0694	664265.7895	-7.9645
-7.9644				
[29850]ENERGY: 7840000	3588.5907	5663.9069	5897.0549	

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354.9266	-15323.6614	-1792.2746	0.0000	0.0000
8830.1886	7218.7318	329.4083	-1611.4569	7285.3800
327.6250	219.8547	62.2947	664265.7895	-14.8522
-14.8675				
[29900]ENERGY: 7850000	3626.2140	5903.4652	5907.0280	
334.8769	-15264.0787	-1972.9850	0.0000	0.0000
8682.1825	7216.7028	323.8869	-1465.4797	7285.8030
327.7111	22.5802	-80.4732	664265.7895	-10.5914
-10.5789				
[29936]ENERGY: 7860000	3567.7166	5869.8340	5853.2796	
344.4737	-15390.9128	-1827.3556	0.0000	0.0000
8799.7211	7216.7567	328.2717	-1582.9644	7285.8202
327.9342	47.3737	73.4024	664265.7895	-11.3392
-11.3577				
[29986]ENERGY: 7870000	3565.3564	5836.9378	5944.5214	
381.0583	-15428.6959	-1958.1608	0.0000	0.0000
8872.6314	7213.6486	330.9916	-1658.9829	7285.5400
327.8767	45.1137	-31.9469	664265.7895	-9.6298
-9.6173				
[30022]ENERGY: 7880000	3572.9718	5874.5374	5924.5111	
368.9329	-15423.4991	-1845.0775	0.0000	0.0000
8743.7736	7216.1501	326.1846	-1527.6235	7286.8643
327.8206	-153.7273	-125.6270	664265.7895	-13.2235
-13.2149				
[30072]ENERGY: 7890000	3639.5631	5878.1105	5890.4868	
355.7126	-15451.2601	-1872.4071	0.0000	0.0000
8779.2690	7219.4746	327.5087	-1559.7944	7286.9156
327.8770	123.9764	28.9607	664265.7895	-11.7773
-11.7954				
[30111]ENERGY: 7900000	3576.6543	5875.7188	5907.6441	
370.2701	-15370.9932	-1884.7400	0.0000	0.0000
8739.8715	7214.4257	326.0390	-1525.4458	7286.8349
327.7340	135.7760	54.3195	664265.7895	-13.9194
-13.8999				
[30161]ENERGY: 7910000	3621.6387	5749.3113	5928.1012	
349.0264	-15377.7489	-1875.9256	0.0000	0.0000
8822.6448	7217.0479	329.1269	-1605.5969	7287.8448
327.6102	-49.3696	9.4976	664265.7895	-15.5308
-15.5268				
[30197]ENERGY: 7920000	3611.2645	5786.3555	5932.3788	
362.9740	-15403.9201	-1873.4409	0.0000	0.0000
8800.4542	7216.0661	328.2990	-1584.3881	7287.5250
327.8268	-102.9874	-56.0012	664265.7895	-16.1995
-16.2054				
[30247]ENERGY: 7930000	3609.0628	5824.3572	5915.3530	
380.2282	-15399.7317	-1822.7330	0.0000	0.0000
8715.4704	7222.0068	325.1287	-1493.4636	7287.7854
327.9199	88.4644	71.7535	664265.7895	-13.3957
-13.4050				
[30283]ENERGY: 7940000	3550.6904	5856.2304	5907.9152	
338.1280	-15451.2335	-1862.4214	0.0000	0.0000
8873.6256	7212.9347	331.0287	-1660.6909	7287.0757
327.7155	48.5390	67.5737	664265.7895	-10.0756
-10.0682				

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[30333]ENERGY: 7950000	3583.9614	5908.3559	5920.0511	
349.0915	-15446.9131	-1901.1012	0.0000	0.0000
8804.1212	7217.5668	328.4358	-1586.5545	7287.5067
327.6216	-23.0856	-52.5301	664265.7895	-10.1736
-10.1594				
[30369]ENERGY: 7960000	3579.6736	5869.8835	5936.0578	
339.0674	-15326.2843	-1892.4593	0.0000	0.0000
8708.6033	7214.5419	324.8726	-1494.0614	7286.8321
327.7293	-82.7354	-8.1776	664265.7895	-14.5878
-14.5884				
[30419]ENERGY: 7970000	3629.3900	5910.3327	5919.8590	
363.2847	-15451.0131	-1885.6619	0.0000	0.0000
8728.4792	7214.6706	325.6140	-1513.8086	7287.1199
327.5613	-120.2859	-135.9064	664265.7895	-11.9540
-11.9827				
[30455]ENERGY: 7980000	3600.8922	5825.9355	5885.6171	
336.5183	-15458.1982	-1845.8494	0.0000	0.0000
8871.9880	7216.9034	330.9676	-1655.0846	7286.4832
327.7052	60.5013	21.4036	664265.7895	-10.1203
-10.1062				
[30505]ENERGY: 7990000	3641.2136	5796.6314	5910.8562	
385.5789	-15385.4957	-1893.8409	0.0000	0.0000
8762.2771	7217.2207	326.8749	-1545.0564	7288.4306
327.6082	-198.6256	-231.9724	664265.7895	-13.5117
-13.5127				
[30544]ENERGY: 8000000	3548.2834	5811.6266	5906.7873	
380.7556	-15344.6134	-1896.8298	0.0000	0.0000
8812.7200	7218.7297	328.7566	-1593.9903	7289.1066
327.7864	51.9051	34.5002	664265.7895	-3.4598
-3.4565				
[30594]ENERGY: 8010000	3582.5707	5829.2576	5929.7686	
353.4891	-15340.8607	-1836.4209	0.0000	0.0000
8704.8862	7222.6906	324.7339	-1482.1956	7288.9030
327.8553	147.3849	85.1579	664265.7895	-9.3003
-9.3014				
[30630]ENERGY: 8020000	3563.1926	5766.9617	5852.1519	
355.8948	-15381.8271	-1823.9312	0.0000	0.0000
8887.1233	7219.5661	331.5322	-1667.5572	7289.6407
328.0088	47.9718	40.6999	664265.7895	-7.8808
-7.8825				
[30680]ENERGY: 8030000	3564.4537	5881.2653	5945.0785	
350.6197	-15428.6006	-1862.1371	0.0000	0.0000
8769.4884	7220.1680	327.1439	-1549.3204	7290.5285
328.1066	41.2620	19.1249	664265.7895	-10.7498
-10.7450				
[30716]ENERGY: 8040000	3627.0350	5803.8444	5946.2587	
370.0879	-15411.5994	-1893.7888	0.0000	0.0000
8778.1605	7219.9983	327.4674	-1558.1622	7290.0891
328.2555	23.7747	-66.0187	664265.7895	-9.4968
-9.5161				
[30766]ENERGY: 8050000	3612.5453	5841.2863	5883.8751	
329.0901	-15407.5723	-1865.3707	0.0000	0.0000
8826.1186	7219.9725	329.2565	-1606.1461	7291.4339
327.9979	8.5375	-47.1953	664265.7895	-10.6899

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-10.6828
 [30802]ENERGY: 8060000 3553.8929 5921.9287 5831.1254
 355.1137 -15382.8866 -1862.8449 0.0000 0.0000
 8809.0346 7225.3638 328.6191 -1583.6708 7292.8749
 327.9695 113.4335 76.6886 664265.7895 -9.7591
 -9.7465
 [30852]ENERGY: 8070000 3571.2055 5860.1852 5853.8911
 370.3921 -15401.4553 -1852.4802 0.0000 0.0000
 8820.1298 7221.8681 329.0330 -1598.2617 7294.0731
 328.1193 211.9102 162.4915 664265.7895 -10.9275
 -10.9319
 [30888]ENERGY: 8080000 3672.0309 5887.1490 5860.3598
 358.2664 -15397.6451 -1866.3845 0.0000 0.0000
 8710.5000 7224.2765 324.9433 -1486.2235 7293.9186
 328.0945 -143.4696 -175.9964 664265.7895 -9.1279
 -9.1304
 [30938]ENERGY: 8090000 3636.0595 5868.1732 5888.2609
 346.1788 -15419.5599 -1938.9227 0.0000 0.0000
 8844.5087 7224.6985 329.9425 -1619.8102 7294.7724
 328.1045 -27.4855 -75.6548 664265.7895 -11.4237
 -11.4233
 [30977]ENERGY: 8100000 3551.3100 5822.4334 5840.5075
 363.3074 -15358.3711 -1930.2691 0.0000 0.0000
 8932.1622 7221.0803 333.2124 -1711.0819 7295.5794
 328.3184 83.0088 -48.7486 664265.7895 -8.7178
 -8.7215
 [31027]ENERGY: 8110000 3660.5515 5769.2549 5912.8443
 363.9380 -15412.8322 -1911.2774 0.0000 0.0000
 8842.2343 7224.7135 329.8576 -1617.5208 7295.5780
 328.2562 -14.5294 -50.8967 664265.7895 -14.1453
 -14.1445
 [31063]ENERGY: 8120000 3597.8286 5886.6427 5916.0296
 357.6340 -15410.8409 -1898.5753 0.0000 0.0000
 8775.8531 7224.5719 327.3813 -1551.2812 7295.2245
 328.4325 171.1688 95.4318 664265.7895 -5.0140
 -5.0026
 [31113]ENERGY: 8130000 3613.6393 5923.6919 5955.7693
 379.2256 -15503.6735 -1862.5330 0.0000 0.0000
 8718.6813 7224.8011 325.2485 -1493.8803 7295.6734
 328.2125 66.2283 -46.8902 664265.7895 -10.6346
 -10.6514
 [31149]ENERGY: 8140000 3579.1676 5854.7789 5872.8779
 337.9966 -15305.3374 -1935.5531 0.0000 0.0000
 8820.6248 7224.5553 329.0515 -1596.0695 7296.2962
 328.1459 10.8451 -14.9073 664265.7895 -6.9636
 -6.9533
 [31199]ENERGY: 8150000 3706.6565 5751.1740 6014.3177
 364.1036 -15340.1377 -1960.6633 0.0000 0.0000
 8694.5804 7230.0311 324.3494 -1464.5493 7296.2732
 328.2324 -191.9093 -114.1487 664265.7895 -10.0517
 -10.0504
 [31235]ENERGY: 8160000 3501.8120 5839.5442 5925.6375
 376.4965 -15381.5493 -1876.9040 0.0000 0.0000
 8840.8567 7225.8937 329.8063 -1614.9630 7296.0335

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328.0641	125.9490	40.0344	664265.7895	-8.8673
-8.8622				
[31285]ENERGY: 8170000	3657.6095	5884.4253	5912.0140	
338.9949	-15373.9827	-1836.6217	0.0000	0.0000
8647.4393	7229.8786	322.5909	-1417.5606	7296.3391
328.3826	-59.7231	-40.2727	664265.7895	-8.0633
-8.0731				
[31321]ENERGY: 8180000	3572.4835	5803.1223	5914.5056	
384.1521	-15369.1437	-1845.9325	0.0000	0.0000
8767.3730	7226.5603	327.0650	-1540.8127	7295.4349
328.2089	126.5255	72.4570	664265.7895	-7.0490
-7.0266				
[31371]ENERGY: 8190000	3649.1763	5842.8002	5869.6743	
378.7561	-15428.8740	-1794.0506	0.0000	0.0000
8709.7113	7227.1938	324.9139	-1482.5175	7296.3026
328.1062	-61.1716	-55.5430	664265.7895	-9.3323
-9.3466				
[31410]ENERGY: 8200000	3707.8046	5809.1251	5845.1311	
359.9675	-15409.3028	-1882.1198	0.0000	0.0000
8796.0360	7226.6417	328.1342	-1569.3943	7295.5972
328.1223	-10.0062	-47.4248	664265.7895	-9.2920
-9.2829				
[31460]ENERGY: 8210000	3627.3767	5780.0452	5867.2140	
355.9569	-15316.4652	-1886.0183	0.0000	0.0000
8799.9019	7228.0112	328.2784	-1571.8906	7297.3273
328.2232	-17.2308	-63.7546	664265.7895	-6.7697
-6.7891				
[31496]ENERGY: 8220000	3619.8675	5840.7223	5881.7959	
363.3179	-15380.2522	-1837.9327	0.0000	0.0000
8736.2071	7223.7258	325.9023	-1512.4813	7296.9405
328.1216	-6.4969	-38.4922	664265.7895	-10.6222
-10.6290				
[31546]ENERGY: 8230000	3583.4141	5996.6852	5879.8378	
341.7708	-15488.0712	-1807.4642	0.0000	0.0000
8718.5426	7224.7152	325.2434	-1493.8274	7296.1356
327.9834	-20.6346	7.6139	664265.7895	-9.4374
-9.4237				
[31582]ENERGY: 8240000	3528.8623	5725.9656	5955.1205	
351.0090	-15358.7970	-1800.9008	0.0000	0.0000
8823.1016	7224.3611	329.1439	-1598.7405	7297.6649
328.0211	15.8356	62.3029	664265.7895	-8.9289
-8.9285				
[31632]ENERGY: 8250000	3668.2044	5747.0000	5902.4615	
337.5755	-15384.2603	-1820.2219	0.0000	0.0000
8776.2595	7227.0188	327.3965	-1549.2408	7298.8247
328.0838	25.6018	-4.9612	664265.7895	-13.8190
-13.8266				
[31668]ENERGY: 8260000	3557.3629	5781.5364	5937.2585	
363.6181	-15360.4398	-1802.1846	0.0000	0.0000
8749.1914	7226.3429	326.3867	-1522.8485	7298.6040
328.0864	187.6676	174.5557	664265.7895	-10.7192
-10.7187				
[31718]ENERGY: 8270000	3635.4149	5781.2613	5909.2745	
344.5212	-15367.0657	-1851.2754	0.0000	0.0000

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8775.8777	7228.0086	327.3822	-1547.8691	7299.0565
328.0882	119.1968	26.0043	664265.7895	-9.2128
-9.2155				
[31754]ENERGY: 8280000	3654.0108	5776.4103	6006.0660	
370.1630	-15403.2626	-1894.3152	0.0000	0.0000
8721.9074	7230.9798	325.3689	-1490.9276	7300.3517
328.0258	-97.9295	-23.3257	664265.7895	-8.4211
-8.4038				
[31804]ENERGY: 8290000	3586.1199	5818.7656	5898.8502	
381.9584	-15420.8093	-1864.5363	0.0000	0.0000
8827.8460	7228.1944	329.3209	-1599.6516	7300.4934
328.1713	51.3966	59.4902	664265.7895	-11.6838
-11.6924				
[31843]ENERGY: 8300000	3532.3505	5881.2664	5945.9341	
357.9694	-15435.1722	-1839.4113	0.0000	0.0000
8788.1793	7231.1162	327.8411	-1557.0631	7300.7650
328.2852	125.6401	100.5897	664265.7895	-9.3552
-9.3680				
[31893]ENERGY: 8310000	3628.0186	5792.3364	5909.8665	
351.6794	-15414.9796	-1911.9872	0.0000	0.0000
8870.5167	7225.4509	330.9127	-1645.0658	7300.4510
328.2783	-69.3872	-84.0158	664265.7895	-10.6545
-10.6449				
[31929]ENERGY: 8320000	3518.5233	5779.5570	5909.0543	
384.4691	-15328.9046	-1891.0682	0.0000	0.0000
8859.9291	7231.5599	330.5177	-1628.3691	7302.2584
328.3817	-11.6280	-59.8589	664265.7895	-12.7260
-12.7378				
[31979]ENERGY: 8330000	3590.1955	5887.0914	5934.0608	
336.1069	-15412.2151	-1973.0631	0.0000	0.0000
8863.9924	7226.1689	330.6693	-1637.8235	7302.3786
328.1566	100.9272	-2.6811	664265.7895	-14.7067
-14.6851				
[32015]ENERGY: 8340000	3580.3642	5775.5220	5928.0234	
362.4929	-15457.4662	-1880.1741	0.0000	0.0000
8924.5700	7233.3323	332.9292	-1691.2377	7302.4577
328.1792	-94.8584	-113.9387	664265.7895	-11.1841
-11.1885				
[32065]ENERGY: 8350000	3611.0711	5873.0854	5886.9322	
313.6304	-15427.0893	-1853.5045	0.0000	0.0000
8826.4784	7230.6037	329.2699	-1595.8746	7304.2239
328.1566	39.0157	-45.2401	664265.7895	-14.8197
-14.8230				
[32101]ENERGY: 8360000	3579.9561	5861.1114	5869.8872	
330.5375	-15500.2348	-1756.7826	0.0000	0.0000
8849.3147	7233.7896	330.1218	-1615.5251	7303.5598
328.2271	-80.7201	-91.6333	664265.7895	-6.4155
-6.4099				
[32151]ENERGY: 8370000	3588.5921	5947.8084	5845.4310	
368.7501	-15438.3092	-1894.6959	0.0000	0.0000
8814.8369	7232.4134	328.8356	-1582.4236	7304.3442
328.2216	-165.5083	-72.2827	664265.7895	-11.8745
-11.8775				
[32187]ENERGY: 8380000	3516.8618	5867.6713	5862.4788	

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369.8694	-15390.2821	-1761.1942	0.0000	0.0000
8769.3576	7234.7626	327.1390	-1534.5950	7305.2765
328.3118	136.0811	212.1393	664265.7895	-9.4145
-9.4129				
[32237]ENERGY: 8390000	3614.0572	5852.9686	5888.0715	
355.8811	-15459.4207	-1872.7544	0.0000	0.0000
8852.2716	7231.0749	330.2321	-1621.1967	7305.3180
328.2176	49.9706	78.9687	664265.7895	-12.8705
-12.8654				
[32276]ENERGY: 8400000	3556.5551	5851.3795	5987.8061	
338.0276	-15488.7069	-1812.0590	0.0000	0.0000
8798.8258	7231.8283	328.2383	-1566.9975	7304.8911
328.5595	20.2896	50.7349	664265.7895	-10.1122
-10.1034				
[32326]ENERGY: 8410000	3524.8118	5808.6439	5835.9162	
375.7066	-15352.8441	-1762.1271	0.0000	0.0000
8806.8723	7236.9796	328.5385	-1569.8927	7306.7915
328.3632	142.6830	62.4929	664265.7895	-10.5463
-10.5564				
[32362]ENERGY: 8420000	3644.0369	5822.9931	5882.6058	
384.9172	-15421.3644	-1843.1966	0.0000	0.0000
8763.7451	7233.7372	326.9296	-1530.0079	7305.4539
328.2630	-88.5082	-49.8369	664265.7895	-15.0314
-15.0446				
[32412]ENERGY: 8430000	3592.2607	5817.9972	5922.3754	
325.1819	-15430.4259	-1830.8125	0.0000	0.0000
8837.6103	7234.1871	329.6851	-1603.4232	7306.1926
328.2706	-136.0712	-59.6747	664265.7895	-14.7235
-14.7076				
[32448]ENERGY: 8440000	3628.6391	5945.9216	5889.7797	
384.3397	-15443.6509	-1856.5376	0.0000	0.0000
8687.2006	7235.6922	324.0741	-1451.5083	7306.2038
328.2111	105.0396	-14.3744	664265.7895	-14.9748
-14.9824				
[32498]ENERGY: 8450000	3597.2022	5814.0931	5848.1430	
346.2539	-15359.8751	-1793.1790	0.0000	0.0000
8786.4710	7239.1092	327.7774	-1547.3618	7306.8534
328.0094	156.2132	90.3381	664265.7895	-16.7854
-16.7799				
[32534]ENERGY: 8460000	3638.6954	5878.5435	5952.3149	
348.5154	-15440.0021	-1777.9774	0.0000	0.0000
8642.3455	7242.4351	322.4008	-1399.9103	7306.6746
328.2902	32.2804	1.9578	664265.7895	-12.1929
-12.1966				
[32584]ENERGY: 8470000	3572.9972	5884.4171	5943.1740	
360.2224	-15321.0822	-1938.7285	0.0000	0.0000
8735.2723	7236.2723	325.8674	-1499.0000	7307.3943
328.0200	-29.5354	23.1443	664265.7895	-9.8820
-9.8716				
[32620]ENERGY: 8480000	3675.8198	5864.9940	5921.3001	
344.5524	-15452.3830	-1852.1485	0.0000	0.0000
8735.8995	7238.0344	325.8909	-1497.8651	7306.5999
328.1119	-95.3509	-36.8142	664265.7895	-16.4264
-16.4466				

Supplementary Text 6

[32670]ENERGY: 8490000	3626.1493	5897.7315	5910.0385	
370.1265	-15403.6674	-1891.7663	0.0000	0.0000
8729.7681	7238.3803	325.6621	-1491.3878	7307.4285
328.1214	21.0335	-81.8061	664265.7895	-11.6635
-11.6532				
[32709]ENERGY: 8500000	3666.5824	5879.3110	5851.0685	
367.8853	-15346.2847	-1947.1747	0.0000	0.0000
8765.7126	7237.1004	327.0030	-1528.6122	7308.2822
328.1197	-84.5318	-154.9884	664265.7895	-10.4878
-10.5116				
[32759]ENERGY: 8510000	3616.2314	5881.1221	5855.0438	
361.1680	-15397.3052	-1847.6233	0.0000	0.0000
8769.3140	7237.9509	327.1374	-1531.3631	7308.9240
328.0802	135.5994	12.6984	664265.7895	-14.3835
-14.3694				
[32795]ENERGY: 8520000	3697.0938	5833.5675	5890.9451	
340.7712	-15359.8974	-1840.7378	0.0000	0.0000
8680.2311	7241.9734	323.8142	-1438.2577	7309.6278
327.9994	-8.4410	-91.2142	664265.7895	-12.2137
-12.2060				
[32845]ENERGY: 8530000	3658.5439	5891.6283	5855.9416	
361.9614	-15379.2966	-1851.1041	0.0000	0.0000
8704.8201	7242.4945	324.7314	-1462.3256	7310.4197
328.0323	67.2480	20.9661	664265.7895	-11.0912
-11.0986				
[32881]ENERGY: 8540000	3656.4940	5832.9596	5868.6311	
347.9531	-15458.7216	-1823.6726	0.0000	0.0000
8817.0036	7240.6471	328.9164	-1576.3565	7309.2871
328.3363	-104.8184	-41.3922	664265.7895	-9.4600
-9.4590				
[32931]ENERGY: 8550000	3603.1622	5804.3758	5892.9054	
383.1746	-15338.2032	-1847.4244	0.0000	0.0000
8744.0742	7242.0647	326.1958	-1502.0095	7310.7255
328.0609	178.4179	160.1831	664265.7895	-8.3884
-8.3716				
[32967]ENERGY: 8560000	3592.4087	5775.9893	5866.3149	
390.2804	-15408.9602	-1837.8030	0.0000	0.0000
8863.4789	7241.7090	330.6502	-1621.7699	7311.3000
328.0274	-1.8521	-25.0044	664265.7895	-7.7187
-7.7320				
[33017]ENERGY: 8570000	3572.6812	5753.9287	5917.0201	
343.9448	-15322.3458	-1801.0011	0.0000	0.0000
8778.2956	7242.5234	327.4724	-1535.7722	7311.4700
328.1117	-36.1359	-114.4222	664265.7895	-12.3539
-12.3547				
[33053]ENERGY: 8580000	3568.4762	5782.5069	5901.1402	
370.1879	-15375.4922	-1870.6375	0.0000	0.0000
8863.8559	7240.0373	330.6642	-1623.8185	7312.5883
328.0751	62.2266	24.4008	664265.7895	-14.3396
-14.3231				
[33103]ENERGY: 8590000	3577.3134	5966.4082	5885.5040	
350.6672	-15313.7576	-1981.0328	0.0000	0.0000
8755.3520	7240.4544	326.6165	-1514.8976	7312.8701
328.0639	8.1533	-68.5466	664265.7895	-15.3763

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-15.4013

[33142]ENERGY:	8600000	3620.4362	5773.4830	5902.1923
351.4837	-15318.8084	-1866.8646	0.0000	0.0000
8781.1589	7243.0810	327.5792	-1538.0779	7312.8154
327.9928	13.1161	23.2209	664265.7895	-9.5625

-9.5572

[33192]ENERGY:	8610000	3723.4392	5731.9476	5944.7396
368.2780	-15505.1130	-1854.3280	0.0000	0.0000
8832.1399	7241.1033	329.4811	-1591.0366	7311.2707
328.2192	-47.2875	-69.4363	664265.7895	-10.2843

-10.2713

[33228]ENERGY:	8620000	3555.2280	5762.5090	5898.5502
371.6085	-15378.9762	-1846.2464	0.0000	0.0000
8876.9188	7239.5920	331.1515	-1637.3269	7311.5999
328.4898	-23.2059	-37.0622	664265.7895	-14.1104

-14.1281

[33278]ENERGY:	8630000	3556.1324	5822.3049	5882.4026
363.8890	-15316.0335	-1883.3298	0.0000	0.0000
8816.7267	7242.0923	328.9061	-1574.6344	7312.8301
328.2651	-204.2409	-113.6710	664265.7895	-9.8960

-9.8611

[33314]ENERGY:	8640000	3569.7415	5862.5473	5910.5242
360.7094	-15360.3113	-1881.5115	0.0000	0.0000
8782.1339	7243.8335	327.6156	-1538.3003	7312.1834
328.2054	114.4907	77.7588	664265.7895	-12.0036

-12.0312

[33364]ENERGY:	8650000	3538.5380	5857.7516	5929.7230
369.9574	-15503.0477	-1773.1740	0.0000	0.0000
8824.2939	7244.0422	329.1884	-1580.2517	7313.2044
328.3030	29.7227	38.2791	664265.7895	-10.4079

-10.4180

[33400]ENERGY:	8660000	3554.6787	5755.6532	5907.8877
334.2268	-15321.3223	-1792.9426	0.0000	0.0000
8802.6675	7240.8490	328.3816	-1561.8185	7311.4026
328.1226	5.9274	-1.0804	664265.7895	-11.3977

-11.3897

[33450]ENERGY:	8670000	3633.1779	5826.3660	5940.6544
353.4353	-15330.4376	-1900.2730	0.0000	0.0000
8725.9676	7248.8906	325.5203	-1477.0770	7314.4976
328.3562	15.9914	-56.6795	664265.7895	-9.9292

-9.9086

[33486]ENERGY:	8680000	3538.7365	5780.3618	5893.0940
362.3837	-15224.9082	-1877.3310	0.0000	0.0000
8772.5340	7244.8708	327.2575	-1527.6632	7316.2014
328.1447	139.9868	50.4172	664265.7895	-7.1747

-7.1879

[33536]ENERGY:	8690000	3574.0078	5801.0426	5937.1239
388.6076	-15345.1541	-1935.6570	0.0000	0.0000
8825.0891	7245.0599	329.2180	-1580.0292	7315.4728
328.2855	-14.7095	-25.4917	664265.7895	-9.5504

-9.5681

[33575]ENERGY:	8700000	3616.9086	5743.9638	5965.6697
368.0460	-15372.7026	-1864.7019	0.0000	0.0000
8784.6028	7241.7865	327.7077	-1542.8163	7315.3088

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328.4113	-226.3811	-204.5154	664265.7895	-7.2508
-7.2450				
[33625]ENERGY: 8710000	3616.0479	5734.6472	5939.6565	
377.1139	-15391.3873	-1857.8641	0.0000	0.0000
8827.5198	7245.7340	329.3087	-1581.7858	7315.4858
328.1996	50.4483	-54.0839	664265.7895	-11.5576
-11.5528				
[33661]ENERGY: 8720000	3659.4737	5865.2970	5912.2196	
343.3784	-15424.2429	-1850.5258	0.0000	0.0000
8743.9886	7249.5887	326.1926	-1494.3999	7314.6042
328.3426	-94.4309	-4.8698	664265.7895	-9.4539
-9.4405				
[33711]ENERGY: 8730000	3536.5091	5854.1156	5935.7485	
367.2035	-15396.9217	-1844.8259	0.0000	0.0000
8793.3201	7245.1493	328.0329	-1548.1708	7315.6496
328.4817	184.2966	17.3353	664265.7895	-10.3955
-10.4065				
[33747]ENERGY: 8740000	3566.9755	5707.1737	5902.4815	
363.3604	-15283.3144	-1846.5641	0.0000	0.0000
8832.5141	7242.6267	329.4950	-1589.8874	7314.8897
328.2018	207.2703	63.5861	664265.7895	-9.4797
-9.4897				
[33797]ENERGY: 8750000	3557.5431	5744.8838	5943.3681	
358.1430	-15360.7645	-1812.6152	0.0000	0.0000
8812.6316	7243.1900	328.7533	-1569.4416	7315.4712
327.9873	94.0938	10.5920	664265.7895	-9.6200
-9.6321				
[33833]ENERGY: 8760000	3604.8287	5797.4891	5938.2644	
368.2517	-15326.6468	-1948.1203	0.0000	0.0000
8809.1647	7243.2315	328.6240	-1565.9332	7316.7929
327.9656	-19.0449	-7.7353	664265.7895	-13.5850
-13.5630				
[33883]ENERGY: 8770000	3627.3005	5819.8072	5974.4876	
374.1714	-15404.6037	-1840.0698	0.0000	0.0000
8691.8081	7242.9013	324.2460	-1448.9068	7315.6614
328.0299	-2.5135	-27.2889	664265.7895	-11.8769
-11.8666				
[33919]ENERGY: 8780000	3653.2169	5754.9538	5920.9430	
380.0990	-15393.6554	-1863.9701	0.0000	0.0000
8797.7588	7249.3460	328.1985	-1548.4128	7316.6278
328.3097	8.6773	-19.2642	664265.7895	-8.1959
-8.2094				
[33969]ENERGY: 8790000	3511.3457	5834.1011	5959.3942	
365.3750	-15396.3442	-1846.9153	0.0000	0.0000
8819.5135	7246.4702	329.0101	-1573.0434	7316.6248
328.3383	225.1601	147.0156	664265.7895	-8.5613
-8.5595				
[34008]ENERGY: 8800000	3678.6103	5898.3590	5920.3832	
358.9929	-15538.2310	-1819.5746	0.0000	0.0000
8751.6235	7250.1634	326.4774	-1501.4601	7316.1069
328.6407	-78.6849	-118.1746	664265.7895	-7.5919
-7.5854				
[34058]ENERGY: 8810000	3610.5677	5794.1315	5964.7559	
363.6703	-15469.1453	-1775.4238	0.0000	0.0000

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8756.5357	7245.0921	326.6607	-1511.4436	7315.6034
328.6695	121.3090	78.8193	664265.7895	-7.5918
-7.5978				
[34094]ENERGY: 8820000	3597.8374	5775.7896	5896.0155	
367.8138	-15418.4998	-1876.8701	0.0000	0.0000
8900.4924	7242.5789	332.0310	-1657.9135	7317.1405
328.6119	-46.8430	-64.1583	664265.7895	-6.1523
-6.1441				
[34144]ENERGY: 8830000	3580.3970	5927.6092	5873.1408	
355.3412	-15478.6754	-1840.1327	0.0000	0.0000
8828.0856	7245.7656	329.3298	-1582.3199	7317.0893
328.5252	136.1860	77.6190	664265.7895	-8.7751
-8.7634				
[34180]ENERGY: 8840000	3529.3145	5846.1372	5893.8639	
349.9313	-15400.4339	-1834.6771	0.0000	0.0000
8858.0138	7242.1496	330.4463	-1615.8642	7316.9439
328.9732	59.0468	57.9218	664265.7895	-6.5364
-6.5535				
[34230]ENERGY: 8850000	3593.6757	5782.5132	5882.4877	
357.4779	-15397.4289	-1831.1157	0.0000	0.0000
8854.4542	7242.0643	330.3135	-1612.3899	7316.8186
328.5512	63.1943	53.0044	664265.7895	-10.0840
-10.0745				
[34266]ENERGY: 8860000	3583.1244	5780.7397	5887.7245	
353.0493	-15318.6508	-1885.8020	0.0000	0.0000
8848.5478	7248.7329	330.0932	-1599.8149	7317.4175
328.5964	36.9236	-46.7976	664265.7895	-8.4086
-8.4190				
[34316]ENERGY: 8870000	3584.8679	5774.2309	5891.2658	
369.6679	-15350.2556	-1879.8704	0.0000	0.0000
8854.6843	7244.5908	330.3221	-1610.0935	7318.1919
328.4741	56.7184	34.0378	664265.7895	-5.3940
-5.3937				
[34352]ENERGY: 8880000	3574.1878	5934.7086	5911.0005	
350.8774	-15509.1696	-1800.6639	0.0000	0.0000
8785.4950	7246.4358	327.7410	-1539.0591	7316.9330
328.6614	36.0508	101.0941	664265.7895	-6.5700
-6.5540				
[34402]ENERGY: 8890000	3613.5925	5794.7600	5870.3703	
366.5157	-15373.4608	-1784.9490	0.0000	0.0000
8760.8595	7247.6881	326.8220	-1513.1713	7317.0241
328.6854	14.1292	-52.3071	664265.7895	-4.5021
-4.5212				
[34441]ENERGY: 8900000	3604.2627	5855.1281	5882.6487	
365.5714	-15362.1805	-1944.8283	0.0000	0.0000
8848.0831	7248.6853	330.0758	-1599.3978	7317.3364
328.6838	-119.6380	-56.8399	664265.7895	-2.2979
-2.2914				
[34491]ENERGY: 8910000	3638.9551	5794.8687	5962.8280	
349.6043	-15520.7339	-1781.4359	0.0000	0.0000
8803.1046	7247.1909	328.3979	-1555.9137	7316.0090
328.7197	84.7347	71.1157	664265.7895	-3.3328
-3.3245				
[34527]ENERGY: 8920000	3588.2772	5868.7937	5882.5123	

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386.1237	-15391.5355	-1878.7693	0.0000	0.0000
8789.7197	7245.1218	327.8986	-1544.5978	7316.6520
328.6984	133.4976	75.4413	664265.7895	-8.2554
-8.2677				
[34577]ENERGY: 8930000	3592.0715	5954.6622	5877.8838	
351.8334	-15532.3093	-1844.5539	0.0000	0.0000
8844.7617	7244.3494	329.9519	-1600.4123	7316.3427
328.7635	-137.7834	-82.7726	664265.7895	-9.5439
-9.5442				
[34613]ENERGY: 8940000	3622.6003	5962.4431	5872.8890	
344.2272	-15450.0628	-1905.7684	0.0000	0.0000
8797.8891	7244.2175	328.2034	-1553.6716	7316.9151
328.8864	-66.4109	-17.5834	664265.7895	-2.2403
-2.2534				
[34663]ENERGY: 8950000	3701.6733	5779.0552	5903.3354	
369.0657	-15527.3945	-1794.6499	0.0000	0.0000
8815.1335	7246.2187	328.8467	-1568.9148	7317.7733
328.8978	26.9245	-89.7754	664265.7895	-6.4217
-6.4124				
[34699]ENERGY: 8960000	3566.6112	5929.2281	5884.0202	
358.7275	-15530.3513	-1735.2972	0.0000	0.0000
8774.2309	7247.1695	327.3208	-1527.0615	7317.6073
328.8248	151.4959	49.9941	664265.7895	-8.1955
-8.1851				
[34749]ENERGY: 8970000	3546.5575	5789.5531	5959.9230	
377.4493	-15426.6224	-1842.8010	0.0000	0.0000
8841.8780	7245.9376	329.8444	-1595.9404	7317.7020
328.7778	167.7880	143.8390	664265.7895	-2.5782
-2.5986				
[34785]ENERGY: 8980000	3609.6035	5949.6033	5897.9588	
372.5688	-15491.8452	-1820.8379	0.0000	0.0000
8726.5792	7243.6305	325.5432	-1482.9487	7318.1559
328.9000	25.4762	103.4745	664265.7895	-3.0037
-2.9858				
[34835]ENERGY: 8990000	3617.7931	5937.0140	5931.2068	
370.0608	-15521.4513	-1794.6699	0.0000	0.0000
8706.4835	7246.4369	324.7935	-1460.0466	7318.2343
328.8250	-51.6660	-45.1870	664265.7895	-5.7958
-5.7992				
[34874]ENERGY: 9000000	3613.9099	5885.3924	5898.3741	
372.5520	-15359.2395	-1863.1242	0.0000	0.0000
8701.6281	7249.4927	324.6124	-1452.1353	7319.1418
328.6053	-23.8557	-107.8771	664265.7895	-4.9710
-4.9808				
[34924]ENERGY: 9010000	3554.3552	5861.8770	5895.8748	
368.8678	-15344.9587	-1810.2212	0.0000	0.0000
8725.2785	7251.0734	325.4946	-1474.2051	7319.4925
328.5961	176.8213	104.7038	664265.7895	-7.1626
-7.1519				
[34960]ENERGY: 9020000	3587.8952	5906.7079	5913.7863	
360.5926	-15477.4925	-1791.2911	0.0000	0.0000
8747.4233	7247.6217	326.3207	-1499.8016	7319.3401
328.6808	74.2230	12.5087	664265.7895	-10.2229
-10.2286				

Supplementary Text 6

[35010]ENERGY: 9030000	3550.2672	5821.8748	5897.4861	
373.6587	-15417.1595	-1780.4686	0.0000	0.0000
8802.2940	7247.9527	328.3677	-1554.3413	7318.2666
328.4631	40.6082	3.4041	664265.7895	-4.4532
-4.4588				
[35046]ENERGY: 9040000	3620.7776	5815.3067	5926.1843	
359.2307	-15476.0826	-1866.3460	0.0000	0.0000
8867.3574	7246.4282	330.7949	-1620.9292	7317.8678
328.5478	-149.8174	-83.2460	664265.7895	-9.0418
-9.0116				
[35096]ENERGY: 9050000	3569.7229	5929.7347	5921.2222	
343.6409	-15462.7139	-1834.8925	0.0000	0.0000
8777.1428	7243.8573	327.4294	-1533.2856	7317.2879
328.7007	-58.2129	-34.0269	664265.7895	-9.6966
-9.7009				
[35132]ENERGY: 9060000	3637.4620	5798.6293	5911.4487	
362.7722	-15418.8716	-1865.8033	0.0000	0.0000
8821.5409	7247.1782	329.0857	-1574.3627	7319.2008
328.6101	52.9630	20.8124	664265.7895	-8.7839
-8.7975				
[35182]ENERGY: 9070000	3606.5942	5878.8383	5858.3354	
341.9912	-15432.1331	-1806.3310	0.0000	0.0000
8801.7629	7249.0578	328.3479	-1552.7051	7317.6910
328.6742	107.5625	161.9403	664265.7895	-8.0293
-8.0117				
[35218]ENERGY: 9080000	3565.7109	5947.7318	5893.8300	
360.8201	-15382.8291	-1917.6662	0.0000	0.0000
8779.2323	7246.8298	327.5074	-1532.4025	7318.1110
328.2993	-238.6264	-170.1273	664265.7895	-8.8457
-8.8697				
[35268]ENERGY: 9090000	3553.4907	5866.7542	5895.4073	
343.3353	-15468.8600	-1751.9911	0.0000	0.0000
8811.4709	7249.6074	328.7100	-1561.8635	7318.9738
328.4117	165.6351	93.6137	664265.7895	-8.4894
-8.4794				
[35307]ENERGY: 9100000	3545.6060	5837.1854	5946.7777	
361.5630	-15444.2662	-1828.8571	0.0000	0.0000
8833.1099	7251.1186	329.5173	-1581.9913	7319.8506
328.4582	125.6973	33.2564	664265.7895	-5.7547
-5.7742				
[35357]ENERGY: 9110000	3527.5569	5789.0472	5918.6936	
378.3711	-15336.3669	-1818.6275	0.0000	0.0000
8791.1989	7249.8732	327.9538	-1541.3256	7320.6563
328.4986	179.6871	74.8324	664265.7895	-3.6591
-3.6482				
[35393]ENERGY: 9120000	3558.4055	5814.9034	5916.9348	
368.1281	-15481.1049	-1804.7227	0.0000	0.0000
8872.9371	7245.4813	331.0030	-1627.4558	7319.3477
328.6908	68.5057	157.2270	664265.7895	-7.8940
-7.8719				
[35443]ENERGY: 9130000	3637.9098	5756.2151	5922.3820	
379.4736	-15417.0911	-1860.3191	0.0000	0.0000
8831.2259	7249.7962	329.4470	-1581.4298	7320.0816
328.5422	-82.7587	-54.1961	664265.7895	-3.1838

Supplementary Text 6

-3.2032

[35479]ENERGY: 9140000	3665.4421	5839.8782	5945.4952
337.2329	-15413.4622	-1819.4822	0.0000 0.0000
8696.2321	7251.3362	324.4111	-1444.8959 7319.7048
328.5184	30.8164	-13.5574	664265.7895 -9.4558

-9.4629

[35529]ENERGY: 9150000	3666.2492	5698.9259	5890.8337
345.7108	-15331.9327	-1827.2628	0.0000 0.0000
8806.1109	7248.6352	328.5101	-1557.4757 7319.9836
328.4046	-130.9152	-70.6067	664265.7895 -6.1105

-6.0847

[35565]ENERGY: 9160000	3608.0826	5758.4547	5874.7892
379.2714	-15383.7904	-1792.2519	0.0000 0.0000
8802.8970	7247.4527	328.3902	-1555.4442 7321.1801
328.5609	128.2760	173.5899	664265.7895 -4.3102

-4.3106

[35615]ENERGY: 9170000	3603.6798	5815.0678	5875.7499
356.3267	-15380.9217	-1885.1480	0.0000 0.0000
8862.2104	7246.9649	330.6028	-1615.2455 7321.5036
328.6542	-54.4944	-85.8197	664265.7895 -3.5102

-3.5261

[35651]ENERGY: 9180000	3530.7181	5817.3646	5975.1512
331.2516	-15336.8663	-1854.2915	0.0000 0.0000
8791.0297	7254.3575	327.9475	-1536.6723 7320.8709
328.5516	78.5202	40.1708	664265.7895 -3.5318

-3.5182

[35701]ENERGY: 9190000	3649.3547	5825.0013	5919.0442
356.2751	-15368.3650	-1895.9997	0.0000 0.0000
8769.2457	7254.5563	327.1348	-1514.6894 7322.2628
328.5889	-28.1516	-29.7503	664265.7895 -8.5988

-8.6171

[35740]ENERGY: 9200000	3569.7126	5857.2347	5874.2922
354.9587	-15292.8939	-1878.4924	0.0000 0.0000
8769.0080	7253.8199	327.1260	-1515.1882 7321.5607
328.7331	-141.9184	-76.3154	664265.7895 -5.3796

-5.3691

[35790]ENERGY: 9210000	3575.7598	5871.6431	5982.7768
341.1116	-15492.0941	-1851.2186	0.0000 0.0000
8820.7801	7248.7587	329.0573	-1572.0214 7321.5854
328.7259	215.3618	158.2466	664265.7895 -3.1336

-3.1445

[35826]ENERGY: 9220000	3712.0860	5901.7868	5893.2053
346.2967	-15504.2910	-1859.7942	0.0000 0.0000
8763.8858	7253.1754	326.9349	-1510.7104 7322.2080
328.5654	22.2890	25.6179	664265.7895 -7.4138

-7.4011

[35876]ENERGY: 9230000	3618.8629	5849.4644	5951.7865
341.0377	-15412.6279	-1908.2931	0.0000 0.0000
8811.0826	7251.3131	328.6955	-1559.7695 7323.2046
328.7006	-44.1234	-61.9097	664265.7895 -9.4987

-9.5111

[35912]ENERGY: 9240000	3548.8697	5821.7856	5938.3215
372.8291	-15401.0314	-1837.7224	0.0000 0.0000
8808.3176	7251.3698	328.5924	-1556.9478 7323.4626

Supplementary Text 6

328.8285	-106.5804	-17.1837	664265.7895	-3.1191
-3.1158				
[35962]ENERGY: 9250000	3552.7606	5911.2909	5902.0080	
335.1632	-15434.9495	-1827.9989	0.0000	0.0000
8816.7815	7255.0559	328.9081	-1561.7257	7322.1923
328.9074	30.7872	39.6565	664265.7895	-3.8596
-3.8428				
[35998]ENERGY: 9260000	3652.7773	5895.9347	5849.9361	
324.6543	-15515.3445	-1809.2372	0.0000	0.0000
8851.9078	7250.6285	330.2185	-1601.2793	7323.3633
328.8463	-74.6257	-146.3610	664265.7895	-3.8375
-3.8466				
[36048]ENERGY: 9270000	3578.1664	5840.1809	5874.7229	
362.2523	-15347.4735	-1908.9614	0.0000	0.0000
8851.8449	7250.7325	330.2162	-1601.1124	7323.3579
328.8270	126.0062	18.2363	664265.7895	1.0329
1.0196				
[36084]ENERGY: 9280000	3645.0594	5652.7338	5925.5128	
352.1140	-15362.6672	-1864.4186	0.0000	0.0000
8900.4918	7248.8262	332.0309	-1651.6656	7322.1461
328.7812	-12.6398	23.3289	664265.7895	1.3998
1.4056				
[36134]ENERGY: 9290000	3633.8221	5788.1257	5969.8971	
378.6597	-15373.0500	-1913.8582	0.0000	0.0000
8771.0917	7254.6882	327.2037	-1516.4035	7321.7661
328.8640	-63.6861	-25.0462	664265.7895	-2.9679
-2.9682				
[36173]ENERGY: 9300000	3626.3897	5866.2475	5868.5439	
364.0754	-15430.4725	-1840.1441	0.0000	0.0000
8800.5002	7255.1401	328.3008	-1545.3602	7323.5151
328.7334	28.2199	19.2288	664265.7895	-1.6039
-1.6104				
[36223]ENERGY: 9310000	3606.1609	5878.9512	5916.6258	
376.8939	-15410.8007	-1922.6534	0.0000	0.0000
8809.6683	7254.8459	328.6428	-1554.8224	7323.6152
328.9035	-145.7781	-191.0218	664265.7895	-3.0348
-3.0396				
[36259]ENERGY: 9320000	3574.9729	5851.9134	5919.5786	
354.6311	-15424.8370	-1837.4932	0.0000	0.0000
8811.7014	7250.4671	328.7186	-1561.2343	7324.7529
328.7516	82.5789	-75.5073	664265.7895	-8.4391
-8.4361				
[36309]ENERGY: 9330000	3603.0858	5793.4604	5947.2708	
362.1854	-15333.3101	-1867.3068	0.0000	0.0000
8750.1730	7255.5585	326.4233	-1494.6144	7324.2943
328.7842	5.4064	29.5414	664265.7895	1.5344
1.5368				
[36345]ENERGY: 9340000	3553.6857	5910.4552	5931.4801	
369.7200	-15420.8703	-1904.5646	0.0000	0.0000
8817.6129	7257.5190	328.9391	-1560.0939	7325.0943
328.7763	-6.9141	-82.1790	664265.7895	-4.9906
-4.9883				
[36395]ENERGY: 9350000	3632.2043	5879.1860	5880.0429	
355.1428	-15440.0241	-1870.1361	0.0000	0.0000

Supplementary Text 6

8816.2340	7252.6498	328.8877	-1563.5842	7324.8961
328.7166	13.3154	-19.6103	664265.7895	-7.0522
-7.0479				
[36431]ENERGY: 9360000	3586.5100	5804.2915	5973.5264	
351.4555	-15363.8099	-1889.7094	0.0000	0.0000
8794.2830	7256.5472	328.0688	-1537.7358	7324.6842
328.7154	9.1422	-22.6288	664265.7895	-5.5949
-5.6031				
[36481]ENERGY: 9370000	3538.4121	5831.8822	5925.5196	
338.9021	-15370.2998	-1894.8214	0.0000	0.0000
8881.9044	7251.4992	331.3375	-1630.4051	7325.4804
328.8706	63.0528	81.8452	664265.7895	-6.0384
-6.0330				
[36517]ENERGY: 9380000	3665.6338	5850.0590	5907.1915	
356.6778	-15403.9009	-1874.3134	0.0000	0.0000
8756.7390	7258.0867	326.6683	-1498.6522	7326.4537
328.5303	-27.7938	14.2555	664265.7895	-4.7087
-4.7051				
[36567]ENERGY: 9390000	3579.2754	5777.7801	5877.7783	
351.9148	-15384.6347	-1764.8139	0.0000	0.0000
8817.6930	7254.9931	328.9421	-1562.6999	7325.8120
328.2976	46.6703	40.3477	664265.7895	-12.9571
-12.9687				
[36606]ENERGY: 9400000	3601.9625	5802.5664	5926.0824	
354.3377	-15409.2534	-1876.6016	0.0000	0.0000
8855.3180	7254.4119	330.3457	-1600.9061	7327.5038
328.3144	39.3385	31.5500	664265.7895	-7.8780
-7.8548				
[36656]ENERGY: 9410000	3570.8318	5828.9761	5934.6290	
365.7119	-15360.0905	-1862.7140	0.0000	0.0000
8779.8007	7257.1450	327.5286	-1522.6557	7326.8501
328.5225	96.9602	40.0015	664265.7895	-7.2793
-7.2841				
[36692]ENERGY: 9420000	3608.5706	5756.0118	5911.1689	
354.5546	-15399.4149	-1842.6935	0.0000	0.0000
8866.5776	7254.7752	330.7658	-1611.8024	7326.4994
328.4507	-2.1210	42.9119	664265.7895	-10.1937
-10.1882				
[36742]ENERGY: 9430000	3557.4944	5863.5185	5874.6967	
363.5329	-15404.1830	-1843.8172	0.0000	0.0000
8847.9898	7259.2322	330.0724	-1588.7576	7327.5072
328.5160	-11.4856	11.9141	664265.7895	-9.9626
-9.9820				
[36778]ENERGY: 9440000	3637.7014	5803.8874	5948.2655	
376.2664	-15367.0700	-1888.9485	0.0000	0.0000
8747.8134	7257.9156	326.3353	-1489.8978	7325.1021
328.6781	-15.4315	9.5660	664265.7895	-10.8800
-10.8701				
[36828]ENERGY: 9450000	3674.2163	5792.8207	5912.8806	
375.8607	-15457.7536	-1828.5115	0.0000	0.0000
8785.4473	7254.9605	327.7392	-1530.4868	7324.3839
328.6950	29.1904	63.9595	664265.7895	-6.9003
-6.9031				
[36864]ENERGY: 9460000	3605.6802	5801.5986	5937.9741	

Supplementary Text 6

360.3929	-15414.2696	-1860.0778	0.0000	0.0000
8822.7511	7254.0494	329.1308	-1568.7017	7327.6482
328.8531	104.6778	-20.8571	664265.7895	-2.4980
-2.5079				
[36914]ENERGY: 9470000	3604.9868	5826.3743	5890.4119	
358.2880	-15383.9715	-1828.4467	0.0000	0.0000
8791.6932	7259.3360	327.9722	-1532.3572	7328.6014
328.9409	145.1218	77.1097	664265.7895	-0.6934
-0.6937				
[36950]ENERGY: 9480000	3564.2462	5735.4486	5908.4541	
347.8429	-15367.1555	-1841.6443	0.0000	0.0000
8908.9039	7256.0960	332.3447	-1652.8079	7330.5428
329.0417	82.3686	10.1899	664265.7895	-8.1131
-8.1003				
[37000]ENERGY: 9490000	3559.7375	5814.9578	5842.1365	
354.8899	-15349.6256	-1854.4630	0.0000	0.0000
8891.1147	7258.7479	331.6811	-1632.3669	7330.9347
329.1730	187.8715	97.2003	664265.7895	-1.4466
-1.4610				
[37039]ENERGY: 9500000	3581.8575	5952.3288	5868.1255	
345.3314	-15411.3316	-1885.4597	0.0000	0.0000
8810.5440	7261.3958	328.6754	-1549.1482	7332.1215
329.1574	-158.1871	-153.1440	664265.7895	-7.2325
-7.2150				
[37089]ENERGY: 9510000	3617.5893	5806.8168	5902.4752	
357.4259	-15359.7249	-1931.2228	0.0000	0.0000
8865.2248	7258.5843	330.7153	-1606.6406	7332.6597
329.0745	-186.7239	-78.7561	664265.7895	-5.7062
-5.7155				
[37125]ENERGY: 9520000	3610.9783	5965.0299	5844.3326	
356.7948	-15342.7202	-1935.8523	0.0000	0.0000
8762.2267	7260.7898	326.8730	-1501.4369	7333.0349
329.0459	-52.2486	-10.2968	664265.7895	-8.5659
-8.5676				
[37175]ENERGY: 9530000	3676.6114	5784.2832	5889.9422	
343.7850	-15390.8581	-1809.0298	0.0000	0.0000
8767.0010	7261.7349	327.0511	-1505.2660	7332.6903
329.0079	8.7999	4.0164	664265.7895	-5.8450
-5.8332				
[37211]ENERGY: 9540000	3634.4815	5837.6715	5887.7588	
361.5861	-15269.0091	-1915.6028	0.0000	0.0000
8725.9549	7262.8409	325.5199	-1463.1140	7334.4045
329.0638	-28.2204	-50.4313	664265.7895	-1.0341
-1.0553				
[37261]ENERGY: 9550000	3637.8525	5828.8135	5833.8006	
363.5637	-15367.2498	-1862.5662	0.0000	0.0000
8828.5548	7262.7691	329.3473	-1565.7857	7332.9165
329.0840	3.8620	61.3373	664265.7895	-5.9467
-5.9357				
[37297]ENERGY: 9560000	3685.2969	5822.2519	5913.6985	
374.1112	-15382.6654	-1917.5126	0.0000	0.0000
8769.2886	7264.4690	327.1364	-1504.8195	7333.7414
329.1626	26.7331	-30.1731	664265.7895	-8.1170
-8.1178				

Supplementary Text 6

[37347]ENERGY: 9570000	3559.8824	5816.7276	5941.8113	
371.1256	-15551.3496	-1778.3744	0.0000	0.0000
8899.2397	7259.0626	331.9842	-1640.1771	7332.9509
329.3096	243.8684	179.8359	664265.7895	-2.4109
-2.4114				
[37383]ENERGY: 9580000	3651.9365	5763.4311	5955.0745	
356.3848	-15398.8996	-1866.9398	0.0000	0.0000
8802.3842	7263.3716	328.3710	-1539.0125	7332.3674
329.2401	-114.2873	-95.6796	664265.7895	-4.9853
-4.9801				
[37433]ENERGY: 9590000	3631.5657	5788.1204	5867.8264	
359.8016	-15274.1408	-1925.0508	0.0000	0.0000
8813.3908	7261.5133	328.7816	-1551.8775	7333.3002
329.0290	-190.3902	-166.4408	664265.7895	-2.3348
-2.3480				
[37472]ENERGY: 9600000	3604.1363	5860.3056	5890.7476	
351.6522	-15401.0605	-1865.8232	0.0000	0.0000
8818.9547	7258.9128	328.9892	-1560.0420	7331.2280
329.1356	-151.3534	-93.2326	664265.7895	-4.4866
-4.4643				
[37522]ENERGY: 9610000	3696.7730	5777.6505	5974.3976	
355.9348	-15353.6384	-1907.9660	0.0000	0.0000
8722.0113	7265.1629	325.3728	-1456.8484	7331.6600
329.1846	-155.5403	-109.0970	664265.7895	-5.0079
-5.0112				
[37558]ENERGY: 9620000	3619.9980	5839.8869	5947.5653	
366.4103	-15328.1812	-1907.2151	0.0000	0.0000
8724.7238	7263.1880	325.4739	-1461.5358	7332.9981
328.8616	-93.8370	-103.0886	664265.7895	-6.3370
-6.3301				
[37608]ENERGY: 9630000	3578.5816	5762.7383	5920.6882	
344.1101	-15273.4310	-1890.2972	0.0000	0.0000
8820.0735	7262.4634	329.0309	-1557.6100	7333.8390
328.7762	3.4496	-1.3485	664265.7895	-10.1624
-10.1861				
[37644]ENERGY: 9640000	3598.6426	5803.0986	5835.8679	
360.4553	-15293.1428	-1843.9088	0.0000	0.0000
8803.5290	7264.5418	328.4138	-1538.9872	7333.8527
328.9728	92.7898	129.0240	664265.7895	-12.4083
-12.3982				
[37694]ENERGY: 9650000	3591.7876	5835.6037	5895.3865	
359.0487	-15364.3977	-1873.1910	0.0000	0.0000
8822.2396	7266.4772	329.1117	-1555.7624	7337.0261
328.9347	33.3733	-71.1554	664265.7895	-12.1471
-12.1542				
[37730]ENERGY: 9660000	3667.2033	5848.9430	5858.7471	
375.6912	-15363.7537	-1878.1760	0.0000	0.0000
8757.0373	7265.6922	326.6794	-1491.3451	7336.9944
329.0471	-116.5049	-129.9311	664265.7895	-6.7620
-6.7477				
[37780]ENERGY: 9670000	3561.9889	5789.0593	5910.4352	
380.6795	-15324.9324	-1853.0830	0.0000	0.0000
8802.4689	7266.6164	328.3742	-1535.8525	7335.8508
329.0874	-101.0260	-93.2143	664265.7895	-9.0137

Supplementary Text 6

-9.0200
 [37816]ENERGY: 9680000 3548.8366 5794.3437 5891.3062
 393.2347 -15343.7011 -1849.2562 0.0000 0.0000
 8828.8270 7263.5910 329.3575 -1565.2360 7335.8630
 329.0378 117.8611 125.3118 664265.7895 -7.8551
 -7.8632
 [37866]ENERGY: 9690000 3557.8811 5878.9018 5884.9199
 366.6619 -15299.3551 -1934.9350 0.0000 0.0000
 8814.1837 7268.2582 328.8112 -1545.9255 7337.4257
 329.1046 84.5128 -30.2647 664265.7895 -8.4323
 -8.4479
 [37905]ENERGY: 9700000 3588.8177 5836.4643 5867.2850
 337.1590 -15400.3902 -1817.7575 0.0000 0.0000
 8853.4134 7264.9916 330.2747 -1588.4218 7336.7864
 328.9658 -107.3020 -123.3977 664265.7895 -8.7044
 -8.6750
 [37955]ENERGY: 9710000 3644.6272 5824.3207 5856.8245
 339.5961 -15371.1268 -1846.8202 0.0000 0.0000
 8819.3855 7266.8069 329.0053 -1552.5786 7338.1975
 328.9359 26.7696 -88.0743 664265.7895 -4.6068
 -4.6194
 [37991]ENERGY: 9720000 3636.4319 5828.0107 5868.4841
 357.1121 -15432.4358 -1915.2687 0.0000 0.0000
 8922.4935 7264.8277 332.8517 -1657.6657 7339.9855
 329.0787 -27.2019 -83.7825 664265.7895 -6.5809
 -6.6014
 [38041]ENERGY: 9730000 3626.3627 5894.6984 5887.4351
 358.7349 -15374.6264 -1914.2952 0.0000 0.0000
 8793.4605 7271.7700 328.0381 -1521.6905 7342.1372
 329.1885 -161.7784 -138.9589 664265.7895 -4.4392
 -4.4191
 [38077]ENERGY: 9740000 3640.7994 5833.0565 5891.0207
 348.9404 -15370.7171 -1897.1683 0.0000 0.0000
 8822.9342 7268.8658 329.1377 -1554.0684 7341.0462
 329.2166 4.8393 -101.1728 664265.7895 -4.7486
 -4.7534
 [38127]ENERGY: 9750000 3729.7048 5746.7516 5867.7244
 341.9675 -15308.9177 -1943.2385 0.0000 0.0000
 8838.8678 7272.8600 329.7321 -1566.0079 7340.9823
 329.1861 -134.5732 -97.2265 664265.7895 -8.2367
 -8.2373
 [38163]ENERGY: 9760000 3543.8147 5927.2356 5881.3943
 355.2232 -15338.0544 -1829.2392 0.0000 0.0000
 8729.2578 7269.6320 325.6431 -1459.6258 7340.3059
 329.1925 -30.9331 -5.4186 664265.7895 -8.0883
 -8.0896
 [38213]ENERGY: 9770000 3594.3833 5814.9657 5988.5244
 361.6307 -15415.6381 -1839.2483 0.0000 0.0000
 8763.9328 7268.5505 326.9366 -1495.3823 7342.2915
 329.2260 38.0050 -7.4103 664265.7895 -5.2483
 -5.2292
 [38249]ENERGY: 9780000 3664.7723 5849.7612 5906.7833
 353.3825 -15433.9612 -1872.8203 0.0000 0.0000
 8804.4097 7272.3276 328.4466 -1532.0821 7341.8059

Supplementary Text 6

329.2884	-206.3797	-209.5218	664265.7895	-11.0453
-11.0685				
[38299]ENERGY: 9790000	3589.8180	5799.8113	5952.1610	
357.7111	-15496.1334	-1795.2816	0.0000	0.0000
8862.9698	7271.0562	330.6312	-1591.9136	7342.5004
329.2503	-25.0952	74.0238	664265.7895	-10.7591
-10.7338				
[38338]ENERGY: 9800000	3700.5499	5786.1129	5887.8801	
350.8623	-15398.7999	-1827.5633	0.0000	0.0000
8774.5365	7273.5786	327.3322	-1500.9579	7344.5411
329.2779	238.2948	176.1927	664265.7895	-9.2247
-9.2520				
[38388]ENERGY: 9810000	3644.1149	5819.4357	5910.7936	
351.5391	-15393.0453	-1897.9122	0.0000	0.0000
8836.7552	7271.6810	329.6532	-1565.0742	7345.0070
329.3062	124.9722	-64.9169	664265.7895	-9.4774
-9.4560				
[38424]ENERGY: 9820000	3620.5836	5882.4914	5933.3428	
342.8078	-15403.5088	-1885.8149	0.0000	0.0000
8787.4745	7277.3765	327.8148	-1510.0980	7343.9982
329.3687	4.1422	38.8777	664265.7895	-11.2716
-11.2655				
[38474]ENERGY: 9830000	3614.3299	5804.8165	5867.7273	
376.4951	-15265.9064	-1877.9399	0.0000	0.0000
8756.0321	7275.5545	326.6419	-1480.4776	7344.2566
328.9845	58.6420	-25.5632	664265.7895	-8.8606
-8.8653				
[38510]ENERGY: 9840000	3539.4261	5867.3199	5875.0287	
340.7472	-15347.4123	-1867.6320	0.0000	0.0000
8862.1180	7269.5955	330.5994	-1592.5225	7342.9072
328.9924	-2.2600	-71.1493	664265.7895	-3.9827
-3.9897				
[38560]ENERGY: 9850000	3613.7864	5926.1560	5851.9413	
385.1458	-15471.9372	-1801.7311	0.0000	0.0000
8771.0383	7274.3995	327.2017	-1496.6388	7344.7046
328.9366	82.1040	10.3688	664265.7895	-3.3010
-3.2903				
[38596]ENERGY: 9860000	3632.0199	5816.5133	5884.9413	
362.1773	-15282.0810	-1930.2008	0.0000	0.0000
8791.2825	7274.6526	327.9569	-1516.6299	7345.7397
329.1548	-142.9052	-97.0231	664265.7895	-6.4306
-6.4467				
[38646]ENERGY: 9870000	3607.1770	5850.5639	5943.9968	
358.9517	-15413.2045	-1906.9002	0.0000	0.0000
8834.0385	7274.6232	329.5519	-1559.4153	7344.9744
329.0214	144.5026	90.2652	664265.7895	-7.2462
-7.2342				
[38682]ENERGY: 9880000	3639.7495	5823.2347	5925.5101	
373.2806	-15377.3632	-1889.5225	0.0000	0.0000
8778.4449	7273.3341	327.4780	-1505.1108	7344.5816
329.0182	-105.0440	-171.2152	664265.7895	-6.0805
-6.0701				
[38732]ENERGY: 9890000	3610.8728	5831.1813	6003.0117	
366.0623	-15424.7752	-1896.4219	0.0000	0.0000

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8782.9307	7272.8617	327.6453	-1510.0690	7344.7658
329.0030	88.9251	42.7236	664265.7895	-2.0010
-2.0153				
[38771]ENERGY: 9900000	3681.2392	5902.9066	5885.6319	
355.5067	-15404.5295	-1939.9810	0.0000	0.0000
8792.6938	7273.4677	328.0095	-1519.2261	7344.4596
329.0784	-27.3408	-2.3009	664265.7895	-1.8351
-1.8353				
[38821]ENERGY: 9910000	3617.5658	5890.7469	5884.1045	
337.8555	-15454.3130	-1831.1170	0.0000	0.0000
8826.0897	7270.9324	329.2554	-1555.1574	7346.2154
329.0965	-35.5927	-90.6758	664265.7895	-6.6559
-6.6589				
[38857]ENERGY: 9920000	3596.3797	5810.4229	5879.7318	
364.8810	-15361.1391	-1892.6629	0.0000	0.0000
8876.3389	7273.9524	331.1299	-1602.3865	7345.1009
329.0832	-29.9141	-53.9405	664265.7895	-3.5354
-3.5350				
[38907]ENERGY: 9930000	3663.0686	5790.4429	5898.7664	
369.1321	-15399.7949	-1836.3316	0.0000	0.0000
8786.6892	7271.9728	327.7855	-1514.7165	7345.2612
329.1937	-50.1233	-118.3582	664265.7895	-0.8580
-0.8612				
[38943]ENERGY: 9940000	3642.8695	5811.7795	5920.8015	
368.1680	-15480.5101	-1895.6645	0.0000	0.0000
8898.3041	7265.7481	331.9493	-1632.5560	7344.8793
329.1394	-189.2682	-111.1777	664265.7895	-5.4206
-5.4151				
[38993]ENERGY: 9950000	3617.0011	5852.7546	5903.9836	
375.3761	-15400.3760	-1860.3606	0.0000	0.0000
8785.4315	7273.8103	327.7386	-1511.6212	7344.1630
329.2113	51.7182	17.5269	664265.7895	-6.6650
-6.6813				
[39029]ENERGY: 9960000	3654.1351	5834.1038	5927.1562	
354.8104	-15489.9821	-1803.1279	0.0000	0.0000
8795.9728	7273.0682	328.1319	-1522.9046	7344.5764
329.2656	135.9224	69.1002	664265.7895	-4.1060
-4.1040				
[39079]ENERGY: 9970000	3615.8092	5809.6055	5896.3141	
357.2878	-15431.7220	-1839.7023	0.0000	0.0000
8867.7665	7275.3589	330.8101	-1592.4077	7346.6329
329.1407	-37.9628	-82.4864	664265.7895	-4.1056
-4.1039				
[39115]ENERGY: 9980000	3599.4796	5929.3339	5854.3859	
353.2427	-15497.9397	-1838.6026	0.0000	0.0000
8875.4145	7275.3143	331.0954	-1600.1002	7347.9212
328.9660	133.8679	42.7181	664265.7895	-2.6738
-2.6520				
[39165]ENERGY: 9990000	3667.2067	5926.5284	5920.2857	
392.7777	-15486.3535	-1854.9725	0.0000	0.0000
8712.5738	7278.0464	325.0207	-1434.5274	7346.8803
329.1598	30.6852	-35.0391	664265.7895	1.6553
1.6533				
[39204]ENERGY: 10000000	3636.6527	5991.4960	5869.2314	

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363.4262	-15435.8825	-1845.5639	0.0000	0.0000
8698.6882	7278.0480	324.5027	-1420.6402	7347.4669
329.1957	176.1773	123.7576	664265.7895	1.6311
1.6337				
[39254]ENERGY: 10010000	3618.9040	5914.8687	5917.4605	
389.5232	-15478.3792	-1870.5762	0.0000	0.0000
8782.8598	7274.6608	327.6427	-1508.1990	7347.4488
328.9374	18.5427	21.0555	664265.7895	1.8047
1.7912				
[39290]ENERGY: 10020000	3545.6245	5811.9756	5901.9987	
365.0308	-15386.9303	-1862.3394	0.0000	0.0000
8898.2851	7273.6449	331.9486	-1624.6402	7347.7194
328.9717	74.4384	46.0695	664265.7895	0.6251
0.6207				
[39340]ENERGY: 10030000	3525.9154	5860.7384	5925.7225	
370.8158	-15399.9697	-1832.0565	0.0000	0.0000
8823.5821	7274.7481	329.1618	-1548.8340	7348.0992
328.9098	98.2582	19.5044	664265.7895	-2.4992
-2.4835				
[39376]ENERGY: 10040000	3538.6734	5838.3685	5894.9368	
364.5077	-15341.2212	-1866.2587	0.0000	0.0000
8846.6351	7275.6416	330.0218	-1570.9935	7348.8059
329.2371	42.3046	88.4258	664265.7895	-0.1457
-0.1608				
[39426]ENERGY: 10050000	3577.4257	5873.7794	5909.8397	
365.2668	-15344.5434	-1880.9737	0.0000	0.0000
8777.7149	7278.5093	327.4508	-1499.2056	7348.7788
329.0228	-72.7544	-63.9317	664265.7895	-4.1385
-4.1211				
[39462]ENERGY: 10060000	3650.2485	5919.2136	5884.2941	
378.9419	-15333.0235	-1966.9442	0.0000	0.0000
8747.8072	7280.5377	326.3351	-1467.2696	7349.1484
328.8587	-132.9913	-121.4092	664265.7895	-5.8102
-5.8178				
[39512]ENERGY: 10070000	3629.5102	5820.5027	5863.9026	
392.1130	-15420.1009	-1816.9130	0.0000	0.0000
8808.4734	7277.4880	328.5982	-1530.9854	7348.7823
329.1651	48.7999	0.3525	664265.7895	-4.3339
-4.3353				
[39548]ENERGY: 10080000	3562.7603	5780.3557	5963.1478	
388.4581	-15441.1217	-1811.3843	0.0000	0.0000
8834.3184	7276.5342	329.5623	-1557.7842	7349.6776
329.0060	122.8408	72.7029	664265.7895	-7.3626
-7.3727				
[39598]ENERGY: 10090000	3603.9344	5854.1016	5930.7232	
356.2032	-15435.9500	-1808.9393	0.0000	0.0000
8776.9043	7276.9773	327.4205	-1499.9269	7349.0516
329.0482	-98.0100	-138.9246	664265.7895	-4.9405
-4.9301				
[39637]ENERGY: 10100000	3629.2717	5895.8270	5943.7285	
361.0588	-15373.3354	-1917.4407	0.0000	0.0000
8741.1026	7280.2127	326.0849	-1460.8899	7349.7210
329.2813	-110.5585	-172.6302	664265.7895	-8.9686
-8.9895				

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[39687]ENERGY: 10110000	3607.4132	5836.5762	5891.8785
372.4896	-15388.0025	-1807.0408	0.0000
8764.2942	7277.6084	326.9501	-1486.6858
329.1922	68.4373	53.6838	664265.7895
-11.4979			-11.5351
[39723]ENERGY: 10120000	3631.3975	5792.7681	5891.4794
368.2154	-15412.1944	-1816.0344	0.0000
8825.8494	7281.4809	329.2464	-1544.3685
329.2362	-36.7834	-9.8734	664265.7895
-10.6071			-10.5748
[39773]ENERGY: 10130000	3608.9343	5818.2840	5983.2639
334.8646	-15455.0624	-1839.2079	0.0000
8827.9508	7279.0273	329.3248	-1548.9235
329.2935	18.4590	-91.8198	664265.7895
-7.3067			-7.3354
[39809]ENERGY: 10140000	3605.1649	5832.7418	5867.3737
350.7670	-15380.1778	-1870.0089	0.0000
8874.5277	7280.3885	331.0623	-1594.1392
329.0710	102.6022	44.1055	664265.7895
-12.3316			-12.3205
[39859]ENERGY: 10150000	3608.8595	5832.8787	5922.1392
360.5365	-15354.2551	-1884.7576	0.0000
8800.5289	7285.9300	328.3018	-1514.5989
329.2134	-88.4740	-75.8628	664265.7895
-8.4507			-8.4595
[39895]ENERGY: 10160000	3625.9788	5845.5838	5956.4537
381.4394	-15486.7407	-1828.5731	0.0000
8787.6567	7281.7986	327.8216	-1505.8581
328.8521	-2.1755	-43.6327	664265.7895
-11.5697			-11.5499
[39945]ENERGY: 10170000	3671.4528	5788.5048	5881.7697
365.6399	-15348.9693	-1902.0567	0.0000
8825.4871	7281.8284	329.2329	-1543.6586
328.9584	67.1278	-32.9899	664265.7895
-6.7696			-6.7817
[39981]ENERGY: 10180000	3658.1208	5769.4566	5920.3145
353.6723	-15504.7248	-1790.3447	0.0000
8873.9365	7280.4312	331.0403	-1593.5053
328.9413	-19.0902	-69.6759	664265.7895
-9.1942			-9.1819
[40031]ENERGY: 10190000	3594.4066	5827.4199	5921.6789
369.1893	-15351.7852	-1865.2222	0.0000
8785.1613	7280.8486	327.7286	-1504.3128
329.0613	-78.2681	-68.8032	664265.7895
-3.8313			-3.8567
[40070]ENERGY: 10200000	3558.2946	5942.3062	5935.3855
335.4420	-15443.6605	-1861.6758	0.0000
8816.9383	7283.0303	328.9140	-1533.9080
329.1931	-45.2572	-95.2231	664265.7895
-6.4284			-6.4076
[40120]ENERGY: 10210000	3657.5452	5795.6874	5984.8559
362.2559	-15403.6152	-1920.9423	0.0000
8810.6858	7286.4726	328.6807	-1524.2132
329.0320	12.4086	-171.7866	664265.7895
			-8.0024

Supplementary Text 6

-8.0026
 [40156]ENERGY: 10220000 3612.2151 5890.1082 5915.8520
 389.6435 -15451.2395 -1871.1157 0.0000 0.0000
 8798.8109 7284.2747 328.2377 -1514.5362 7356.2880
 329.3711 -24.5543 -33.1780 664265.7895 -6.2659
 -6.2617
 [40206]ENERGY: 10230000 3592.5714 5882.3104 5956.4701
 350.5992 -15527.0932 -1818.2692 0.0000 0.0000
 8846.5055 7283.0941 330.0170 -1563.4113 7355.3374
 329.4206 145.0382 80.9443 664265.7895 -7.1280
 -7.1364
 [40242]ENERGY: 10240000 3582.3093 5931.3677 5889.4088
 353.0816 -15514.2183 -1793.5335 0.0000 0.0000
 8831.4853 7279.9011 329.4567 -1551.5842 7354.7506
 329.1505 169.8826 156.1163 664265.7895 -3.4851
 -3.4881
 [40292]ENERGY: 10250000 3551.3465 5837.5840 5949.8343
 380.2112 -15311.7551 -2018.9222 0.0000 0.0000
 8895.6345 7283.9332 331.8497 -1611.7013 7355.7493
 329.4476 -147.0395 -217.6751 664265.7895 -5.2323
 -5.2148
 [40328]ENERGY: 10260000 3599.0012 5901.9481 5886.7725
 347.5125 -15372.6926 -1887.5649 0.0000 0.0000
 8810.4465 7285.4231 328.6718 -1525.0233 7357.0610
 329.3781 193.5918 94.2024 664265.7895 -6.0118
 -6.0193
 [40378]ENERGY: 10270000 3569.3694 5851.6341 5901.0107
 394.2537 -15349.2469 -1908.1155 0.0000 0.0000
 8827.3606 7286.2661 329.3028 -1541.0945 7356.8069
 329.1205 -27.2542 -14.1011 664265.7895 -8.4029
 -8.4012
 [40414]ENERGY: 10280000 3629.0840 5840.4226 5910.0366
 365.5570 -15419.2773 -1816.4297 0.0000 0.0000
 8772.1968 7281.5900 327.2449 -1490.6068 7355.8982
 329.1196 -53.8604 55.5400 664265.7895 -5.8045
 -5.8001
 [40464]ENERGY: 10290000 3599.6236 5834.2458 5856.1343
 345.7384 -15320.3370 -1889.2652 0.0000 0.0000
 8860.9501 7287.0899 330.5558 -1573.8601 7358.0199
 329.0433 40.9827 69.8706 664265.7895 -7.8731
 -7.8812
 [40503]ENERGY: 10300000 3619.4718 5920.6257 5899.1462
 347.9103 -15348.6273 -1919.8318 0.0000 0.0000
 8769.7431 7288.4380 327.1534 -1481.3051 7357.4997
 329.2177 125.8191 67.0594 664265.7895 -7.6581
 -7.6494
 [40553]ENERGY: 10310000 3584.5138 5845.1097 5877.2839
 351.3098 -15430.1886 -1829.3934 0.0000 0.0000
 8888.4367 7287.0720 331.5812 -1601.3648 7357.0530
 329.2231 -44.6087 -40.5489 664265.7895 -4.4224
 -4.4202
 [40589]ENERGY: 10320000 3571.6126 5753.8341 5920.2391
 365.7954 -15347.5235 -1857.9640 0.0000 0.0000
 8879.9141 7285.9078 331.2633 -1594.0063 7356.8684

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329.2480	-1.9837	-29.5516	664265.7895	-1.7120
-1.7137				
[40639]ENERGY: 10330000	3532.8123	5874.7159	5917.9402	
352.4265	-15432.5565	-1855.8271	0.0000	0.0000
8896.5781	7286.0893	331.8849	-1610.4888	7358.5536
329.2694	17.5375	39.0880	664265.7895	-0.6943
-0.7095				
[40675]ENERGY: 10340000	3506.9369	5822.2236	5913.3743	
349.9176	-15305.1001	-1865.7559	0.0000	0.0000
8864.8341	7286.4304	330.7007	-1578.4037	7358.2261
329.1235	39.6727	-7.5423	664265.7895	-13.8117
-13.8094				
[40725]ENERGY: 10350000	3588.1418	5847.8223	5954.1533	
364.7747	-15434.4898	-1851.4333	0.0000	0.0000
8821.4480	7290.4170	329.0822	-1531.0310	7360.2255
329.2271	78.5141	23.0395	664265.7895	-6.2894
-6.2739				
[40761]ENERGY: 10360000	3613.9866	5888.2150	5895.5703	
360.2456	-15419.8493	-1860.6787	0.0000	0.0000
8813.9804	7291.4700	328.8036	-1522.5105	7359.4164
329.0921	-108.2218	-122.6184	664265.7895	-5.2924
-5.2961				
[40811]ENERGY: 10370000	3675.7392	5837.0123	5922.3667	
350.9420	-15408.9751	-1910.6014	0.0000	0.0000
8823.0250	7289.5086	329.1410	-1533.5164	7359.7333
329.0653	-119.8345	-202.9010	664265.7895	-2.2506
-2.2558				
[40847]ENERGY: 10380000	3582.5387	5852.1119	5913.6638	
372.0473	-15339.0604	-1898.8230	0.0000	0.0000
8809.0254	7291.5038	328.6188	-1517.5217	7359.6824
329.3029	27.7481	62.9595	664265.7895	-4.1771
-4.1719				
[40897]ENERGY: 10390000	3514.3075	5939.2032	5867.5309	
352.2444	-15269.1793	-1948.8038	0.0000	0.0000
8830.5717	7285.8745	329.4226	-1544.6972	7358.9140
329.3733	-109.8117	-41.4587	664265.7895	-6.0869
-6.0846				
[40936]ENERGY: 10400000	3581.2307	5790.6833	5978.0370	
352.4147	-15456.6471	-1844.8511	0.0000	0.0000
8886.0114	7286.8789	331.4907	-1599.1325	7357.6625
329.3850	97.3475	68.7742	664265.7895	-2.0609
-2.0704				
[40986]ENERGY: 10410000	3644.4379	5877.2148	5867.0102	
354.0043	-15441.7948	-1861.1292	0.0000	0.0000
8844.0184	7283.7616	329.9242	-1560.2568	7358.2080
329.5214	182.5928	48.0789	664265.7895	-5.2841
-5.2676				
[41022]ENERGY: 10420000	3680.5549	5842.3082	5945.9680	
367.5147	-15436.1459	-1875.2743	0.0000	0.0000
8764.9691	7289.8946	326.9753	-1475.0745	7359.1208
329.6472	-175.6676	-144.8780	664265.7895	-0.6652
-0.6753				
[41072]ENERGY: 10430000	3680.2660	5858.5761	5897.4738	
360.1179	-15424.1357	-1884.0145	0.0000	0.0000

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8800.2803	7288.5640	328.2926	-1511.7163	7360.3649
329.4009	2.2635	-84.1045	664265.7895	-6.2303
-6.2440				
[41108]ENERGY: 10440000	3523.6241	5890.7464	5940.5850	
346.6638	-15321.0914	-1945.1081	0.0000	0.0000
8852.3022	7287.7220	330.2332	-1564.5802	7360.5605
329.6311	54.9962	-5.4061	664265.7895	-2.1626
-2.1520				
[41158]ENERGY: 10450000	3660.4480	5954.4618	5833.6366	
362.7875	-15416.0766	-1863.0610	0.0000	0.0000
8759.8235	7292.0197	326.7833	-1467.8038	7359.5548
329.5084	-30.3172	-55.3011	664265.7895	-2.1086
-2.0982				
[41194]ENERGY: 10460000	3644.1553	5776.2819	5924.3520	
359.5179	-15399.9270	-1860.3505	0.0000	0.0000
8845.8662	7289.8957	329.9931	-1555.9704	7361.4557
329.5578	-88.8842	-139.2301	664265.7895	-2.7133
-2.7183				
[41244]ENERGY: 10470000	3541.0021	5844.5586	5876.7215	
356.1163	-15361.2839	-1887.2800	0.0000	0.0000
8920.3339	7290.1683	332.7711	-1630.1656	7362.0709
329.6960	-46.2388	-76.4312	664265.7895	-4.7925
-4.7923				
[41280]ENERGY: 10480000	3642.9915	5865.3485	5867.6753	
353.0509	-15295.1067	-1913.7727	0.0000	0.0000
8770.4623	7290.6492	327.1802	-1479.8131	7363.0097
329.6477	13.2987	-59.2738	664265.7895	-6.2734
-6.2833				
[41330]ENERGY: 10490000	3582.5295	5771.4730	5932.7172	
352.3486	-15305.0009	-1852.0138	0.0000	0.0000
8811.0679	7293.1215	328.6950	-1517.9464	7362.0918
329.6865	71.6319	84.3017	664265.7895	-6.8996
-6.9034				
[41369]ENERGY: 10500000	3545.9934	5790.2484	5933.0173	
366.1748	-15385.4184	-1799.5047	0.0000	0.0000
8843.8848	7294.3956	329.9192	-1549.4892	7363.1949
329.4572	0.8138	66.8101	664265.7895	-7.9676
-7.9531				
[41419]ENERGY: 10510000	3623.6417	5790.8821	5949.3212	
347.4375	-15426.0247	-1796.9410	0.0000	0.0000
8807.2353	7295.5521	328.5520	-1511.6832	7365.5831
329.3397	185.4142	99.9283	664265.7895	-12.3187
-12.3376				
[41455]ENERGY: 10520000	3602.2885	5771.2590	5941.4603	
351.8183	-15428.3810	-1885.6137	0.0000	0.0000
8937.1292	7289.9606	333.3977	-1647.1686	7364.0770
329.7618	100.0381	50.1485	664265.7895	-8.0437
-8.0132				
[41505]ENERGY: 10530000	3638.1245	5847.3259	5924.0033	
385.1675	-15396.3178	-1879.2227	0.0000	0.0000
8776.2053	7295.2861	327.3944	-1480.9192	7363.5555
329.7396	-31.7052	18.6501	664265.7895	-10.9269
-10.9358				
[41541]ENERGY: 10540000	3679.0831	5810.2999	5891.0637	

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338.3303	-15421.1404	-1821.1539	0.0000	0.0000
8816.5893	7293.0720	328.9010	-1523.5173	7365.8158
329.6293	56.4692	-1.2787	664265.7895	-7.5049
-7.5105				
[41591]ENERGY: 10550000	3546.2750	5910.3231	5924.2552	
355.2305	-15468.1625	-1853.8865	0.0000	0.0000
8876.0622	7290.0970	331.1196	-1585.9652	7364.9038
329.9039	89.5062	64.8675	664265.7895	-5.5762
-5.5741				
[41627]ENERGY: 10560000	3629.3915	5906.2718	5879.2253	
371.3267	-15358.1880	-1865.6468	0.0000	0.0000
8735.6383	7298.0187	325.8811	-1437.6196	7365.9674
329.7412	13.9203	53.2925	664265.7895	-2.5670
-2.5764				
[41677]ENERGY: 10570000	3549.3253	5930.6871	5878.6022	
365.7435	-15426.9597	-1861.1193	0.0000	0.0000
8856.1960	7292.4752	330.3785	-1563.7209	7365.7822
329.6947	69.3850	10.5111	664265.7895	-2.5642
-2.5489				
[41713]ENERGY: 10580000	3574.7874	5840.3701	5898.5128	
360.4747	-15428.4327	-1791.9861	0.0000	0.0000
8840.1931	7293.9192	329.7815	-1546.2739	7365.1173
329.7551	-5.1096	-50.7456	664265.7895	-7.7974
-7.8240				
[41763]ENERGY: 10590000	3679.7425	5751.2658	5864.4163	
397.2983	-15372.1849	-1876.4753	0.0000	0.0000
8850.1938	7294.2565	330.1546	-1555.9373	7366.9635
329.9587	-133.5154	-151.2790	664265.7895	-5.7088
-5.6978				
[41802]ENERGY: 10600000	3585.0063	5884.0670	5915.3863	
362.4521	-15372.8037	-1941.1786	0.0000	0.0000
8863.4275	7296.3568	330.6483	-1567.0707	7367.5729
329.9503	23.2476	-45.5446	664265.7895	-5.0271
-5.0186				
[41852]ENERGY: 10610000	3564.4593	5778.4334	5853.3970	
347.0220	-15388.3291	-1791.4370	0.0000	0.0000
8931.1052	7294.6509	333.1730	-1636.4544	7366.2848
329.8714	-10.8376	-26.6711	664265.7895	-5.4044
-5.4194				
[41888]ENERGY: 10620000	3552.9026	5918.4869	5874.3286	
373.6652	-15494.8407	-1796.9758	0.0000	0.0000
8865.3400	7292.9068	330.7196	-1572.4332	7366.8922
329.9557	160.5301	71.1977	664265.7895	-5.7225
-5.7227				
[41938]ENERGY: 10630000	3584.0573	5926.3113	5883.1374	
333.7166	-15392.0698	-1891.4872	0.0000	0.0000
8852.9324	7296.5980	330.2567	-1556.3345	7367.4889
330.0123	127.1563	37.1711	664265.7895	-10.3565
-10.3581				
[41974]ENERGY: 10640000	3651.5946	5805.0689	5885.4894	
396.5919	-15495.3025	-1846.3287	0.0000	0.0000
8896.8278	7293.9415	331.8942	-1602.8863	7366.7172
330.3240	78.3436	84.5740	664265.7895	-4.1619
-4.1467				

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[42024]ENERGY: 10650000	3563.0146	5876.4029	5907.7833
365.3230	-15408.0583	-1849.1097	0.0000
8839.8030	7295.1587	329.7669	-1544.6443
330.1584	61.7115	8.5186	664265.7895
-5.8710			-5.8645
[42060]ENERGY: 10660000	3580.5449	5815.5542	5916.8000
357.3867	-15399.0665	-1875.2140	0.0000
8900.4400	7296.4453	332.0290	-1603.9947
330.2970	45.8429	64.7726	664265.7895
-5.3876			-5.3798
[42110]ENERGY: 10670000	3638.6289	5899.0030	5889.9602
350.3209	-15521.0543	-1847.5519	0.0000
8885.3244	7294.6313	331.4651	-1590.6931
330.0846	85.8004	16.7516	664265.7895
-2.2825			-2.3144
[42146]ENERGY: 10680000	3681.3935	5890.4481	5917.0820
335.9264	-15512.1783	-1872.1852	0.0000
8855.5395	7296.0260	330.3540	-1559.5135
330.0435	47.5899	-16.4773	664265.7895
-8.1442			-8.1289
[42196]ENERGY: 10690000	3560.6833	5900.6005	5884.1663
363.3609	-15429.2577	-1898.5763	0.0000
8914.8025	7295.7796	332.5648	-1619.0229
329.9877	86.6175	56.6102	664265.7895
-9.0509			-9.0388
[42235]ENERGY: 10700000	3631.8200	5903.0200	5967.0983
348.4864	-15469.1097	-1852.1316	0.0000
8770.4531	7299.6366	327.1799	-1470.8165
330.0015	122.3380	-1.5860	664265.7895
-4.9326			-4.9386
[42285]ENERGY: 10710000	3640.6077	5858.4068	5900.8416
364.1172	-15291.4567	-1945.0639	0.0000
8776.9866	7304.4394	327.4236	-1472.5473
329.7869	-52.2920	-32.4162	664265.7895
-6.2105			-6.2252
[42321]ENERGY: 10720000	3650.5649	5835.4176	5868.5892
378.9794	-15328.3413	-1911.9923	0.0000
8809.6703	7302.8878	328.6429	-1506.7825
330.0487	-27.0676	17.5955	664265.7895
-2.8431			-2.8165
[42371]ENERGY: 10730000	3563.1469	5841.0565	5913.2388
343.9763	-15352.0919	-1856.5620	0.0000
8848.5887	7301.3534	330.0947	-1547.2352
330.0472	85.0039	14.8300	664265.7895
-1.1607			-1.1849
[42407]ENERGY: 10740000	3631.8767	5834.5960	5870.7979
369.5831	-15345.1139	-1840.7432	0.0000
8781.7448	7302.7414	327.6011	-1479.0034
329.9245	27.8737	37.8528	664265.7895
-2.4035			-2.3961
[42457]ENERGY: 10750000	3656.2165	5855.4459	5907.6878
380.5903	-15445.8075	-1879.9092	0.0000
8827.0436	7301.2674	329.2910	-1525.7763
329.8566	-18.6083	-1.9483	664265.7895
			-3.0084

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-2.9982
[42493]ENERGY: 10760000 3649.1331 5739.3211 5972.2563
343.8264 -15290.6458 -1953.5704 0.0000 0.0000
8843.5131 7303.8338 329.9053 -1539.6793 7374.2317
329.8857 44.0078 -67.1840 664265.7895 -2.6408
-2.6481
[42543]ENERGY: 10770000 3656.0392 5818.1420 5879.4908
364.2849 -15386.0411 -1810.9362 0.0000 0.0000
8781.4145 7302.3942 327.5888 -1479.0203 7372.5472
330.0367 48.2456 77.7635 664265.7895 -5.5512
-5.5419
[42579]ENERGY: 10780000 3538.4752 5972.7111 5955.2774
355.0487 -15399.6575 -1902.9257 0.0000 0.0000
8781.4381 7300.3673 327.5897 -1481.0708 7373.8114
330.0295 249.9427 124.1673 664265.7895 -9.5275
-9.5402
[42629]ENERGY: 10790000 3554.9481 5822.3075 5893.7822
360.7167 -15478.2210 -1822.7483 0.0000 0.0000
8969.6108 7300.3960 334.6094 -1669.2148 7372.2455
330.1016 -4.1417 19.9016 664265.7895 -5.4478
-5.4379
[42668]ENERGY: 10800000 3582.0985 5856.9550 5864.1581
368.6556 -15489.2157 -1873.3734 0.0000 0.0000
8992.5188 7301.7970 335.4640 -1690.7218 7373.1273
330.3218 86.4736 33.2869 664265.7895 -4.1093
-4.1368
[42718]ENERGY: 10810000 3620.2996 5880.4036 5944.3645
377.4530 -15401.6550 -1876.2112 0.0000 0.0000
8758.7455 7303.4000 326.7431 -1455.3455 7373.6631
330.2448 112.4160 16.1826 664265.7895 -3.8552
-3.8531
[42754]ENERGY: 10820000 3634.7246 5830.0169 5891.5810
359.5845 -15450.2966 -1815.5190 0.0000 0.0000
8854.5044 7304.5957 330.3154 -1549.9087 7375.1625
330.1550 51.3668 38.3595 664265.7895 -3.3892
-3.3864
[42804]ENERGY: 10830000 3606.0910 5896.2296 5904.3642
327.4462 -15451.2765 -1877.2652 0.0000 0.0000
8895.8772 7301.4666 331.8588 -1594.4106 7375.1164
330.0818 -62.0870 -67.1564 664265.7895 -1.2310
-1.2223
[42840]ENERGY: 10840000 3585.0046 5941.1742 5915.8362
369.6264 -15391.3664 -1880.2783 0.0000 0.0000
8765.8047 7305.8013 327.0065 -1460.0034 7374.8625
329.9608 42.6980 24.9933 664265.7895 -5.3960
-5.3910
[42890]ENERGY: 10850000 3587.5250 5890.7964 5893.2969
369.4292 -15423.2987 -1932.9969 0.0000 0.0000
8919.0100 7303.7619 332.7217 -1615.2481 7375.3000
330.1528 75.3299 67.9942 664265.7895 -3.5079
-3.5237
[42926]ENERGY: 10860000 3639.0561 5869.5493 5839.9868
377.0277 -15287.8590 -1939.1538 0.0000 0.0000
8811.3864 7309.9935 328.7069 -1501.3929 7376.6985

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330.1474	-16.1224	-42.2424	664265.7895	-3.8980
-3.8943				
[42976]ENERGY: 10870000	3576.4028	5808.2701	5891.4981	
350.9067	-15314.2287	-1844.7006	0.0000	0.0000
8839.8490	7307.9973	329.7687	-1531.8517	7376.2894
330.2708	223.0073	145.4542	664265.7895	-2.4765
-2.4669				
[43012]ENERGY: 10880000	3553.4105	5830.7858	5915.4449	
365.4311	-15434.1912	-1901.9812	0.0000	0.0000
8971.9783	7300.8782	334.6977	-1671.1001	7374.8675
330.1098	40.7983	31.9218	664265.7895	-5.9821
-5.9907				
[43062]ENERGY: 10890000	3688.4461	5792.6765	5932.6029	
335.4334	-15410.6120	-1852.4599	0.0000	0.0000
8823.0807	7309.1676	329.1431	-1513.9131	7376.7160
330.2603	-24.2302	-67.0352	664265.7895	-3.4494
-3.4557				
[43101]ENERGY: 10900000	3607.8345	5946.7076	5856.4398	
360.6205	-15449.0710	-1860.6238	0.0000	0.0000
8844.5106	7306.4182	329.9426	-1538.0925	7377.4584
330.4202	27.2053	17.9513	664265.7895	-3.1482
-3.1398				
[43151]ENERGY: 10910000	3473.8628	5940.2580	5924.4023	
379.6134	-15370.7488	-1949.5511	0.0000	0.0000
8907.7505	7305.5872	332.3017	-1602.1633	7378.2427
330.5110	123.1283	15.4836	664265.7895	-6.2800
-6.2814				
[43187]ENERGY: 10920000	3576.5225	5794.3445	5895.5659	
363.0349	-15359.5183	-1884.7878	0.0000	0.0000
8921.2934	7306.4550	332.8069	-1614.8383	7377.8516
330.0784	61.2178	96.9288	664265.7895	-7.4468
-7.4342				
[43237]ENERGY: 10930000	3577.9287	5976.3288	5911.2080	
337.7659	-15363.4825	-1937.3437	0.0000	0.0000
8807.8380	7310.2433	328.5745	-1497.5947	7380.8032
330.1055	107.0402	-17.3321	664265.7895	-6.7908
-6.8083				
[43273]ENERGY: 10940000	3601.8488	5881.4081	5918.7619	
360.6033	-15423.9757	-1839.1665	0.0000	0.0000
8813.1759	7312.6559	328.7736	-1500.5201	7380.8969
330.2073	74.9639	56.7687	664265.7895	-4.5501
-4.5483				
[43323]ENERGY: 10950000	3607.1662	5889.8056	5949.1938	
365.1320	-15432.3884	-1930.2229	0.0000	0.0000
8859.8745	7308.5608	330.5157	-1551.3137	7382.0156
330.3337	-102.0873	-104.8804	664265.7895	-5.4118
-5.4090				
[43359]ENERGY: 10960000	3654.7915	5824.8710	5898.0716	
351.4991	-15370.8903	-1941.4910	0.0000	0.0000
8893.3502	7310.2021	331.7645	-1583.1481	7381.9812
330.2502	-78.2024	-83.7884	664265.7895	-15.7303
-15.7357				
[43409]ENERGY: 10970000	3657.6554	5904.1437	5896.9282	
344.1647	-15297.0986	-1882.9877	0.0000	0.0000

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8691.9073	7314.7131	324.2497	-1377.1941	7383.7216
330.1655	86.7748	-31.9817	664265.7895	-10.4498
-10.4416				
[43445]ENERGY: 10980000	3539.7864	5947.9558	5931.6768	
363.2712	-15509.4706	-1852.7171	0.0000	0.0000
8891.2405	7311.7431	331.6858	-1579.4975	7382.5281
330.5193	45.3314	78.6856	664265.7895	-12.6341
-12.6469				
[43495]ENERGY: 10990000	3667.5285	5953.0983	5956.4122	
365.3643	-15451.6885	-1912.8701	0.0000	0.0000
8737.5172	7315.3619	325.9512	-1422.1553	7383.1917
330.3797	63.9637	102.7108	664265.7895	-6.5365
-6.5334				
[43534]ENERGY: 11000000	3633.0093	5799.6111	5944.5064	
356.9687	-15395.1721	-1898.6967	0.0000	0.0000
8872.5188	7312.7456	330.9874	-1559.7732	7382.1513
330.3903	-75.0535	-81.9041	664265.7895	-5.4714
-5.4470				
[43584]ENERGY: 11010000	3576.5464	5878.0085	5962.5943	
354.7015	-15404.1674	-1927.5150	0.0000	0.0000
8870.6911	7310.8594	330.9192	-1559.8317	7382.9280
330.3063	-95.8740	-140.2191	664265.7895	-9.7979
-9.8019				
[43620]ENERGY: 11020000	3569.1926	5859.0619	5936.1205	
347.5364	-15314.0911	-1937.3452	0.0000	0.0000
8851.3066	7311.7818	330.1961	-1539.5248	7383.2703
330.3114	20.4885	-57.9163	664265.7895	-7.8492
-7.8616				
[43670]ENERGY: 11030000	3628.1850	5865.3828	5890.0345	
353.1424	-15356.5153	-1934.3196	0.0000	0.0000
8864.1452	7310.0549	330.6750	-1554.0902	7384.4339
330.0913	15.8504	36.1635	664265.7895	-4.4028
-4.3875				
[43706]ENERGY: 11040000	3621.4000	5880.8807	5907.1687	
367.3904	-15278.0009	-1898.2162	0.0000	0.0000
8716.4749	7317.0976	325.1662	-1399.3773	7384.5114
330.2557	-56.9231	-68.0828	664265.7895	-4.2946
-4.2957				
[43756]ENERGY: 11050000	3589.7546	5722.9549	5870.5472	
339.0456	-15270.5220	-1821.0662	0.0000	0.0000
8886.8753	7317.5895	331.5230	-1569.2858	7384.7778
330.2884	65.7937	102.5633	664265.7895	-5.9906
-5.9936				
[43792]ENERGY: 11060000	3636.0780	5918.2818	5933.2282	
379.0865	-15400.0690	-1866.6256	0.0000	0.0000
8719.7140	7319.6938	325.2871	-1400.0202	7386.8377
330.1716	-45.4297	-67.9200	664265.7895	-7.2425
-7.2652				
[43842]ENERGY: 11070000	3659.0114	5860.9410	5894.0714	
382.0646	-15391.3024	-1878.4849	0.0000	0.0000
8789.9943	7316.2954	327.9088	-1473.6989	7386.7409
330.2317	-149.8291	-190.0117	664265.7895	-3.5338
-3.5166				
[43878]ENERGY: 11080000	3560.4636	5907.7919	5887.7329	

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388.1062	-15470.5811	-1872.1131	0.0000	0.0000
8910.8461	7312.2466	332.4172	-1598.5995	7385.1917
330.3260	82.3625	3.9930	664265.7895	-5.8002
-5.7963				
[43928]ENERGY: 11090000	3635.1390	5911.7857	5947.4041	
341.9235	-15349.7757	-1962.2088	0.0000	0.0000
8787.9561	7312.2239	327.8328	-1475.7322	7386.3442
330.0820	20.1115	-33.8349	664265.7895	-7.9343
-7.9479				
[43967]ENERGY: 11100000	3652.9666	5810.0633	5891.5085	
344.2946	-15370.8175	-1874.4551	0.0000	0.0000
8856.8615	7310.4219	330.4033	-1546.4396	7384.6182
330.3727	-73.5055	-102.6010	664265.7895	-9.6896
-9.6737				
[44017]ENERGY: 11110000	3676.0815	5929.6591	5863.2102	
360.1392	-15404.6354	-1920.3540	0.0000	0.0000
8814.0088	7318.1094	328.8047	-1495.8994	7385.1810
330.4381	-23.6613	-105.9574	664265.7895	-10.0555
-10.0592				
[44053]ENERGY: 11120000	3677.5889	5832.4228	5908.2623	
360.7380	-15374.3242	-1941.3329	0.0000	0.0000
8851.2897	7314.6446	330.1955	-1536.6451	7386.1195
330.3032	-58.0481	-149.9137	664265.7895	-6.1694
-6.1692				
[44103]ENERGY: 11130000	3614.4743	5844.3299	5885.5833	
361.0958	-15323.3379	-1870.6633	0.0000	0.0000
8803.8061	7315.2881	328.4241	-1488.5180	7385.4862
330.2935	195.3095	148.1399	664265.7895	-5.8993
-5.9085				
[44139]ENERGY: 11140000	3607.1784	5805.7550	5875.8661	
347.5006	-15295.0937	-1930.8104	0.0000	0.0000
8901.8396	7312.2357	332.0812	-1589.6039	7385.3770
330.5028	-18.2627	-55.0454	664265.7895	-6.4475
-6.4394				
[44189]ENERGY: 11150000	3650.9334	5825.0267	5904.5061	
370.3131	-15354.9765	-1839.8890	0.0000	0.0000
8754.8621	7310.7760	326.5982	-1444.0861	7384.3056
330.3464	-53.8694	-24.8535	664265.7895	-5.6946
-5.6866				
[44225]ENERGY: 11160000	3641.9208	5793.4834	5943.0879	
388.5885	-15277.7437	-1934.3543	0.0000	0.0000
8760.9427	7315.9251	326.8251	-1445.0176	7385.0830
330.1212	87.2742	-16.7580	664265.7895	-10.5002
-10.5152				
[44275]ENERGY: 11170000	3597.3155	5960.4131	5902.7693	
367.9108	-15491.4418	-1873.7136	0.0000	0.0000
8847.5962	7310.8497	330.0577	-1536.7466	7385.9961
330.1990	54.3920	-24.7655	664265.7895	-8.0221
-8.0173				
[44311]ENERGY: 11180000	3594.7959	5893.3528	5931.3985	
375.6002	-15316.2079	-2000.5075	0.0000	0.0000
8836.8726	7315.3046	329.6576	-1521.5680	7386.8639
330.1297	-64.7801	-76.3719	664265.7895	-5.1936
-5.2106				

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[44361]ENERGY: 11190000	3525.4756	5919.3538	5929.1302
376.8778	-15425.1462	-1834.7471	0.0000
8822.5806	7313.5247	329.1245	-1509.0559
330.1110	61.7377	51.3083	664265.7895
-7.0704			-7.0757
[44400]ENERGY: 11200000	3646.6189	5875.1766	5891.1837
357.2801	-15359.5363	-1940.9221	0.0000
8846.4310	7316.2320	330.0142	-1530.1991
329.9924	-131.3481	-155.2622	664265.7895
-8.4645			-8.4589
[44450]ENERGY: 11210000	3520.2181	5776.8793	5932.3696
350.8954	-15326.3935	-1823.7630	0.0000
8886.4669	7316.6728	331.5077	-1569.7942
329.8468	49.0616	22.7859	664265.7895
-5.8944			-5.9248
[44486]ENERGY: 11220000	3569.0501	5840.5944	5934.8820
378.7983	-15339.9606	-1923.3480	0.0000
8853.8124	7313.8286	330.2896	-1539.9838
329.9364	65.8542	-17.1883	664265.7895
-11.9127			-11.8951
[44536]ENERGY: 11230000	3636.1954	5809.3724	5913.5942
354.0301	-15319.0429	-1922.0988	0.0000
8849.6306	7321.6810	330.1336	-1527.9496
329.9624	18.6637	-41.6274	664265.7895
-11.0189			-11.0144
[44572]ENERGY: 11240000	3570.2311	5879.1745	5916.4552
366.3620	-15364.4588	-1926.5447	0.0000
8871.8992	7313.1184	330.9643	-1558.7808
330.2453	-99.1979	-61.9460	664265.7895
-12.5164			-12.5254
[44622]ENERGY: 11250000	3586.1319	5892.9096	5902.8954
359.8037	-15474.1909	-1833.6159	0.0000
8882.8666	7316.8003	331.3734	-1566.0663
330.1208	182.0542	-17.1645	664265.7895
-7.0435			-7.0262
[44658]ENERGY: 11260000	3738.3659	5863.4078	5940.2941
368.4729	-15451.5662	-1866.2249	0.0000
8728.6766	7321.4262	325.6214	-1407.2504
330.1473	-50.9980	-27.7489	664265.7895
-6.4270			-6.4467
[44708]ENERGY: 11270000	3695.1430	5780.5800	5946.4155
356.2991	-15445.7921	-1907.1298	0.0000
8889.2740	7314.7898	331.6125	-1574.4842
330.1847	-186.8076	-144.0546	664265.7895
-6.0451			-6.0529
[44744]ENERGY: 11280000	3621.7192	5867.5272	5921.1953
352.9158	-15355.5204	-1879.4699	0.0000
8792.6266	7320.9936	328.0070	-1471.6329
330.2513	77.2651	52.1297	664265.7895
-7.4744			-7.4731
[44794]ENERGY: 11290000	3546.0235	5791.6429	5858.4824
373.0653	-15347.6180	-1810.8848	0.0000
8909.1252	7319.8365	332.3530	-1589.2887
330.1315	255.5281	168.6246	664265.7895
			-5.4158

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-5.4147
 [44833]ENERGY: 11300000 3632.9922 5865.4971 5945.9655
 357.4869 -15529.6545 -1812.1945 0.0000 0.0000
 8862.1782 7322.2710 330.6016 -1539.9072 7393.2115
 330.3508 96.4542 66.1377 664265.7895 -7.8806
 -7.9026
 [44883]ENERGY: 11310000 3634.6992 5753.2386 5904.1763
 359.9013 -15361.6040 -1904.4185 0.0000 0.0000
 8934.1455 7320.1384 333.2864 -1614.0070 7392.8314
 330.3684 87.9602 17.0193 664265.7895 -6.0174
 -6.0034
 [44919]ENERGY: 11320000 3607.8325 5850.9463 5938.9272
 350.0135 -15354.5280 -1864.4697 0.0000 0.0000
 8796.0161 7324.7379 328.1335 -1471.2782 7392.6763
 330.1635 -57.7151 -118.7814 664265.7895 -7.0146
 -7.0101
 [44969]ENERGY: 11330000 3588.0823 5788.1848 5842.2098
 360.9759 -15347.8009 -1827.7287 0.0000 0.0000
 8917.5854 7321.5085 332.6686 -1596.0769 7392.5593
 330.2179 57.3882 -18.2735 664265.7895 -2.3647
 -2.4002
 [45005]ENERGY: 11340000 3620.7236 5900.1555 5914.5432
 370.6881 -15403.3526 -1860.3534 0.0000 0.0000
 8782.6666 7325.0710 327.6355 -1457.5956 7395.1263
 330.1936 69.8911 60.7335 664265.7895 -8.2820
 -8.2513
 [45055]ENERGY: 11350000 3614.0664 5911.9773 5843.0924
 354.6826 -15441.4927 -1852.2865 0.0000 0.0000
 8892.5269 7322.5663 331.7338 -1569.9606 7395.2984
 330.3114 163.7200 148.7944 664265.7895 -7.2847
 -7.2969
 [45091]ENERGY: 11360000 3501.6068 5789.6556 5889.0407
 370.5225 -15278.0620 -1847.2362 0.0000 0.0000
 8899.0290 7324.5564 331.9764 -1574.4726 7395.8067
 330.4460 102.5369 19.5675 664265.7895 -6.1050
 -6.1012
 [45141]ENERGY: 11370000 3679.5509 5776.1426 5925.4489
 362.2165 -15318.6446 -1895.3518 0.0000 0.0000
 8795.8803 7325.2429 328.1284 -1470.6375 7396.3080
 330.0633 -169.3058 -131.0730 664265.7895 -7.7727
 -7.7640
 [45177]ENERGY: 11380000 3607.5596 5946.7338 5870.9625
 362.4064 -15335.8562 -1944.1645 0.0000 0.0000
 8819.7835 7327.4250 329.0201 -1492.3585 7397.2106
 330.1372 -89.4983 -77.6041 664265.7895 -12.8244
 -12.8114
 [45227]ENERGY: 11390000 3598.4806 5875.7239 5859.5434
 372.5481 -15358.5201 -1888.8396 0.0000 0.0000
 8860.6696 7319.6059 330.5454 -1541.0637 7395.9895
 330.1854 45.8984 25.3651 664265.7895 -8.7489
 -8.7452
 [45266]ENERGY: 11400000 3524.9096 5812.8508 5860.0907
 381.8968 -15329.7899 -1850.2382 0.0000 0.0000
 8920.6580 7320.3778 332.7832 -1600.2803 7395.6983

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330.2206	209.2082	86.8003	664265.7895	-10.9788
-11.0057				
[45316]ENERGY: 11410000	3692.1768	5797.6432	5932.5836	
372.0593	-15375.2484	-1917.5644	0.0000	0.0000
8824.0114	7325.6616	329.1778	-1498.3499	7397.3340
330.4726	-55.0894	-126.8007	664265.7895	-9.9220
-9.9125				
[45352]ENERGY: 11420000	3580.7781	6020.2297	5916.1780	
375.0579	-15361.6940	-1938.4051	0.0000	0.0000
8732.1463	7324.2910	325.7508	-1407.8553	7396.1778
330.4179	-69.0062	-98.8524	664265.7895	-11.4015
-11.4112				
[45402]ENERGY: 11430000	3610.6176	5879.5323	5862.3690	
352.9817	-15414.8047	-1881.9762	0.0000	0.0000
8912.6334	7321.3531	332.4839	-1591.2803	7396.7320
330.4183	-110.2959	-109.7920	664265.7895	-10.7429
-10.7243				
[45438]ENERGY: 11440000	3679.3441	5808.0098	5840.7516	
337.6496	-15329.6853	-1907.9084	0.0000	0.0000
8898.2775	7326.4389	331.9483	-1571.8386	7396.5850
330.3861	-9.9234	-88.6642	664265.7895	-12.2685
-12.2789				
[45488]ENERGY: 11450000	3648.3814	5759.2136	5920.6987	
371.8806	-15369.4158	-1886.3188	0.0000	0.0000
8879.8775	7324.3173	331.2619	-1555.5602	7395.3549
330.3616	-83.2021	-137.0821	664265.7895	-11.3816
-11.3759				
[45524]ENERGY: 11460000	3649.8363	5837.5983	5928.8186	
357.4415	-15369.6883	-1910.9290	0.0000	0.0000
8833.7192	7326.7965	329.5400	-1506.9227	7397.7945
330.1169	-26.7349	-79.6881	664265.7895	-9.5812
-9.5755				
[45574]ENERGY: 11470000	3580.9457	5838.5697	5907.4742	
348.1867	-15360.3242	-1940.1048	0.0000	0.0000
8946.9070	7321.6542	333.7624	-1625.2528	7397.1706
330.2582	141.3291	48.0343	664265.7895	-14.0440
-14.0674				
[45610]ENERGY: 11480000	3530.8986	5841.5580	5953.3704	
352.2468	-15384.2558	-1870.6501	0.0000	0.0000
8897.3945	7320.5623	331.9154	-1576.8322	7396.3787
330.3356	-103.0056	-53.4826	664265.7895	-11.3204
-11.3071				
[45660]ENERGY: 11490000	3573.8431	5956.3746	5905.0118	
335.7507	-15354.7212	-1927.4247	0.0000	0.0000
8837.9911	7326.8255	329.6994	-1511.1656	7396.0415
330.2707	157.7348	112.7979	664265.7895	-9.3915
-9.3780				
[45699]ENERGY: 11500000	3660.5520	5837.8407	5941.0796	
394.3794	-15477.6507	-1853.3958	0.0000	0.0000
8822.9833	7325.7885	329.1395	-1497.1947	7397.7257
330.3403	186.3234	156.5836	664265.7895	-11.1740
-11.1788				
[45749]ENERGY: 11510000	3544.0673	5852.4794	5900.5321	
366.0767	-15370.4444	-1853.7708	0.0000	0.0000

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8888.0835	7327.0239	331.5680	-1561.0597	7396.0112
330.5109	-26.0554	-33.7674	664265.7895	-14.3421
-14.3613				
[45785]ENERGY: 11520000	3583.6990	5832.1158	5878.8095	
369.8923	-15426.9654	-1927.0515	0.0000	0.0000
9012.7675	7323.2673	336.2193	-1689.5002	7396.4718
330.7545	-19.3028	-127.6212	664265.7895	-11.1556
-11.1565				
[45835]ENERGY: 11530000	3509.7194	5898.5985	5931.3056	
376.4260	-15354.7158	-1860.7613	0.0000	0.0000
8818.4208	7318.9931	328.9693	-1499.4277	7395.3259
330.5795	52.5943	-3.5206	664265.7895	-11.3505
-11.3425				
[45871]ENERGY: 11540000	3529.5926	5858.7189	5888.8282	
353.0637	-15324.0429	-1895.1073	0.0000	0.0000
8910.3861	7321.4393	332.4000	-1588.9467	7394.3648
330.3287	-58.1355	-3.3080	664265.7895	-13.3428
-13.3369				
[45921]ENERGY: 11550000	3709.1033	5889.8306	5838.4562	
365.9915	-15362.2946	-1934.1787	0.0000	0.0000
8817.3821	7324.2903	328.9305	-1493.0917	7397.2497
330.4392	-8.0988	18.5721	664265.7895	-10.6535
-10.6741				
[45957]ENERGY: 11560000	3642.1472	5911.6030	5863.9110	
380.2613	-15443.7974	-1960.2611	0.0000	0.0000
8928.7269	7322.5907	333.0842	-1606.1361	7395.3892
330.5146	101.9708	6.8881	664265.7895	-7.3587
-7.3497				
[46007]ENERGY: 11570000	3627.3554	5819.3620	5942.8091	
365.8416	-15456.9074	-1831.2295	0.0000	0.0000
8854.5294	7321.7606	330.3163	-1532.7688	7395.5706
330.4159	215.4345	178.4081	664265.7895	-10.5386
-10.5402				
[46043]ENERGY: 11580000	3634.4262	5881.9108	5872.2036	
347.7369	-15288.6981	-1938.1934	0.0000	0.0000
8815.5586	7324.9445	328.8625	-1490.6141	7396.7745
330.5225	-17.3509	-62.6021	664265.7895	-12.0385
-12.0497				
[46093]ENERGY: 11590000	3553.0612	5930.3587	5971.5103	
376.9394	-15423.4397	-1992.3009	0.0000	0.0000
8902.0647	7318.1937	332.0896	-1583.8710	7393.9816
330.4275	-68.7631	-71.1966	664265.7895	-10.6888
-10.6719				
[46132]ENERGY: 11600000	3647.7251	5904.9134	5890.6037	
363.1352	-15406.9985	-1880.7589	0.0000	0.0000
8806.6459	7325.2660	328.5300	-1481.3800	7394.3540
330.1806	13.4468	30.2921	664265.7895	-11.5473
-11.5496				
[46182]ENERGY: 11610000	3620.6430	5770.6242	5910.6802	
362.1168	-15401.9103	-1902.2230	0.0000	0.0000
8963.8962	7323.8270	334.3962	-1640.0692	7394.0359
330.3104	-145.3247	-142.8894	664265.7895	-12.0953
-12.0885				
[46218]ENERGY: 11620000	3631.9062	5885.2599	5965.2168	

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365.2396	-15435.0645	-1828.1924	0.0000	0.0000
8742.2476	7326.6132	326.1277	-1415.6345	7394.5088
330.2449	-77.1195	-151.2059	664265.7895	-10.6871
-10.7045				
[46268]ENERGY: 11630000	3638.8237	5859.7984	5942.2142	
357.8192	-15384.3359	-1893.7711	0.0000	0.0000
8799.4933	7320.0418	328.2632	-1479.4515	7394.4714
330.3390	-71.6190	-56.0596	664265.7895	-5.1685
-5.1481				
[46304]ENERGY: 11640000	3539.6106	5876.9600	5892.3941	
376.9748	-15370.8756	-1859.5344	0.0000	0.0000
8866.3922	7321.9217	330.7588	-1544.4704	7394.7499
330.6248	77.7376	117.9473	664265.7895	-11.1151
-11.1101				
[46354]ENERGY: 11650000	3555.5492	5914.3668	5894.5518	
358.6964	-15348.1157	-1909.6254	0.0000	0.0000
8860.1054	7325.5285	330.5243	-1534.5769	7397.5269
330.3313	64.1032	-50.2765	664265.7895	-14.8674
-14.8781				
[46390]ENERGY: 11660000	3562.1071	5926.7715	5900.5334	
392.8529	-15490.7754	-1800.0130	0.0000	0.0000
8830.4755	7321.9520	329.4190	-1508.5235	7395.8587
330.3225	63.0732	-11.0514	664265.7895	-11.2973
-11.3063				
[46440]ENERGY: 11670000	3670.0853	5772.3939	5905.5771	
347.6596	-15293.8015	-1897.9675	0.0000	0.0000
8821.7030	7325.6500	329.0917	-1496.0530	7397.1718
330.3158	-34.1444	-45.7759	664265.7895	-8.1887
-8.1780				
[46476]ENERGY: 11680000	3668.5307	5910.7433	5907.4223	
358.3623	-15519.4996	-1794.6811	0.0000	0.0000
8794.3160	7325.1939	328.0701	-1469.1221	7398.2702
330.4341	-65.2947	-129.8452	664265.7895	-11.4942
-11.4850				
[46526]ENERGY: 11690000	3574.1052	5863.7864	5924.1461	
363.7149	-15366.0497	-1873.5807	0.0000	0.0000
8842.4828	7328.6050	329.8669	-1513.8778	7398.5051
330.5236	140.0056	41.7971	664265.7895	-12.5471
-12.5643				
[46565]ENERGY: 11700000	3789.8423	5841.9323	5888.1829	
373.2766	-15439.0819	-1938.4587	0.0000	0.0000
8810.9345	7326.6281	328.6900	-1484.3065	7397.4127
330.4696	-160.7875	-199.4730	664265.7895	-8.4497
-8.4291				
[46615]ENERGY: 11710000	3615.2122	5766.4939	5952.9323	
344.4314	-15301.5214	-1859.0844	0.0000	0.0000
8807.8143	7326.2782	328.5736	-1481.5361	7397.5567
330.3159	-28.4040	-58.1846	664265.7895	-6.2550
-6.2701				
[46651]ENERGY: 11720000	3671.9440	5872.6015	5855.1393	
345.4874	-15303.1928	-1880.9911	0.0000	0.0000
8767.2532	7328.2415	327.0605	-1439.0118	7398.6563
330.4072	-159.9211	-171.0488	664265.7895	-10.2063
-10.2245				

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[46701]ENERGY: 11730000	3608.3774	5830.6074	5945.8621
366.4356	-15428.2967	-1828.8114	0.0000
8833.0198	7327.1941	329.5139	-1505.8257
330.1065	61.1757	82.6778	664265.7895
-12.4858			-12.5183
[46737]ENERGY: 11740000	3594.5921	5826.2013	5922.7439
341.0871	-15300.4208	-1895.0721	0.0000
8839.1662	7328.2978	329.7432	-1510.8685
330.1715	112.2995	63.1368	664265.7895
-10.8197			-10.8141
[46787]ENERGY: 11750000	3700.7855	5915.6053	5904.1785
370.3564	-15537.7258	-1836.1396	0.0000
8812.2086	7329.2688	328.7375	-1482.9397
330.2491	82.0270	8.1293	664265.7895
-7.4416			-7.4550
[46823]ENERGY: 11760000	3703.8323	5744.6324	5879.4390
354.0220	-15336.6744	-1850.0345	0.0000
8827.7447	7322.9615	329.3171	-1504.7831
330.3710	-80.9399	-110.6764	664265.7895
-12.5194			-12.4946
[46873]ENERGY: 11770000	3612.0655	5937.7518	5902.6749
353.0751	-15342.9749	-1904.3051	0.0000
8768.0101	7326.2974	327.0887	-1441.7127
330.2478	5.6629	67.2097	664265.7895
-12.7670			-12.7750
[46909]ENERGY: 11780000	3555.8004	5940.8444	5957.4225
348.8251	-15396.8112	-1874.8957	0.0000
8793.9902	7325.1757	328.0579	-1468.8146
330.4372	-115.3020	-46.8071	664265.7895
-11.8227			-11.8154
[46959]ENERGY: 11790000	3644.3798	5882.8939	5856.1017
374.2146	-15348.5492	-1904.2747	0.0000
8824.4176	7329.1836	329.1930	-1495.2339
330.4696	15.2782	-11.9661	664265.7895
-11.7195			-11.7275
[46998]ENERGY: 11800000	3601.5437	5858.7794	5937.5247
360.6243	-15393.2098	-1820.7538	0.0000
8783.2577	7327.7662	327.6575	-1455.4916
330.5682	107.5763	119.2208	664265.7895
-11.8521			-11.8617
[47048]ENERGY: 11810000	3558.3048	5804.1043	5930.9395
373.5315	-15339.0381	-1865.1430	0.0000
8865.3587	7328.0576	330.7203	-1537.3010
330.4765	50.9267	77.3389	664265.7895
-11.5658			-11.5523
[47084]ENERGY: 11820000	3591.7188	5850.4506	5893.6564
345.0045	-15402.9444	-1857.3564	0.0000
8907.5409	7328.0702	332.2939	-1579.4706
330.3739	136.6009	115.0885	664265.7895
-12.0696			-12.0630
[47134]ENERGY: 11830000	3588.8861	5793.5406	5890.0459
373.1925	-15375.3781	-1849.5480	0.0000
8905.3582	7326.0972	332.2125	-1579.2610
330.3889	48.6787	19.5891	664265.7895
			-10.4760

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-10.4732
 [47170]ENERGY: 11840000 3639.1274 5745.4635 5970.2617
 359.6492 -15468.6670 -1843.8447 0.0000 0.0000
 8921.9654 7323.9555 332.8320 -1598.0099 7396.4863
 330.2135 29.8187 -28.5938 664265.7895 -10.4503
 -10.4441
 [47220]ENERGY: 11850000 3679.1469 5777.3009 5950.9414
 376.1635 -15422.6462 -1910.5815 0.0000 0.0000
 8873.8248 7324.1498 331.0361 -1549.6750 7399.4943
 330.5539 -12.4477 -55.1122 664265.7895 -12.1733
 -12.1701
 [47256]ENERGY: 11860000 3644.2599 5931.4327 5879.1776
 369.2754 -15397.5867 -1900.4524 0.0000 0.0000
 8806.6065 7332.7130 328.5286 -1473.8935 7400.1648
 330.6758 174.8020 104.9477 664265.7895 -11.0869
 -11.0916
 [47306]ENERGY: 11870000 3676.0656 5845.4162 5920.7689
 375.2169 -15524.6401 -1802.1305 0.0000 0.0000
 8833.9209 7324.6178 329.5475 -1509.3031 7397.9220
 330.5321 27.9641 87.9129 664265.7895 -11.3818
 -11.3619
 [47342]ENERGY: 11880000 3682.8681 5825.8396 5855.0146
 378.4157 -15370.5239 -1851.8567 0.0000 0.0000
 8809.6671 7329.4245 328.6427 -1480.2425 7400.3430
 330.6523 -17.1405 -65.9518 664265.7895 -6.2391
 -6.2722
 [47392]ENERGY: 11890000 3666.8617 5803.4413 5915.8883
 379.5300 -15413.8972 -1885.4252 0.0000 0.0000
 8862.7290 7329.1279 330.6222 -1533.6011 7399.2447
 330.4677 -200.1877 -145.0723 664265.7895 -8.9991
 -8.9838
 [47431]ENERGY: 11900000 3652.7503 5814.2233 5920.3364
 390.0510 -15428.0984 -1845.7367 0.0000 0.0000
 8827.9699 7331.4958 329.3255 -1496.4741 7399.0793
 330.5635 -71.6910 -68.2877 664265.7895 -12.0462
 -12.0426
 [47481]ENERGY: 11910000 3620.9227 5800.2496 5955.4916
 337.3079 -15445.3529 -1835.6197 0.0000 0.0000
 8893.6568 7326.6559 331.7759 -1567.0009 7400.5913
 330.4388 119.4976 -19.1003 664265.7895 -7.6296
 -7.6421
 [47517]ENERGY: 11920000 3656.6891 5808.9609 5936.6271
 367.0229 -15391.8322 -1875.4435 0.0000 0.0000
 8828.3687 7330.3931 329.3404 -1497.9757 7400.4748
 330.5152 -20.5055 -46.6544 664265.7895 -6.0211
 -6.0057
 [47567]ENERGY: 11930000 3528.9001 5926.2150 5947.0238
 354.3364 -15345.0807 -1913.3603 0.0000 0.0000
 8833.2412 7331.2755 329.5222 -1501.9657 7401.8001
 330.7167 -80.6892 -143.3974 664265.7895 -6.5228
 -6.5303
 [47603]ENERGY: 11940000 3631.2391 5846.0555 5903.0479
 360.8810 -15322.4166 -1943.5111 0.0000 0.0000
 8858.7786 7334.0744 330.4748 -1524.7041 7402.1093

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330.5475	-45.9310	-96.7224	664265.7895	-8.0013
-8.0090				
[47653]ENERGY: 11950000	3575.3076	5742.5236	5868.1949	
369.6967	-15230.9723	-1858.5671	0.0000	0.0000
8866.6604	7332.8437	330.7689	-1533.8167	7402.4805
330.4530	39.5987	22.6662	664265.7895	-10.3362
-10.3372				
[47689]ENERGY: 11960000	3620.9394	5840.4108	5869.8787	
369.3337	-15392.8078	-1877.8479	0.0000	0.0000
8899.8554	7329.7623	332.0072	-1570.0931	7402.5041
330.4789	-45.6518	-146.2654	664265.7895	-8.1692
-8.1550				
[47739]ENERGY: 11970000	3644.0304	5828.9961	5958.9749	
364.8314	-15424.4700	-1859.9909	0.0000	0.0000
8819.4970	7331.8688	329.0094	-1487.6282	7404.4321
330.5479	72.3865	65.7196	664265.7895	-5.8634
-5.8619				
[47775]ENERGY: 11980000	3660.9527	5794.6151	5870.6637	
360.5586	-15373.8363	-1811.1155	0.0000	0.0000
8830.2569	7332.0951	329.4108	-1498.1618	7402.8926
330.1535	36.3211	-3.0815	664265.7895	-7.3885
-7.3912				
[47825]ENERGY: 11990000	3623.9655	5871.0356	5921.0799	
363.5432	-15316.5759	-1899.8749	0.0000	0.0000
8771.5091	7334.6824	327.2193	-1436.8267	7404.1752
330.2689	111.8817	10.0583	664265.7895	-9.6589
-9.6688				
[47864]ENERGY: 12000000	3548.0086	5916.2641	5903.8213	
368.6273	-15432.0776	-1813.4903	0.0000	0.0000
8841.0370	7332.1904	329.8130	-1508.8466	7404.6467
330.2136	69.0215	53.2707	664265.7895	-7.9479
-7.9412				
[47914]ENERGY: 12010000	3699.4965	5859.6216	5860.7728	
382.4455	-15289.4698	-1872.6635	0.0000	0.0000
8696.6713	7336.8745	324.4274	-1359.7968	7404.8383
330.3956	87.6851	-55.9706	664265.7895	-11.3537
-11.3742				
[47950]ENERGY: 12020000	3788.5164	5816.5522	5920.8498	
341.2750	-15437.8903	-1915.6563	0.0000	0.0000
8817.4936	7331.1404	328.9347	-1486.3532	7402.9461
330.3307	-107.4525	-143.0283	664265.7895	-11.1178
-11.0986				
[48000]ENERGY: 12030000	3614.0195	5881.5049	5933.1578	
362.6371	-15429.8765	-1900.7533	0.0000	0.0000
8866.4828	7327.1722	330.7622	-1539.3106	7402.5677
330.5529	-182.4118	-196.9065	664265.7895	-12.0486
-12.0503				
[48036]ENERGY: 12040000	3561.3898	5808.8604	5929.6736	
325.0204	-15326.1740	-1892.5542	0.0000	0.0000
8923.0659	7329.2819	332.8731	-1593.7840	7403.6504
330.4432	27.0782	-55.2101	664265.7895	-11.4717
-11.4576				
[48086]ENERGY: 12050000	3620.7953	5917.9684	5875.4535	
348.6626	-15457.5146	-1792.0690	0.0000	0.0000

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8824.6682	7337.9645	329.2023	-1486.7038	7404.0202
330.3708	218.7296	162.5082	664265.7895	-12.5569
-12.5684				
[48122]ENERGY: 12060000	3571.6817	5803.6513	5918.0851	
352.6292	-15390.6606	-1825.4119	0.0000	0.0000
8897.1861	7327.1608	331.9076	-1570.0253	7402.0584
330.5119	248.9341	152.4438	664265.7895	-8.6831
-8.6989				
[48172]ENERGY: 12070000	3686.6826	5825.8905	5911.5412	
371.0201	-15444.4796	-1894.7916	0.0000	0.0000
8878.1245	7333.9876	331.1965	-1544.1369	7404.8911
330.1530	-35.3647	-83.9798	664265.7895	-7.4376
-7.4434				
[48208]ENERGY: 12080000	3655.7054	5872.2947	5846.8680	
388.9714	-15380.6674	-1770.8788	0.0000	0.0000
8722.6534	7334.9467	325.3967	-1387.7067	7404.4445
330.1410	103.2061	69.0235	664265.7895	-11.0757
-11.0478				
[48258]ENERGY: 12090000	3630.9236	5803.8876	5941.6342	
388.4584	-15343.5006	-1904.5708	0.0000	0.0000
8818.5196	7335.3519	328.9730	-1483.1676	7404.6080
330.0632	-158.2782	-152.2107	664265.7895	-10.9939
-11.0110				
[48297]ENERGY: 12100000	3630.8288	5724.0154	5924.9201	
380.9913	-15379.9108	-1835.6877	0.0000	0.0000
8889.7994	7334.9565	331.6321	-1554.8430	7405.3497
330.2858	-15.3962	9.3986	664265.7895	-2.0586
-2.0514				
[48347]ENERGY: 12110000	3606.2909	5868.1358	5899.1787	
343.5354	-15330.0314	-1880.7612	0.0000	0.0000
8824.0784	7330.4268	329.1803	-1493.6517	7404.3014
330.3773	140.6483	93.3976	664265.7895	-4.4450
-4.4413				
[48383]ENERGY: 12120000	3632.6800	5927.7907	5924.9415	
377.9656	-15452.8588	-1884.2695	0.0000	0.0000
8809.6286	7335.8781	328.6413	-1473.7505	7407.1305
330.4849	-6.2219	35.6019	664265.7895	-5.6284
-5.6200				
[48433]ENERGY: 12130000	3553.3056	5905.0767	5905.2646	
360.6662	-15416.2528	-1860.5013	0.0000	0.0000
8885.8020	7333.3609	331.4829	-1552.4411	7406.9423
330.4740	53.3002	49.8213	664265.7895	-8.0779
-8.0754				
[48469]ENERGY: 12140000	3708.1974	5856.9342	5936.1871	
354.0004	-15485.8266	-1847.1907	0.0000	0.0000
8815.8560	7338.1578	328.8736	-1477.6982	7409.0138
330.5303	-10.5460	-83.6587	664265.7895	-6.3390
-6.3336				
[48519]ENERGY: 12150000	3729.1656	5916.1812	5912.0695	
374.5122	-15480.4834	-1838.6715	0.0000	0.0000
8728.0314	7340.8049	325.5973	-1387.2265	7409.1300
330.7406	94.8392	54.3788	664265.7895	-5.6024
-5.6306				
[48555]ENERGY: 12160000	3572.9216	5943.5239	5910.3675	

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351.4222	-15457.7841	-1888.1329	0.0000	0.0000
8906.5982	7338.9164	332.2587	-1567.6818	7409.9321
330.5556	-15.5592	-25.1743	664265.7895	-7.3291
-7.3116				
[48605]ENERGY: 12170000	3577.0585	5894.0811	5877.7523	
356.0001	-15417.6009	-1811.3794	0.0000	0.0000
8861.3497	7337.2614	330.5707	-1524.0883	7409.3312
330.4205	31.9054	37.2834	664265.7895	-9.2483
-9.2450				
[48641]ENERGY: 12180000	3676.3853	5872.5239	5899.7115	
365.2637	-15437.5012	-1811.8619	0.0000	0.0000
8774.8522	7339.3733	327.3440	-1435.4789	7409.3552
330.3169	-61.6527	-23.3232	664265.7895	-9.8601
-9.8504				
[48691]ENERGY: 12190000	3644.7707	5812.0507	5900.3341	
346.5386	-15363.0141	-1866.0283	0.0000	0.0000
8860.7212	7335.3729	330.5473	-1525.3483	7408.6762
330.4213	8.9735	-50.9880	664265.7895	-7.4512
-7.4795				
[48730]ENERGY: 12200000	3572.7338	5912.1381	5865.4037	
338.0113	-15348.7959	-1869.4584	0.0000	0.0000
8870.1196	7340.1522	330.8979	-1529.9674	7408.6759
330.3573	152.2301	168.8609	664265.7895	-8.9437
-8.9206				
[48780]ENERGY: 12210000	3567.5383	5976.6816	5844.7774	
377.2343	-15379.5853	-1856.2588	0.0000	0.0000
8807.6796	7338.0672	328.5686	-1469.6124	7410.6926
330.3938	39.5072	57.8435	664265.7895	-11.0238
-11.0423				
[48816]ENERGY: 12220000	3620.8631	5814.2910	5919.8409	
366.1167	-15389.4774	-1857.0598	0.0000	0.0000
8862.9825	7337.5571	330.6317	-1525.4254	7411.2877
330.3915	-90.6956	-117.2663	664265.7895	-4.9193
-4.9160				
[48866]ENERGY: 12230000	3699.7230	5818.2696	5856.5459	
363.5733	-15372.3797	-1851.4657	0.0000	0.0000
8826.6780	7340.9444	329.2773	-1485.7336	7411.8689
330.4439	-17.6236	-14.5835	664265.7895	-6.8974
-6.9070				
[48902]ENERGY: 12240000	3554.8914	5857.4314	5957.8295	
368.4339	-15479.3885	-1820.8961	0.0000	0.0000
8897.9000	7336.2016	331.9342	-1561.6983	7410.9764
330.5210	98.6850	32.7683	664265.7895	-8.1609
-8.1635				
[48952]ENERGY: 12250000	3663.2094	5862.0663	5864.8040	
356.3420	-15372.9770	-1828.7639	0.0000	0.0000
8794.6287	7339.3094	328.0817	-1455.3192	7410.3916
330.6739	14.6249	27.9803	664265.7895	-10.1437
-10.1185				
[48988]ENERGY: 12260000	3579.8701	5819.0166	6026.9455	
398.0424	-15467.0605	-1818.3632	0.0000	0.0000
8802.6070	7341.0579	328.3794	-1461.5492	7412.1518
330.5233	50.5462	-79.0924	664265.7895	-7.8637
-7.8796				

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[49038]ENERGY: 12270000	3626.0370	5888.8486	5927.6114
360.3764	-15353.0912	-1891.1557	0.0000
8785.2269	7343.8534	327.7310	-1441.3735
330.5889	-16.4888	-29.3747	664265.7895
-4.8020			-4.8061
[49074]ENERGY: 12280000	3649.7225	5857.0438	5903.6671
351.2892	-15395.7329	-1836.2188	0.0000
8812.6358	7342.4068	328.7535	-1470.2290
330.7498	-8.6985	0.5651	664265.7895
-3.6638			-3.6454
[49124]ENERGY: 12290000	3623.9037	5826.5276	5911.5907
373.4858	-15406.6327	-1788.2200	0.0000
8803.3350	7343.9902	328.4065	-1459.3448
330.7361	162.0466	110.6125	664265.7895
-0.8988			-0.8969
[49163]ENERGY: 12300000	3633.5779	5809.9880	5930.3537
356.2356	-15485.2526	-1808.4472	0.0000
8903.8356	7340.2908	332.1557	-1563.5448
330.6052	41.1115	42.9913	664265.7895
-3.3103			-3.3392
[49213]ENERGY: 12310000	3592.2678	5910.8591	5874.1351
364.4450	-15385.9403	-1941.2279	0.0000
8930.8641	7345.4029	333.1640	-1585.4612
330.8159	-50.2720	-72.2206	664265.7895
-5.2478			-5.2415
[49249]ENERGY: 12320000	3633.0368	5867.7194	5906.7801
348.8586	-15363.5066	-1904.8221	0.0000
8856.8722	7344.9384	330.4037	-1511.9338
330.6115	-67.6455	-166.0245	664265.7895
-6.8300			-6.8158
[49299]ENERGY: 12330000	3624.0562	5863.1819	5916.6762
387.4263	-15519.3378	-1789.5156	0.0000
8862.2830	7344.7703	330.6056	-1517.5127
330.4245	-88.2504	-74.0412	664265.7895
-8.5730			-8.5776
[49335]ENERGY: 12340000	3598.9667	5893.4736	5959.2026
346.7403	-15410.6169	-1804.1371	0.0000
8766.6097	7350.2389	327.0365	-1416.3709
330.6779	-40.1814	-58.7387	664265.7895
-4.6480			-4.6401
[49385]ENERGY: 12350000	3741.4033	5818.8646	5894.4053
361.9240	-15406.7904	-1839.6843	0.0000
8774.8064	7344.9290	327.3423	-1429.8774
330.6600	-7.2152	-37.2453	664265.7895
-7.1367			-7.1555
[49421]ENERGY: 12360000	3674.8781	5775.6557	5911.5656
350.7999	-15335.5486	-1929.6031	0.0000
8896.7674	7344.5151	331.8920	-1552.2524
330.8180	-229.3214	-186.7451	664265.7895
-9.2770			-9.2886
[49471]ENERGY: 12370000	3673.4131	5858.3605	5876.4707
348.8401	-15333.2620	-1920.1405	0.0000
8840.5914	7344.2732	329.7964	-1496.3182
330.5349	-139.4003	-159.3969	664265.7895
			-5.2702

Supplementary Text 6

-5.2727
 [49507]ENERGY: 12380000 3623.4675 5848.2696 5960.9006
 373.6940 -15335.1499 -1897.4939 0.0000 0.0000
 8774.5762 7348.2640 327.3337 -1426.3122 7418.6339
 330.5622 -36.5267 -28.8080 664265.7895 -5.8974
 -5.9094
 [49557]ENERGY: 12390000 3586.8735 5813.9085 5908.7613
 376.8414 -15400.5015 -1787.7503 0.0000 0.0000
 8846.4025 7344.5353 330.0131 -1501.8672 7419.1734
 330.5721 264.7815 225.0194 664265.7895 -6.7375
 -6.7476
 [49596]ENERGY: 12400000 3699.0365 5770.3128 5988.5955
 383.3714 -15488.3976 -1818.2749 0.0000 0.0000
 8810.1820 7344.8256 328.6619 -1465.3564 7418.4227
 330.5270 -68.7928 -144.7537 664265.7895 -5.9127
 -5.9046
 [49646]ENERGY: 12410000 3617.9205 5847.5319 5929.1464
 353.3469 -15482.8721 -1833.7489 0.0000 0.0000
 8911.2686 7342.5932 332.4330 -1568.6754 7419.7534
 330.5731 25.6170 -54.6435 664265.7895 -6.0395
 -6.0242
 [49682]ENERGY: 12420000 3608.3408 5831.7160 5884.7265
 370.3370 -15369.1033 -1834.3194 0.0000 0.0000
 8857.5162 7349.2137 330.4277 -1508.3025 7419.9655
 330.6679 132.8428 81.2357 664265.7895 -9.3299
 -9.3533
 [49732]ENERGY: 12430000 3606.2506 6030.9653 5931.8433
 356.4877 -15508.6305 -1880.6776 0.0000 0.0000
 8813.4031 7349.6419 328.7821 -1463.7612 7419.9280
 330.7573 127.2122 108.9163 664265.7895 -8.0135
 -8.0035
 [49768]ENERGY: 12440000 3648.7265 5839.1433 5906.8010
 367.9198 -15420.2902 -1901.1320 0.0000 0.0000
 8909.3545 7350.5231 332.3616 -1558.8314 7421.4316
 330.5538 -40.8521 -24.9446 664265.7895 -5.9467
 -5.9419
 [49818]ENERGY: 12450000 3738.3080 5855.8537 5913.1513
 382.0477 -15458.8989 -1839.1333 0.0000 0.0000
 8765.1692 7356.4977 326.9827 -1408.6715 7422.6984
 330.5932 94.8574 -24.4365 664265.7895 -9.9682
 -9.9586
 [49854]ENERGY: 12460000 3614.7588 5864.4514 5892.4440
 356.6355 -15473.5647 -1816.6385 0.0000 0.0000
 8905.5878 7343.6742 332.2210 -1561.9135 7421.2267
 330.8289 110.2712 100.1138 664265.7895 -11.0754
 -11.0980
 [49904]ENERGY: 12470000 3610.9572 5822.5858 5906.1059
 350.4752 -15318.7716 -1922.4133 0.0000 0.0000
 8902.6371 7351.5763 332.1110 -1551.0608 7422.7772
 330.7525 -101.5688 -160.4230 664265.7895 -7.1434
 -7.1246
 [49940]ENERGY: 12480000 3602.9703 5868.2591 5949.6019
 374.4318 -15500.3826 -1869.6192 0.0000 0.0000
 8921.6237 7346.8850 332.8193 -1574.7387 7422.6435

Supplementary Text 6

330.6678	-27.4895	-139.1732	664265.7895	-11.8698
-11.8840				
[49990]ENERGY: 12490000	3588.1069	5886.3209	5882.0758	
367.9216	-15391.1799	-1789.3425	0.0000	0.0000
8811.2817	7355.1846	328.7030	-1456.0972	7422.6757
330.5300	182.7560	137.0779	664265.7895	-13.1347
-13.1581				
[50029]ENERGY: 12500000	3626.3172	5836.1616	5918.3549	
343.6223	-15429.3395	-1841.3482	0.0000	0.0000
8894.9733	7348.7416	331.8251	-1546.2317	7420.9868
330.7397	-1.2974	-24.9367	664265.7895	-7.5326
-7.4991				
[50079]ENERGY: 12510000	3624.9209	5798.3826	5907.4083	
345.9846	-15370.0838	-1885.7027	0.0000	0.0000
8927.5422	7348.4521	333.0400	-1579.0902	7421.4716
330.8881	-165.2324	-160.9375	664265.7895	-8.8762
-8.8848				
[50115]ENERGY: 12520000	3601.1586	5772.9636	5935.5792	
371.1670	-15370.4654	-1819.5376	0.0000	0.0000
8861.6526	7352.5180	330.5820	-1509.1346	7422.2384
330.6747	-3.2416	54.1483	664265.7895	-8.7877
-8.7885				
[50165]ENERGY: 12530000	3612.3562	5840.8668	5917.5810	
325.9451	-15267.8210	-1954.3078	0.0000	0.0000
8875.7386	7350.3588	331.1075	-1525.3798	7422.9192
330.7301	50.4785	-1.5099	664265.7895	-8.4701
-8.5005				
[50201]ENERGY: 12540000	3681.8368	5821.9372	5904.2885	
391.8739	-15339.5226	-1985.0259	0.0000	0.0000
8869.9653	7345.3533	330.8921	-1524.6121	7423.2581
330.7771	-189.4283	-207.7133	664265.7895	-11.7878
-11.7411				
[50251]ENERGY: 12550000	3616.2659	5780.3059	5901.8957	
359.4276	-15331.3087	-1901.4970	0.0000	0.0000
8922.7644	7347.8538	332.8618	-1574.9106	7421.4062
330.9215	-73.4045	-154.2179	664265.7895	-8.8104
-8.8287				
[50287]ENERGY: 12560000	3688.4838	5858.8143	5935.3282	
375.7789	-15452.8926	-1901.3851	0.0000	0.0000
8844.9556	7349.0832	329.9592	-1495.8724	7421.0399
330.7310	-8.1619	-53.6042	664265.7895	-12.1996
-12.1997				
[50337]ENERGY: 12570000	3680.2667	5849.6034	5880.4732	
366.3131	-15306.3334	-1930.1808	0.0000	0.0000
8813.3004	7353.4426	328.7783	-1459.8577	7421.4104
330.6309	22.5341	-36.8192	664265.7895	-7.2127
-7.2042				
[50373]ENERGY: 12580000	3613.6423	5803.2142	5883.9524	
361.3776	-15370.9042	-1883.1221	0.0000	0.0000
8943.8044	7351.9645	333.6467	-1591.8399	7422.1641
330.6488	10.9745	18.3061	664265.7895	-11.1840
-11.1947				
[50423]ENERGY: 12590000	3605.7517	5813.8262	5957.0895	
373.6354	-15402.5176	-1842.0146	0.0000	0.0000

Supplementary Text 6

8848.2714	7354.0420	330.0829	-1494.2294	7421.3352
330.5551	-16.3795	-16.9170	664265.7895	-13.0151
-13.0026				
[50462]ENERGY: 12600000	3645.0059	5856.3893	5903.1906	
366.7873	-15462.0737	-1830.6026	0.0000	0.0000
8873.3720	7352.0687	331.0192	-1521.3033	7422.1776
330.9712	-85.3370	-49.6986	664265.7895	-8.9292
-8.9298				
[50512]ENERGY: 12610000	3645.2734	5810.5387	5915.7625	
354.7428	-15366.7823	-1907.0448	0.0000	0.0000
8900.5003	7352.9906	332.0312	-1547.5097	7424.2319
331.0284	-134.5821	-117.9702	664265.7895	-9.8155
-9.8158				
[50548]ENERGY: 12620000	3649.9214	5887.9369	5890.7854	
343.6690	-15363.4673	-1922.6560	0.0000	0.0000
8865.8392	7352.0287	330.7382	-1513.8106	7423.8368
330.8540	-96.1743	-101.5591	664265.7895	-8.1915
-8.2017				
[50598]ENERGY: 12630000	3627.9136	5855.9475	5954.4426	
349.0246	-15399.9067	-1885.2148	0.0000	0.0000
8850.8112	7353.0180	330.1776	-1497.7932	7423.7254
331.0364	-54.8389	-50.4368	664265.7895	-9.6858
-9.7033				
[50634]ENERGY: 12640000	3612.4177	5774.5868	5924.5989	
362.2840	-15448.4126	-1731.8162	0.0000	0.0000
8856.0292	7349.6880	330.3723	-1506.3412	7423.2616
331.0388	185.1488	163.2334	664265.7895	-7.1388
-7.1113				
[50684]ENERGY: 12650000	3700.8732	5779.9133	5917.3496	
355.7888	-15390.1438	-1855.1474	0.0000	0.0000
8838.7364	7347.3702	329.7272	-1491.3662	7423.1553
330.9184	-61.9895	-36.0264	664265.7895	-9.2215
-9.2296				
[50720]ENERGY: 12660000	3665.7138	5829.9584	5964.0150	
373.0500	-15540.8100	-1817.4437	0.0000	0.0000
8876.5013	7350.9848	331.1360	-1525.5165	7424.5905
330.8757	-18.0597	60.2296	664265.7895	-9.6151
-9.6111				
[50770]ENERGY: 12670000	3636.2651	5840.0036	5884.9717	
349.6456	-15435.4781	-1848.8133	0.0000	0.0000
8923.3425	7349.9371	332.8834	-1573.4054	7422.8544
331.0436	162.9238	138.7778	664265.7895	-9.0843
-9.0940				
[50806]ENERGY: 12680000	3721.8278	5852.4865	5871.1440	
376.4506	-15452.9578	-1818.0549	0.0000	0.0000
8802.5538	7353.4499	328.3774	-1449.1039	7424.2684
330.9330	67.4667	14.1303	664265.7895	-4.1360
-4.1479				
[50856]ENERGY: 12690000	3609.6153	5802.6698	5982.8934	
357.2442	-15492.1160	-1889.3024	0.0000	0.0000
8980.9575	7351.9619	335.0327	-1628.9957	7423.9796
331.0771	64.8367	1.1278	664265.7895	-9.8942
-9.8685				
[50895]ENERGY: 12700000	3598.3648	5790.5489	5917.1952	

Supplementary Text 6

339.2782	-15376.8637	-1856.5056	0.0000	0.0000
8940.8384	7352.8562	333.5361	-1587.9823	7424.5705
330.9632	132.0094	13.0327	664265.7895	-3.4580
-3.4787				
[50945]ENERGY: 12710000	3660.3142	5778.7495	5954.9150	
350.4166	-15515.0057	-1777.2131	0.0000	0.0000
8902.1360	7354.3126	332.0923	-1547.8233	7423.9269
331.0352	36.0606	-7.4625	664265.7895	-8.8051
-8.8069				
[50981]ENERGY: 12720000	3676.6841	5921.4478	5941.8538	
382.0027	-15472.0549	-1824.9861	0.0000	0.0000
8731.1044	7356.0519	325.7120	-1375.0526	7424.5238
330.9792	43.3886	30.6574	664265.7895	-7.7852
-7.7774				
[51031]ENERGY: 12730000	3560.5290	5891.6218	5924.4416	
401.6608	-15342.7681	-1894.5799	0.0000	0.0000
8814.6973	7355.6024	328.8304	-1459.0949	7425.3830
331.1151	101.8481	102.9550	664265.7895	-11.1382
-11.1287				
[51067]ENERGY: 12740000	3540.4333	5876.8345	5897.7127	
359.4271	-15443.0550	-1834.1932	0.0000	0.0000
8957.0542	7354.2136	334.1410	-1602.8406	7426.2906
331.1036	23.3810	61.7834	664265.7895	-4.5765
-4.5803				
[51117]ENERGY: 12750000	3659.5098	5880.7154	5906.3455	
378.8921	-15385.2708	-1946.9281	0.0000	0.0000
8858.6992	7351.9630	330.4719	-1506.7362	7427.6240
331.0853	-50.2887	-49.1844	664265.7895	-4.1707
-4.1716				
[51153]ENERGY: 12760000	3597.3528	5888.6770	5906.7885	
383.0311	-15354.3379	-1855.0051	0.0000	0.0000
8791.7609	7358.2673	327.9747	-1433.4936	7426.9607
331.1758	138.6872	127.7339	664265.7895	-8.0290
-8.0385				
[51203]ENERGY: 12770000	3631.7751	5927.7137	5891.6659	
356.0597	-15441.7309	-1893.3002	0.0000	0.0000
8883.5253	7355.7086	331.3980	-1527.8167	7426.7845
330.9862	-116.9235	46.1514	664265.7895	-7.6172
-7.5979				
[51239]ENERGY: 12780000	3603.9708	5775.5456	5923.0013	
380.0812	-15352.7030	-1853.7488	0.0000	0.0000
8881.7292	7357.8763	331.3310	-1523.8529	7427.6784
331.0196	26.0231	-43.0863	664265.7895	-6.8138
-6.8153				
[51289]ENERGY: 12790000	3588.9886	5964.7558	5924.9215	
351.4961	-15376.0149	-1938.2353	0.0000	0.0000
8839.4163	7355.3280	329.7525	-1484.0883	7428.3943
330.9662	-33.3211	-117.6609	664265.7895	-5.7584
-5.7664				
[51328]ENERGY: 12800000	3629.2016	5804.6089	5901.2610	
370.9878	-15383.2195	-1855.3915	0.0000	0.0000
8888.5390	7355.9874	331.5850	-1532.5516	7429.0222
331.0560	-44.9425	-67.2935	664265.7895	-8.5835
-8.5827				

Supplementary Text 6

[51378]ENERGY: 12810000	3638.8285	5894.3558	5920.6972	
345.6047	-15349.2953	-1929.5273	0.0000	0.0000
8836.8250	7357.4887	329.6559	-1479.3363	7429.1883
331.0112	-13.0353	-57.1917	664265.7895	-5.6328
-5.6458				
[51414]ENERGY: 12820000	3626.6914	5826.6910	5915.3714	
383.8900	-15359.0605	-1844.2832	0.0000	0.0000
8808.3021	7357.6021	328.5918	-1450.7000	7427.0119
330.9150	-35.8236	-22.1086	664265.7895	-8.6677
-8.6513				
[51464]ENERGY: 12830000	3709.5413	5795.7591	5943.6883	
348.1683	-15316.5457	-1971.0808	0.0000	0.0000
8849.1369	7358.6675	330.1151	-1490.4694	7428.7323
331.0386	-257.6080	-146.8523	664265.7895	-4.1053
-4.1111				
[51500]ENERGY: 12840000	3615.7104	5767.2396	5893.6691	
389.3171	-15419.7899	-1824.6092	0.0000	0.0000
8938.1997	7359.7369	333.4376	-1578.4628	7429.7002
331.0102	41.5565	-92.1611	664265.7895	-7.3497
-7.3615				
[51550]ENERGY: 12850000	3614.9480	5912.5335	5946.6285	
372.7232	-15360.4812	-1883.7575	0.0000	0.0000
8754.8470	7357.4415	326.5977	-1397.4055	7429.4502
330.9315	-39.5040	46.5240	664265.7895	-5.5327
-5.5216				
[51586]ENERGY: 12860000	3572.4806	5892.2674	5889.5252	
383.8040	-15388.5158	-1842.6341	0.0000	0.0000
8850.9612	7357.8885	330.1832	-1493.0728	7430.7388
331.0557	53.0339	13.7126	664265.7895	-2.7723
-2.7818				
[51636]ENERGY: 12870000	3575.5369	5859.1919	5959.4238	
367.5656	-15382.2327	-1853.5454	0.0000	0.0000
8830.2126	7356.1528	329.4092	-1474.0598	7429.2077
331.0388	-13.8096	-43.4393	664265.7895	-3.5054
-3.4858				
[51672]ENERGY: 12880000	3561.3092	5928.8217	5934.7970	
376.4497	-15418.4338	-1839.6973	0.0000	0.0000
8818.3801	7361.6266	328.9678	-1456.7534	7430.1187
331.1070	68.8917	5.8531	664265.7895	-7.4580
-7.4734				
[51722]ENERGY: 12890000	3646.7807	5929.5006	5931.7271	
365.5417	-15439.6967	-1913.4181	0.0000	0.0000
8837.8014	7358.2367	329.6923	-1479.5647	7431.0579
331.3465	-63.2264	59.3011	664265.7895	-8.7777
-8.7685				
[51761]ENERGY: 12900000	3677.2670	5814.4558	5904.4857	
361.2455	-15370.3517	-1851.5031	0.0000	0.0000
8826.6527	7362.2519	329.2764	-1464.4008	7431.6308
331.3321	121.2449	47.6317	664265.7895	-8.5051
-8.5079				
[51811]ENERGY: 12910000	3590.4388	5906.1718	5914.4947	
371.3154	-15443.9415	-1899.2146	0.0000	0.0000
8916.5003	7355.7648	332.6281	-1560.7355	7429.7753
331.3060	-91.9378	-149.5810	664265.7895	-8.6742

Supplementary Text 6

-8.6743
 [51847]ENERGY: 12920000 3630.0780 5825.8003 5926.7793
 360.5494 -15452.0585 -1852.7363 0.0000 0.0000
 8920.1438 7358.5560 332.7640 -1561.5878 7429.4368
 331.1002 67.3652 91.2177 664265.7895 -7.9093
 -7.9011
 [51897]ENERGY: 12930000 3550.2343 5895.6270 5846.1634
 352.8224 -15306.7679 -1898.1521 0.0000 0.0000
 8920.0437 7359.9707 332.7603 -1560.0730 7430.1635
 330.9423 86.3506 102.4773 664265.7895 -10.1177
 -10.1328
 [51933]ENERGY: 12940000 3603.7034 5896.0460 5943.0360
 363.8203 -15326.9148 -1905.0812 0.0000 0.0000
 8785.7310 7360.3406 327.7498 -1425.3904 7431.5114
 330.8557 -70.7046 -138.0823 664265.7895 -4.0970
 -4.0901
 [51983]ENERGY: 12950000 3660.3658 5882.9433 5917.8338
 368.6380 -15427.9706 -1858.4238 0.0000 0.0000
 8819.5106 7362.8971 329.0099 -1456.6135 7432.3503
 331.0315 52.1208 -44.0985 664265.7895 -4.8520
 -4.8618
 [52019]ENERGY: 12960000 3627.9964 5837.6136 5906.9342
 376.4305 -15436.3783 -1766.0979 0.0000 0.0000
 8814.3829 7360.8813 328.8187 -1453.5016 7430.2302
 330.9695 -2.1792 10.3915 664265.7895 0.5672
 0.5772
 [52069]ENERGY: 12970000 3636.1684 5844.6319 5904.1018
 361.9412 -15388.2793 -1880.8121 0.0000 0.0000
 8878.6483 7356.4002 331.2161 -1522.2481 7430.6255
 330.9564 73.9455 -5.2123 664265.7895 -3.3413
 -3.3589
 [52105]ENERGY: 12980000 3648.3847 5839.4502 5894.6101
 353.9069 -15329.0604 -1924.8168 0.0000 0.0000
 8880.4757 7362.9502 331.2842 -1517.5254 7430.3662
 330.9420 -100.0074 -123.1930 664265.7895 -0.8727
 -0.8597
 [52155]ENERGY: 12990000 3662.9759 5917.2911 5955.8112
 372.6476 -15474.4032 -1880.6834 0.0000 0.0000
 8805.8165 7359.4557 328.4991 -1446.3608 7429.9239
 331.0855 78.3010 26.0786 664265.7895 -4.1796
 -4.1744
 [52194]ENERGY: 13000000 3707.5367 5899.1344 5940.7239
 375.4513 -15547.4708 -1840.7034 0.0000 0.0000
 8827.3160 7361.9881 329.3011 -1465.3279 7431.6083
 331.1828 22.4916 -14.6614 664265.7895 -0.9246
 -0.9302
 [52244]ENERGY: 13010000 3683.1825 5830.4428 5945.6905
 360.8825 -15470.1653 -1902.7466 0.0000 0.0000
 8912.8456 7360.1321 332.4918 -1552.7135 7431.8114
 331.0126 -3.4261 2.8746 664265.7895 -1.4344
 -1.4262
 [52280]ENERGY: 13020000 3566.6624 5987.3492 5903.8256
 356.4849 -15379.4653 -1874.0280 0.0000 0.0000
 8798.3426 7359.1713 328.2203 -1439.1712 7431.5351

Supplementary Text 6

330.8416	105.9416	75.9392	664265.7895	-7.1578
-7.1588				
[52330]ENERGY: 13030000	3732.3171	5818.0209	5932.2056	
353.3266	-15414.8296	-1843.5963	0.0000	0.0000
8783.5236	7360.9680	327.6675	-1422.5556	7432.6149
330.7853	-47.9417	-132.7547	664265.7895	-3.3421
-3.3354				
[52366]ENERGY: 13040000	3642.3285	5768.6869	5851.5578	
343.2742	-15438.1741	-1809.2563	0.0000	0.0000
9002.1190	7360.5360	335.8221	-1641.5831	7431.5105
330.7498	11.2133	16.6843	664265.7895	-5.3888
-5.3866				
[52416]ENERGY: 13050000	3649.6667	5844.6832	5892.6753	
335.1129	-15385.7890	-1809.3018	0.0000	0.0000
8834.4755	7361.5228	329.5682	-1472.9527	7432.6904
331.0186	155.0131	40.6197	664265.7895	-2.7136
-2.7398				
[52452]ENERGY: 13060000	3717.8095	5842.3862	5905.6094	
348.0279	-15496.9946	-1785.0112	0.0000	0.0000
8828.3420	7360.1692	329.3394	-1468.1728	7434.2178
330.8184	99.4945	54.2811	664265.7895	-4.9133
-4.8833				
[52502]ENERGY: 13070000	3673.2794	5897.8015	5956.2482	
359.2467	-15443.2947	-1920.7199	0.0000	0.0000
8841.4928	7364.0539	329.8300	-1477.4389	7436.4369
331.0436	-63.6527	-94.4725	664265.7895	-2.7652
-2.7725				
[52538]ENERGY: 13080000	3613.5311	5861.5401	5912.8477	
362.8605	-15404.6264	-1892.8716	0.0000	0.0000
8908.4726	7361.7540	332.3286	-1546.7186	7436.2229
330.9157	111.4093	20.7964	664265.7895	-5.7522
-5.7546				
[52588]ENERGY: 13090000	3566.7373	5788.0582	5893.7917	
363.8817	-15394.6067	-1840.8730	0.0000	0.0000
8987.6212	7364.6105	335.2813	-1623.0107	7436.0933
331.0126	44.7538	-39.7838	664265.7895	-8.2791
-8.2808				
[52627]ENERGY: 13100000	3624.1711	5944.0551	5941.2905	
363.8082	-15426.6778	-1867.8246	0.0000	0.0000
8786.4024	7365.2249	327.7748	-1421.1775	7435.3383
331.0370	-58.0953	-4.4381	664265.7895	-7.4981
-7.4985				
[52677]ENERGY: 13110000	3693.2447	5777.5785	5919.5198	
381.6368	-15417.3263	-1870.5385	0.0000	0.0000
8881.4110	7365.5261	331.3191	-1515.8850	7435.7331
331.1790	-114.6381	-122.1185	664265.7895	-10.7674
-10.7695				
[52713]ENERGY: 13120000	3643.0218	5889.4578	5865.2292	
353.3660	-15403.8515	-1881.2383	0.0000	0.0000
8896.5695	7362.5545	331.8846	-1534.0150	7435.9022
331.2161	69.3751	-4.0121	664265.7895	-3.5364
-3.5195				
[52763]ENERGY: 13130000	3649.4883	5908.8469	5867.1289	
371.9391	-15348.0913	-1887.7242	0.0000	0.0000

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8808.1686	7369.7564	328.5868	-1438.4122	7436.0029
331.2160	-101.1326	-163.2321	664265.7895	-9.4174
-9.4242				
[52799]ENERGY: 13140000	3625.2816	5888.3589	5968.1423	
386.0619	-15385.3739	-1891.6757	0.0000	0.0000
8778.3652	7369.1602	327.4750	-1409.2049	7438.2517
331.2748	107.7235	89.0692	664265.7895	-1.7853
-1.7805				
[52849]ENERGY: 13150000	3639.9102	5839.7319	5961.0953	
363.8247	-15424.3028	-1889.3488	0.0000	0.0000
8872.6310	7363.5416	330.9916	-1509.0894	7437.8003
331.1605	-15.2472	-36.8404	664265.7895	-2.2854
-2.2960				
[52885]ENERGY: 13160000	3581.7199	5890.6878	5917.0670	
357.6475	-15408.0625	-1863.3590	0.0000	0.0000
8890.4095	7366.1101	331.6548	-1524.2994	7438.0920
331.4720	95.4893	137.1541	664265.7895	-7.1311
-7.1313				
[52935]ENERGY: 13170000	3701.7921	5817.7131	5951.3661	
379.4414	-15439.0073	-1898.6856	0.0000	0.0000
8852.2052	7364.8250	330.2296	-1487.3802	7436.4199
331.5606	-19.2089	-99.3648	664265.7895	-5.7284
-5.7519				
[52971]ENERGY: 13180000	3596.1040	5872.4817	5931.6020	
360.5630	-15426.4802	-1834.4347	0.0000	0.0000
8864.8873	7364.7231	330.7027	-1500.1642	7437.7488
331.4793	148.1166	119.0316	664265.7895	-7.8349
-7.8232				
[53021]ENERGY: 13190000	3535.7246	5942.5714	5868.5640	
367.6318	-15407.1494	-1844.2953	0.0000	0.0000
8902.4851	7365.5322	332.1053	-1536.9529	7438.2103
331.3837	85.1450	67.5331	664265.7895	-8.5510
-8.5462				
[53060]ENERGY: 13200000	3645.7459	5856.0287	5927.3496	
369.5900	-15316.1601	-1944.7391	0.0000	0.0000
8830.3793	7368.1943	329.4154	-1462.1849	7438.8927
331.3957	-99.8766	-37.5264	664265.7895	-10.6080
-10.5932				
[53110]ENERGY: 13210000	3643.4235	5918.0888	5969.7292	
357.8913	-15415.8407	-1891.0258	0.0000	0.0000
8784.8773	7367.1436	327.7180	-1417.7337	7439.7327
331.1768	-86.7908	-105.2486	664265.7895	-2.3250
-2.3103				
[53146]ENERGY: 13220000	3665.2432	5864.4529	5883.9157	
371.1851	-15417.8446	-1875.6275	0.0000	0.0000
8877.8215	7369.1462	331.1852	-1508.6753	7439.0649
331.2167	-114.1828	-105.9803	664265.7895	-4.1497
-4.1587				
[53196]ENERGY: 13230000	3607.4209	5951.1575	5951.8889	
362.0414	-15417.1436	-1915.1973	0.0000	0.0000
8830.4414	7370.6094	329.4177	-1459.8321	7439.7649
331.3745	2.2878	-79.9330	664265.7895	-7.6743
-7.6992				
[53232]ENERGY: 13240000	3552.3222	5802.4319	5894.3550	

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372.8873	-15343.4370	-1820.0922	0.0000	0.0000
8908.7854	7367.2526	332.3403	-1541.5328	7439.1268
331.3344	203.7696	25.2240	664265.7895	-4.1538
-4.1529				
[53282]ENERGY: 13250000	3635.2115	5838.7375	5912.8731	
350.9558	-15439.7403	-1827.3962	0.0000	0.0000
8900.8378	7371.4792	332.0438	-1529.3586	7438.9862
331.0423	-6.9650	-48.6683	664265.7895	-9.1880
-9.1819				
[53318]ENERGY: 13260000	3658.7440	5914.0434	5947.3563	
381.8192	-15476.3117	-1823.1027	0.0000	0.0000
8769.7751	7372.3236	327.1546	-1397.4515	7439.8241
331.0489	-53.9883	-122.5877	664265.7895	-6.3890
-6.3801				
[53368]ENERGY: 13270000	3621.0950	5832.1392	5909.6337	
374.4756	-15398.9754	-1856.8139	0.0000	0.0000
8889.3819	7370.9360	331.6165	-1518.4458	7438.7637
331.2947	104.6807	61.2746	664265.7895	-4.2576
-4.2750				
[53404]ENERGY: 13280000	3588.7326	5875.0678	5949.4315	
371.9523	-15479.6129	-1857.7424	0.0000	0.0000
8922.5112	7370.3401	332.8524	-1552.1711	7441.3264
331.2100	75.3835	-34.4999	664265.7895	-9.5667
-9.5507				
[53454]ENERGY: 13290000	3671.0397	5878.0468	5948.8426	
344.6567	-15513.2704	-1821.3925	0.0000	0.0000
8860.3607	7368.2835	330.5338	-1492.0771	7439.5754
331.2538	-12.9763	-25.0280	664265.7895	-6.4535
-6.4674				
[53493]ENERGY: 13300000	3567.0191	5892.8412	5920.3419	
370.7178	-15476.7230	-1851.0615	0.0000	0.0000
8940.7763	7363.9118	333.5337	-1576.8645	7440.6030
331.2917	-8.4162	16.3081	664265.7895	-4.1179
-4.0972				
[53543]ENERGY: 13310000	3630.9518	5900.3656	5890.8143	
360.5550	-15416.3256	-1852.2408	0.0000	0.0000
8856.1462	7370.2666	330.3766	-1485.8796	7441.7116
331.3959	51.9100	1.8542	664265.7895	-3.2989
-3.3000				
[53579]ENERGY: 13320000	3583.6063	5880.3075	5906.1665	
357.9080	-15439.1360	-1819.9900	0.0000	0.0000
8899.5963	7368.4586	331.9975	-1531.1377	7440.5437
331.1954	123.6535	64.8057	664265.7895	-7.7427
-7.7460				
[53629]ENERGY: 13330000	3616.0495	5880.4562	5907.9816	
378.1738	-15407.2583	-1816.4307	0.0000	0.0000
8811.5968	7370.5690	328.7147	-1441.0279	7440.3743
331.2163	10.4443	68.5292	664265.7895	-5.4758
-5.4861				
[53665]ENERGY: 13340000	3580.1135	5835.3255	5980.5437	
375.1164	-15427.9614	-1929.1465	0.0000	0.0000
8954.3455	7368.3366	334.0399	-1586.0088	7441.8853
330.9694	-2.2858	-67.3623	664265.7895	-3.4992
-3.5026				

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[53715]ENERGY: 13350000	3671.4196	5937.2352	5921.0784
353.9248	-15473.0799	-1838.9676	0.0000
8798.9044	7370.5149	328.2412	-1428.3895
331.2541	-101.1083	-77.8125	664265.7895
-1.6409			-1.6481
[53751]ENERGY: 13360000	3692.9585	5798.8062	5888.0195
358.0349	-15485.9778	-1854.4052	0.0000
8972.1082	7369.5442	334.7026	-1602.5640
331.1544	-39.3397	-57.9138	664265.7895
-5.8062			-5.8236
[53801]ENERGY: 13370000	3668.1436	5812.0508	5916.8894
371.4837	-15370.3899	-1923.3540	0.0000
8899.9214	7374.7449	332.0096	-1525.1764
331.4191	-5.3975	-45.1918	664265.7895
-5.2633			-5.2495
[53837]ENERGY: 13380000	3623.0063	5824.3103	5911.4372
367.4579	-15270.7260	-1934.5210	0.0000
8855.8159	7376.7807	330.3643	-1479.0352
331.5809	47.8789	48.8411	664265.7895
-2.7031			-2.7086
[53887]ENERGY: 13390000	3619.9238	5938.7894	5906.0074
359.2615	-15471.5284	-1863.1792	0.0000
8880.8557	7370.1302	331.2984	-1510.7255
331.5804	7.7179	-30.4243	664265.7895
-4.9085			-4.8967
[53926]ENERGY: 13400000	3578.9006	5940.9254	5928.0481
389.0278	-15471.6032	-1795.9169	0.0000
8807.3489	7376.7307	328.5563	-1430.6182
331.5357	144.1237	44.3494	664265.7895
-6.7554			-6.7526
[53976]ENERGY: 13410000	3614.3383	5873.9407	5896.7013
362.6032	-15445.1629	-1875.3105	0.0000
8947.3362	7374.4463	333.7784	-1572.8899
331.6266	126.1121	43.9348	664265.7895
-4.2476			-4.2403
[54012]ENERGY: 13420000	3621.1602	5893.7460	5953.2057
358.2349	-15404.5678	-1871.3458	0.0000
8825.3677	7375.8009	329.2284	-1449.5668
331.5090	173.4864	110.2858	664265.7895
-7.9994			-7.9975
[54062]ENERGY: 13430000	3609.4709	5903.6399	5918.8330
363.0333	-15443.5904	-1854.4175	0.0000
8880.2806	7377.2497	331.2770	-1503.0309
331.5075	-51.7973	-5.5638	664265.7895
-4.6708			-4.6778
[54098]ENERGY: 13440000	3580.3945	5961.1297	5908.9319
356.7596	-15417.8305	-1888.1307	0.0000
8872.5616	7373.8161	330.9890	-1498.7455
331.4679	43.7735	52.6521	664265.7895
-1.6478			-1.6578
[54148]ENERGY: 13450000	3652.6296	5803.1053	5851.2122
366.0202	-15398.6954	-1808.4328	0.0000
8909.6990	7375.5381	332.3744	-1534.1609
331.6069	47.6897	85.2991	664265.7895
			-3.9666

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-3.9768
[54184]ENERGY: 13460000 3669.9561 5860.5225 5878.8988
383.9409 -15430.3072 -1861.4636 0.0000 0.0000
8872.3836 7373.9311 330.9824 -1498.4525 7447.3265
331.4738 174.1085 50.6301 664265.7895 -1.8376
-1.8288
[54234]ENERGY: 13470000 3549.5673 5936.2377 5889.1557
358.7998 -15484.3137 -1807.3891 0.0000 0.0000
8933.1327 7375.1904 333.2486 -1557.9423 7447.2270
331.5225 -45.3990 -33.1669 664265.7895 -5.9030
-5.9109
[54270]ENERGY: 13480000 3645.5879 5814.9179 5961.7729
356.7485 -15479.0123 -1820.6227 0.0000 0.0000
8897.6876 7377.0797 331.9263 -1520.6079 7449.2209
331.6983 65.1526 89.3830 664265.7895 -1.2903
-1.2893
[54320]ENERGY: 13490000 3656.7199 5790.3108 5925.8294
369.7784 -15425.8687 -1853.3444 0.0000 0.0000
8913.3731 7376.7985 332.5115 -1536.5746 7448.1534
331.6560 75.5227 58.5344 664265.7895 -6.3451
-6.3247
[54359]ENERGY: 13500000 3683.2010 5918.6090 5949.1347
365.7858 -15494.5790 -1799.7719 0.0000 0.0000
8764.1100 7386.4895 326.9432 -1377.6204 7450.0872
331.6000 44.3212 65.7922 664265.7895 -5.1311
-5.1488
[54409]ENERGY: 13510000 3699.8061 5900.6128 5904.5732
356.8167 -15478.2223 -1854.4985 0.0000 0.0000
8847.1254 7376.2134 330.0401 -1470.9121 7450.3927
331.6423 -15.3081 9.4209 664265.7895 -5.5867
-5.5714
[54445]ENERGY: 13520000 3650.8970 5888.7375 5943.9013
358.6922 -15403.1315 -1908.4076 0.0000 0.0000
8849.8632 7380.5522 330.1422 -1469.3110 7450.1825
331.5649 -149.3722 -100.9899 664265.7895 -4.5338
-4.5363
[54495]ENERGY: 13530000 3627.3673 5923.8861 5949.4532
364.3568 -15507.0797 -1799.9492 0.0000 0.0000
8817.2711 7375.3055 328.9264 -1441.9656 7448.8608
331.3697 0.7720 97.8126 664265.7895 -5.8345
-5.8359
[54531]ENERGY: 13540000 3727.7046 5853.2664 5908.3774
353.2732 -15521.4113 -1865.3833 0.0000 0.0000
8920.7566 7376.5838 332.7869 -1544.1729 7449.3640
331.5791 11.8076 -92.5963 664265.7895 -6.9993
-7.0065
[54581]ENERGY: 13550000 3629.1961 5886.4570 5909.6620
402.4778 -15446.2272 -1795.5635 0.0000 0.0000
8792.3465 7378.3486 327.9966 -1413.9979 7450.0132
331.5027 254.1786 167.1628 664265.7895 -7.8609
-7.8611
[54617]ENERGY: 13560000 3602.4060 5848.1683 5912.3438
371.8097 -15350.2293 -1825.0877 0.0000 0.0000
8820.4429 7379.8537 329.0447 -1440.5891 7449.1832

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331.4487	-88.0259	-57.2557	664265.7895	-6.6004
-6.6094				
[54667]ENERGY: 13570000	3620.3847	5854.3181	5966.4505	
372.1576	-15466.5932	-1874.6701	0.0000	0.0000
8904.2981	7376.3457	332.1729	-1527.9524	7451.2672
331.3780	8.8552	-20.0887	664265.7895	-8.7700
-8.7640				
[54703]ENERGY: 13580000	3647.9842	5792.4565	5927.0761	
365.4329	-15362.2849	-1922.9673	0.0000	0.0000
8935.7708	7383.4683	333.3470	-1552.3025	7452.8425
331.5972	22.7596	-56.4606	664265.7895	-1.9163
-1.9020				
[54753]ENERGY: 13590000	3689.2285	5953.8977	5914.8749	
365.5598	-15430.7761	-1918.5182	0.0000	0.0000
8807.0905	7381.3570	328.5466	-1425.7335	7452.4949
331.3607	-183.1992	-157.5000	664265.7895	1.7253
1.7252				
[54792]ENERGY: 13600000	3652.1279	5899.1093	5906.9883	
369.1696	-15467.2394	-1898.5400	0.0000	0.0000
8920.6179	7382.2336	332.7817	-1538.3843	7453.8552
331.3485	63.1363	-13.8786	664265.7895	-2.9955
-3.0281				
[54842]ENERGY: 13610000	3577.6174	5872.8546	5928.3540	
350.1261	-15421.2053	-1813.6316	0.0000	0.0000
8888.7182	7382.8334	331.5917	-1505.8848	7452.6494
331.3693	34.8767	-22.3689	664265.7895	0.9919
0.9988				
[54878]ENERGY: 13620000	3668.6406	5892.3948	5903.4480	
364.7983	-15393.8735	-1834.8044	0.0000	0.0000
8783.8488	7384.4526	327.6796	-1399.3962	7452.2806
331.1100	48.9076	55.5161	664265.7895	-4.8774
-4.8563				
[54928]ENERGY: 13630000	3695.4570	5962.6067	5908.9630	
359.6478	-15473.8722	-1895.5902	0.0000	0.0000
8828.7224	7385.9345	329.3536	-1442.7879	7455.0204
331.2385	72.7646	114.2403	664265.7895	-1.6691
-1.6772				
[54964]ENERGY: 13640000	3677.8922	5882.3643	5872.0978	
360.0646	-15401.6394	-1817.8344	0.0000	0.0000
8811.8087	7384.7537	328.7226	-1427.0550	7454.7818
331.0947	-1.4267	-21.2451	664265.7895	-2.8206
-2.8213				
[55014]ENERGY: 13650000	3647.5852	5886.9770	5963.1890	
358.2380	-15463.7026	-1883.6182	0.0000	0.0000
8875.9389	7384.6073	331.1150	-1491.3316	7455.4273
331.3694	-162.9324	-115.6144	664265.7895	-2.3673
-2.3540				
[55050]ENERGY: 13660000	3674.6224	5914.4793	5940.9298	
351.3621	-15408.1623	-1872.7322	0.0000	0.0000
8787.0762	7387.5753	327.8000	-1399.5010	7455.8196
331.1880	0.4942	-58.9957	664265.7895	-2.5854
-2.5945				
[55100]ENERGY: 13670000	3592.9958	5888.1716	6015.9677	
364.1624	-15497.6689	-1814.8726	0.0000	0.0000

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8835.7736	7384.5297	329.6166	-1451.2440	7455.6886
330.9506	89.1744	-27.3894	664265.7895	-2.0023
-2.0200				
[55136]ENERGY: 13680000	3659.7743	5931.9555	5909.3998	
342.8608	-15549.4147	-1770.3603	0.0000	0.0000
8860.6978	7384.9132	330.5464	-1475.7846	7455.7507
331.0742	148.1315	147.7026	664265.7895	0.6815
0.7027				
[55186]ENERGY: 13690000	3634.4173	5859.6888	5902.8562	
348.9983	-15498.2921	-1808.0388	0.0000	0.0000
8945.1598	7384.7894	333.6973	-1560.3704	7455.7291
331.1368	-47.4380	-24.8688	664265.7895	-3.6020
-3.6154				
[55225]ENERGY: 13700000	3591.8441	5876.7951	5927.6678	
360.9759	-15412.3138	-1771.0304	0.0000	0.0000
8811.0858	7385.0247	328.6957	-1426.0611	7455.7130
331.3191	293.9740	265.5066	664265.7895	-2.2940
-2.2950				
[55275]ENERGY: 13710000	3687.1023	5957.5417	5929.4078	
371.0764	-15459.0109	-1850.7457	0.0000	0.0000
8749.4275	7384.7993	326.3955	-1364.6283	7454.8452
331.0402	-146.1525	-91.6511	664265.7895	-3.4501
-3.4226				
[55311]ENERGY: 13720000	3704.2235	5879.7980	5933.2108	
370.4479	-15460.8900	-1856.4548	0.0000	0.0000
8813.8008	7384.1363	328.7969	-1429.6645	7455.4206
331.0758	46.8200	60.9648	664265.7895	-3.1933
-3.2004				
[55361]ENERGY: 13730000	3551.5846	5890.3658	5917.3357	
366.6017	-15489.5850	-1763.8204	0.0000	0.0000
8909.2997	7381.7821	332.3595	-1527.5176	7454.8442
331.4171	80.3178	92.9980	664265.7895	-2.9033
-2.9032				
[55397]ENERGY: 13740000	3749.1100	5851.7974	5905.8123	
352.7003	-15442.3027	-1837.8400	0.0000	0.0000
8805.7706	7385.0479	328.4974	-1420.7228	7455.2196
331.5108	-111.8089	-104.5844	664265.7895	-5.2010
-5.2158				
[55447]ENERGY: 13750000	3563.2687	5927.8938	5967.9937	
352.3857	-15430.6444	-1854.6417	0.0000	0.0000
8862.5698	7388.8256	330.6163	-1473.7441	7458.6176
331.2518	38.0897	-5.1219	664265.7895	-0.8974
-0.8969				
[55483]ENERGY: 13760000	3599.5626	5858.5007	5871.7832	
375.1154	-15462.3446	-1723.2781	0.0000	0.0000
8864.3632	7383.7023	330.6832	-1480.6609	7456.9620
331.4504	62.8152	22.9571	664265.7895	-2.5252
-2.5227				
[55533]ENERGY: 13770000	3653.9189	5961.0400	5906.4730	
344.4111	-15507.8223	-1884.0316	0.0000	0.0000
8911.7539	7385.7431	332.4511	-1526.0108	7457.0061
331.6539	-6.9286	11.7890	664265.7895	-5.9326
-5.9322				
[55569]ENERGY: 13780000	3723.3483	5980.4765	5937.8137	

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386.7978	-15551.9801	-1843.9674	0.0000	0.0000
8755.2004	7387.6892	326.6109	-1367.5112	7457.7850
331.6270	32.6727	-24.6388	664265.7895	-9.5106
-9.5219				
[55619]ENERGY: 13790000	3616.0449	5941.9682	5897.2851	
318.7233	-15400.2447	-1860.9349	0.0000	0.0000
8875.4909	7388.3329	331.0983	-1487.1581	7457.0765
331.5307	-146.1280	-46.2892	664265.7895	-9.1990
-9.1751				
[55658]ENERGY: 13800000	3618.3845	5861.7557	5952.1634	
394.4172	-15403.2057	-1813.0709	0.0000	0.0000
8782.6200	7393.0642	327.6337	-1389.5558	7458.4889
331.6605	-54.0810	-58.6133	664265.7895	-4.8618
-4.8737				
[55708]ENERGY: 13810000	3675.3759	5869.3277	5915.8266	
358.4047	-15340.2289	-1965.6210	0.0000	0.0000
8874.3778	7387.4628	331.0568	-1486.9150	7460.1162
331.7026	-239.5555	-251.8632	664265.7895	-8.5772
-8.5837				
[55744]ENERGY: 13820000	3697.4445	5916.0029	5919.2129	
395.8349	-15463.5207	-1908.5822	0.0000	0.0000
8834.8137	7391.2060	329.5808	-1443.6078	7461.0607
331.2923	13.6677	12.1857	664265.7895	-5.7396
-5.7287				
[55794]ENERGY: 13830000	3708.2966	5790.8960	5915.2627	
367.3561	-15476.1067	-1855.5832	0.0000	0.0000
8937.9875	7388.1089	333.4297	-1549.8785	7459.4838
331.5973	-65.1035	-24.4510	664265.7895	-9.7466
-9.7564				
[55830]ENERGY: 13840000	3682.4496	5812.1138	5983.4242	
354.3983	-15503.6876	-1796.0123	0.0000	0.0000
8855.7872	7388.4732	330.3632	-1467.3140	7460.7509
331.6241	82.7955	74.8596	664265.7895	-5.3934
-5.3831				
[55880]ENERGY: 13850000	3626.5222	5834.3803	5937.5695	
356.5289	-15462.8930	-1825.6316	0.0000	0.0000
8924.0009	7390.4771	332.9079	-1533.5238	7462.4979
331.5981	-149.1441	-180.9712	664265.7895	-4.9703
-4.9920				
[55916]ENERGY: 13860000	3764.6341	5824.5331	5905.4110	
356.2723	-15392.3001	-1895.0422	0.0000	0.0000
8825.5857	7389.0938	329.2366	-1436.4918	7460.6167
331.4918	-121.6304	-122.4107	664265.7895	-5.2349
-5.2035				
[55966]ENERGY: 13870000	3604.8133	5874.1008	5914.3700	
370.3691	-15489.2217	-1836.2233	0.0000	0.0000
8951.1702	7389.3783	333.9215	-1561.7919	7461.5993
331.5693	164.7165	63.3532	664265.7895	-2.8049
-2.8186				
[56002]ENERGY: 13880000	3699.6006	5840.5458	5890.2744	
361.2571	-15504.8900	-1848.9356	0.0000	0.0000
8951.4561	7389.3085	333.9321	-1562.1476	7462.1569
331.8286	-92.3207	-63.0958	664265.7895	-4.8231
-4.8417				

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[56052]ENERGY: 13890000	3628.1295	5837.8869	5895.3510
352.1924	-15447.3009	-1764.5365	0.0000
8888.6922	7390.4146	331.5907	-1498.2775
331.6756	7.0468	81.4687	664265.7895
-1.1592			-1.1787
[56091]ENERGY: 13900000	3575.1482	5867.1248	5905.5210
368.4160	-15431.1493	-1873.5857	0.0000
8981.5049	7392.9799	335.0531	-1588.5250
331.5235	-61.8770	-145.9253	664265.7895
-5.9271			-5.9181
[56141]ENERGY: 13910000	3666.8279	5888.1995	5908.7364
363.3815	-15435.1161	-1862.6367	0.0000
8864.3118	7393.7043	330.6812	-1470.6075
331.8253	-37.4051	-53.9593	664265.7895
-4.5799			-4.5912
[56177]ENERGY: 13920000	3634.4637	5953.4782	5844.5931
372.6662	-15436.8819	-1914.6182	0.0000
8941.2353	7394.9365	333.5509	-1546.2988
331.7958	41.9587	-94.8538	664265.7895
-8.9005			-8.8838
[56227]ENERGY: 13930000	3664.9039	5833.6943	5935.1588
386.9402	-15491.4816	-1835.0526	0.0000
8901.6970	7395.8600	332.0759	-1505.8370
331.9985	40.7967	-6.4492	664265.7895
-0.5600			-0.5831
[56263]ENERGY: 13940000	3653.8785	5797.8799	5953.6763
370.6286	-15360.2336	-1902.0847	0.0000
8887.2584	7401.0034	331.5373	-1486.2550
331.9872	-84.3804	-62.5728	664265.7895
-1.2367			-1.2393
[56313]ENERGY: 13950000	3599.2610	5935.8867	5924.2452
367.9563	-15449.6715	-1833.4016	0.0000
8853.9237	7398.1999	330.2937	-1455.7238
331.8259	185.1933	176.6059	664265.7895
-1.5699			-1.5428
[56349]ENERGY: 13960000	3572.1109	5796.2248	5993.2728
361.4702	-15407.7322	-1854.2863	0.0000
8936.6163	7397.6765	333.3785	-1538.9398
331.7444	86.8982	3.6122	664265.7895
-2.3205			-2.3267
[56399]ENERGY: 13970000	3567.8585	5891.9246	5973.5521
354.4915	-15531.1536	-1785.3644	0.0000
8922.4993	7393.8081	332.8519	-1528.6913
331.7847	70.0220	24.4312	664265.7895
-2.9400			-2.9539
[56435]ENERGY: 13980000	3572.2058	6003.8457	5943.6914
360.6688	-15413.2155	-1855.7061	0.0000
8788.4727	7399.9628	327.8521	-1388.5100
331.8729	-45.9674	-74.7075	664265.7895
-2.8635			-2.8640
[56485]ENERGY: 13990000	3635.6550	5892.9624	5888.6700
346.7461	-15455.7546	-1858.5674	0.0000
8948.2011	7397.9127	333.8107	-1550.2884
331.8023	62.2493	81.4838	664265.7895
			-2.0209

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-2.0283

[56524]ENERGY: 14000000	3689.3364	5919.1814	5899.7786
341.6367	-15423.8189	-1858.4800	0.0000
8834.9036	7402.5378	329.5842	-1432.3658
331.8619	30.3538	67.4973	664265.7895

-7.5006

[56574]ENERGY: 14010000	3584.4712	5950.5960	5913.9632
394.6366	-15452.3669	-1889.7976	0.0000
8894.0193	7395.5217	331.7895	-1498.4976
331.8299	70.2794	18.4152	664265.7895

-2.9908

[56610]ENERGY: 14020000	3709.9385	5893.2846	5924.9807
348.0096	-15469.8087	-1899.1470	0.0000
8889.4454	7396.7031	331.6188	-1492.7423
331.8375	-57.7782	-96.0900	664265.7895

-5.9221

[56660]ENERGY: 14030000	3610.1002	5924.4981	5893.0676
346.9315	-15405.6182	-1835.4242	0.0000
8868.3714	7401.9263	330.8327	-1466.4451
331.8077	-7.0722	-102.1278	664265.7895

-5.9188

[56696]ENERGY: 14040000	3602.1445	5831.5839	5892.8899
357.5404	-15457.6766	-1826.9054	0.0000
8996.8571	7396.4336	335.6258	-1600.4234
331.7974	146.4401	112.1908	664265.7895

-5.4452

[56746]ENERGY: 14050000	3679.4415	5950.5346	5854.0652
368.8451	-15437.1679	-1873.6405	0.0000
8856.8469	7398.9248	330.4028	-1457.9220
332.2054	-71.1236	-58.8376	664265.7895

-4.9802

[56782]ENERGY: 14060000	3606.7357	5868.9396	5794.7660
338.8229	-15396.4589	-1796.2219	0.0000
8982.0375	7398.6209	335.0730	-1583.4166
332.0772	60.5232	10.5381	664265.7895

-3.7806

[56832]ENERGY: 14070000	3584.5948	5822.1923	5887.8811
359.7721	-15403.3292	-1797.9518	0.0000
8947.3410	7400.5002	333.7786	-1546.8407
332.0286	-102.6656	-116.6707	664265.7895

-4.4130

[56868]ENERGY: 14080000	3576.7198	5858.2839	5964.9818
365.6938	-15414.3444	-1844.8573	0.0000
8893.0551	7399.5327	331.7535	-1493.5224
332.2462	-86.7081	-41.9405	664265.7895

-5.5650

[56918]ENERGY: 14090000	3623.4525	5897.9555	5878.1389
372.8336	-15489.2219	-1841.2601	0.0000
8957.9059	7399.8045	334.1727	-1558.1014
332.0889	-68.3632	-86.8787	664265.7895

-5.2047

[56957]ENERGY: 14100000	3669.5510	5877.2812	5913.6092
335.2411	-15440.1538	-1843.6251	0.0000
8890.3483	7402.2518	331.6525	-1488.0965
			7473.4637

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331.9578	-14.8848	39.2149	664265.7895	-6.1878
-6.1779				
[57007]ENERGY: 14110000	3589.6383	5879.9031	5931.2197	
367.8449	-15454.5454	-1867.8027	0.0000	0.0000
8955.4037	7401.6615	334.0794	-1553.7421	7474.2207
332.2042	-136.6469	-154.3175	664265.7895	-4.9493
-4.9455				
[57043]ENERGY: 14120000	3693.3887	5893.2067	5923.7585	
359.6303	-15546.5500	-1818.6129	0.0000	0.0000
8898.0395	7402.8608	331.9394	-1495.1788	7473.2022
332.2060	-67.4848	-0.5772	664265.7895	-9.4514
-9.4719				
[57093]ENERGY: 14130000	3609.9684	5866.8255	5931.8462	
374.0738	-15397.3941	-1842.0287	0.0000	0.0000
8861.6182	7404.9092	330.5808	-1456.7089	7474.9512
332.0150	49.0893	11.7457	664265.7895	-2.6640
-2.6537				
[57129]ENERGY: 14140000	3647.2327	5847.2024	5902.6722	
368.7783	-15431.8600	-1855.6542	0.0000	0.0000
8923.8733	7402.2447	332.9032	-1521.6286	7474.2016
332.0237	-114.8157	-46.0218	664265.7895	-7.6260
-7.6270				
[57179]ENERGY: 14150000	3564.8270	5815.0130	5900.4326	
340.1562	-15334.2719	-1852.1380	0.0000	0.0000
8971.0409	7405.0598	334.6627	-1565.9811	7475.4761
332.0709	-30.7294	-64.4073	664265.7895	-1.1180
-1.1055				
[57215]ENERGY: 14160000	3668.2910	5877.2443	5880.4336	
360.5826	-15479.1479	-1816.4179	0.0000	0.0000
8913.0285	7404.0143	332.4986	-1509.0143	7474.3418
332.1112	-59.6765	-122.6102	664265.7895	-2.2441
-2.2686				
[57265]ENERGY: 14170000	3556.2603	5937.9214	5969.8298	
363.0564	-15460.8224	-1834.6290	0.0000	0.0000
8872.4222	7404.0386	330.9838	-1468.3836	7475.7106
332.0388	225.8222	243.4134	664265.7895	-3.8227
-3.8139				
[57301]ENERGY: 14180000	3593.9728	5861.5599	5885.3761	
353.3179	-15370.9947	-1853.7109	0.0000	0.0000
8936.9369	7406.4579	333.3905	-1530.4790	7476.7341
332.0425	149.0535	66.4702	664265.7895	-2.4546
-2.4518				
[57351]ENERGY: 14190000	3619.9911	5813.1188	5900.9779	
378.5113	-15464.1046	-1749.4406	0.0000	0.0000
8904.4375	7403.4913	332.1781	-1500.9461	7478.1068
332.0332	32.0311	-7.4674	664265.7895	-3.0402
-3.0401				
[57390]ENERGY: 14200000	3651.3207	5944.1872	5880.6259	
366.9418	-15394.8816	-1923.9367	0.0000	0.0000
8883.5487	7407.8061	331.3989	-1475.7426	7480.4466
331.9678	-146.4541	-143.7793	664265.7895	-4.6584
-4.6511				
[57440]ENERGY: 14210000	3612.2890	5945.1500	5883.6448	
402.8512	-15487.0377	-1780.2065	0.0000	0.0000

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8827.2083	7403.8991	329.2971	-1423.3091	7477.2621
332.1384	-7.6313	27.8693	664265.7895	-5.7841
-5.8114				
[57476]ENERGY: 14220000	3604.8403	5948.8330	5902.0729	
355.5503	-15441.4175	-1868.2679	0.0000	0.0000
8906.2823	7407.8934	332.2469	-1498.3889	7478.6655
332.1639	-56.6230	-57.8906	664265.7895	-5.0956
-5.0790				
[57526]ENERGY: 14230000	3594.8306	5882.4403	5925.5463	
378.0153	-15425.9290	-1865.8021	0.0000	0.0000
8916.1423	7405.2436	332.6148	-1510.8987	7480.7148
332.1761	151.8772	91.8567	664265.7895	-4.1209
-4.1223				
[57562]ENERGY: 14240000	3695.7386	5835.7904	5974.3160	
340.3314	-15518.6259	-1785.7239	0.0000	0.0000
8867.3240	7409.1508	330.7936	-1458.1732	7479.9073
331.9884	5.3928	59.7325	664265.7895	-3.5252
-3.5029				
[57612]ENERGY: 14250000	3616.2046	5965.4179	5937.7368	
382.0158	-15486.9418	-1864.0759	0.0000	0.0000
8856.7200	7407.0775	330.3980	-1449.6425	7481.6740
331.9350	43.1934	50.7603	664265.7895	-3.4294
-3.4569				
[57648]ENERGY: 14260000	3642.7765	5871.8785	5896.8891	
356.9062	-15370.4134	-1894.2997	0.0000	0.0000
8907.1384	7410.8756	332.2789	-1496.2629	7482.9277
331.9917	-45.9341	-76.0318	664265.7895	-4.8496
-4.8334				
[57698]ENERGY: 14270000	3639.3477	5868.5405	5876.5670	
377.0273	-15477.2408	-1862.1615	0.0000	0.0000
8989.4447	7411.5250	335.3493	-1577.9197	7481.7321
332.0915	-3.4593	-68.5846	664265.7895	-7.5475
-7.5602				
[57734]ENERGY: 14280000	3623.6832	5862.3415	5920.2644	
348.2279	-15396.3467	-1826.7607	0.0000	0.0000
8876.1058	7407.5153	331.1212	-1468.5904	7481.5237
332.0055	28.4103	9.3534	664265.7895	-6.1787
-6.1551				
[57784]ENERGY: 14290000	3664.9620	5898.8691	5922.3875	
365.2139	-15416.9974	-1936.5861	0.0000	0.0000
8912.2287	7410.0776	332.4688	-1502.1510	7482.1656
332.0265	-121.4535	-147.7496	664265.7895	-6.6707
-6.6748				
[57823]ENERGY: 14300000	3691.2801	5885.3251	5903.3794	
380.6768	-15395.6228	-1839.0533	0.0000	0.0000
8786.3436	7412.3289	327.7727	-1374.0146	7482.2394
332.0240	-24.2124	-104.0313	664265.7895	-4.0125
-4.0486				
[57873]ENERGY: 14310000	3658.5867	5931.0464	5975.9320	
371.9783	-15513.7302	-1830.2745	0.0000	0.0000
8817.7917	7411.3306	328.9458	-1406.4611	7483.1017
332.3097	-63.4783	-29.6625	664265.7895	-1.7601
-1.7273				
[57909]ENERGY: 14320000	3657.9201	5830.0867	5937.4941	

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361.6681	-15452.6635	-1842.1112	0.0000	0.0000
8918.5542	7410.9486	332.7047	-1507.6056	7483.8473
332.2524	-5.9421	-74.3525	664265.7895	-0.2150
-0.2196				
[57959]ENERGY: 14330000	3656.3062	5893.3593	5910.9039	
374.3469	-15508.2386	-1816.8182	0.0000	0.0000
8900.7596	7410.6191	332.0409	-1490.1404	7482.2167
332.0547	11.4510	-56.7053	664265.7895	-0.5838
-0.5894				
[57995]ENERGY: 14340000	3636.2815	6029.0803	5932.3431	
364.3351	-15504.0732	-1896.6763	0.0000	0.0000
8851.7855	7413.0761	330.2140	-1438.7094	7481.8094
332.0598	153.3554	36.5934	664265.7895	-6.7532
-6.7617				
[58045]ENERGY: 14350000	3688.3854	5840.5171	5907.5365	
352.6211	-15406.2496	-1855.9452	0.0000	0.0000
8888.6496	7415.5151	331.5892	-1473.1345	7482.5629
332.1261	-29.5376	-42.4757	664265.7895	-3.8171
-3.8158				
[58081]ENERGY: 14360000	3713.1438	5868.6024	5964.6178	
323.5900	-15491.1380	-1857.4626	0.0000	0.0000
8890.1442	7411.4977	331.6449	-1478.6465	7483.2796
332.3072	-33.5243	-123.1800	664265.7895	-4.7840
-4.8001				
[58131]ENERGY: 14370000	3626.1089	5932.4551	5948.1306	
367.8540	-15533.7348	-1810.4022	0.0000	0.0000
8883.1529	7413.5646	331.3841	-1469.5883	7483.4108
332.2149	5.9588	-45.0189	664265.7895	-9.3606
-9.3379				
[58167]ENERGY: 14380000	3584.9042	5860.3258	5908.2647	
344.3782	-15444.9249	-1849.6369	0.0000	0.0000
9005.1572	7408.4683	335.9354	-1596.6889	7483.4976
332.4000	125.7962	-13.6701	664265.7895	-2.0771
-2.0944				
[58217]ENERGY: 14390000	3629.6989	5855.8028	5889.5346	
351.9480	-15381.9165	-1870.3952	0.0000	0.0000
8935.4903	7410.1630	333.3365	-1525.3274	7484.1137
332.3916	116.7398	-49.2294	664265.7895	-5.5592
-5.5532				
[58256]ENERGY: 14400000	3650.3207	5859.4168	5898.7330	
379.6401	-15406.2097	-1900.7853	0.0000	0.0000
8933.3776	7414.4933	333.2577	-1518.8844	7484.4652
332.0281	22.2290	-26.9255	664265.7895	-4.0901
-4.0783				
[58306]ENERGY: 14410000	3635.7851	5923.5490	5884.6345	
373.6349	-15389.2153	-1846.3289	0.0000	0.0000
8825.3628	7407.4221	329.2283	-1417.9407	7483.4763
332.0783	-76.1253	-64.3974	664265.7895	-2.9946
-3.0071				
[58342]ENERGY: 14420000	3581.5691	5915.1434	5948.7200	
356.8379	-15398.2910	-1866.1589	0.0000	0.0000
8873.5024	7411.3230	331.0241	-1462.1794	7483.4711
331.8581	63.5766	8.1620	664265.7895	-0.1436
-0.1225				

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[58392]ENERGY: 14430000	3677.3468	5813.4105	5922.0250	
349.7021	-15449.0758	-1807.7023	0.0000	0.0000
8906.6653	7412.3715	332.2612	-1494.2937	7484.0738
331.7944	-27.7721	19.4269	664265.7895	-0.3537
-0.3657				
[58428]ENERGY: 14440000	3609.0907	5856.2442	5971.2647	
361.7256	-15485.4976	-1850.2372	0.0000	0.0000
8954.4338	7417.0242	334.0432	-1537.4096	7487.0859
332.0067	29.0515	-6.5178	664265.7895	-5.2772
-5.2730				
[58478]ENERGY: 14450000	3610.6578	5945.3878	5926.4353	
359.0300	-15393.5224	-1878.4562	0.0000	0.0000
8845.5158	7415.0481	329.9801	-1430.4677	7485.3347
331.8673	103.7887	108.1287	664265.7895	-3.6070
-3.6046				
[58514]ENERGY: 14460000	3702.8271	5895.7865	5867.6811	
366.4021	-15393.7952	-1851.3021	0.0000	0.0000
8829.1105	7416.7101	329.3681	-1412.4005	7486.1407
331.8642	4.9249	-25.2039	664265.7895	-3.4945
-3.4912				
[58564]ENERGY: 14470000	3618.7790	5827.3232	5927.6265	
367.0874	-15468.9923	-1813.9805	0.0000	0.0000
8955.4280	7413.2714	334.0803	-1542.1567	7484.7981
331.8993	210.3503	174.3718	664265.7895	-5.1872
-5.1979				
[58600]ENERGY: 14480000	3801.0030	5703.7419	5937.5182	
344.6225	-15408.2195	-1897.5561	0.0000	0.0000
8933.7947	7414.9047	333.2733	-1518.8900	7484.9742
332.1745	-4.0515	-52.4981	664265.7895	-4.2048
-4.2117				
[58650]ENERGY: 14490000	3660.7424	5962.0163	5989.8720	
340.5943	-15471.7423	-1880.9241	0.0000	0.0000
8815.8172	7416.3757	328.8722	-1399.4415	7485.9406
332.1278	-10.4776	-115.0630	664265.7895	-4.2620
-4.2616				
[58689]ENERGY: 14500000	3675.8426	5885.9136	5896.1810	
361.6076	-15393.4138	-1914.4494	0.0000	0.0000
8901.0407	7412.7223	332.0514	-1488.3184	7486.0654
332.1696	-35.7280	-124.3263	664265.7895	-5.3454
-5.3447				
[58739]ENERGY: 14510000	3581.6267	5992.9859	5949.3265	
375.5905	-15507.1037	-1834.8971	0.0000	0.0000
8856.6316	7414.1604	330.3947	-1442.4711	7486.9467
332.1229	155.8683	116.5468	664265.7895	-4.4943
-4.4825				
[58775]ENERGY: 14520000	3652.2594	5852.4970	5936.1066	
363.3110	-15446.5315	-1793.7853	0.0000	0.0000
8854.6567	7418.5138	330.3211	-1436.1429	7487.8771
332.2148	34.5715	14.3502	664265.7895	-6.9301
-6.9467				
[58825]ENERGY: 14530000	3670.1131	5788.2864	5952.6867	
370.5506	-15352.7759	-1902.7423	0.0000	0.0000
8891.4868	7417.6055	331.6950	-1473.8812	7488.7623
332.3321	-48.8184	-142.6854	664265.7895	-2.5278

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-2.5198
 [58861]ENERGY: 14540000 3615.1666 5817.6080 6003.4487
 357.2778 -15495.0363 -1847.5834 0.0000 0.0000
 8965.3100 7416.1916 334.4490 -1549.1184 7489.0390
 332.2837 -58.3496 -35.0833 664265.7895 -2.4135
 -2.4128
 [58911]ENERGY: 14550000 3593.4419 5803.0716 5964.9959
 371.6347 -15415.1389 -1890.0281 0.0000 0.0000
 8986.0888 7414.0658 335.2241 -1572.0230 7488.2007
 332.3697 87.7588 -1.1730 664265.7895 -1.7794
 -1.7640
 [58947]ENERGY: 14560000 3575.9792 5958.7393 5952.1943
 383.8892 -15509.7212 -1840.1300 0.0000 0.0000
 8894.3932 7415.3440 331.8034 -1479.0492 7488.1571
 332.4633 -88.6291 -128.7898 664265.7895 -3.9900
 -3.9951
 [58997]ENERGY: 14570000 3574.0033 5885.2468 5941.1601
 362.9325 -15362.9296 -1880.0032 0.0000 0.0000
 8893.0963 7413.5062 331.7550 -1479.5901 7488.2120
 332.3831 137.1353 63.6733 664265.7895 -3.0667
 -3.0852
 [59033]ENERGY: 14580000 3625.8368 5755.6355 5963.8194
 350.8565 -15364.8565 -1833.4365 0.0000 0.0000
 8917.0852 7414.9403 332.6499 -1502.1449 7488.2254
 332.1893 -14.2947 -1.6332 664265.7895 -5.5319
 -5.5060
 [59083]ENERGY: 14590000 3623.7369 5924.6497 5931.9236
 360.9673 -15392.5757 -1810.7836 0.0000 0.0000
 8787.2637 7425.1819 327.8070 -1362.0818 7490.8893
 332.4182 3.6754 -38.7575 664265.7895 -2.5110
 -2.5091
 [59122]ENERGY: 14600000 3563.7481 5872.6356 5904.8843
 346.4157 -15425.7623 -1839.7367 0.0000 0.0000
 8995.9777 7418.1624 335.5930 -1577.8153 7490.9702
 332.5866 120.5344 10.3669 664265.7895 0.0370
 0.0177
 [59172]ENERGY: 14610000 3627.4973 5880.8166 5948.7782
 337.5586 -15443.4946 -1883.6972 0.0000 0.0000
 8951.0925 7418.5514 333.9186 -1532.5411 7489.0799
 332.5947 -14.6241 3.7475 664265.7895 -1.7985
 -1.8012
 [59208]ENERGY: 14620000 3648.7296 5962.6710 5967.5959
 370.6478 -15519.1437 -1911.0555 0.0000 0.0000
 8898.8271 7418.2721 331.9688 -1480.5550 7491.2708
 332.5800 -88.6830 -77.1643 664265.7895 -0.2109
 -0.2040
 [59258]ENERGY: 14630000 3608.4637 5960.1805 5914.5580
 344.3536 -15410.1379 -1813.5802 0.0000 0.0000
 8819.9153 7423.7530 329.0250 -1396.1623 7491.7571
 332.4907 117.9995 47.2692 664265.7895 1.6588
 1.6647
 [59294]ENERGY: 14640000 3625.9162 5890.4532 5932.6023
 376.6233 -15539.7547 -1790.9743 0.0000 0.0000
 8922.9868 7417.8527 332.8701 -1505.1341 7490.4553

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332.4764	-65.2923	-15.5578	664265.7895	-2.7032
-2.6935				
[59344]ENERGY: 14650000	3652.7136	5899.0650	5881.1441	
336.0292	-15472.3615	-1836.3147	0.0000	0.0000
8960.0032	7420.2789	334.2510	-1539.7243	7492.0641
332.5772	25.4897	19.9100	664265.7895	-0.3453
-0.3546				
[59380]ENERGY: 14660000	3566.9444	5957.0621	5857.1488	
363.4951	-15418.4487	-1801.2171	0.0000	0.0000
8893.2596	7418.2442	331.7611	-1475.0154	7491.4494
332.6769	-15.2736	-3.2490	664265.7895	-7.9772
-7.9951				
[59430]ENERGY: 14670000	3599.6310	5827.3802	5927.5788	
339.2783	-15360.3768	-1818.4094	0.0000	0.0000
8904.3707	7419.4529	332.1756	-1484.9178	7492.0562
332.5391	-35.6599	-94.0652	664265.7895	-3.6627
-3.6490				
[59466]ENERGY: 14680000	3630.0146	5944.2550	5921.6600	
375.0673	-15497.7956	-1872.3135	0.0000	0.0000
8919.1803	7420.0681	332.7281	-1499.1122	7492.3640
332.6462	29.6304	-62.1446	664265.7895	-4.3470
-4.3484				
[59516]ENERGY: 14690000	3634.2550	5844.2771	5877.5833	
362.6788	-15385.1027	-1839.4410	0.0000	0.0000
8926.3511	7420.6016	332.9956	-1505.7495	7492.6136
332.6427	211.0039	124.8456	664265.7895	-3.0184
-3.0332				
[59555]ENERGY: 14700000	3640.2548	5835.1032	5893.8839	
351.8339	-15471.7114	-1831.0660	0.0000	0.0000
9001.7955	7420.0939	335.8100	-1581.7016	7492.1518
332.5776	-106.7198	-67.0014	664265.7895	-3.3369
-3.3272				
[59605]ENERGY: 14710000	3604.3174	5924.3227	5875.6778	
354.1386	-15372.1034	-1874.9387	0.0000	0.0000
8912.2265	7423.6409	332.4687	-1488.5856	7493.0910
332.6181	1.7229	32.9771	664265.7895	-4.5854
-4.5803				
[59641]ENERGY: 14720000	3604.5532	5912.4491	5950.0106	
359.8858	-15507.5485	-1840.9237	0.0000	0.0000
8941.1735	7419.5999	333.5486	-1521.5736	7493.2926
332.7986	-23.1147	-104.9516	664265.7895	0.8215
0.8167				
[59691]ENERGY: 14730000	3644.3551	5902.0703	5931.8638	
392.7918	-15562.3468	-1806.6311	0.0000	0.0000
8915.1012	7417.2043	332.5759	-1497.8969	7493.1079
332.7041	-25.4233	18.5729	664265.7895	-4.9683
-4.9494				
[59727]ENERGY: 14740000	3628.0801	5843.2338	5919.4700	
365.0679	-15351.1648	-1934.3781	0.0000	0.0000
8952.7169	7423.0258	333.9792	-1529.6911	7494.6536
332.5957	34.6132	-50.8368	664265.7895	-6.9886
-7.0112				
[59777]ENERGY: 14750000	3654.8610	5852.5115	5958.9419	
339.6935	-15519.6257	-1801.7411	0.0000	0.0000

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8936.1947	7420.8357	333.3628	-1515.3590	7494.0145
332.7260	102.1260	14.5091	664265.7895	-2.3770
-2.3853				
[59813]ENERGY: 14760000	3601.7636	5872.1147	5914.0196	
357.5844	-15385.4988	-1850.7593	0.0000	0.0000
8912.4108	7421.6350	332.4756	-1490.7758	7494.2272
332.7962	57.4680	47.2278	664265.7895	-1.7054
-1.6782				
[59863]ENERGY: 14770000	3577.4344	5877.3151	5912.0313	
359.0076	-15359.6598	-1907.6865	0.0000	0.0000
8964.7588	7423.2010	334.4284	-1541.5578	7495.9185
332.5239	71.7202	6.3106	664265.7895	-5.2346
-5.2449				
[59899]ENERGY: 14780000	3610.4109	5861.4715	5913.9198	
340.4489	-15390.9940	-1865.3268	0.0000	0.0000
8954.5800	7424.5103	334.0487	-1530.0697	7495.3708
332.5591	-116.1977	-68.1704	664265.7895	-7.5251
-7.5121				
[59949]ENERGY: 14790000	3637.5769	5995.2295	5913.4205	
344.2985	-15452.6237	-1877.2867	0.0000	0.0000
8865.0723	7425.6874	330.7096	-1439.3849	7496.5692
332.6405	57.2967	25.9371	664265.7895	-1.7200
-1.7307				
[59988]ENERGY: 14800000	3633.3657	5882.9050	5918.6359	
359.0484	-15399.4579	-1842.7988	0.0000	0.0000
8875.3473	7427.0456	331.0929	-1448.3017	7498.0807
332.4745	105.9246	15.9859	664265.7895	-9.1073
-9.1234				
[60038]ENERGY: 14810000	3664.5908	5871.7164	5945.1379	
348.4265	-15549.5443	-1792.8963	0.0000	0.0000
8938.9501	7426.3811	333.4656	-1512.5690	7496.7346
332.8208	76.3374	56.1120	664265.7895	-5.7474
-5.7226				
[60074]ENERGY: 14820000	3599.8279	5951.3137	5918.3513	
361.3354	-15485.9546	-1908.8652	0.0000	0.0000
8987.4337	7423.4422	335.2743	-1563.9914	7497.0097
332.9148	36.9631	35.4775	664265.7895	-6.7683
-6.7795				
[60124]ENERGY: 14830000	3627.1968	5876.4189	5943.7009	
362.5915	-15457.8565	-1820.1466	0.0000	0.0000
8895.9671	7427.8721	331.8621	-1468.0950	7497.3790
332.8754	-74.7058	-13.2280	664265.7895	-4.9868
-4.9864				
[60160]ENERGY: 14840000	3656.5210	5935.9603	5875.4322	
343.0046	-15479.2157	-1846.5408	0.0000	0.0000
8939.4817	7424.6433	333.4854	-1514.8384	7498.2476
332.8692	69.7381	-0.5253	664265.7895	-8.1440
-8.1579				
[60210]ENERGY: 14850000	3631.1100	6009.1267	5905.9570	
367.2719	-15563.3982	-1883.8516	0.0000	0.0000
8956.3786	7422.5945	334.1158	-1533.7841	7498.5500
332.7649	-54.4422	-28.2332	664265.7895	-7.7982
-7.7686				
[60246]ENERGY: 14860000	3709.9472	5916.8646	5927.8957	

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383.2021	-15547.0179	-1867.5223	0.0000	0.0000
8901.6968	7425.0663	332.0759	-1476.6305	7498.6184
332.8865	60.7489	79.5289	664265.7895	-5.7442
-5.7594				
[60296]ENERGY: 14870000	3647.9911	5921.7373	5960.1783	
372.5135	-15430.9227	-1831.2326	0.0000	0.0000
8791.0109	7431.2758	327.9468	-1359.7352	7499.4672
332.6123	279.3686	93.4325	664265.7895	-8.1985
-8.2205				
[60332]ENERGY: 14880000	3675.6731	5855.5907	5973.2693	
350.8205	-15477.9210	-1861.8275	0.0000	0.0000
8912.1500	7427.7551	332.4658	-1484.3949	7497.5793
332.6086	29.8163	-37.8754	664265.7895	-3.2766
-3.2508				
[60382]ENERGY: 14890000	3661.6292	5926.7867	5914.6688	
353.9174	-15412.2862	-1868.3161	0.0000	0.0000
8850.2032	7426.6029	330.1549	-1423.6003	7496.3180
332.8132	6.1394	20.2411	664265.7895	-9.2841
-9.2763				
[60421]ENERGY: 14900000	3631.7793	5984.6174	5948.0197	
358.8306	-15450.3552	-1857.2580	0.0000	0.0000
8813.0347	7428.6685	328.7684	-1384.3662	7498.8659
332.7051	-42.6556	1.8832	664265.7895	-6.4220
-6.4227				
[60471]ENERGY: 14910000	3685.7583	5857.1957	5930.6108	
347.3923	-15433.7123	-1845.3062	0.0000	0.0000
8883.5748	7425.5135	331.3998	-1458.0614	7497.5918
332.4886	66.5124	2.6873	664265.7895	-10.3190
-10.3197				
[60507]ENERGY: 14920000	3706.4122	5952.0230	5903.4309	
352.7657	-15426.6394	-1924.7636	0.0000	0.0000
8860.7091	7423.9379	330.5468	-1436.7712	7498.1939
332.3818	-218.3378	-142.1077	664265.7895	-8.3053
-8.3179				
[60557]ENERGY: 14930000	3657.8370	5916.1116	5931.6975	
374.0043	-15526.2039	-1790.8875	0.0000	0.0000
8863.7969	7426.3558	330.6620	-1437.4410	7498.6556
332.4278	22.1784	134.2302	664265.7895	-7.3847
-7.3847				
[60593]ENERGY: 14940000	3658.1783	5842.6363	5922.0795	
344.4695	-15431.2796	-1828.1877	0.0000	0.0000
8920.2706	7428.1669	332.7688	-1492.1037	7500.5262
332.7337	93.2734	54.7151	664265.7895	-6.7325
-6.7319				
[60643]ENERGY: 14950000	3579.8088	5764.7759	5973.3106	
345.6111	-15361.9071	-1758.6109	0.0000	0.0000
8888.7746	7431.7629	331.5938	-1457.0117	7500.8266
332.6612	108.6082	39.3496	664265.7895	-7.6120
-7.6182				
[60679]ENERGY: 14960000	3707.8390	5923.8559	5961.0392	
356.5699	-15431.3820	-1891.6869	0.0000	0.0000
8806.6054	7432.8405	328.5285	-1373.7649	7503.3665
332.8801	-188.2572	-200.5972	664265.7895	-7.3415
-7.3333				

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[60729]ENERGY: 14970000	3653.3089	5877.1048	5909.2002
337.0294	-15527.9385	-1806.9321	0.0000
8990.1962	7431.9690	335.3773	-1558.2272
332.9243	56.8791	62.3913	664265.7895
-0.6051			-0.5996
[60765]ENERGY: 14980000	3599.2865	5864.1644	5910.1379
383.0584	-15433.5443	-1846.0779	0.0000
8956.9813	7434.0063	334.1383	-1522.9750
332.9528	126.2506	35.4428	664265.7895
-4.6588			-4.6612
[60815]ENERGY: 14990000	3703.9875	5846.5948	5923.6897
382.9098	-15546.4637	-1797.2500	0.0000
8916.2895	7429.7576	332.6203	-1486.5319
332.8429	228.3451	83.7771	664265.7895
-8.9231			-8.9405
[60854]ENERGY: 15000000	3579.3094	5826.6884	5898.5987
344.8933	-15388.9867	-1825.6618	0.0000
8993.2782	7428.1194	335.4923	-1565.1588
332.9609	123.8898	17.0744	664265.7895
1.3843			1.4008
[60904]ENERGY: 15010000	3665.3753	5905.5143	5905.4174
361.3185	-15535.4593	-1823.1984	0.0000
8955.1957	7434.1635	334.0716	-1521.0322
332.8802	-26.0312	-82.6003	664265.7895
-2.9809			-2.9930
[60940]ENERGY: 15020000	3625.0751	5844.4902	5892.4715
345.1185	-15399.2124	-1853.4528	0.0000
8975.4653	7429.9555	334.8278	-1545.5099
332.7641	90.3407	54.5240	664265.7895
-2.3929			-2.3700
[60990]ENERGY: 15030000	3638.9971	5924.4745	5886.7043
395.8191	-15385.3543	-1818.0108	0.0000
8794.1063	7436.7361	328.0622	-1357.3702
332.6273	16.6486	36.6710	664265.7895
0.2483			0.2304
[61026]ENERGY: 15040000	3628.4173	5827.1680	5887.3797
342.3372	-15407.4496	-1810.7610	0.0000
8964.4519	7431.5435	334.4169	-1532.9084
332.5348	-33.9350	13.7869	664265.7895
-8.5799			-8.5727
[61076]ENERGY: 15050000	3672.7952	5853.5125	5905.7352
353.6609	-15380.8224	-1883.2836	0.0000
8910.6670	7432.2649	332.4105	-1478.4022
332.7253	-110.9481	-130.6888	664265.7895
-1.9744			-1.9656
[61112]ENERGY: 15060000	3628.4397	5998.7340	5898.7613
360.8084	-15429.7298	-1801.0368	0.0000
8785.1905	7441.1673	327.7296	-1344.0233
332.7345	15.3538	66.8162	664265.7895
-4.7923			-4.8177
[61162]ENERGY: 15070000	3653.2489	5869.4294	5898.3330
362.9002	-15462.7694	-1892.1922	0.0000
9003.7021	7432.6521	335.8812	-1571.0500
332.8117	40.5290	-7.4400	664265.7895
			-5.6596

Supplementary Text 6

-5.6741
[61198]ENERGY: 15080000 3609.1090 5929.2592 5895.2676
350.2768 -15378.8953 -1914.2545 0.0000 0.0000
8941.1189 7431.8817 333.5465 -1509.2372 7507.7532
332.8567 -59.9946 -52.4584 664265.7895 -10.8466
-10.8437
[61248]ENERGY: 15090000 3640.2960 5879.8121 5930.8512
364.5932 -15514.5771 -1833.5852 0.0000 0.0000
8967.6088 7434.9990 334.5347 -1532.6098 7505.8082
332.6451 65.3640 75.5855 664265.7895 -8.1313
-8.1311
[61287]ENERGY: 15100000 3551.1906 5931.1006 5941.0403
356.9475 -15394.9613 -1833.0677 0.0000 0.0000
8883.0017 7435.2517 331.3785 -1447.7500 7505.4751
332.7576 280.8260 269.4109 664265.7895 -9.3423
-9.3343
[61337]ENERGY: 15110000 3731.5972 5814.7046 5953.6711
362.4280 -15423.4020 -1961.9561 0.0000 0.0000
8957.0885 7434.1312 334.1423 -1522.9573 7506.6590
332.6985 -239.0608 -193.6685 664265.7895 -3.6764
-3.6979
[61373]ENERGY: 15120000 3681.7122 5897.3775 5919.8385
357.7177 -15479.1792 -1851.2805 0.0000 0.0000
8912.4163 7438.6025 332.4758 -1473.8138 7508.1167
332.7131 -64.5693 -64.3407 664265.7895 -5.4481
-5.4381
[61423]ENERGY: 15130000 3714.0078 5847.4099 5934.9544
371.2214 -15496.6894 -1859.7679 0.0000 0.0000
8925.1845 7436.3208 332.9521 -1488.8637 7508.1622
332.7733 123.9662 19.6818 664265.7895 -5.1837
-5.1917
[61459]ENERGY: 15140000 3727.8242 5983.2776 5882.8660
376.6234 -15535.6764 -1833.4409 0.0000 0.0000
8837.2062 7438.6801 329.6701 -1398.5261 7508.6125
332.9151 -235.7597 -243.6726 664265.7895 -7.6325
-7.6366
[61509]ENERGY: 15150000 3671.4202 5859.0866 5956.2158
376.7650 -15467.7434 -1906.1389 0.0000 0.0000
8945.6811 7435.2864 333.7167 -1510.3947 7508.2447
333.0725 -200.7712 -107.2320 664265.7895 -5.2998
-5.3066
[61545]ENERGY: 15160000 3642.2563 5945.7703 5966.5320
370.4030 -15433.3260 -1927.3907 0.0000 0.0000
8871.9768 7436.2216 330.9672 -1435.7552 7509.5935
332.7588 -84.0335 -133.9969 664265.7895 -5.5286
-5.5120
[61595]ENERGY: 15170000 3640.9993 5915.0853 5952.1545
350.5507 -15459.8030 -1882.4140 0.0000 0.0000
8916.4552 7433.0281 332.6264 -1483.4271 7509.2865
333.0176 58.6823 34.3089 664265.7895 -4.9187
-4.8880
[61631]ENERGY: 15180000 3728.6729 5962.0760 5870.7079
360.4781 -15576.8671 -1851.3374 0.0000 0.0000
8942.6901 7436.4206 333.6051 -1506.2695 7510.1869

Supplementary Text 6

333.0281	22.8782	-23.2376	664265.7895	-0.1648
-0.1800				
[61681]ENERGY: 15190000	3617.8183	5839.1662	5850.4720	
370.4108	-15443.5886	-1815.9162	0.0000	0.0000
9020.9255	7439.2881	336.5237	-1581.6374	7510.3696
333.0514	79.9076	51.3157	664265.7895	-4.7174
-4.7408				
[61720]ENERGY: 15200000	3644.4772	5821.4593	5935.8251	
353.7824	-15438.8086	-1799.9262	0.0000	0.0000
8921.9589	7438.7680	332.8318	-1483.1909	7510.2712
333.0346	70.5489	44.9931	664265.7895	-3.3895
-3.3844				
[61770]ENERGY: 15210000	3588.1344	5793.2432	5946.6006	
337.6076	-15423.2262	-1843.7270	0.0000	0.0000
9038.9446	7437.5773	337.1959	-1601.3673	7510.5249
332.8254	-47.1161	-36.7262	664265.7895	-2.2968
-2.2883				
[61806]ENERGY: 15220000	3578.5461	5957.5811	5959.9859	
347.1458	-15494.0513	-1872.4179	0.0000	0.0000
8960.3962	7437.1859	334.2657	-1523.2103	7510.1758
333.0191	269.7543	128.9136	664265.7895	-1.2756
-1.2718				
[61856]ENERGY: 15230000	3736.1078	5814.0889	5954.1751	
369.4325	-15500.3215	-1856.9886	0.0000	0.0000
8920.1193	7436.6136	332.7631	-1483.5057	7509.5376
333.0425	-21.3732	-47.2001	664265.7895	-3.8917
-3.8979				
[61892]ENERGY: 15240000	3602.1232	5964.6139	5936.3896	
368.5604	-15514.9824	-1854.6259	0.0000	0.0000
8935.1208	7437.1995	333.3228	-1497.9213	7509.0654
332.9971	87.1982	39.9763	664265.7895	-4.0471
-4.0586				
[61942]ENERGY: 15250000	3703.1889	5848.0191	5894.0660	
367.2688	-15422.7751	-1815.0801	0.0000	0.0000
8866.7410	7441.4287	330.7719	-1425.3123	7510.7358
333.2108	-13.2736	-36.2154	664265.7895	-4.5005
-4.4673				
[61978]ENERGY: 15260000	3666.0237	5903.7703	5921.2867	
368.8242	-15497.6428	-1914.3830	0.0000	0.0000
8987.6239	7435.5031	335.2814	-1552.1208	7510.1904
333.2460	-174.8391	-129.7677	664265.7895	-3.5392
-3.5593				
[62028]ENERGY: 15270000	3657.2912	5932.5311	5937.4647	
359.3681	-15422.7816	-1936.4195	0.0000	0.0000
8909.6811	7437.1351	332.3737	-1472.5460	7510.5254
333.1819	-39.9908	-50.3708	664265.7895	-3.6561
-3.6593				
[62064]ENERGY: 15280000	3612.0798	5961.4344	5967.3088	
350.4363	-15527.5053	-1849.1056	0.0000	0.0000
8928.5293	7443.1778	333.0769	-1485.3515	7511.0139
333.2064	161.1685	59.5544	664265.7895	-3.9260
-3.9358				
[62114]ENERGY: 15290000	3622.7362	5870.4943	5954.3526	
339.0913	-15421.6510	-1893.6374	0.0000	0.0000

Supplementary Text 6

8967.2420	7438.6279	334.5210	-1528.6141	7513.6006
333.1721	-71.7708	-121.3850	664265.7895	-0.0482
-0.0266				
[62153]ENERGY: 15300000	3643.9506	5919.4264	5954.1178	
385.8401	-15388.5666	-1970.5992	0.0000	0.0000
8896.1524	7440.3215	331.8690	-1455.8309	7513.3909
332.7940	-224.0934	-206.6769	664265.7895	-8.3264
-8.3352				
[62203]ENERGY: 15310000	3610.8891	5765.1740	6005.4172	
372.3471	-15359.4692	-1928.8169	0.0000	0.0000
8968.4821	7434.0233	334.5673	-1534.4588	7511.1897
332.6685	-194.7453	-105.8080	664265.7895	-8.9889
-8.9903				
[62239]ENERGY: 15320000	3638.0302	5850.2944	5976.8866	
366.1704	-15443.5907	-1885.6997	0.0000	0.0000
8940.3103	7442.4014	333.5163	-1497.9089	7511.6652
332.6985	-130.6132	-109.4648	664265.7895	-5.8576
-5.8696				
[62289]ENERGY: 15330000	3622.9163	5949.1564	5927.7640	
389.7353	-15497.0878	-1808.8935	0.0000	0.0000
8859.4993	7443.0899	330.5017	-1416.4094	7512.0108
332.8302	-97.7723	-94.4341	664265.7895	-9.1328
-9.1254				
[62325]ENERGY: 15340000	3648.7415	5949.8183	5967.3983	
360.2351	-15522.4683	-1898.3177	0.0000	0.0000
8931.9127	7437.3199	333.2031	-1494.5928	7511.3398
333.0518	206.6529	148.9852	664265.7895	-10.0877
-10.0894				
[62375]ENERGY: 15350000	3705.6463	5801.5516	5937.4173	
359.4178	-15368.6708	-1911.0506	0.0000	0.0000
8916.6169	7440.9285	332.6325	-1475.6884	7510.5364
332.8922	2.3315	-76.1875	664265.7895	-8.0189
-8.0201				
[62411]ENERGY: 15360000	3711.2579	5767.8115	5914.9326	
353.3671	-15466.2767	-1796.6649	0.0000	0.0000
8953.4790	7437.9065	334.0076	-1515.5725	7511.5823
332.7085	-13.3442	-47.7573	664265.7895	-8.0803
-8.0675				
[62461]ENERGY: 15370000	3580.7730	5949.9589	5907.3620	
374.7255	-15372.8158	-1920.1982	0.0000	0.0000
8917.8805	7437.6859	332.6796	-1480.1946	7511.8112
332.8921	194.1353	79.7179	664265.7895	-10.5693
-10.6029				
[62497]ENERGY: 15380000	3649.4060	5925.5797	5943.7295	
372.8722	-15390.9191	-1913.1065	0.0000	0.0000
8848.1676	7435.7294	330.0790	-1412.4382	7510.9935
332.9847	8.9658	-32.3343	664265.7895	-10.9115
-10.8921				
[62547]ENERGY: 15390000	3583.5313	5836.0638	5894.0109	
348.7040	-15358.8467	-1846.2103	0.0000	0.0000
8981.1166	7438.3697	335.0386	-1542.7469	7511.0890
332.9050	47.6878	6.5296	664265.7895	-12.0488
-12.0407				
[62586]ENERGY: 15400000	3637.4476	5971.7885	5936.7481	

Supplementary Text 6

365.6173	-15435.0001	-1961.8514	0.0000	0.0000
8925.8717	7440.6216	332.9777	-1485.2501	7511.5026
332.8652	27.5688	-60.6284	664265.7895	-8.9552
-8.9443				
[62636]ENERGY: 15410000	3647.5067	5871.6841	5981.2603	
372.8129	-15568.8442	-1846.9335	0.0000	0.0000
8979.9841	7437.4704	334.9964	-1542.5137	7510.2932
332.9719	-97.4297	-23.3425	664265.7895	-6.1321
-6.1268				
[62672]ENERGY: 15420000	3605.7090	5889.4316	5901.5264	
367.2752	-15421.0031	-1876.9989	0.0000	0.0000
8972.9190	7438.8592	334.7328	-1534.0597	7511.1948
332.9939	-44.3406	-67.3029	664265.7895	-7.8859
-7.9003				
[62722]ENERGY: 15430000	3650.2359	5917.3167	5899.9013	
333.2325	-15417.2091	-1830.4064	0.0000	0.0000
8887.5668	7440.6377	331.5488	-1446.9291	7511.0932
333.0190	220.7487	143.8536	664265.7895	-7.7598
-7.7588				
[62758]ENERGY: 15440000	3593.8846	5908.7963	5897.9523	
363.2696	-15334.9472	-1822.2039	0.0000	0.0000
8835.3367	7442.0883	329.6003	-1393.2484	7510.5488
332.7809	-43.7760	36.5376	664265.7895	-7.4602
-7.4455				
[62808]ENERGY: 15450000	3556.6473	5809.3319	5948.2605	
376.4349	-15466.6659	-1839.9568	0.0000	0.0000
9053.6537	7437.7055	337.7446	-1615.9482	7512.0702
332.7033	43.7323	-44.3706	664265.7895	-12.0501
-12.0602				
[62844]ENERGY: 15460000	3660.9649	5951.3507	5931.0106	
380.1896	-15490.7543	-1899.5064	0.0000	0.0000
8908.3250	7441.5801	332.3231	-1466.7449	7512.3052
332.9424	71.7186	-19.3258	664265.7895	-13.3691
-13.3638				
[62894]ENERGY: 15470000	3693.9789	5740.2033	5959.4745	
363.9530	-15425.0368	-1866.6336	0.0000	0.0000
8974.0992	7440.0384	334.7768	-1534.0608	7512.2972
333.0441	22.8454	57.5977	664265.7895	-9.2323
-9.2258				
[62930]ENERGY: 15480000	3621.2742	5917.0144	5903.2945	
382.7607	-15473.7708	-1747.9689	0.0000	0.0000
8841.2323	7443.8363	329.8203	-1397.3960	7512.4983
333.0376	4.9074	-2.3758	664265.7895	-9.6967
-9.7154				
[62980]ENERGY: 15490000	3628.8409	5923.0305	5946.6354	
346.5010	-15448.1531	-1878.9477	0.0000	0.0000
8922.4468	7440.3538	332.8500	-1482.0930	7513.3556
333.0289	25.6213	50.5152	664265.7895	-6.6570
-6.6466				
[63019]ENERGY: 15500000	3666.8998	5867.2240	5887.6010	
351.8047	-15491.7325	-1823.3540	0.0000	0.0000
8981.8961	7440.3391	335.0677	-1541.5571	7513.0543
332.9847	0.7330	37.3484	664265.7895	-7.1050
-7.1080				

Supplementary Text 6

[63069]ENERGY: 15510000	3679.9231	5833.6998	5935.7491
368.4954	-15358.0974	-1983.4226	0.0000
8962.5729	7438.9201	334.3468	-1523.6527
333.2681	-235.9473	-225.4458	664265.7895
-6.7049			-6.7050
[63105]ENERGY: 15520000	3629.7794	5839.7871	5965.4298
367.8300	-15468.9822	-1815.2625	0.0000
8926.8806	7445.4623	333.0154	-1481.4183
333.0646	143.4530	120.3721	664265.7895
-7.7673			-7.7590
[63155]ENERGY: 15530000	3634.6468	5893.0712	5942.1667
355.9855	-15496.8010	-1893.0944	0.0000
9003.2359	7439.2108	335.8638	-1564.0252
333.1245	147.2982	77.1738	664265.7895
-4.2121			-4.2328
[63191]ENERGY: 15540000	3669.9581	5904.8830	5926.4283
364.1926	-15505.2519	-1827.6636	0.0000
8912.2567	7444.8031	332.4698	-1467.4536
333.0443	-7.3435	1.7662	664265.7895
-7.0560			-7.0407
[63241]ENERGY: 15550000	3599.6060	5900.5438	5962.9171
358.1340	-15374.3034	-1887.2381	0.0000
8887.5597	7447.2191	331.5485	-1440.3406
332.8460	-13.4173	-30.5835	664265.7895
-10.9402			-10.9526
[63277]ENERGY: 15560000	3660.5021	5880.6871	5950.2474
364.0011	-15418.7213	-1887.6365	0.0000
8898.1582	7447.2380	331.9439	-1450.9202
332.9794	-64.4739	-65.0724	664265.7895
-4.6772			-4.6507
[63327]ENERGY: 15570000	3630.7549	6007.9696	5926.3695
353.8541	-15527.9315	-1842.0360	0.0000
8899.5079	7448.4885	331.9942	-1451.0194
333.0631	244.2767	131.3167	664265.7895
-2.9343			-2.9201
[63363]ENERGY: 15580000	3693.4091	5872.6065	5932.2387
354.9217	-15430.7948	-1872.8025	0.0000
8900.2622	7449.8410	332.0224	-1450.4211
332.9813	57.7922	26.3131	664265.7895
-5.0204			-5.0267
[63413]ENERGY: 15590000	3653.6087	5890.3336	5895.2481
354.1571	-15419.9748	-1811.2081	0.0000
8883.2268	7445.3915	331.3869	-1437.8354
332.7497	155.9857	130.8498	664265.7895
-6.4843			-6.5035
[63452]ENERGY: 15600000	3617.8980	5923.2969	5895.9774
366.7753	-15455.5585	-1875.7074	0.0000
8970.1747	7442.8565	334.6304	-1527.3182
332.9373	-126.2962	-141.8031	664265.7895
-5.5333			-5.5078
[63502]ENERGY: 15610000	3562.3626	5938.7000	5985.8826
381.1757	-15564.2404	-1794.4369	0.0000
8933.0754	7442.5190	333.2465	-1490.5563
332.8756	81.4851	51.0855	664265.7895
			-3.3967

Supplementary Text 6

-3.3765

[63538]ENERGY: 15620000	3693.3654	5760.5145	5878.1213
353.1095	-15415.0938	-1863.0260	0.0000
9037.1048	7444.0957	337.1272	-1593.0091
332.8918	30.1803	56.2442	664265.7895

-5.3860

[63588]ENERGY: 15630000	3582.0096	5837.4454	5907.3600
364.4975	-15351.9874	-1867.2747	0.0000
8973.9858	7446.0362	334.7726	-1527.9496
332.7061	-12.3516	-58.8957	664265.7895

-6.6136

[63624]ENERGY: 15640000	3637.8145	5869.2817	5983.7419
356.6649	-15480.1652	-1853.3642	0.0000
8931.6401	7445.6137	333.1929	-1486.0264
332.9143	44.2056	101.7422	664265.7895

-5.6550

[63674]ENERGY: 15650000	3712.8472	5917.8392	5876.1376
350.2805	-15469.5075	-1916.7114	0.0000
8974.9698	7445.8555	334.8093	-1529.1142
332.8552	-76.2375	-1.4368	664265.7895

-7.1631

[63710]ENERGY: 15660000	3645.3857	5940.4181	5908.4897
373.2785	-15448.9985	-1840.3125	0.0000
8870.6051	7448.8662	330.9160	-1421.7388
332.8717	-91.3323	-167.9048	664265.7895

-3.6886

[63760]ENERGY: 15670000	3728.1424	5799.6118	5930.3176
334.8939	-15383.8416	-1833.8859	0.0000
8873.9116	7449.1498	331.0394	-1424.7618
332.6561	-150.9629	-162.7995	664265.7895

-0.2784

[63796]ENERGY: 15680000	3599.5108	5912.5888	5825.5234
348.1373	-15387.6036	-1936.9168	0.0000
9085.2063	7446.4462	338.9217	-1638.7601
332.6682	-33.2376	-58.9647	664265.7895

-6.1348

[63846]ENERGY: 15690000	3627.1649	5743.8460	5935.0061
358.5029	-15484.1254	-1764.1905	0.0000
9027.3243	7443.5283	336.7624	-1583.7960
332.5011	178.3470	116.2660	664265.7895

-3.5710

[63885]ENERGY: 15700000	3649.1261	5919.8434	5876.5930
367.2613	-15458.3231	-1773.0912	0.0000
8864.8588	7446.2683	330.7016	-1418.5905
332.6342	103.2678	46.0631	664265.7895

-8.5554

[63935]ENERGY: 15710000	3586.1954	5877.4642	5903.5264
380.6380	-15385.3621	-1915.1489	0.0000
9000.0953	7447.4084	335.7466	-1552.6869
332.8439	92.5215	33.2523	664265.7895

-5.1113

[63971]ENERGY: 15720000	3572.1528	6025.6334	5896.3147
366.2646	-15462.8748	-1842.4766	0.0000
8893.9000	7448.9141	331.7850	-1444.9859
			7519.3396

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333.0000	-44.5240	-24.1636	664265.7895	-8.5919
-8.5690				
[64021]ENERGY: 15730000	3698.0913	5794.4517	5977.7251	
348.5598	-15467.3815	-1802.3237	0.0000	0.0000
8899.4814	7448.6042	331.9932	-1450.8772	7519.5402
332.9490	-129.8097	-42.0717	664265.7895	-4.2632
-4.2528				
[64057]ENERGY: 15740000	3713.5032	5854.1828	5935.7900	
374.0900	-15484.8662	-1815.3530	0.0000	0.0000
8875.4602	7452.8070	331.0971	-1422.6532	7519.7224
333.0909	-80.4266	-166.8890	664265.7895	-6.4489
-6.4728				
[64107]ENERGY: 15750000	3604.0915	5890.2730	5932.1947	
362.7615	-15381.3970	-1889.7763	0.0000	0.0000
8929.9840	7448.1314	333.1311	-1481.8526	7519.9713
333.1639	28.5057	-4.1746	664265.7895	-6.4904
-6.4839				
[64143]ENERGY: 15760000	3664.6845	5887.1637	5954.3125	
347.8200	-15459.3929	-1832.0076	0.0000	0.0000
8886.0433	7448.6234	331.4919	-1437.4198	7519.3407
333.0585	-23.5150	-22.6742	664265.7895	-3.4199
-3.4076				
[64193]ENERGY: 15770000	3634.4046	5906.4804	5950.0365	
347.7273	-15381.4472	-1864.1581	0.0000	0.0000
8857.0079	7450.0514	330.4088	-1406.9565	7520.5245
333.2548	-89.9362	-71.0519	664265.7895	-7.1162
-7.1205				
[64229]ENERGY: 15780000	3599.3141	5940.2668	5977.1693	
346.3429	-15446.2842	-1883.6087	0.0000	0.0000
8914.0338	7447.2340	332.5361	-1466.7998	7520.2118
333.2574	10.8233	124.3234	664265.7895	-6.5073
-6.5083				
[64279]ENERGY: 15790000	3660.1721	5932.1815	5960.6099	
374.8318	-15477.4790	-1838.1937	0.0000	0.0000
8837.0184	7449.1410	329.6631	-1387.8774	7519.8462
333.3905	-121.2841	-65.1886	664265.7895	-5.2780
-5.2694				
[64318]ENERGY: 15800000	3564.3325	5917.6846	5985.3443	
371.8477	-15389.3285	-1924.0684	0.0000	0.0000
8920.5229	7446.3350	332.7782	-1474.1878	7521.3393
333.1218	-54.3730	-62.4441	664265.7895	-3.5875
-3.6018				
[64368]ENERGY: 15810000	3645.5511	5946.2866	5954.2973	
363.0974	-15448.9589	-1904.3304	0.0000	0.0000
8893.9295	7449.8726	331.7861	-1444.0569	7520.4120
333.0675	110.9785	85.4082	664265.7895	-3.9953
-3.9935				
[64404]ENERGY: 15820000	3661.2871	5994.2288	5874.7468	
382.4247	-15407.8356	-1855.7552	0.0000	0.0000
8803.0835	7452.1800	328.3971	-1350.9034	7521.2393
333.1437	-60.1367	-29.3940	664265.7895	-2.0273
-2.0302				
[64454]ENERGY: 15830000	3590.5576	5879.9737	5929.1146	
365.3373	-15415.4597	-1885.6604	0.0000	0.0000

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8984.0954	7447.9586	335.1497	-1536.1368	7519.8512
333.1529	-144.7217	-49.0589	664265.7895	-6.8108
-6.7916				
[64490]ENERGY: 15840000	3660.6783	5842.6709	5928.2073	
350.6279	-15507.7002	-1822.1528	0.0000	0.0000
8995.9164	7448.2479	335.5907	-1547.6685	7521.9482
333.1837	35.8768	-49.9185	664265.7895	-4.5874
-4.6196				
[64540]ENERGY: 15850000	3698.5421	5931.6414	5919.4169	
368.4598	-15505.4164	-1825.8163	0.0000	0.0000
8865.5094	7452.3368	330.7259	-1413.1725	7521.6871
332.9401	-9.3284	-24.4751	664265.7895	-6.7202
-6.7102				
[64576]ENERGY: 15860000	3574.8563	5887.9288	5894.4754	
369.9839	-15455.3519	-1805.3563	0.0000	0.0000
8982.9418	7449.4780	335.1067	-1533.4638	7521.7479
333.0470	16.4702	-28.5947	664265.7895	-5.5691
-5.5711				
[64626]ENERGY: 15870000	3657.5990	5824.3244	5985.5087	
359.4413	-15401.7705	-1887.2011	0.0000	0.0000
8912.6036	7450.5054	332.4828	-1462.0982	7521.6295
332.9169	64.2917	-23.1492	664265.7895	-9.4217
-9.4165				
[64662]ENERGY: 15880000	3678.3197	5837.0460	5947.3495	
364.2363	-15468.5862	-1818.8495	0.0000	0.0000
8909.1307	7448.6464	332.3532	-1460.4843	7521.8642
332.8330	50.3786	-10.2500	664265.7895	-7.6310
-7.6345				
[64712]ENERGY: 15890000	3655.7551	6031.8373	5904.0964	
357.0183	-15407.2046	-1908.4651	0.0000	0.0000
8820.1198	7453.1572	329.0327	-1366.9626	7522.7677
332.8140	79.2979	-12.1261	664265.7895	-5.5904
-5.5936				
[64751]ENERGY: 15900000	3564.5792	5921.4084	6003.5943	
370.9568	-15487.0559	-1855.9461	0.0000	0.0000
8934.2967	7451.8335	333.2920	-1482.4632	7523.8747
332.8147	-8.8147	40.4657	664265.7895	-6.2972
-6.2712				
[64801]ENERGY: 15910000	3576.5322	5900.6289	5962.8565	
363.3823	-15390.8215	-1894.7723	0.0000	0.0000
8933.0744	7450.8805	333.2464	-1482.1939	7523.8977
333.0776	111.1002	74.0687	664265.7895	-2.6612
-2.6863				
[64837]ENERGY: 15920000	3614.1742	5820.3977	5913.6919	
364.2631	-15375.5236	-1887.2732	0.0000	0.0000
8999.4732	7449.2032	335.7234	-1550.2700	7524.7833
333.2117	-88.6005	-49.2232	664265.7895	-6.0121
-6.0089				
[64887]ENERGY: 15930000	3775.7032	5888.0436	5938.1765	
370.1027	-15568.7283	-1824.2456	0.0000	0.0000
8875.7465	7454.7986	331.1078	-1420.9479	7525.4805
333.1455	43.9309	58.7251	664265.7895	-9.6042
-9.5898				
[64923]ENERGY: 15940000	3582.3410	5902.7343	5950.2543	

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384.8389	-15387.1551	-1896.6357	0.0000	0.0000
8919.1238	7455.5015	332.7260	-1463.6223	7524.8507
333.2341	207.2201	61.6280	664265.7895	-3.7805
-3.7933				
[64973]ENERGY: 15950000	3595.7121	5899.8059	5952.1807	
366.1887	-15352.3283	-1902.6613	0.0000	0.0000
8895.3906	7454.2885	331.8406	-1441.1021	7524.2914
333.2039	52.6098	1.7320	664265.7895	-6.6541
-6.6596				
[65009]ENERGY: 15960000	3623.4606	5820.6754	5947.4504	
368.3391	-15493.4694	-1781.3793	0.0000	0.0000
8968.3817	7453.4583	334.5635	-1514.9233	7525.2013
333.2761	151.1415	97.5608	664265.7895	-4.7580
-4.7469				
[65059]ENERGY: 15970000	3582.5819	5848.4115	5951.5989	
360.1150	-15339.5949	-1913.9341	0.0000	0.0000
8963.7531	7452.9314	334.3909	-1510.8217	7526.4802
333.3625	31.5163	-22.7075	664265.7895	-7.5168
-7.5238				
[65095]ENERGY: 15980000	3646.8313	5844.5252	5970.6754	
371.3356	-15427.4861	-1878.7066	0.0000	0.0000
8927.3066	7454.4815	333.0313	-1472.8251	7524.9489
332.9164	76.2199	14.4356	664265.7895	-7.2811
-7.2722				
[65145]ENERGY: 15990000	3583.6021	5869.8391	5958.5464	
361.5673	-15302.8759	-1856.5885	0.0000	0.0000
8838.5167	7452.6072	329.7190	-1385.9095	7524.9724
332.9958	11.8001	-81.5972	664265.7895	-4.0045
-4.0073				
[65184]ENERGY: 16000000	3639.9152	5933.1749	5935.5676	
383.1646	-15366.9581	-1953.0877	0.0000	0.0000
8880.3636	7452.1399	331.2801	-1428.2236	7524.4069
333.1156	26.2003	62.6937	664265.7895	-6.8910
-6.8819				
[65234]ENERGY: 16010000	3639.1169	5910.9713	5963.5354	
370.8786	-15443.3463	-1925.3145	0.0000	0.0000
8938.2829	7454.1242	333.4407	-1484.1587	7525.7391
333.3839	-44.4023	-111.2903	664265.7895	-5.0642
-5.0745				
[65270]ENERGY: 16020000	3623.2451	5848.3939	5872.3282	
361.7488	-15350.4843	-1867.9382	0.0000	0.0000
8962.9073	7450.2008	334.3593	-1512.7065	7526.0120
333.0329	108.6205	51.6093	664265.7895	-7.9618
-7.9723				
[65320]ENERGY: 16030000	3637.8033	5897.1947	5965.7818	
361.4294	-15471.2846	-1802.9028	0.0000	0.0000
8870.9824	7459.0040	330.9301	-1411.9784	7527.5637
332.8398	-30.3167	-0.8619	664265.7895	-3.7692
-3.7519				
[65356]ENERGY: 16040000	3651.3784	5921.4182	5966.9060	
367.5195	-15473.1131	-1829.4012	0.0000	0.0000
8852.0930	7456.8008	330.2254	-1395.2923	7526.8462
332.9708	-15.1219	26.0257	664265.7895	-9.9867
-9.9978				

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[65406]ENERGY: 16050000	3609.8844	5932.6081	5956.0054	
390.4379	-15482.1731	-1888.5607	0.0000	0.0000
8935.8859	7454.0879	333.3513	-1481.7980	7526.2332
333.0666	19.8801	7.7505	664265.7895	-9.3361
-9.3186				
[65442]ENERGY: 16060000	3675.1562	5894.4940	5951.9086	
377.4238	-15508.2525	-1819.9376	0.0000	0.0000
8886.3353	7457.1277	331.5028	-1429.2076	7526.7136
333.1705	84.4461	30.8216	664265.7895	-4.6795
-4.6815				
[65492]ENERGY: 16070000	3694.3871	5868.1430	5927.1916	
351.9629	-15452.5548	-1881.5564	0.0000	0.0000
8946.9828	7454.5562	333.7653	-1492.4266	7527.3900
332.8750	-51.1254	-46.6846	664265.7895	-6.5457
-6.5338				
[65528]ENERGY: 16080000	3632.0868	5918.3978	5942.5902	
384.7803	-15441.4034	-1910.2797	0.0000	0.0000
8929.2829	7455.4550	333.1050	-1473.8279	7529.7895
333.0418	54.1016	103.9005	664265.7895	-4.8909
-4.9239				
[65578]ENERGY: 16090000	3582.6543	5897.0631	5924.6253	
365.6468	-15417.1522	-1915.2604	0.0000	0.0000
9020.9107	7458.4877	336.5231	-1562.4231	7527.4587
332.9667	29.8361	-28.5020	664265.7895	-5.4789
-5.4756				
[65617]ENERGY: 16100000	3581.0121	6015.9552	5966.6049	
390.3584	-15447.2650	-1855.5578	0.0000	0.0000
8809.4876	7460.5955	328.6360	-1348.8921	7531.3896
333.1366	98.1527	-2.0147	664265.7895	-4.2286
-4.2061				
[65667]ENERGY: 16110000	3598.3501	5908.3770	5989.4995	
356.1767	-15561.0986	-1763.3399	0.0000	0.0000
8929.4726	7457.4374	333.1121	-1472.0352	7529.5078
333.1409	158.0232	35.6399	664265.7895	-4.5545
-4.5790				
[65703]ENERGY: 16120000	3602.2083	5809.8453	5978.6904	
378.2495	-15378.6020	-1876.8923	0.0000	0.0000
8947.9872	7461.4863	333.8027	-1486.5009	7531.9981
333.2987	85.0288	83.1857	664265.7895	-6.1816
-6.1939				
[65753]ENERGY: 16130000	3598.1272	5932.2686	5912.7492	
366.9023	-15513.3933	-1771.6674	0.0000	0.0000
8934.7813	7459.7678	333.3101	-1475.0135	7529.3894
333.1112	94.7021	133.4621	664265.7895	-3.2053
-3.1704				
[65789]ENERGY: 16140000	3592.3162	5779.7606	5905.3423	
359.3501	-15455.0059	-1807.7831	0.0000	0.0000
9080.5969	7454.5771	338.7497	-1626.0198	7529.7375
333.0826	101.9279	29.6803	664265.7895	-6.0178
-6.0366				
[65839]ENERGY: 16150000	3635.6891	5986.8354	5930.9958	
343.0270	-15459.3598	-1836.5872	0.0000	0.0000
8856.6581	7457.2584	330.3957	-1399.3997	7530.4997
333.2550	55.8934	16.7839	664265.7895	-0.2455

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-0.2478
 [65875]ENERGY: 16160000 3769.2734 5915.8565 5985.2834
 335.8512 -15575.7888 -1897.9328 0.0000 0.0000
 8927.9803 7460.5232 333.0564 -1467.4570 7530.1192
 333.3030 69.0754 64.8242 664265.7895 -6.2536
 -6.2327
 [65925]ENERGY: 16170000 3642.7029 5838.7217 5979.2362
 359.4478 -15496.1208 -1861.9223 0.0000 0.0000
 8995.9347 7458.0002 335.5914 -1537.9345 7532.2441
 333.2101 39.7416 -13.1049 664265.7895 -5.0984
 -5.1090
 [65961]ENERGY: 16180000 3595.0549 5905.4356 5996.1367
 391.9606 -15427.6450 -1902.0819 0.0000 0.0000
 8900.5540 7459.4148 332.0332 -1441.1392 7532.5655
 333.2541 59.6404 41.9138 664265.7895 -4.8501
 -4.8375
 [66011]ENERGY: 16190000 3673.5203 6069.6118 5864.6677
 350.9770 -15432.4556 -1941.8374 0.0000 0.0000
 8875.4104 7459.8941 331.0953 -1415.5163 7532.5498
 333.4044 -11.1134 -63.9561 664265.7895 -0.5825
 -0.5940
 [66050]ENERGY: 16200000 3604.3920 5971.8122 5989.7504
 381.2310 -15544.6770 -1879.5210 0.0000 0.0000
 8934.5503 7457.5379 333.3015 -1477.0124 7532.6813
 333.4519 183.2666 58.4321 664265.7895 -3.8540
 -3.8551
 [66100]ENERGY: 16210000 3678.1357 5936.2321 5907.0441
 349.4476 -15503.0737 -1885.3521 0.0000 0.0000
 8974.4313 7456.8649 334.7892 -1517.5663 7532.1123
 333.2811 14.7757 -41.1917 664265.7895 -6.1379
 -6.1441
 [66136]ENERGY: 16220000 3603.0022 5869.0886 5954.2041
 354.7816 -15404.5611 -1887.9797 0.0000 0.0000
 8971.8391 7460.3747 334.6925 -1511.4644 7532.5831
 333.3729 29.7593 -23.3190 664265.7895 -4.2130
 -4.2007
 [66186]ENERGY: 16230000 3699.0766 5833.3110 5918.0120
 361.2440 -15492.0354 -1847.9765 0.0000 0.0000
 8988.0610 7459.6928 335.2977 -1528.3682 7531.7532
 333.2111 18.1705 -53.7942 664265.7895 -6.1940
 -6.2123
 [66222]ENERGY: 16240000 3612.2870 5890.4560 5984.2062
 354.0931 -15361.1275 -1946.0289 0.0000 0.0000
 8927.9869 7461.8727 333.0566 -1466.1142 7533.1617
 333.2328 -29.6361 -114.8464 664265.7895 -5.2686
 -5.2687
 [66272]ENERGY: 16250000 3670.3526 5904.3254 5890.1472
 393.1665 -15457.9409 -1804.5728 0.0000 0.0000
 8865.3872 7460.8652 330.7214 -1404.5220 7532.1898
 333.3992 -15.0838 37.8346 664265.7895 -4.2407
 -4.2433
 [66308]ENERGY: 16260000 3561.3563 6022.2154 5923.5961
 352.2250 -15531.3262 -1866.5604 0.0000 0.0000
 8993.7487 7455.2548 335.5099 -1538.4939 7531.5652

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333.3559	94.5035	114.7448	664265.7895	-4.5940
-4.5853				
[66358]ENERGY: 16270000	3622.4098	5865.0904	5958.8003	
370.3297	-15338.3164	-1898.7588	0.0000	0.0000
8882.7948	7462.3498	331.3707	-1420.4450	7532.1334
333.4155	-214.7098	-126.6623	664265.7895	-3.0963
-3.1060				
[66394]ENERGY: 16280000	3619.6951	5853.0479	5955.1325	
341.9997	-15475.4310	-1832.5085	0.0000	0.0000
9000.6912	7462.6270	335.7688	-1538.0641	7533.6182
333.2268	84.8425	70.9943	664265.7895	-4.7927
-4.7978				
[66444]ENERGY: 16290000	3574.2543	5872.9336	5923.3717	
393.7111	-15325.7454	-1835.5270	0.0000	0.0000
8865.8184	7468.8166	330.7374	-1397.0018	7535.4674
333.0836	38.5119	-21.3021	664265.7895	-5.9552
-5.9577				
[66483]ENERGY: 16300000	3586.6809	5977.9092	5856.9921	
353.1033	-15498.2832	-1818.8824	0.0000	0.0000
9004.1677	7461.6876	335.8985	-1542.4800	7534.5946
333.2535	135.6252	60.8235	664265.7895	-6.6232
-6.5912				
[66533]ENERGY: 16310000	3612.5148	5856.1974	5955.1946	
350.3698	-15438.5661	-1814.8397	0.0000	0.0000
8938.7901	7459.6608	333.4596	-1479.1293	7533.3799
333.4351	-143.0119	-51.4924	664265.7895	-9.3065
-9.3329				
[66569]ENERGY: 16320000	3654.2712	5886.2152	5965.5393	
361.1431	-15399.3313	-1888.8208	0.0000	0.0000
8883.5707	7462.5875	331.3997	-1420.9832	7534.8199
333.5195	-51.1579	-81.2097	664265.7895	-5.1643
-5.1591				
[66619]ENERGY: 16330000	3607.3502	5976.4921	5910.8190	
367.1634	-15446.7192	-1852.5802	0.0000	0.0000
8899.9453	7462.4707	332.0105	-1437.4746	7534.7110
333.3892	9.6124	-58.1579	664265.7895	-4.3864
-4.3978				
[66655]ENERGY: 16340000	3649.3691	5851.7207	6001.9016	
373.3857	-15456.2705	-1846.2392	0.0000	0.0000
8889.3834	7463.2507	331.6165	-1426.1327	7536.5638
333.4348	105.2917	16.7633	664265.7895	-6.9686
-6.9640				
[66705]ENERGY: 16350000	3691.5363	5835.3878	5901.4643	
353.2577	-15426.0934	-1863.3557	0.0000	0.0000
8970.0350	7462.2320	334.6252	-1507.8030	7536.8053
333.4498	69.1104	-12.0277	664265.7895	-5.9717
-5.9699				
[66741]ENERGY: 16360000	3708.9241	5852.5757	5934.5935	
377.9096	-15478.4621	-1840.2673	0.0000	0.0000
8908.7049	7463.9784	332.3373	-1444.7265	7536.1195
333.5784	4.3031	25.1394	664265.7895	-6.8049
-6.7881				
[66791]ENERGY: 16370000	3682.8926	5809.3179	5917.9717	
340.9148	-15410.8709	-1851.0554	0.0000	0.0000

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8972.9731	7462.1438	334.7348	-1510.8292	7535.5420
333.5015	0.6115	13.5455	664265.7895	-3.5437
-3.5446				
[66827]ENERGY: 16380000	3756.9611	5956.1674	5924.5277	
368.2394	-15558.8988	-1844.6433	0.0000	0.0000
8863.4777	7465.8312	330.6501	-1397.6465	7536.1568
333.4728	139.9471	57.3485	664265.7895	-6.1592
-6.1760				
[66877]ENERGY: 16390000	3609.3041	5934.4550	5905.4731	
349.4013	-15431.7492	-1823.8756	0.0000	0.0000
8917.7787	7460.7873	332.6758	-1456.9914	7537.0087
333.4916	109.0483	44.7354	664265.7895	-7.9736
-7.9728				
[66916]ENERGY: 16400000	3713.8288	5864.8263	6003.6974	
369.9519	-15534.2231	-1867.9533	0.0000	0.0000
8913.6991	7463.8269	332.5236	-1449.8721	7536.3075
333.4640	-71.9040	-123.3734	664265.7895	-8.0576
-8.0514				
[66966]ENERGY: 16410000	3718.1486	5965.5615	5950.2104	
369.4699	-15529.7271	-1881.8890	0.0000	0.0000
8870.7797	7462.5540	330.9225	-1408.2257	7535.7142
333.1813	-11.7613	-9.3449	664265.7895	-6.5544
-6.5491				
[67002]ENERGY: 16420000	3689.9230	5839.3650	5963.2084	
370.7697	-15414.3932	-1856.1721	0.0000	0.0000
8871.8136	7464.5145	330.9611	-1407.2992	7536.5453
333.5413	-31.7863	-48.5313	664265.7895	-6.0539
-6.0577				
[67052]ENERGY: 16430000	3670.7023	5919.1651	5893.9222	
367.0682	-15515.5315	-1790.1586	0.0000	0.0000
8921.9070	7467.0747	332.8298	-1454.8323	7539.2042
333.5171	43.4257	12.0269	664265.7895	-6.2264
-6.2091				
[67088]ENERGY: 16440000	3641.9972	5915.7678	5964.2212	
386.8100	-15492.3845	-1848.5899	0.0000	0.0000
8900.2057	7468.0274	332.0203	-1432.1783	7539.2891
333.5535	25.4332	-59.7066	664265.7895	-1.7412
-1.7666				
[67138]ENERGY: 16450000	3631.2378	5972.3052	5929.9763	
373.5360	-15484.3313	-1888.2017	0.0000	0.0000
8932.0195	7466.5418	333.2071	-1465.4777	7539.2331
333.5103	54.2993	-20.1863	664265.7895	-3.7042
-3.6981				
[67174]ENERGY: 16460000	3598.3792	5869.9882	5927.2464	
391.9621	-15515.5782	-1837.8915	0.0000	0.0000
9030.6469	7464.7530	336.8863	-1565.8939	7538.7333
333.7045	-5.4847	0.2177	664265.7895	-8.4932
-8.5012				
[67224]ENERGY: 16470000	3652.8512	5847.3629	5879.4949	
346.1498	-15425.0508	-1823.0192	0.0000	0.0000
8989.6188	7467.4075	335.3558	-1522.2112	7538.1851
333.5177	22.4488	105.1990	664265.7895	-12.7060
-12.6891				
[67260]ENERGY: 16480000	3655.3045	5897.6997	5933.4972	

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340.7995	-15506.1420	-1795.3261	0.0000	0.0000
8939.9774	7465.8102	333.5039	-1474.1672	7540.5108
333.5375	70.0070	61.8133	664265.7895	-7.9602
-7.9651				
[67310]ENERGY: 16490000	3589.6442	5907.5845	6012.9098	
377.6066	-15461.4464	-1885.5527	0.0000	0.0000
8926.9620	7467.7079	333.0184	-1459.2541	7539.7771
333.5528	-93.2964	-38.4659	664265.7895	-10.4062
-10.3970				
[67349]ENERGY: 16500000	3576.1332	5866.4304	5921.2981	
385.9984	-15458.1329	-1833.0110	0.0000	0.0000
9006.1936	7464.9098	335.9741	-1541.2838	7540.9896
333.5620	0.6460	-9.4422	664265.7895	-9.7593
-9.7577				
[67399]ENERGY: 16510000	3573.3526	5913.0366	5931.1293	
353.9587	-15434.7035	-1840.9357	0.0000	0.0000
8971.4052	7467.2431	334.6763	-1504.1620	7539.5422
333.3950	-19.3110	27.9786	664265.7895	-10.9796
-10.9815				
[67435]ENERGY: 16520000	3616.6672	5885.9905	5944.5172	
399.8282	-15354.9908	-1868.7699	0.0000	0.0000
8851.8040	7475.0464	330.2146	-1376.7576	7542.3466
333.2887	42.3033	-53.2854	664265.7895	-8.3109
-8.3311				
[67485]ENERGY: 16530000	3571.7333	5890.5407	5940.9743	
381.8016	-15383.8694	-1800.6333	0.0000	0.0000
8870.7623	7471.3096	330.9219	-1399.4527	7541.2883
333.2160	-123.9942	-98.2630	664265.7895	-8.6427
-8.6260				
[67521]ENERGY: 16540000	3602.9861	5961.6090	5933.8673	
346.2274	-15394.9636	-1868.7103	0.0000	0.0000
8889.6117	7470.6275	331.6251	-1418.9842	7543.0003
333.0617	-2.2968	-24.9602	664265.7895	-11.4455
-11.4534				
[67571]ENERGY: 16550000	3753.7455	5875.5492	6019.7006	
386.3583	-15547.0401	-1882.4603	0.0000	0.0000
8861.9937	7467.8469	330.5948	-1394.1468	7541.7780
333.2495	-304.2706	-231.4032	664265.7895	-11.3551
-11.3522				
[67607]ENERGY: 16560000	3576.5861	5864.5348	5970.1108	
402.8923	-15385.4936	-1861.3927	0.0000	0.0000
8902.8465	7470.0842	332.1188	-1432.7622	7543.3462
333.2535	53.2003	35.4829	664265.7895	-11.1410
-11.1420				
[67657]ENERGY: 16570000	3698.3990	5896.9970	6019.8317	
350.7699	-15528.3297	-1820.0645	0.0000	0.0000
8854.4163	7472.0197	330.3121	-1382.3966	7542.6795
333.2922	128.5167	68.5910	664265.7895	-7.2243
-7.2292				
[67693]ENERGY: 16580000	3625.3753	5935.5643	5909.8329	
358.0818	-15389.3890	-1853.2687	0.0000	0.0000
8883.3231	7469.5198	331.3905	-1413.8033	7541.8676
333.0262	9.0863	-35.9459	664265.7895	0.1141
0.1255				

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[67743]ENERGY: 16590000	3651.8425	6001.6176	5933.3942	
356.9272	-15463.1190	-1803.5610	0.0000	0.0000
8797.9375	7475.0389	328.2052	-1322.8986	7544.7786
333.0804	95.7993	140.1743	664265.7895	-0.8438
-0.8557				
[67782]ENERGY: 16600000	3647.2316	5966.6175	5907.2113	
381.2310	-15493.7755	-1848.2769	0.0000	0.0000
8908.0898	7468.3288	332.3144	-1439.7610	7543.8446
333.4238	72.3909	85.1804	664265.7895	-4.4741
-4.4597				
[67832]ENERGY: 16610000	3628.4747	6007.6789	5941.2161	
386.0975	-15490.2707	-1829.2655	0.0000	0.0000
8830.9035	7474.8344	329.4350	-1356.0691	7544.2319
333.7835	-91.2198	-34.3343	664265.7895	-8.0019
-8.0027				
[67868]ENERGY: 16620000	3690.6431	5773.6579	5896.0314	
359.6726	-15389.7422	-1877.6532	0.0000	0.0000
9024.7517	7477.3614	336.6664	-1547.3903	7545.6046
333.6255	-185.2227	-215.0699	664265.7895	-7.5080
-7.5055				
[67918]ENERGY: 16630000	3638.7144	5873.2146	5925.3866	
325.1644	-15367.8148	-1877.6713	0.0000	0.0000
8958.8291	7475.8230	334.2072	-1483.0061	7548.0243
333.6982	-13.5008	-158.3248	664265.7895	-10.1954
-10.1990				
[67954]ENERGY: 16640000	3660.7474	5966.0544	5922.9312	
361.7555	-15489.0507	-1889.2220	0.0000	0.0000
8943.0658	7476.2815	333.6191	-1466.7843	7546.4478
333.3859	-57.3225	-14.3089	664265.7895	-7.9809
-7.9807				
[68004]ENERGY: 16650000	3657.6481	5860.5176	5931.0474	
391.7427	-15402.7758	-1879.0882	0.0000	0.0000
8917.9715	7477.0634	332.6830	-1440.9081	7548.1064
333.4182	-13.4097	-44.8501	664265.7895	-12.5295
-12.5486				
[68040]ENERGY: 16660000	3616.9639	5849.9463	5927.5028	
375.3101	-15367.9447	-1909.5857	0.0000	0.0000
8984.8841	7477.0768	335.1792	-1507.8072	7549.0706
333.6781	279.8286	122.0910	664265.7895	-6.3840
-6.3785				
[68090]ENERGY: 16670000	3608.6183	5972.2847	5961.3150	
366.4037	-15467.2039	-1882.6424	0.0000	0.0000
8916.4336	7475.2089	332.6256	-1441.2246	7547.8081
333.6230	57.6738	68.7272	664265.7895	-10.1779
-10.1646				
[68126]ENERGY: 16680000	3587.7034	5973.0006	5947.6205	
364.3294	-15475.8910	-1887.6419	0.0000	0.0000
8963.2650	7472.3861	334.3727	-1490.8789	7547.1380
333.5816	96.3292	32.5973	664265.7895	-5.1517
-5.1625				
[68176]ENERGY: 16690000	3693.3180	5928.0188	5940.7011	
360.2953	-15449.1499	-1866.5595	0.0000	0.0000
8872.2157	7478.8396	330.9761	-1393.3761	7548.3411
333.6818	-1.3476	15.7132	664265.7895	-7.1457

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-7.1409

[68215]ENERGY: 16700000	3659.8438	5899.5319	5932.8871
377.8381	-15481.9247	-1811.7116	0.0000
8897.6597	7474.1245	331.9253	-1423.5353
333.6492	55.4637	6.5893	664265.7895

-7.5108

[68265]ENERGY: 16710000	3712.7510	5961.0605	5958.3894
358.5986	-15490.6408	-1863.6311	0.0000
8846.1157	7482.6433	330.0024	-1363.4724
333.6186	64.5310	-1.6879	664265.7895

-6.3008

[68301]ENERGY: 16720000	3727.4973	5972.3591	5919.1499
358.5837	-15489.0659	-1859.2885	0.0000
8848.7188	7477.9545	330.0995	-1370.7643
333.5243	-139.2609	-123.8196	664265.7895

-5.7864

[68351]ENERGY: 16730000	3623.6607	5926.7993	5919.0630
356.8188	-15417.8386	-1938.1604	0.0000
9002.3160	7472.6587	335.8295	-1529.6573
333.4830	70.3964	31.0464	664265.7895

-5.5513

[68387]ENERGY: 16740000	3647.4226	5881.1818	5936.3059
374.6390	-15448.6480	-1883.4209	0.0000
8965.3825	7472.8629	334.4517	-1492.5196
333.6699	-113.6873	-28.2116	664265.7895

-3.7186

[68437]ENERGY: 16750000	3601.6215	5928.3432	5941.6964
389.9721	-15359.0164	-1940.7031	0.0000
8911.1079	7473.0215	332.4270	-1438.0864
333.6021	-65.4904	-67.9310	664265.7895

-5.2831

[68473]ENERGY: 16760000	3641.7935	5905.6792	5911.0899
370.1650	-15386.1317	-1921.3043	0.0000
8953.5798	7474.8715	334.0114	-1478.7084
333.5415	-161.9852	-92.4309	664265.7895

-4.6138

[68523]ENERGY: 16770000	3620.4586	5802.7150	5910.7690
374.6756	-15439.7265	-1852.0181	0.0000
9054.7838	7471.6573	337.7868	-1583.1265
333.4744	92.1545	28.8219	664265.7895

-2.8021

[68559]ENERGY: 16780000	3626.9070	5974.8459	5971.0955
360.9104	-15483.4956	-1852.1126	0.0000
8879.9666	7478.1173	331.2652	-1401.8494
333.2621	1.5912	112.0218	664265.7895

-6.2262

[68609]ENERGY: 16790000	3649.1948	5841.6942	5934.0369
383.9159	-15384.2878	-1821.0834	0.0000
8877.8926	7481.3631	331.1879	-1396.5295
333.5927	-16.1764	-36.2444	664265.7895

-3.7562

[68648]ENERGY: 16800000	3690.2232	5946.0171	5958.7651
383.5744	-15357.7685	-1928.1793	0.0000
8787.4963	7480.1282	327.8157	-1307.3681

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333.6687	87.4020	46.1026	664265.7895	-2.3922
-2.3992				
[68698]ENERGY: 16810000	3662.9683	5948.5297	5948.9757	
380.8265	-15399.2197	-1927.2299	0.0000	0.0000
8861.9993	7476.8500	330.5950	-1385.1493	7547.6815
333.5587	-145.3205	-128.5026	664265.7895	-4.8282
-4.8249				
[68734]ENERGY: 16820000	3655.3790	5910.2008	5911.5024	
377.6337	-15441.8465	-1882.2457	0.0000	0.0000
8939.9244	7470.5481	333.5020	-1469.3763	7547.7106
333.6421	-4.7417	-79.8146	664265.7895	-5.1440
-5.1549				
[68784]ENERGY: 16830000	3686.3496	6006.7573	5912.9279	
340.8303	-15488.7523	-1837.3945	0.0000	0.0000
8859.6119	7480.3303	330.5059	-1379.2816	7548.7677
333.6181	97.2122	131.8134	664265.7895	-4.2782
-4.2726				
[68820]ENERGY: 16840000	3591.0296	5893.3815	5967.1559	
368.4675	-15475.0118	-1799.4204	0.0000	0.0000
8930.9789	7476.5812	333.1682	-1454.3977	7548.8688
333.8048	159.0979	83.6659	664265.7895	-1.9401
-1.9540				
[68870]ENERGY: 16850000	3673.1817	5919.4183	5951.3682	
361.3788	-15523.3770	-1869.7043	0.0000	0.0000
8965.7579	7478.0235	334.4657	-1487.7343	7548.7049
333.9467	86.2338	9.2976	664265.7895	-3.3987
-3.3993				
[68906]ENERGY: 16860000	3629.2077	5888.8316	5882.2964	
342.2344	-15441.8464	-1881.7775	0.0000	0.0000
9056.5326	7475.4787	337.8520	-1581.0538	7548.1139
333.9171	8.9462	-73.7329	664265.7895	-3.1919
-3.1752				
[68956]ENERGY: 16870000	3672.9107	5840.4927	5997.0250	
372.7999	-15447.2370	-1906.7111	0.0000	0.0000
8945.2765	7474.5568	333.7016	-1470.7197	7549.0892
334.0947	-14.2134	78.8549	664265.7895	-4.2277
-4.2173				
[68992]ENERGY: 16880000	3641.4603	5902.0207	5942.4742	
368.7035	-15491.6253	-1916.9296	0.0000	0.0000
9027.9505	7474.0543	336.7857	-1553.8962	7549.5865
333.9633	-88.2932	-33.3030	664265.7895	-5.9182
-5.9076				
[69042]ENERGY: 16890000	3693.0076	5871.4108	5911.6816	
373.0035	-15469.6769	-1762.7603	0.0000	0.0000
8858.8421	7475.5084	330.4772	-1383.3337	7547.6615
333.8365	-43.8160	3.4682	664265.7895	-5.5565
-5.5792				
[69081]ENERGY: 16900000	3591.4090	5902.6739	5910.1456	
374.8294	-15385.1808	-1896.4912	0.0000	0.0000
8980.5333	7477.9192	335.0169	-1502.6141	7548.9061
333.8470	41.6768	-20.4316	664265.7895	-6.3213
-6.3206				
[69131]ENERGY: 16910000	3563.3633	5891.1478	5963.3690	
371.4640	-15476.7020	-1888.4278	0.0000	0.0000

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9048.1394	7472.3538	337.5389	-1575.7856	7548.3385
334.0861	91.0756	-30.7714	664265.7895	-4.3803
-4.3809				
[69167]ENERGY: 16920000	3697.0885	5833.7449	5945.6014	
364.3154	-15425.5614	-1846.6717	0.0000	0.0000
8908.1015	7476.6186	332.3148	-1431.4829	7549.1305
333.8193	-94.9829	-7.2641	664265.7895	0.0483
0.0539				
[69217]ENERGY: 16930000	3608.5512	6019.0651	5947.1797	
379.4126	-15412.2733	-1948.9104	0.0000	0.0000
8882.0783	7475.1032	331.3440	-1406.9751	7548.1455
333.9626	-81.2675	-90.3327	664265.7895	-4.5191
-4.5322				
[69253]ENERGY: 16940000	3698.2817	5934.5219	5964.2666	
349.5084	-15445.0759	-1890.1067	0.0000	0.0000
8867.7298	7479.1258	330.8088	-1388.6041	7550.1520
333.9865	-16.5886	14.9235	664265.7895	-4.5816
-4.5863				
[69303]ENERGY: 16950000	3587.4264	5988.9644	5900.5632	
373.3937	-15527.3540	-1850.5915	0.0000	0.0000
9003.8121	7476.2143	335.8853	-1527.5978	7548.8311
334.0112	75.4819	37.3714	664265.7895	-5.0202
-5.0288				
[69339]ENERGY: 16960000	3644.7283	5926.7943	5970.5791	
356.1778	-15439.4554	-1881.2359	0.0000	0.0000
8900.6263	7478.2144	332.0359	-1422.4119	7549.3057
334.0309	14.3481	-43.8601	664265.7895	-1.9786
-1.9447				
[69389]ENERGY: 16970000	3712.1571	5891.7631	5905.4299	
357.8284	-15482.4425	-1873.3734	0.0000	0.0000
8966.7466	7478.1092	334.5025	-1488.6374	7549.0428
334.0583	-13.1521	7.8015	664265.7895	-1.2954
-1.2986				
[69425]ENERGY: 16980000	3671.9365	5999.8048	5928.3600	
351.8315	-15471.9522	-1942.5378	0.0000	0.0000
8943.4168	7480.8597	333.6322	-1462.5571	7550.9744
333.8117	4.7101	-113.5832	664265.7895	0.7654
0.7484				
[69475]ENERGY: 16990000	3600.7307	5975.2307	5891.3903	
380.7341	-15447.1864	-1906.9326	0.0000	0.0000
8979.5736	7473.5404	334.9811	-1506.0331	7548.8338
333.9635	-43.0370	5.4616	664265.7895	-0.6199
-0.6052				
[69514]ENERGY: 17000000	3652.4300	5825.1813	5853.8471	
359.2299	-15403.8562	-1789.4942	0.0000	0.0000
8983.6853	7481.0233	335.1344	-1502.6620	7549.3610
333.8659	117.8492	77.3944	664265.7895	-2.7066
-2.7188				
[69564]ENERGY: 17010000	3661.3814	5926.6553	5958.5581	
350.7568	-15502.0651	-1860.7047	0.0000	0.0000
8944.7429	7479.3247	333.6817	-1465.4182	7550.6623
333.9250	-46.8439	-108.9553	664265.7895	0.7196
0.7110				
[69600]ENERGY: 17020000	3752.1385	5992.0528	5905.2182	

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348.6903	-15513.8543	-1829.9453	0.0000	0.0000
8823.9048	7478.2049	329.1739	-1345.6999	7549.9608
333.8792	100.0057	54.2490	664265.7895	-0.4242
-0.4176				
[69650]ENERGY: 17030000	3621.9600	5883.0495	5908.3743	
370.9145	-15478.8326	-1832.4178	0.0000	0.0000
9005.6526	7478.7005	335.9539	-1526.9521	7552.1227
333.8675	-7.2305	-45.7529	664265.7895	3.8969
3.9007				
[69686]ENERGY: 17040000	3728.8334	5898.4745	5924.9060	
357.3733	-15509.4067	-1908.9186	0.0000	0.0000
8988.7108	7479.9727	335.3219	-1508.7380	7550.8853
333.6754	-175.6268	-264.2464	664265.7895	0.9725
0.9709				
[69736]ENERGY: 17050000	3685.4529	5975.7099	5892.6005	
347.8622	-15462.6312	-1830.6275	0.0000	0.0000
8870.5969	7478.9636	330.9157	-1391.6333	7551.6764
333.7608	27.6438	37.4210	664265.7895	-0.1083
-0.1172				
[69772]ENERGY: 17060000	3653.2200	5945.6469	5916.5830	
356.3754	-15484.9656	-1854.0588	0.0000	0.0000
8948.7311	7481.5319	333.8305	-1467.1991	7552.3337
334.0327	9.4510	0.9659	664265.7895	2.1525
2.1793				
[69822]ENERGY: 17070000	3691.9742	5908.5695	5897.1032	
360.0580	-15537.7668	-1817.3691	0.0000	0.0000
8981.8217	7484.3907	335.0649	-1497.4310	7553.0610
333.8425	91.9653	52.1309	664265.7895	-1.6456
-1.6732				
[69858]ENERGY: 17080000	3606.5295	5956.3123	5894.6724	
345.5006	-15478.5529	-1828.3409	0.0000	0.0000
8983.1257	7479.2466	335.1136	-1503.8791	7551.9139
333.8246	270.1041	81.5215	664265.7895	2.2385
2.2423				
[69908]ENERGY: 17090000	3719.4347	5959.9391	5881.8310	
371.6423	-15513.8654	-1819.2017	0.0000	0.0000
8883.5937	7483.3738	331.4006	-1400.2199	7553.3079
333.8599	-1.3161	16.6715	664265.7895	-1.0472
-1.0341				
[69947]ENERGY: 17100000	3663.0908	5942.6651	5863.6271	
372.0457	-15544.2345	-1815.0339	0.0000	0.0000
8995.1688	7477.3290	335.5628	-1517.8398	7550.7817
333.8310	-65.8339	-8.9257	664265.7895	-2.0486
-2.0679				
[69997]ENERGY: 17110000	3681.0023	5978.4234	5873.8841	
339.7018	-15509.2586	-1861.4622	0.0000	0.0000
8973.4894	7475.7801	334.7541	-1497.7093	7551.4869
334.0960	-34.9261	-17.9617	664265.7895	-4.0197
-3.9847				
[70033]ENERGY: 17120000	3701.2896	5961.0217	5936.4384	
370.2085	-15524.4129	-1851.7447	0.0000	0.0000
8889.2074	7482.0081	331.6100	-1407.1993	7551.8551
333.8940	-35.9698	-43.7787	664265.7895	-1.9102
-1.9450				

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[70083]ENERGY: 17130000	3660.1489	5964.9109	5882.4471
371.2078	-15436.5429	-1916.4310	0.0000
8956.4692	7482.2100	334.1192	-1474.2592
333.9220	30.2743	-81.0908	664265.7895
-5.6773			-5.7013
[70119]ENERGY: 17140000	3631.2320	5831.9423	5905.1101
352.8845	-15514.5437	-1785.8686	0.0000
9060.5925	7481.3491	338.0035	-1579.2434
333.8846	167.9099	128.2566	664265.7895
-3.0294			-3.0169
[70169]ENERGY: 17150000	3712.4614	5952.0456	5938.1771
386.4420	-15469.3797	-1944.7785	0.0000
8905.2309	7480.1988	332.2077	-1425.0321
334.0003	-229.5148	-210.9640	664265.7895
-7.1911			-7.1992
[70205]ENERGY: 17160000	3622.9822	5966.3560	5919.4300
350.7709	-15436.5552	-1867.0783	0.0000
8924.7223	7480.6279	332.9348	-1444.0944
333.7588	-2.6509	-97.9022	664265.7895
-6.1077			-6.1003
[70255]ENERGY: 17170000	3715.6077	5824.3818	5885.7490
370.0245	-15537.9110	-1801.7801	0.0000
9019.4965	7475.5682	336.4704	-1543.9282
333.6181	-65.3583	-71.1593	664265.7895
-5.9830			-5.9982
[70291]ENERGY: 17180000	3582.6524	5829.4279	5971.7766
359.4798	-15329.2979	-1874.6888	0.0000
8943.1100	7482.4600	333.6208	-1460.6500
333.7596	175.9729	37.6891	664265.7895
-6.7283			-6.7236
[70341]ENERGY: 17190000	3651.8094	5903.1964	5892.4222
356.2513	-15481.9503	-1778.5386	0.0000
8939.2818	7482.4722	333.4780	-1456.8097
333.7303	-8.8267	-73.5498	664265.7895
-9.8418			-9.8141
[70380]ENERGY: 17200000	3720.8870	5844.8903	5888.8329
347.4819	-15423.6564	-1886.8497	0.0000
8989.1517	7480.7377	335.3384	-1508.4140
333.9294	58.1696	28.2380	664265.7895
-6.3783			-6.4211
[70430]ENERGY: 17210000	3593.8403	5886.0156	5939.4308
349.5246	-15526.7700	-1705.3787	0.0000
8946.3735	7483.0360	333.7425	-1463.3374
333.7914	153.0056	94.9800	664265.7895
-10.4077			-10.3870
[70466]ENERGY: 17220000	3650.1366	5887.3260	5893.1961
374.1656	-15480.0428	-1771.6431	0.0000
8932.1280	7485.2665	333.2111	-1446.8616
333.9212	-13.5415	15.7983	664265.7895
-8.0533			-8.0600
[70516]ENERGY: 17230000	3636.5029	5952.2556	5907.5172
375.2587	-15500.3319	-1837.6219	0.0000
8942.5164	7476.0971	333.5986	-1466.4193
333.7630	-24.8691	-22.2334	664265.7895
			-10.3687

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-10.3709
[70552]ENERGY: 17240000 3676.0632 5880.1442 5919.9269
352.0597 -15461.6037 -1871.8170 0.0000 0.0000
8983.7830 7478.5562 335.1381 -1505.2268 7553.9177
333.6109 -29.6709 -74.1930 664265.7895 -7.6502
-7.6619
[70602]ENERGY: 17250000 3681.9714 5882.5162 5933.5832
379.9470 -15521.8065 -1847.5375 0.0000 0.0000
8973.4300 7482.1039 334.7519 -1491.3261 7555.6850
333.7108 64.9516 62.3050 664265.7895 -6.9067
-6.8824
[70638]ENERGY: 17260000 3636.1509 5960.3492 5928.0874
362.3602 -15478.3572 -1824.0519 0.0000 0.0000
8899.9580 7484.4966 332.0110 -1415.4614 7556.5758
333.8048 -5.9963 -122.0563 664265.7895 -5.2248
-5.2509
[70688]ENERGY: 17270000 3640.1145 5778.7033 5930.0907
370.7162 -15405.2055 -1884.2466 0.0000 0.0000
9052.7344 7482.9070 337.7103 -1569.8274 7555.3685
333.8657 190.1601 144.6188 664265.7895 -3.7457
-3.7258
[70724]ENERGY: 17280000 3569.3086 5906.9304 5926.3387
373.2699 -15439.4560 -1878.9407 0.0000 0.0000
9022.8533 7480.3042 336.5956 -1542.5491 7555.3512
334.1398 -69.1747 -99.7412 664265.7895 -2.1839
-2.1914
[70774]ENERGY: 17290000 3585.4140 5900.2016 5953.1733
370.1581 -15565.8220 -1751.7587 0.0000 0.0000
8990.5826 7481.9489 335.3917 -1508.6338 7555.7546
333.7876 55.6547 16.4900 664265.7895 -9.3255
-9.3329
[70813]ENERGY: 17300000 3550.4427 5893.1112 5945.2203
327.2260 -15440.5929 -1758.0210 0.0000 0.0000
8964.9207 7482.3071 334.4344 -1482.6136 7557.1388
333.5894 214.6049 156.6776 664265.7895 -2.6696
-2.6758
[70863]ENERGY: 17310000 3663.7692 5860.0967 5910.7001
347.4206 -15412.1209 -1889.3633 0.0000 0.0000
9002.6337 7483.1362 335.8413 -1519.4975 7556.4625
333.6620 -106.4495 -49.7107 664265.7895 -7.2034
-7.1950
[70899]ENERGY: 17320000 3710.3202 5877.4200 5991.6034
355.7637 -15411.2590 -1911.7359 0.0000 0.0000
8875.9943 7488.1067 331.1171 -1387.8876 7558.1056
333.8782 -50.3738 -73.0828 664265.7895 -5.5761
-5.5641
[70949]ENERGY: 17330000 3646.4859 5966.7324 5899.4163
352.7786 -15410.3083 -1886.9988 0.0000 0.0000
8918.0702 7486.1763 332.6867 -1431.8939 7558.2447
334.1262 34.1263 20.8494 664265.7895 -3.6407
-3.6471
[70985]ENERGY: 17340000 3718.1406 5865.2988 5906.9265
368.8925 -15454.0762 -1865.0491 0.0000 0.0000
8949.9805 7490.1136 333.8771 -1459.8668 7558.6607

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334.0994	-57.6607	-0.4167	664265.7895	-4.4002
-4.4035				
[71035]ENERGY: 17350000	3641.5069	5887.4014	5920.4050	
371.2516	-15355.1237	-1862.6320	0.0000	0.0000
8887.1002	7489.9093	331.5314	-1397.1909	7557.8868
333.9766	-55.9420	-61.0168	664265.7895	-7.2948
-7.2906				
[71071]ENERGY: 17360000	3710.2439	5936.7579	5928.0530	
356.5927	-15456.8101	-1922.2715	0.0000	0.0000
8934.6274	7487.1933	333.3043	-1447.4341	7559.4998
333.8671	-146.5681	-194.2911	664265.7895	-4.5658
-4.5688				
[71121]ENERGY: 17370000	3662.4649	5941.0643	5891.4544	
339.8073	-15300.7200	-1884.8382	0.0000	0.0000
8840.4917	7489.7243	329.7926	-1350.7674	7559.9547
333.8640	98.4397	102.7580	664265.7895	-8.5318
-8.5370				
[71157]ENERGY: 17380000	3722.0916	5908.8896	5917.5705	
356.9012	-15518.3466	-1793.7961	0.0000	0.0000
8896.4333	7489.7435	331.8795	-1406.6898	7559.7949
333.9707	52.2131	-33.5884	664265.7895	-5.6750
-5.6645				
[71207]ENERGY: 17390000	3698.8007	5827.5896	5868.3348	
378.0310	-15432.9614	-1802.4496	0.0000	0.0000
8949.6620	7487.0070	333.8652	-1462.6550	7559.2002
333.9870	38.5120	42.5980	664265.7895	-7.4381
-7.4359				
[71246]ENERGY: 17400000	3605.3491	5866.6453	5940.9208	
343.4860	-15498.1975	-1797.4427	0.0000	0.0000
9023.6392	7484.4002	336.6249	-1539.2390	7558.5097
333.7284	-220.3723	-190.5810	664265.7895	-9.7817
-9.7983				
[71296]ENERGY: 17410000	3756.7852	5889.3433	5961.2657	
380.4563	-15464.5781	-1875.1591	0.0000	0.0000
8842.2083	7490.3216	329.8567	-1351.8867	7558.9142
333.6435	53.6541	-43.2603	664265.7895	-8.2472
-8.2430				
[71332]ENERGY: 17420000	3601.3101	5946.6043	5920.5425	
341.6460	-15409.9016	-1836.6565	0.0000	0.0000
8920.7937	7484.3385	332.7883	-1436.4552	7558.7337
333.6420	-62.7336	-43.3796	664265.7895	-7.1035
-7.0978				
[71382]ENERGY: 17430000	3612.7496	6038.7345	5947.2483	
338.3513	-15522.3161	-1839.3499	0.0000	0.0000
8914.6481	7490.0657	332.5590	-1424.5823	7558.6127
333.4705	-80.3660	-83.0052	664265.7895	-7.4789
-7.4748				
[71418]ENERGY: 17440000	3561.9451	5961.7546	5910.9594	
384.4053	-15416.0675	-1838.7843	0.0000	0.0000
8927.5090	7491.7216	333.0388	-1435.7874	7558.3475
333.6082	35.6148	25.2186	664265.7895	-8.4459
-8.4562				
[71468]ENERGY: 17450000	3580.1457	5877.2702	5891.2472	
363.9359	-15369.9866	-1904.9051	0.0000	0.0000

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9046.5960	7484.3033	337.4813	-1562.2927	7558.4750
333.8378	92.0651	30.1526	664265.7895	-4.9557
-4.9721				
[71504]ENERGY: 17460000	3621.8513	5872.0295	5853.1778	
380.0427	-15400.5040	-1835.4909	0.0000	0.0000
8994.2002	7485.3066	335.5267	-1508.8936	7556.8079
333.7193	37.3825	-6.3840	664265.7895	-4.1176
-4.0995				
[71554]ENERGY: 17470000	3710.0888	5940.2240	5895.4099	
344.1173	-15518.9664	-1832.6370	0.0000	0.0000
8949.6370	7487.8735	333.8643	-1461.7635	7558.2424
333.9066	69.6776	3.7660	664265.7895	-8.5905
-8.5986				
[71590]ENERGY: 17480000	3649.4532	5934.9396	5909.3093	
367.5174	-15508.2441	-1828.2435	0.0000	0.0000
8959.0780	7483.8100	334.2165	-1475.2680	7558.7795
333.6995	-161.4724	-107.5056	664265.7895	-7.7468
-7.7232				
[71640]ENERGY: 17490000	3636.6162	5912.6532	5894.4519	
361.3933	-15405.5461	-1902.2613	0.0000	0.0000
8988.4548	7485.7619	335.3124	-1502.6929	7559.1018
333.8939	-175.7725	-136.0833	664265.7895	-6.1998
-6.2058				
[71679]ENERGY: 17500000	3623.8626	5809.1964	5884.1868	
368.4251	-15424.0725	-1841.5116	0.0000	0.0000
9063.8487	7483.9356	338.1249	-1579.9131	7558.9336
334.0496	-4.5007	-15.6308	664265.7895	-9.2860
-9.2958				
[71729]ENERGY: 17510000	3691.9316	5815.2722	5888.4202	
365.3963	-15394.7570	-1835.4747	0.0000	0.0000
8955.5603	7486.3488	334.0852	-1469.2115	7559.3052
333.9856	34.1866	74.3805	664265.7895	-5.7052
-5.6990				
[71765]ENERGY: 17520000	3681.5653	5943.9183	5957.7515	
341.7022	-15472.6338	-1908.6434	0.0000	0.0000
8943.7873	7487.4473	333.6461	-1456.3399	7560.4387
333.8588	-38.6019	22.2372	664265.7895	-9.1573
-9.1643				
[71815]ENERGY: 17530000	3622.2219	6019.3476	5904.9986	
366.7779	-15543.2173	-1817.0202	0.0000	0.0000
8935.8758	7488.9843	333.3509	-1446.8915	7560.0439
333.6202	165.3166	96.0194	664265.7895	-6.4873
-6.4966				
[71851]ENERGY: 17540000	3622.8991	5843.2343	5909.8626	
354.6805	-15420.8912	-1768.5255	0.0000	0.0000
8945.3506	7486.6104	333.7044	-1458.7402	7559.5162
333.7426	-0.3627	-20.0972	664265.7895	-7.3161
-7.3124				
[71901]ENERGY: 17550000	3640.0582	5963.3141	5929.6137	
350.6712	-15452.6463	-1798.9975	0.0000	0.0000
8858.6593	7490.6726	330.4704	-1367.9867	7556.8679
333.4161	5.5744	-25.6445	664265.7895	-8.3752
-8.3715				
[71937]ENERGY: 17560000	3647.1603	5801.1770	5902.0204	

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378.7343	-15428.7606	-1814.5818	0.0000	0.0000
8999.4395	7485.1890	335.7222	-1514.2505	7558.6552
333.3937	244.2650	204.6607	664265.7895	-12.9767
-12.9706				
[71987]ENERGY: 17570000	3618.2497	5865.4463	5885.9190	
378.9372	-15433.5719	-1812.8316	0.0000	0.0000
8986.8785	7489.0273	335.2536	-1497.8512	7558.4284
333.4233	150.5470	121.1176	664265.7895	-4.8423
-4.8255				
[72023]ENERGY: 17580000	3686.9265	5888.3202	5904.6748	
331.8308	-15420.5805	-1785.7416	0.0000	0.0000
8883.5808	7489.0111	331.4001	-1394.5697	7559.2992
333.2419	102.0017	114.0718	664265.7895	-6.1130
-6.1260				
[72073]ENERGY: 17590000	3657.7755	5966.2743	5896.3845	
363.4387	-15415.1733	-1901.4297	0.0000	0.0000
8917.1509	7484.4209	332.6524	-1432.7300	7558.9340
333.6450	-209.4836	-152.9174	664265.7895	-7.1698
-7.1601				
[72112]ENERGY: 17600000	3672.0924	5927.8246	5916.7253	
353.0313	-15535.1187	-1822.1167	0.0000	0.0000
8973.4067	7485.8450	334.7510	-1487.5617	7561.2947
333.8799	165.7273	182.4418	664265.7895	-5.1907
-5.2117				
[72162]ENERGY: 17610000	3645.0124	5964.1436	5929.8099	
349.6256	-15497.4126	-1916.9164	0.0000	0.0000
9013.9600	7488.2226	336.2638	-1525.7375	7562.7304
333.9390	-28.6378	-35.6276	664265.7895	-9.1683
-9.1618				
[72198]ENERGY: 17620000	3643.3977	5983.0129	5931.2508	
373.6743	-15427.5535	-1876.7097	0.0000	0.0000
8865.3840	7492.4564	330.7212	-1372.9275	7562.8787
333.9059	143.0336	45.7689	664265.7895	-4.4052
-4.4069				
[72248]ENERGY: 17630000	3557.1410	5906.3929	5976.3190	
377.1909	-15412.8952	-1905.2773	0.0000	0.0000
8990.8889	7489.7602	335.4032	-1501.1287	7561.1023
334.0574	-40.5813	-62.7910	664265.7895	-4.4385
-4.4353				
[72284]ENERGY: 17640000	3557.4174	5854.1819	5964.4518	
335.8129	-15431.3050	-1813.3467	0.0000	0.0000
9021.1150	7488.3272	336.5308	-1532.7878	7563.5781
333.9522	87.5517	63.3667	664265.7895	-9.3184
-9.3231				
[72334]ENERGY: 17650000	3551.2770	5940.6151	5911.8401	
377.0854	-15452.4143	-1749.2902	0.0000	0.0000
8913.8520	7492.9651	332.5293	-1420.8869	7561.9956
333.9627	166.0714	109.2931	664265.7895	-4.9652
-4.9723				
[72370]ENERGY: 17660000	3672.4590	5957.5333	5940.0127	
371.8320	-15379.4026	-1903.4100	0.0000	0.0000
8837.5860	7496.6105	329.6842	-1340.9755	7563.5164
333.7814	-102.0949	-136.0290	664265.7895	-6.3858
-6.3850				

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[72420]ENERGY: 17670000	3635.1737	6007.2950	5980.5332	
381.2027	-15524.7044	-1830.8717	0.0000	0.0000
8841.3711	7489.9995	329.8254	-1351.3715	7562.5491
333.7710	-13.5971	-39.2845	664265.7895	-7.3343
-7.3399				
[72456]ENERGY: 17680000	3652.7415	5927.9596	5923.1901	
356.3901	-15475.9893	-1870.9309	0.0000	0.0000
8978.5263	7491.8873	334.9420	-1486.6390	7564.3393
333.6367	-101.1968	-142.8135	664265.7895	-6.7123
-6.6973				
[72506]ENERGY: 17690000	3615.9263	5798.8741	5950.1812	
372.9252	-15455.7418	-1884.2467	0.0000	0.0000
9093.3428	7491.2611	339.2252	-1602.0817	7565.2680
333.7244	49.1968	59.9114	664265.7895	-12.9325
-12.9383				
[72545]ENERGY: 17700000	3596.2690	5899.7274	5919.9975	
353.7069	-15455.5223	-1782.5407	0.0000	0.0000
8959.2627	7490.9005	334.2234	-1468.3622	7565.6979
333.5886	174.3536	158.9905	664265.7895	-8.3032
-8.2821				
[72595]ENERGY: 17710000	3666.2587	5985.0859	5904.2200	
362.5886	-15452.0831	-1837.0759	0.0000	0.0000
8866.8062	7495.8004	330.7743	-1371.0058	7566.5700
333.7553	85.2465	-12.0384	664265.7895	-10.7341
-10.7618				
[72631]ENERGY: 17720000	3671.1395	6010.6581	5888.3313	
353.7137	-15461.7673	-1901.2681	0.0000	0.0000
8936.4725	7497.2798	333.3732	-1439.1927	7566.3324
333.8897	96.3764	0.1962	664265.7895	-10.7919
-10.7797				
[72681]ENERGY: 17730000	3645.4294	5836.8978	5900.0646	
346.0641	-15455.2674	-1827.2487	0.0000	0.0000
9047.8341	7493.7739	337.5275	-1554.0603	7567.4711
333.8595	-34.5848	0.6906	664265.7895	-11.8577
-11.8647				
[72717]ENERGY: 17740000	3712.0471	5865.4200	5950.5652	
378.5991	-15454.9290	-1871.0111	0.0000	0.0000
8920.4051	7501.0964	332.7738	-1419.3086	7569.1517
333.7882	-19.6615	-104.6253	664265.7895	-13.1149
-13.1188				
[72767]ENERGY: 17750000	3670.8801	5915.8468	5915.5396	
348.9379	-15426.9121	-1903.4195	0.0000	0.0000
8975.3907	7496.2634	334.8250	-1479.1273	7568.4810
333.6686	-11.8492	-112.0530	664265.7895	-12.1076
-12.0955				
[72803]ENERGY: 17760000	3643.8264	5855.5153	5982.9653	
366.6466	-15444.9948	-1890.3724	0.0000	0.0000
8981.7708	7495.3572	335.0630	-1486.4136	7570.4432
333.6114	-42.2844	-52.8034	664265.7895	-12.6416
-12.6330				
[72853]ENERGY: 17770000	3616.8245	5980.9723	5941.0985	
356.5277	-15457.1087	-1834.0478	0.0000	0.0000
8896.3561	7500.6228	331.8766	-1395.7333	7569.5044
333.7767	9.3338	28.3344	664265.7895	-12.3486

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-12.3403
[72889]ENERGY: 17780000 3664.5010 5906.0943 5908.8464
359.0185 -15395.3014 -1811.2839 0.0000 0.0000
8871.3889 7503.2639 330.9453 -1368.1250 7570.3018
333.9449 32.9864 -56.1560 664265.7895 -8.9644
-8.9842
[72939]ENERGY: 17790000 3590.9693 5900.5357 5899.2301
352.5813 -15409.8904 -1849.0716 0.0000 0.0000
9015.8975 7500.2520 336.3361 -1515.6455 7569.3884
334.1208 45.3223 11.3568 664265.7895 -9.6638
-9.6646
[72978]ENERGY: 17800000 3630.1702 5925.6410 5954.3724
370.9966 -15483.4401 -1877.2850 0.0000 0.0000
8977.1208 7497.5760 334.8896 -1479.5449 7569.7313
333.7425 -1.2303 -54.1194 664265.7895 -10.2872
-10.2901
[73028]ENERGY: 17810000 3642.7256 5789.3029 6001.2924
347.8828 -15460.5998 -1820.7719 0.0000 0.0000
8998.0200 7497.8520 335.6692 -1500.1680 7569.2472
333.7414 149.5847 144.8762 664265.7895 -13.0522
-13.0340
[73064]ENERGY: 17820000 3660.5396 5891.4129 5852.7892
370.0443 -15409.7752 -1816.0375 0.0000 0.0000
8948.7420 7497.7153 333.8309 -1451.0267 7570.5857
333.8373 24.4830 53.7395 664265.7895 -12.2672
-12.2842
[73114]ENERGY: 17830000 3655.4908 5855.1245 5940.7217
379.6132 -15514.0852 -1879.9554 0.0000 0.0000
9060.1553 7497.0650 337.9871 -1563.0903 7570.2686
333.8170 -235.4649 -203.0928 664265.7895 -11.9046
-11.9008
[73150]ENERGY: 17840000 3611.2754 5967.5979 5910.1564
362.6083 -15451.0676 -1826.7450 0.0000 0.0000
8926.1292 7499.9546 332.9873 -1426.1745 7571.4322
333.7581 155.1920 81.7653 664265.7895 -18.4056
-18.4250
[73200]ENERGY: 17850000 3700.3000 5899.8889 5914.6932
386.1992 -15420.9736 -1870.7914 0.0000 0.0000
8891.5679 7500.8842 331.6980 -1390.6837 7573.5787
333.8503 82.4586 103.7151 664265.7895 -15.0023
-14.9876
[73236]ENERGY: 17860000 3673.7014 6031.9848 5846.9295
363.0576 -15543.4193 -1847.1819 0.0000 0.0000
8975.8396 7500.9118 334.8418 -1474.9279 7572.1636
333.7485 0.7154 20.4110 664265.7895 -15.4784
-15.4846
[73286]ENERGY: 17870000 3660.0775 6029.9604 5875.4233
345.0677 -15437.3423 -1863.6830 0.0000 0.0000
8891.0790 7500.5826 331.6798 -1390.4964 7572.5132
333.8687 79.6938 67.0485 664265.7895 -14.5221
-14.5063
[73322]ENERGY: 17880000 3630.4269 5935.5543 5899.7908
372.7372 -15483.5204 -1824.9231 0.0000 0.0000
8967.1966 7497.2623 334.5193 -1469.9343 7571.9375

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334.0157	-149.7019	-75.8135	664265.7895	-18.4849
-18.5079				
[73372]ENERGY: 17890000	3612.5685	5868.1595	5953.9434	
367.3415	-15425.1390	-1822.8010	0.0000	0.0000
8948.1327	7502.2055	333.8082	-1445.9272	7573.7612
334.0778	-28.5336	-149.2800	664265.7895	-18.8145
-18.8133				
[73411]ENERGY: 17900000	3715.2683	5927.0727	5853.1971	
363.9098	-15422.0042	-1890.8235	0.0000	0.0000
8955.8287	7502.4490	334.0953	-1453.3797	7573.8006
334.0589	-206.9220	-203.6333	664265.7895	-14.3298
-14.3139				
[73461]ENERGY: 17910000	3623.5510	5873.7519	5918.5470	
366.8552	-15402.1519	-1861.0385	0.0000	0.0000
8988.9160	7508.4306	335.3296	-1480.4854	7573.6773
334.0440	132.6435	67.9233	664265.7895	-17.5608
-17.5621				
[73497]ENERGY: 17920000	3604.4554	5871.8039	5851.7524	
383.1410	-15411.6682	-1846.7429	0.0000	0.0000
9046.3582	7499.0997	337.4724	-1547.2584	7574.2927
334.0111	-78.4561	-82.2623	664265.7895	-12.3236
-12.3090				
[73547]ENERGY: 17930000	3692.4060	5908.4678	5938.4076	
377.5711	-15449.5960	-1855.5900	0.0000	0.0000
8890.3451	7502.0116	331.6524	-1388.3335	7576.3863
334.1721	-14.0184	6.4809	664265.7895	-11.0012
-11.0295				
[73583]ENERGY: 17940000	3675.7074	5943.6302	5921.8673	
372.3176	-15409.8068	-1855.2080	0.0000	0.0000
8857.8644	7506.3720	330.4407	-1351.4924	7575.4301
334.1015	-26.7522	21.6659	664265.7895	-16.1924
-16.1701				
[73633]ENERGY: 17950000	3764.8329	5883.3640	5939.3446	
365.7973	-15512.9359	-1874.3055	0.0000	0.0000
8936.0478	7502.1452	333.3573	-1433.9026	7575.0833
334.1255	-101.1220	-74.8732	664265.7895	-16.1720
-16.1823				
[73669]ENERGY: 17960000	3733.9932	5915.4857	5913.4754	
366.7298	-15422.5481	-1900.8823	0.0000	0.0000
8898.2415	7504.4953	331.9470	-1393.7462	7575.5754
334.3165	0.2797	-37.7236	664265.7895	-19.1562
-19.1760				
[73719]ENERGY: 17970000	3688.0709	5969.6321	5905.6740	
369.3816	-15448.1112	-1793.7805	0.0000	0.0000
8817.3427	7508.2096	328.9291	-1309.1331	7576.5711
334.2465	-21.2108	-34.8478	664265.7895	-16.0954
-16.0784				
[73755]ENERGY: 17980000	3707.0768	5989.6985	5845.0502	
375.0364	-15443.9065	-1875.5870	0.0000	0.0000
8908.1362	7505.5047	332.3161	-1402.6315	7575.2777
334.2949	-178.2988	-102.6863	664265.7895	-16.9075
-16.8980				
[73805]ENERGY: 17990000	3660.3123	5866.9823	5863.6986	
354.2563	-15471.4406	-1801.7442	0.0000	0.0000

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9029.4823	7501.5471	336.8429	-1527.9352	7576.8465
334.3944	40.0847	-62.2651	664265.7895	-16.4579
-16.4750				
[73844]ENERGY: 18000000	3534.8349	5967.2269	5852.4137	
366.6799	-15465.7910	-1806.5178	0.0000	0.0000
9051.2668	7500.1133	337.6556	-1551.1535	7577.2322
334.2279	82.1217	96.1260	664265.7895	-15.0382
-15.0310				
[73894]ENERGY: 18010000	3651.1171	5892.5563	5969.6610	
362.1486	-15462.8636	-1831.7576	0.0000	0.0000
8922.5561	7503.4179	332.8540	-1419.1382	7576.3016
334.2282	-48.7470	29.2845	664265.7895	-12.2716
-12.2688				
[73930]ENERGY: 18020000	3709.0373	5873.4694	5907.8280	
335.4036	-15404.1036	-1819.9283	0.0000	0.0000
8902.3278	7504.0342	332.0994	-1398.2937	7574.6824
334.2475	-72.8009	-54.9496	664265.7895	-12.0725
-12.0479				
[73980]ENERGY: 18030000	3662.8955	5935.9855	5937.8392	
354.3664	-15436.6415	-1893.3531	0.0000	0.0000
8940.5830	7501.6750	333.5265	-1438.9080	7576.6452
334.2904	-112.2093	-141.1696	664265.7895	-9.1414
-9.1632				
[74016]ENERGY: 18040000	3688.9135	5842.5243	5881.6482	
379.0105	-15365.7680	-1900.9821	0.0000	0.0000
8978.0266	7503.3729	334.9233	-1474.6537	7575.6971
334.4266	-167.3533	-159.6106	664265.7895	-13.9003
-13.9123				
[74066]ENERGY: 18050000	3745.3761	5827.2766	5903.6725	
367.1774	-15398.7758	-1883.9095	0.0000	0.0000
8941.5329	7502.3503	333.5620	-1439.1826	7574.8168
334.3290	22.4049	-5.3190	664265.7895	-12.6979
-12.6800				
[74102]ENERGY: 18060000	3714.7828	5966.8785	5869.8992	
371.4519	-15349.0509	-1923.4091	0.0000	0.0000
8856.8130	7507.3654	330.4015	-1349.4477	7575.6410
334.1054	-38.4657	-57.7095	664265.7895	-12.5595
-12.5675				
[74152]ENERGY: 18070000	3625.4180	5953.5166	5840.1747	
361.8199	-15391.0998	-1805.9477	0.0000	0.0000
8923.1162	7506.9978	332.8749	-1416.1184	7576.0630
334.3932	104.7897	-19.7561	664265.7895	-11.8190
-11.8209				
[74188]ENERGY: 18080000	3624.4886	5909.7420	5850.5692	
341.7505	-15404.3480	-1884.4629	0.0000	0.0000
9061.6403	7499.3797	338.0425	-1562.2606	7575.9136
334.0450	-21.9409	-61.9316	664265.7895	-17.2290
-17.2228				
[74238]ENERGY: 18090000	3639.4902	5892.4491	5899.3188	
338.0878	-15408.3362	-1877.0880	0.0000	0.0000
9018.9944	7502.9161	336.4516	-1516.0783	7576.0138
334.1700	-52.8509	-84.2445	664265.7895	-13.9964
-13.9938				
[74277]ENERGY: 18100000	3574.8895	5868.5270	5900.2098	

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360.6218	-15441.8632	-1880.4086	0.0000	0.0000
9120.2996	7502.2759	340.2308	-1618.0238	7575.5931
334.0486	23.8998	-24.2931	664265.7895	-10.7602
-10.7501				
[74327]ENERGY: 18110000	3676.3741	5926.7956	5894.5121	
340.0872	-15426.5595	-1903.3007	0.0000	0.0000
8993.1155	7501.0242	335.4862	-1492.0913	7575.0533
334.1858	32.2625	-26.6151	664265.7895	-11.9313
-11.9493				
[74363]ENERGY: 18120000	3691.6673	5907.7462	5922.5812	
384.6411	-15426.4609	-1860.6631	0.0000	0.0000
8883.2610	7502.7729	331.3881	-1380.4882	7576.3004
334.4090	16.1163	-9.1688	664265.7895	-14.4474
-14.4305				
[74413]ENERGY: 18130000	3681.5889	5843.4587	5895.9708	
341.6396	-15403.5223	-1848.3278	0.0000	0.0000
8993.1998	7504.0077	335.4894	-1489.1921	7576.2359
334.1107	-30.0404	-127.7970	664265.7895	-11.0184
-11.0298				
[74449]ENERGY: 18140000	3671.4058	5868.0615	5888.6182	
358.3799	-15356.6804	-1833.4066	0.0000	0.0000
8908.9431	7505.3216	332.3462	-1403.6215	7576.0430
334.4810	98.3799	-123.3100	664265.7895	-10.4846
-10.4967				
[74499]ENERGY: 18150000	3631.4163	5958.9092	5906.1129	
370.2537	-15389.0177	-1933.8320	0.0000	0.0000
8958.9423	7502.7847	334.2114	-1456.1576	7575.7155
334.3497	-19.9378	-36.7521	664265.7895	-11.0336
-11.0220				
[74535]ENERGY: 18160000	3609.5318	5949.2674	5902.5499	
374.7338	-15380.0020	-1859.8645	0.0000	0.0000
8910.2928	7506.5093	332.3966	-1403.7835	7575.3260
334.1809	40.3289	-11.5424	664265.7895	-12.2106
-12.2133				
[74585]ENERGY: 18170000	3661.4652	5992.1807	5910.3225	
365.3543	-15539.5206	-1825.2001	0.0000	0.0000
8939.5896	7504.1917	333.4895	-1435.3980	7575.2761
334.4806	-99.3722	-63.6099	664265.7895	-12.2354
-12.2260				
[74621]ENERGY: 18180000	3631.0857	5864.5345	5918.6386	
357.8035	-15486.1333	-1866.1167	0.0000	0.0000
9080.4620	7500.2744	338.7447	-1580.1876	7577.1945
334.5625	138.7562	72.3007	664265.7895	-15.9117
-15.9385				
[74671]ENERGY: 18190000	3618.6932	6004.6672	5913.7269	
379.5804	-15499.1923	-1825.7418	0.0000	0.0000
8912.3336	7504.0673	332.4727	-1408.2663	7575.7358
334.4190	95.9975	-6.8229	664265.7895	-7.2130
-7.2112				
[74710]ENERGY: 18200000	3631.6475	5869.1339	5919.1867	
359.2972	-15377.7095	-1926.7676	0.0000	0.0000
9026.6668	7501.4551	336.7379	-1525.2118	7575.3460
334.2284	-61.2481	-55.3486	664265.7895	-12.6926
-12.6779				

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[74760]ENERGY: 18210000	3675.8446	5852.2859	5862.0590	
357.3040	-15421.5660	-1838.8139	0.0000	0.0000
9013.1723	7500.2858	336.2344	-1512.8865	7575.8847
334.2887	-59.4364	16.7128	664265.7895	-13.3372
-13.3395				
[74796]ENERGY: 18220000	3711.0756	5950.4116	5875.0047	
389.4520	-15577.0829	-1848.5295	0.0000	0.0000
9000.2343	7500.5658	335.7518	-1499.6685	7575.0231
334.3213	-30.2082	-82.3665	664265.7895	-10.9752
-10.9785				
[74846]ENERGY: 18230000	3621.6085	5928.5077	5925.0429	
365.7929	-15442.7395	-1812.8612	0.0000	0.0000
8920.5952	7505.9465	332.7809	-1414.6488	7575.5201
334.2792	74.8731	98.7617	664265.7895	-7.0669
-7.0492				
[74882]ENERGY: 18240000	3699.7540	5968.1362	5921.9006	
372.1709	-15445.2467	-1924.7505	0.0000	0.0000
8908.8128	7500.7774	332.3413	-1408.0355	7574.6496
334.1081	-269.7831	-239.5329	664265.7895	-9.2988
-9.3161				
[74932]ENERGY: 18250000	3682.2459	5929.2605	5913.4550	
381.5009	-15436.6375	-1883.8925	0.0000	0.0000
8918.8879	7504.8203	332.7172	-1414.0676	7576.7749
334.2950	-95.0826	-103.9235	664265.7895	-10.0015
-9.9751				
[74968]ENERGY: 18260000	3641.2496	5872.1183	5936.7822	
388.7470	-15483.2398	-1869.2975	0.0000	0.0000
9019.8038	7506.1636	336.4818	-1513.6401	7576.0761
334.4383	49.2457	1.1163	664265.7895	-5.7207
-5.7385				
[75018]ENERGY: 18270000	3596.8116	5975.4207	5913.9372	
344.5648	-15374.1501	-1882.0292	0.0000	0.0000
8928.9538	7503.5089	333.0927	-1425.4450	7575.6805
334.6485	334.3369	152.3933	664265.7895	-9.3640
-9.3797				
[75054]ENERGY: 18280000	3672.3339	5967.2986	5922.8679	
388.3532	-15554.0530	-1821.1509	0.0000	0.0000
8927.2067	7502.8564	333.0275	-1424.3503	7574.0269
334.3225	77.4238	30.8738	664265.7895	-11.8463
-11.8544				
[75104]ENERGY: 18290000	3641.4754	5863.5597	5895.5097	
365.0645	-15389.8101	-1826.4655	0.0000	0.0000
8955.5473	7504.8810	334.0848	-1450.6664	7575.0002
334.3124	111.9532	92.4552	664265.7895	-9.3901
-9.3632				
[75143]ENERGY: 18300000	3770.0356	5901.6765	5980.4604	
362.1340	-15482.1587	-1906.9982	0.0000	0.0000
8882.8139	7507.9636	331.3715	-1374.8504	7577.5622
334.2472	-34.0661	-68.2011	664265.7895	-9.9001
-9.9143				
[75193]ENERGY: 18310000	3569.2241	5866.1945	5876.5862	
355.9332	-15422.1314	-1817.1063	0.0000	0.0000
9075.6542	7504.3545	338.5653	-1571.2997	7577.5027
334.2738	34.2400	-1.3988	664265.7895	-8.3968

Supplementary Text 6

-8.3914
 [75229]ENERGY: 18320000 3717.7079 5896.7061 5899.8079
 347.6288 -15445.8188 -1891.4981 0.0000 0.0000
 8979.9674 7504.5012 334.9957 -1475.4662 7576.8111
 334.4089 -71.1917 -158.4241 664265.7895 -11.5499
 -11.5437
 [75279]ENERGY: 18330000 3641.4633 5949.4390 5881.4594
 352.7758 -15427.5515 -1856.7303 0.0000 0.0000
 8962.0423 7502.8980 334.3271 -1459.1443 7576.7914
 334.1771 -48.2547 -112.0966 664265.7895 -11.1611
 -11.1509
 [75315]ENERGY: 18340000 3656.5168 5877.4892 5905.4883
 356.6768 -15415.1915 -1834.4591 0.0000 0.0000
 8958.7500 7505.2704 334.2042 -1453.4795 7576.5126
 334.5033 -93.5498 -93.7817 664265.7895 -14.6268
 -14.6449
 [75365]ENERGY: 18350000 3764.6369 5752.0338 5983.9536
 364.2867 -15405.0558 -1881.4238 0.0000 0.0000
 8929.0708 7507.5022 333.0971 -1421.5686 7578.3064
 334.5659 -80.9374 -76.9903 664265.7895 -9.7792
 -9.7680
 [75401]ENERGY: 18360000 3689.2939 5884.9175 5940.6492
 386.1517 -15467.4820 -1878.0438 0.0000 0.0000
 8951.2425 7506.7291 333.9242 -1444.5135 7576.1522
 334.3483 71.4849 59.4187 664265.7895 -13.1370
 -13.1470
 [75451]ENERGY: 18370000 3492.8808 5932.3142 5955.8684
 367.1576 -15426.0944 -1824.0694 0.0000 0.0000
 9006.1940 7504.2513 335.9741 -1501.9427 7578.0766
 334.3962 156.5157 170.8348 664265.7895 -10.5871
 -10.5766
 [75487]ENERGY: 18380000 3583.9533 5881.8888 5894.7039
 376.3374 -15388.2312 -1891.3603 0.0000 0.0000
 9047.1556 7504.4474 337.5022 -1542.7082 7576.8254
 334.2926 -2.7142 -88.4703 664265.7895 -9.1763
 -9.1967
 [75537]ENERGY: 18390000 3644.4247 5870.6407 5891.8561
 358.3442 -15408.7450 -1826.3970 0.0000 0.0000
 8974.8713 7504.9951 334.8056 -1469.8762 7577.9261
 334.3577 -156.5484 -69.3602 664265.7895 -6.3070
 -6.3152
 [75576]ENERGY: 18400000 3635.2776 5849.8246 5935.2925
 361.1066 -15448.3991 -1830.8374 0.0000 0.0000
 9006.9760 7509.2409 336.0033 -1497.7351 7580.3135
 334.2678 67.3914 17.8482 664265.7895 -8.6686
 -8.6495
 [75626]ENERGY: 18410000 3587.1193 5846.6304 5937.4218
 369.1937 -15359.9444 -1843.3543 0.0000 0.0000
 8974.8667 7511.9332 334.8055 -1462.9335 7578.6476
 334.2534 8.2821 55.4122 664265.7895 -8.3996
 -8.3979
 [75662]ENERGY: 18420000 3660.2965 5826.7415 5948.3257
 369.6515 -15307.9826 -1977.2607 0.0000 0.0000
 8988.4409 7508.2128 335.3118 -1480.2281 7580.3706

Supplementary Text 6

334.3705	-45.8971	-133.1336	664265.7895	-9.0785
-9.0625				
[75712]ENERGY: 18430000	3678.5096	5948.3613	5902.5755	
364.2413	-15485.2321	-1852.1134	0.0000	0.0000
8949.5974	7505.9394	333.8628	-1443.6580	7580.6778
334.4612	23.5217	-49.6313	664265.7895	-7.6895
-7.6997				
[75748]ENERGY: 18440000	3566.9399	5916.4071	5937.9858	
353.1090	-15422.4884	-1833.6586	0.0000	0.0000
8990.4497	7508.7445	335.3868	-1481.7052	7582.5943
334.2376	151.3524	173.4837	664265.7895	-13.4030
-13.4074				
[75798]ENERGY: 18450000	3660.6922	5876.4874	5955.4317	
355.9632	-15454.2854	-1850.0781	0.0000	0.0000
8962.7847	7506.9957	334.3548	-1455.7890	7580.9515
334.4934	72.0073	97.6878	664265.7895	-12.5571
-12.5420				
[75834]ENERGY: 18460000	3665.6724	5898.0535	5923.7134	
335.6005	-15379.7982	-1866.9028	0.0000	0.0000
8932.6530	7508.9918	333.2307	-1423.6612	7583.1074
334.5135	150.4880	46.7010	664265.7895	-9.3627
-9.3880				
[75884]ENERGY: 18470000	3664.6937	5891.0602	5923.0651	
373.4722	-15370.7825	-1895.9484	0.0000	0.0000
8923.6003	7509.1604	332.8930	-1414.4398	7582.3037
334.5354	-6.3206	26.0445	664265.7895	-10.5199
-10.5015				
[75920]ENERGY: 18480000	3643.0650	5822.3070	5948.3058	
373.6387	-15368.9211	-1906.8823	0.0000	0.0000
8999.6332	7511.1462	335.7294	-1488.4869	7582.7868
334.5567	127.8486	29.6573	664265.7895	-9.4468
-9.4312				
[75970]ENERGY: 18490000	3639.7515	5969.0164	5940.4767	
372.4310	-15421.1057	-1876.0938	0.0000	0.0000
8888.2331	7512.7093	331.5736	-1375.5238	7581.4662
334.3539	-8.0745	-46.8719	664265.7895	-5.9079
-5.9394				
[76009]ENERGY: 18500000	3631.1989	5910.0685	5939.9101	
362.4340	-15470.9209	-1850.5084	0.0000	0.0000
8990.0975	7512.2798	335.3737	-1477.8177	7580.8032
334.1239	-20.5099	-46.4704	664265.7895	-6.7993
-6.7822				
[76059]ENERGY: 18510000	3730.8635	5778.5831	5909.9582	
369.6166	-15470.1597	-1807.6378	0.0000	0.0000
8997.3670	7508.5910	335.6448	-1488.7760	7582.4470
334.1770	41.7142	11.2919	664265.7895	-4.0131
-4.0281				
[76095]ENERGY: 18520000	3653.1590	5883.4099	5831.4009	
363.5451	-15355.0331	-1911.4382	0.0000	0.0000
9042.7250	7507.7686	337.3369	-1534.9564	7582.6640
334.2362	33.8769	45.8410	664265.7895	-6.1622
-6.1570				
[76145]ENERGY: 18530000	3606.0457	6003.9346	5847.8000	
358.9549	-15437.6090	-1838.6741	0.0000	0.0000

Supplementary Text 6

8971.4625	7511.9145	334.6785	-1459.5480	7582.5739
334.6306	22.7785	-13.4794	664265.7895	-7.7266
-7.7322				
[76181]ENERGY: 18540000	3697.8950	5903.0565	5879.9612	
352.4086	-15425.2586	-1850.7725	0.0000	0.0000
8952.8872	7510.1773	333.9855	-1442.7099	7582.3410
334.6314	-74.4615	-26.2954	664265.7895	-11.2238
-11.2136				
[76231]ENERGY: 18550000	3703.4707	5871.5553	5891.6673	
352.6647	-15428.1660	-1872.5895	0.0000	0.0000
8992.6619	7511.2645	335.4693	-1481.3973	7583.4890
334.4931	-88.2459	-148.4470	664265.7895	-7.3700
-7.3646				
[76267]ENERGY: 18560000	3679.9375	5923.5806	5925.3289	
364.5565	-15402.6235	-1911.1003	0.0000	0.0000
8931.1669	7510.8465	333.1753	-1420.3204	7582.6620
334.3897	46.2426	73.2361	664265.7895	-6.0933
-6.1113				
[76317]ENERGY: 18570000	3705.2993	5935.3365	5950.3698	
364.1436	-15476.8468	-1838.2139	0.0000	0.0000
8870.9992	7511.0877	330.9307	-1359.9115	7583.9728
334.4445	22.1123	-17.1124	664265.7895	-7.5027
-7.4942				
[76353]ENERGY: 18580000	3659.9169	5901.8049	5905.3484	
377.8323	-15380.2795	-1947.5148	0.0000	0.0000
8991.3669	7508.4751	335.4210	-1482.8917	7584.9000
334.5746	18.0323	-62.4201	664265.7895	-8.9881
-8.9716				
[76403]ENERGY: 18590000	3676.2619	5908.1863	5874.5680	
358.6047	-15402.3378	-1849.6290	0.0000	0.0000
8946.6719	7512.3260	333.7537	-1434.3459	7582.8274
334.6938	235.3060	118.6703	664265.7895	-8.4578
-8.4879				
[76442]ENERGY: 18600000	3683.4268	5815.9188	5953.4701	
354.2432	-15457.5147	-1810.7384	0.0000	0.0000
8976.2926	7515.0984	334.8587	-1461.1942	7583.5371
334.6835	6.1009	28.8051	664265.7895	-12.6065
-12.5732				
[76492]ENERGY: 18610000	3617.9686	5927.2288	5982.7869	
351.0069	-15393.8818	-1925.1977	0.0000	0.0000
8949.2960	7509.2075	333.8516	-1440.0884	7583.9726
334.4865	-31.3299	-15.4280	664265.7895	-10.1486
-10.1688				
[76528]ENERGY: 18620000	3661.1408	5913.1658	5977.2833	
346.2692	-15449.8374	-1835.4904	0.0000	0.0000
8900.9580	7513.4893	332.0483	-1387.4687	7582.8884
334.6502	151.2468	110.8957	664265.7895	-3.9472
-3.9485				
[76578]ENERGY: 18630000	3632.3394	5871.4774	5924.0826	
359.8570	-15309.5753	-1914.2364	0.0000	0.0000
8948.2326	7512.1773	333.8119	-1436.0553	7583.1971
334.6034	-49.0794	-17.4197	664265.7895	-10.2519
-10.2511				
[76614]ENERGY: 18640000	3737.5371	5846.8573	5955.2723	

Supplementary Text 6

370.1412	-15408.8074	-1952.8779	0.0000	0.0000
8964.1936	7512.3162	334.4073	-1451.8774	7583.6773
334.5303	17.7223	-82.5436	664265.7895	-4.7236
-4.7343				
[76664]ENERGY: 18650000	3734.0397	5890.7319	5864.3562	
371.4014	-15411.5512	-1881.2270	0.0000	0.0000
8942.8311	7510.5821	333.6104	-1432.2491	7584.3219
334.3974	-4.3962	-12.5516	664265.7895	-10.1446
-10.1403				
[76700]ENERGY: 18660000	3747.2154	5832.4851	5906.6519	
359.9790	-15419.0209	-1821.7531	0.0000	0.0000
8907.0669	7512.6242	332.2762	-1394.4427	7584.1632
334.4050	-129.7582	13.4451	664265.7895	-8.1067
-8.1033				
[76750]ENERGY: 18670000	3718.7652	5841.9361	5974.4115	
364.4294	-15393.6060	-1911.1119	0.0000	0.0000
8916.6477	7511.4721	332.6336	-1405.1757	7583.4744
334.3010	-53.5239	-55.8477	664265.7895	-6.5633
-6.5611				
[76786]ENERGY: 18680000	3603.9953	5982.7711	5857.9076	
335.9257	-15323.3362	-1877.4223	0.0000	0.0000
8935.8508	7515.6921	333.3500	-1420.1587	7585.2272
334.2922	86.8520	49.1398	664265.7895	-7.5776
-7.5809				
[76836]ENERGY: 18690000	3617.4956	5918.7975	5918.3802	
363.5677	-15490.0721	-1857.5125	0.0000	0.0000
9037.9075	7508.5639	337.1572	-1529.3436	7584.4860
334.4575	45.1489	43.5291	664265.7895	-7.3929
-7.3786				
[76875]ENERGY: 18700000	3624.7738	5890.1335	5938.4136	
357.0688	-15445.4151	-1845.8048	0.0000	0.0000
8991.7650	7510.9348	335.4359	-1480.8302	7585.8651
334.5195	10.3057	-19.5878	664265.7895	-9.3334
-9.3373				
[76925]ENERGY: 18710000	3705.8871	5931.6152	5950.7045	
369.1690	-15495.5818	-1882.8375	0.0000	0.0000
8936.8026	7515.7591	333.3855	-1421.0435	7585.4012
334.4641	23.4884	-52.5231	664265.7895	-10.1936
-10.2037				
[76961]ENERGY: 18720000	3648.8860	6014.6874	5898.8598	
368.8614	-15446.9747	-1886.6969	0.0000	0.0000
8915.1262	7512.7492	332.5769	-1402.3770	7585.2269
334.5364	59.7741	29.5619	664265.7895	-11.9624
-11.9496				
[77011]ENERGY: 18730000	3609.7540	5957.4131	5940.1419	
382.0410	-15419.5671	-1888.0934	0.0000	0.0000
8930.3721	7512.0616	333.1456	-1418.3106	7583.7508
334.4650	-13.8704	28.8382	664265.7895	-7.2625
-7.2608				
[77047]ENERGY: 18740000	3643.3813	5941.0501	5962.0883	
352.0071	-15393.6643	-1877.1423	0.0000	0.0000
8885.2827	7513.0029	331.4636	-1372.2798	7583.3173
334.3587	44.8039	47.7849	664265.7895	-7.4804
-7.4818				

Supplementary Text 6

[77097]ENERGY: 18750000	3644.8780	5898.7734	5882.1104
338.1492	-15435.2574	-1871.2678	0.0000
9055.5165	7512.9024	337.8141	-1542.6142
334.5909	35.0159	46.5440	664265.7895
-5.2621			-5.2594
[77133]ENERGY: 18760000	3680.5402	5826.5195	5899.1284
349.2623	-15319.8544	-1936.1238	0.0000
9012.7235	7512.1957	336.2177	-1500.5277
334.6917	-95.0498	-59.3234	664265.7895
-9.6327			-9.6276
[77183]ENERGY: 18770000	3626.1435	5967.7900	5972.8206
387.0623	-15479.7805	-1846.7954	0.0000
8889.1879	7516.4284	331.6092	-1372.7595
334.6863	128.6071	133.1306	664265.7895
-6.8953			-6.8993
[77219]ENERGY: 18780000	3637.2849	5857.3053	5920.3867
391.7212	-15447.5999	-1856.1301	0.0000
9010.1814	7513.1495	336.1229	-1497.0319
334.7069	-17.5739	-22.1745	664265.7895
-6.3304			-6.3341
[77269]ENERGY: 18790000	3647.1385	5881.3700	5923.9940
360.9865	-15445.0159	-1838.3020	0.0000
8983.2505	7513.4215	335.1182	-1469.8290
334.6182	-51.7871	-43.1753	664265.7895
-6.1200			-6.1066
[77308]ENERGY: 18800000	3651.8059	5874.8262	5958.3740
336.4198	-15333.9253	-1937.6649	0.0000
8966.6552	7516.4909	334.4991	-1450.1643
334.6802	-15.2933	-79.8219	664265.7895
-3.8143			-3.8272
[77358]ENERGY: 18810000	3776.0912	5766.3662	5952.0006
345.2388	-15324.4675	-1947.4522	0.0000
8949.2422	7517.0194	333.8496	-1432.2229
334.6073	-60.3666	-109.0145	664265.7895
-6.0932			-6.0977
[77394]ENERGY: 18820000	3627.4881	5878.4249	5916.6609
355.7284	-15398.8171	-1924.3856	0.0000
9061.1660	7516.2656	338.0248	-1544.9004
334.6947	-34.1123	-173.1244	664265.7895
-6.5658			-6.5255
[77444]ENERGY: 18830000	3737.2392	5961.2018	5942.5322
349.4696	-15504.2454	-1842.2625	0.0000
8876.3310	7520.2660	331.1296	-1356.0650
334.9001	43.1883	151.1841	664265.7895
-2.8012			-2.8340
[77480]ENERGY: 18840000	3689.5339	5897.1820	5909.2261
383.8705	-15306.9295	-1938.2481	0.0000
8889.5144	7524.1493	331.6214	-1365.3651
334.6887	251.3782	115.0469	664265.7895
-6.3341			-6.3209
[77530]ENERGY: 18850000	3741.8260	5907.3449	5948.0591
342.4624	-15443.6609	-1933.8607	0.0000
8955.8001	7517.9708	334.0942	-1437.8292
334.7613	-59.9588	-138.0752	664265.7895
			-3.9006

Supplementary Text 6

-3.9113

[77566]ENERGY: 18860000	3627.3396	5905.7439	5912.6198
367.6933	-15491.7771	-1815.6834	0.0000
9003.0885	7509.0245	335.8583	-1494.0640
334.8229	-24.3384	-34.6436	664265.7895
-0.4518			-0.4629

[77616]ENERGY: 18870000	3626.0480	5926.7352	5939.2736
375.3363	-15437.8999	-1841.0073	0.0000
8927.1239	7515.6097	333.0244	-1411.5142
334.6872	121.5459	8.8198	664265.7895
-4.8097			-4.8125

[77652]ENERGY: 18880000	3660.6016	5951.9481	5860.7869
353.4555	-15474.9347	-1801.9965	0.0000
8964.8814	7514.7421	334.4330	-1450.1393
334.5808	130.4816	128.0070	664265.7895
-5.8022			-5.8027

[77702]ENERGY: 18890000	3734.7150	5959.8606	5922.7116
357.6206	-15448.0019	-1888.8265	0.0000
8880.5042	7518.5836	331.2853	-1361.9206
334.4619	51.5663	28.0286	664265.7895
-7.9229			-7.9386

[77741]ENERGY: 18900000	3672.9735	5853.7093	5944.9467
354.4087	-15394.2465	-1926.0499	0.0000
9015.2825	7521.0244	336.3132	-1494.2582
334.5609	-106.8197	-6.4404	664265.7895
-8.3056			-8.3051

[77791]ENERGY: 18910000	3640.1956	5957.1104	5883.1530
351.9550	-15486.1641	-1873.6414	0.0000
9043.3920	7516.0005	337.3618	-1527.3915
334.6231	91.6804	10.0754	664265.7895
-9.3067			-9.2988

[77827]ENERGY: 18920000	3666.8933	5823.7950	5888.3901
400.7614	-15358.4291	-1906.0241	0.0000
9002.2742	7517.6608	335.8279	-1484.6133
334.6397	-136.4018	-30.5157	664265.7895
-7.5460			-7.5506

[77877]ENERGY: 18930000	3661.6387	5958.7786	5942.7523
351.6778	-15550.7068	-1820.5342	0.0000
8974.6309	7518.2373	334.7967	-1456.3936
334.8819	61.4221	61.1113	664265.7895
-6.4701			-6.4625

[77913]ENERGY: 18940000	3683.2105	5922.9703	5915.9205
360.4057	-15377.7614	-1960.5368	0.0000
8975.1769	7519.3855	334.8170	-1455.7913
334.6411	-149.2106	-174.1396	664265.7895
-7.6475			-7.6537

[77963]ENERGY: 18950000	3710.2044	5889.7555	5904.7491
390.3181	-15433.6001	-1830.9958	0.0000
8887.0857	7517.5169	331.5308	-1369.5688
334.5077	47.7631	82.4989	664265.7895
-7.4423			-7.4386

[77999]ENERGY: 18960000	3608.1092	5957.6064	5866.2483
375.9028	-15387.4496	-1880.1500	0.0000
8978.8224	7519.0895	334.9530	-1459.7328
			7591.7514

Supplementary Text 6

334.7890	14.8747	-74.1098	664265.7895	-7.4680
-7.4814				
[78049]ENERGY: 18970000	3651.6382	5925.3547	5935.1052	
347.3201	-15431.1903	-1863.6486	0.0000	0.0000
8952.9300	7517.5093	333.9871	-1435.4207	7591.9627
334.8586	-25.4872	-56.3483	664265.7895	-9.7577
-9.7257				
[78085]ENERGY: 18980000	3710.5548	5946.8041	5925.3122	
367.8674	-15509.1124	-1918.5288	0.0000	0.0000
8996.7718	7519.6691	335.6226	-1477.1027	7593.0458
334.8568	24.3818	-25.0716	664265.7895	-6.7362
-6.7721				
[78135]ENERGY: 18990000	3672.7993	5850.0900	5920.9153	
387.0086	-15290.2428	-1963.0678	0.0000	0.0000
8942.3887	7519.8913	333.5939	-1422.4974	7593.0188
334.6725	-101.7812	-150.6632	664265.7895	-8.7283
-8.7204				
[78174]ENERGY: 19000000	3632.6170	5895.8338	5910.3329	
359.2858	-15505.9165	-1759.7490	0.0000	0.0000
8986.8813	7519.2854	335.2537	-1467.5960	7593.9414
334.7018	-22.5958	8.1846	664265.7895	-8.2373
-8.2262				
[78224]ENERGY: 19010000	3650.6226	5877.0817	5859.7641	
361.0764	-15375.7433	-1874.2963	0.0000	0.0000
9025.5733	7524.0785	336.6971	-1501.4948	7596.3420
334.8403	-22.7338	-54.9468	664265.7895	-6.4197
-6.4333				
[78260]ENERGY: 19020000	3655.4529	5971.6728	5925.0541	
362.1666	-15412.7107	-1875.4307	0.0000	0.0000
8896.8302	7523.0352	331.8943	-1373.7950	7596.2802
334.9688	27.2526	71.9608	664265.7895	-5.8419
-5.8168				
[78310]ENERGY: 19030000	3623.5920	5981.0207	5960.8523	
347.4076	-15379.9681	-1915.6036	0.0000	0.0000
8909.3438	7526.6446	332.3612	-1382.6992	7597.7793
334.9219	-180.6013	-98.6154	664265.7895	-4.2086
-4.2108				
[78346]ENERGY: 19040000	3544.4697	5971.9049	5957.3541	
382.7553	-15435.9040	-1876.2242	0.0000	0.0000
8977.6540	7522.0097	334.9094	-1455.6443	7597.1923
334.7662	-36.7589	30.9970	664265.7895	-9.0430
-9.0404				
[78396]ENERGY: 19050000	3593.0909	5928.7272	5937.1732	
339.2933	-15411.8113	-1897.7790	0.0000	0.0000
9037.2187	7525.9131	337.1315	-1511.3057	7597.6288
334.8424	178.3161	161.7921	664265.7895	-6.1644
-6.1924				
[78432]ENERGY: 19060000	3599.8885	5901.4854	5949.6517	
362.7526	-15308.0452	-1903.4064	0.0000	0.0000
8924.2705	7526.5972	332.9180	-1397.6733	7597.3406
334.9038	-122.2220	-101.6943	664265.7895	-8.6008
-8.5963				
[78482]ENERGY: 19070000	3656.3222	5936.0039	5886.1011	
378.6322	-15365.8528	-1904.6035	0.0000	0.0000

Supplementary Text 6

8941.6516	7528.2547	333.5664	-1413.3969	7599.0841
334.8906	-74.5783	-103.3770	664265.7895	-7.9910
-7.9776				
[78518]ENERGY: 19080000	3664.2613	5827.8975	5906.7733	
328.6587	-15385.3902	-1830.2235	0.0000	0.0000
9013.4459	7525.4231	336.2447	-1488.0228	7598.5177
334.9588	165.0184	75.0059	664265.7895	-7.8637
-7.8666				
[78568]ENERGY: 19090000	3784.1322	5937.1680	5938.9886	
365.0144	-15448.3206	-1920.0827	0.0000	0.0000
8869.9022	7526.8021	330.8898	-1343.1001	7597.7788
334.5131	27.3270	-3.2503	664265.7895	-9.0126
-9.0234				
[78607]ENERGY: 19100000	3683.2206	5922.7453	5893.4718	
360.1409	-15408.1318	-1877.5697	0.0000	0.0000
8953.0876	7526.9646	333.9930	-1426.1230	7596.8013
334.8230	-71.7566	-78.9422	664265.7895	-9.7711
-9.7551				
[78657]ENERGY: 19110000	3634.3052	5881.9284	5973.9402	
347.7513	-15462.2766	-1847.7976	0.0000	0.0000
8995.7907	7523.6416	335.5860	-1472.1491	7596.3807
334.9064	13.0272	120.0838	664265.7895	-11.1996
-11.1737				
[78693]ENERGY: 19120000	3725.5624	5882.3490	5869.1506	
349.6029	-15506.2132	-1799.6731	0.0000	0.0000
8999.5222	7520.3008	335.7252	-1479.2213	7596.5630
334.7021	39.6863	-5.0767	664265.7895	-9.5553
-9.5946				
[78743]ENERGY: 19130000	3679.1127	5897.0447	5934.5063	
369.4193	-15397.5937	-1879.3971	0.0000	0.0000
8923.3605	7526.4527	332.8840	-1396.9077	7596.0964
334.7245	59.6588	44.5242	664265.7895	-5.0018
-5.0091				
[78779]ENERGY: 19140000	3710.2968	5916.5048	5951.0842	
340.6173	-15459.3946	-1940.7787	0.0000	0.0000
9001.4822	7519.8120	335.7984	-1481.6702	7595.0803
334.9701	78.3310	14.4733	664265.7895	-11.7336
-11.7038				
[78829]ENERGY: 19150000	3601.6648	6000.7992	5927.9895	
365.5792	-15459.4866	-1926.7047	0.0000	0.0000
9016.8038	7526.6452	336.3699	-1490.1587	7598.5142
334.8922	171.8610	54.1206	664265.7895	-11.1291
-11.1491				
[78865]ENERGY: 19160000	3650.9517	5869.6592	5919.4344	
370.2620	-15322.8948	-1924.5243	0.0000	0.0000
8966.5954	7529.4835	334.4969	-1437.1119	7598.9513
334.6669	-4.7887	-46.3201	664265.7895	-9.7286
-9.7299				
[78915]ENERGY: 19170000	3595.8145	5905.1702	5890.1699	
355.9889	-15424.8233	-1844.7647	0.0000	0.0000
9045.7100	7523.2655	337.4483	-1522.4445	7597.2890
334.8401	146.5785	-75.7889	664265.7895	-10.5048
-10.5114				
[78951]ENERGY: 19180000	3692.3392	5982.6006	5935.2002	

Supplementary Text 6

358.1677	-15549.6697	-1787.1552	0.0000	0.0000
8893.5435	7525.0263	331.7717	-1368.5172	7597.2510
334.7983	-98.8178	-15.8037	664265.7895	-9.2642
-9.2586				
[79001]ENERGY: 19190000	3644.9202	5849.2806	5921.1220	
359.9909	-15372.1797	-1922.7529	0.0000	0.0000
9045.4568	7525.8381	337.4388	-1519.6187	7597.7948
335.0385	-73.0902	-85.6369	664265.7895	-7.2894
-7.2801				
[79040]ENERGY: 19200000	3682.4529	5898.9013	5901.3642	
359.2912	-15445.5590	-1864.0269	0.0000	0.0000
8993.1594	7525.5832	335.4879	-1467.5762	7598.6888
334.7120	-115.7498	-85.9858	664265.7895	-7.7824
-7.7723				
[79090]ENERGY: 19210000	3594.7387	5931.7935	5880.5119	
351.0152	-15453.9642	-1834.0065	0.0000	0.0000
9052.2041	7522.2926	337.6905	-1529.9115	7596.7220
334.9805	136.3883	46.8755	664265.7895	-8.3756
-8.4149				
[79126]ENERGY: 19220000	3570.3355	5891.9432	5898.4217	
367.1969	-15412.9732	-1780.1591	0.0000	0.0000
8990.4318	7525.1967	335.3861	-1465.2351	7596.5075
334.9072	88.1229	99.9397	664265.7895	-10.0923
-10.0652				
[79176]ENERGY: 19230000	3731.3105	5939.1541	5961.2523	
379.5083	-15463.4200	-1913.3049	0.0000	0.0000
8891.5326	7526.0328	331.6967	-1365.4998	7596.6726
334.9699	-142.5089	-119.0465	664265.7895	-7.7193
-7.7127				
[79212]ENERGY: 19240000	3573.8118	5917.9204	5884.1412	
353.4706	-15326.2549	-1841.0312	0.0000	0.0000
8962.8790	7524.9368	334.3583	-1437.9422	7596.3948
334.7776	-50.2356	16.6142	664265.7895	-9.3919
-9.4167				
[79262]ENERGY: 19250000	3606.8092	5928.4749	5911.0711	
369.6342	-15367.6262	-1906.2416	0.0000	0.0000
8985.7530	7527.8745	335.2116	-1457.8785	7598.6656
334.8918	150.8017	-12.8990	664265.7895	-14.9163
-14.9050				
[79298]ENERGY: 19260000	3697.3645	6037.4380	5922.9221	
401.8327	-15571.6186	-1858.6254	0.0000	0.0000
8899.1184	7528.4317	331.9797	-1370.6867	7597.1050
334.8473	-86.7929	-97.8092	664265.7895	-10.4726
-10.4618				
[79348]ENERGY: 19270000	3602.3323	5939.1030	5914.8259	
348.1281	-15429.5351	-1845.5462	0.0000	0.0000
8997.9040	7527.2122	335.6649	-1470.6919	7599.3383
334.9074	143.0822	40.8093	664265.7895	-4.5129
-4.5022				
[79384]ENERGY: 19280000	3726.0799	5924.9805	5906.5047	
365.7838	-15467.1372	-1846.7548	0.0000	0.0000
8919.8467	7529.3037	332.7530	-1390.5430	7598.1597
335.0245	105.9046	84.9854	664265.7895	-7.0429
-7.0567				

Supplementary Text 6

[79434]ENERGY: 19290000	3776.1310	5806.9834	5948.0974
366.1452	-15444.6382	-1834.7650	0.0000
8910.7978	7528.7516	332.4154	-1382.0462
334.6864	41.0023	66.3738	664265.7895
-11.6809			-11.6754
[79473]ENERGY: 19300000	3748.5656	5878.7459	5895.0455
387.6582	-15416.1274	-1938.8691	0.0000
8972.1141	7527.1327	334.7028	-1444.9814
334.7355	40.9993	-28.1642	664265.7895
-7.4586			-7.4517
[79523]ENERGY: 19310000	3709.8632	5900.3818	5904.8782
359.8910	-15508.2877	-1860.5436	0.0000
9015.1645	7521.3476	336.3088	-1493.8170
334.7525	-201.2923	-92.5396	664265.7895
-5.6458			-5.6636
[79559]ENERGY: 19320000	3624.0290	5931.9031	5888.5407
353.4863	-15401.0732	-1876.3059	0.0000
9005.7619	7526.3419	335.9580	-1479.4200
334.8428	48.3397	56.2937	664265.7895
-7.9336			-7.9128
[79609]ENERGY: 19330000	3661.6130	5988.0434	5925.1635
369.5150	-15399.4762	-1896.6614	0.0000
8881.1080	7529.3054	331.3078	-1351.8026
335.0288	-136.0662	-103.4901	664265.7895
-7.1111			-7.1122
[79645]ENERGY: 19340000	3727.1620	5945.5036	5874.2524
347.9457	-15402.5185	-1897.5315	0.0000
8940.2656	7535.0793	333.5147	-1405.1863
335.2322	-49.5177	-62.5349	664265.7895
-8.4521			-8.4665
[79695]ENERGY: 19350000	3761.9833	5884.9011	5896.1924
361.1685	-15488.9261	-1816.0148	0.0000
8931.4260	7530.7303	333.1849	-1400.6957
335.0361	-129.3902	-114.9747	664265.7895
-5.8690			-5.8676
[79731]ENERGY: 19360000	3656.9623	6038.6639	5871.9846
368.3876	-15456.4778	-1893.7242	0.0000
8944.5148	7530.3112	333.6732	-1414.2036
335.1140	28.4433	-26.8885	664265.7895
-7.4905			-7.4961
[79781]ENERGY: 19370000	3724.1629	5842.5579	5928.0017
361.0097	-15328.7688	-1881.5791	0.0000
8891.0568	7536.4411	331.6790	-1354.6157
334.9852	-89.1014	-113.4675	664265.7895
-12.4808			-12.4749
[79817]ENERGY: 19380000	3707.0135	6065.6357	5892.7722
360.3519	-15549.3430	-1837.0099	0.0000
8888.0756	7527.4960	331.5677	-1360.5796
334.8823	69.3545	66.7070	664265.7895
-13.7343			-13.7361
[79867]ENERGY: 19390000	3676.7823	5875.8485	5899.6220
372.0597	-15421.7072	-1892.8360	0.0000
9017.5266	7527.2961	336.3969	-1490.2305
335.1302	90.6146	162.7137	664265.7895
			-9.3255

Supplementary Text 6

-9.3031
 [79906]ENERGY: 19400000 3633.8232 6005.6604 5935.5722
 358.9275 -15449.2368 -1904.9270 0.0000 0.0000
 8950.5505 7530.3700 333.8984 -1420.1805 7604.8913
 335.0868 -74.2800 -35.4427 664265.7895 -9.4504
 -9.4655
 [79956]ENERGY: 19410000 3667.5690 5954.8939 5945.0830
 354.7303 -15433.4287 -1873.1627 0.0000 0.0000
 8917.2447 7532.9296 332.6559 -1384.3151 7605.7377
 334.8955 -60.5617 -71.3963 664265.7895 -8.5713
 -8.5739
 [79992]ENERGY: 19420000 3728.7063 5909.4183 5935.4354
 345.3112 -15571.4398 -1788.5181 0.0000 0.0000
 8973.0981 7532.0114 334.7395 -1441.0867 7604.1378
 335.0337 -3.7367 45.8130 664265.7895 -8.2185
 -8.2256
 [80042]ENERGY: 19430000 3641.3268 6011.0675 5896.5114
 339.6332 -15449.2812 -1899.7065 0.0000 0.0000
 8994.8372 7534.3885 335.5505 -1460.4487 7606.3144
 334.8915 15.7814 76.5068 664265.7895 -10.2973
 -10.3025
 [80078]ENERGY: 19440000 3679.9900 5846.8801 5847.2092
 337.5161 -15417.0367 -1840.5689 0.0000 0.0000
 9076.9121 7530.9019 338.6123 -1546.0102 7605.5653
 334.8626 -27.3258 -96.0049 664265.7895 -8.9352
 -8.9331
 [80128]ENERGY: 19450000 3706.1073 5961.9217 5854.2165
 355.6870 -15530.8544 -1843.4176 0.0000 0.0000
 9027.1785 7530.8390 336.7569 -1496.3395 7605.6025
 334.9908 -49.1992 53.9636 664265.7895 -8.8589
 -8.8615
 [80164]ENERGY: 19460000 3548.2646 5907.5163 5920.3484
 352.4340 -15383.0945 -1839.2598 0.0000 0.0000
 9027.2681 7533.4770 336.7603 -1493.7910 7607.1512
 335.0670 49.2101 110.5970 664265.7895 -8.0430
 -8.0393
 [80214]ENERGY: 19470000 3606.6174 5906.6161 5911.0073
 369.9435 -15304.5473 -1897.0704 0.0000 0.0000
 8943.2313 7535.7980 333.6253 -1407.4333 7606.1299
 335.0629 21.6756 -15.2425 664265.7895 -6.5099
 -6.5000
 [80250]ENERGY: 19480000 3684.3978 5918.1793 5891.8020
 355.7886 -15390.5412 -1849.3149 0.0000 0.0000
 8924.1453 7534.4568 332.9133 -1389.6885 7607.9536
 335.0973 117.4060 58.1629 664265.7895 -6.4213
 -6.4124
 [80300]ENERGY: 19490000 3613.9842 6031.3666 5846.3536
 346.0330 -15304.7068 -1927.1974 0.0000 0.0000
 8930.3158 7536.1491 333.1435 -1394.1667 7606.8380
 334.8957 -1.2463 0.9869 664265.7895 -6.6665
 -6.6882
 [80339]ENERGY: 19500000 3620.9855 5946.3447 5888.7613
 385.6034 -15387.8810 -1846.3504 0.0000 0.0000
 8929.4451 7536.9085 333.1110 -1392.5366 7608.4205

Supplementary Text 6

334.9493	74.5793	7.1173	664265.7895	-8.3697
-8.3773				
[80389]ENERGY: 19510000	3681.6714	5974.4403	5917.8310	
356.0930	-15591.5901	-1789.7245	0.0000	0.0000
8986.0599	7534.7809	335.2230	-1451.2789	7607.3929
334.8607	-16.2960	-17.8915	664265.7895	-6.5945
-6.5910				
[80425]ENERGY: 19520000	3668.4912	5902.7516	5894.9997	
378.4702	-15454.9433	-1800.4250	0.0000	0.0000
8947.3535	7536.6978	333.7791	-1410.6557	7607.1898
334.7287	208.8356	101.0103	664265.7895	-6.2887
-6.2668				
[80475]ENERGY: 19530000	3627.9831	6020.1805	5909.7713	
362.3903	-15443.8244	-1827.2748	0.0000	0.0000
8886.2913	7535.5173	331.5012	-1350.7740	7607.1538
334.7947	-145.1795	-150.8671	664265.7895	-5.8666
-5.8838				
[80511]ENERGY: 19540000	3711.3042	5924.7183	5892.3103	
351.3063	-15466.9082	-1879.7079	0.0000	0.0000
9001.8581	7534.8812	335.8124	-1466.9769	7606.7369
334.9156	-145.8511	-72.2167	664265.7895	-5.3283
-5.3110				
[80561]ENERGY: 19550000	3609.7550	6014.7052	5911.4549	
346.6070	-15424.6397	-1874.8336	0.0000	0.0000
8952.2113	7535.2602	333.9603	-1416.9512	7607.8077
334.8652	-47.8565	48.1384	664265.7895	-7.3397
-7.3382				
[80597]ENERGY: 19560000	3763.6566	5884.7726	5967.1372	
334.8723	-15521.5483	-1903.8980	0.0000	0.0000
9011.6838	7536.6762	336.1789	-1475.0075	7609.0213
334.7915	-80.4723	-66.2082	664265.7895	-7.4346
-7.4452				
[80647]ENERGY: 19570000	3569.6171	5857.6895	5919.6829	
344.0345	-15352.1978	-1815.6126	0.0000	0.0000
9013.9682	7537.1817	336.2641	-1476.7864	7608.3018
334.8329	148.8835	115.6850	664265.7895	-6.1929
-6.2096				
[80683]ENERGY: 19580000	3596.5764	5949.6948	5899.8775	
368.1810	-15416.8762	-1785.4470	0.0000	0.0000
8926.2486	7538.2551	332.9918	-1387.9935	7608.4431
334.6787	30.1385	98.2424	664265.7895	-8.7149
-8.6896				
[80733]ENERGY: 19590000	3618.2351	5927.7672	5864.4286	
398.2887	-15368.0104	-1849.7076	0.0000	0.0000
8948.7328	7539.7344	333.8306	-1408.9984	7609.6424
334.8198	99.7526	37.4146	664265.7895	-5.4406
-5.4499				
[80772]ENERGY: 19600000	3685.6355	5929.6623	5942.0296	
356.4287	-15358.5620	-1866.0233	0.0000	0.0000
8854.5679	7543.7387	330.3177	-1310.8292	7609.6160
334.8128	118.6596	23.2508	664265.7895	-9.6130
-9.6166				
[80822]ENERGY: 19610000	3654.0691	5916.5639	5865.5122	
357.0978	-15410.0321	-1811.8769	0.0000	0.0000

Supplementary Text 6

8970.9303	7542.2643	334.6586	-1428.6660	7610.0894
334.8867	-7.3603	11.4743	664265.7895	-9.6708
-9.6763				
[80858]ENERGY: 19620000	3672.6706	5916.2111	5862.7034	
356.9314	-15325.8488	-1854.8396	0.0000	0.0000
8912.4243	7540.2523	332.4761	-1372.1720	7609.2305
334.8945	79.0994	-9.3458	664265.7895	-8.8434
-8.8614				
[80908]ENERGY: 19630000	3696.3084	5903.1037	5912.3768	
354.6926	-15434.1264	-1818.9820	0.0000	0.0000
8926.6537	7540.0267	333.0069	-1386.6270	7610.1906
334.9484	25.3268	-72.1813	664265.7895	-11.4704
-11.4466				
[80944]ENERGY: 19640000	3640.7850	5855.0240	5908.4130	
358.0608	-15438.1641	-1897.2779	0.0000	0.0000
9107.3239	7534.1648	339.7468	-1573.1591	7610.4141
334.6406	-60.8408	-48.0186	664265.7895	-9.4442
-9.4648				
[80994]ENERGY: 19650000	3652.0246	5971.9828	5940.9239	
383.8734	-15461.5092	-1884.4024	0.0000	0.0000
8933.9648	7536.8580	333.2796	-1397.1068	7611.6000
334.9068	-49.9086	-44.8017	664265.7895	-7.8700
-7.8542				
[81030]ENERGY: 19660000	3609.8963	5745.2055	5929.2262	
344.6939	-15352.5756	-1846.2574	0.0000	0.0000
9109.0429	7539.2317	339.8109	-1569.8112	7610.7011
334.7716	63.5829	53.1667	664265.7895	-9.1844
-9.1729				
[81080]ENERGY: 19670000	3639.3696	5918.8002	5923.7976	
353.7975	-15371.2996	-1800.2749	0.0000	0.0000
8876.2490	7540.4395	331.1266	-1335.8096	7612.4856
335.0191	35.3089	84.4960	664265.7895	-5.8822
-5.8905				
[81116]ENERGY: 19680000	3667.0392	5781.1169	5921.9011	
352.8783	-15483.7104	-1810.8559	0.0000	0.0000
9105.2662	7533.6355	339.6700	-1571.6308	7610.1147
335.0426	36.1148	80.6549	664265.7895	-6.7148
-6.7172				
[81166]ENERGY: 19690000	3626.3759	5932.1575	5945.1072	
378.6000	-15474.4046	-1876.1076	0.0000	0.0000
9003.0829	7534.8113	335.8581	-1468.2715	7610.2216
335.0593	34.7882	-68.0485	664265.7895	-8.2366
-8.2403				
[81205]ENERGY: 19700000	3683.1025	5864.6279	5922.5545	
368.8042	-15517.4286	-1881.0861	0.0000	0.0000
9093.9837	7534.5582	339.2491	-1559.4255	7610.4363
335.0165	-207.9326	-175.1551	664265.7895	-9.8219
-9.7997				
[81255]ENERGY: 19710000	3687.8085	5816.6698	5945.8229	
355.1399	-15317.4509	-1934.8234	0.0000	0.0000
8985.4815	7538.6482	335.2015	-1446.8333	7611.2597
334.7209	-93.0830	-52.5125	664265.7895	-12.4644
-12.4605				
[81291]ENERGY: 19720000	3600.5518	5937.8290	5924.2603	

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359.6775	-15395.3370	-1828.4560	0.0000	0.0000
8940.6981	7539.2236	333.5308	-1401.4745	7610.8369
334.7655	49.5920	126.7976	664265.7895	-11.3808
-11.4011				
[81341]ENERGY: 19730000	3748.4942	5869.8039	5915.4239	
353.1687	-15398.8735	-1872.1755	0.0000	0.0000
8921.9636	7537.8053	332.8319	-1384.1582	7609.3561
334.9369	-44.0608	-23.1914	664265.7895	-10.0295
-10.0241				
[81377]ENERGY: 19740000	3690.2651	5831.8026	5894.1720	
354.4555	-15387.5229	-1863.3620	0.0000	0.0000
9018.9440	7538.7541	336.4498	-1480.1898	7611.5076
334.8728	-93.3907	-166.7281	664265.7895	-12.1600
-12.1794				
[81427]ENERGY: 19750000	3559.9028	5919.5978	5907.6025	
357.2007	-15374.4479	-1887.6982	0.0000	0.0000
9054.8917	7537.0494	337.7908	-1517.8423	7610.6576
334.9475	12.9141	48.5685	664265.7895	-7.4737
-7.4619				
[81463]ENERGY: 19760000	3725.9071	5907.5266	5869.4622	
371.4556	-15476.1083	-1889.1379	0.0000	0.0000
9031.5661	7540.6712	336.9206	-1490.8949	7611.9054
334.9840	-64.1186	-117.9134	664265.7895	-10.4619
-10.4718				
[81513]ENERGY: 19770000	3620.6053	5934.9012	5882.6861	
342.4645	-15362.3555	-1893.7094	0.0000	0.0000
9015.1948	7539.7870	336.3099	-1475.4079	7613.5499
335.0149	60.7082	100.5179	664265.7895	-11.7539
-11.7393				
[81549]ENERGY: 19780000	3579.6526	5855.9159	5940.7285	
361.6494	-15399.2919	-1863.0286	0.0000	0.0000
9062.6005	7538.2265	338.0784	-1524.3741	7613.7698
334.9210	122.8220	31.9004	664265.7895	-9.5190
-9.5312				
[81599]ENERGY: 19790000	3593.1517	5869.4754	5921.6462	
354.7189	-15371.4524	-1843.2919	0.0000	0.0000
9015.3179	7539.5658	336.3145	-1475.7521	7612.4344
334.8437	73.0914	79.0541	664265.7895	-9.6087
-9.6047				
[81638]ENERGY: 19800000	3673.7143	5838.2163	5946.4266	
347.6658	-15457.0986	-1878.9417	0.0000	0.0000
9070.6141	7540.5968	338.3773	-1530.0173	7613.7127
335.0224	118.4894	28.0706	664265.7895	-10.2764
-10.2769				
[81688]ENERGY: 19810000	3653.7010	5866.2176	5968.3259	
370.5145	-15393.0814	-1923.0786	0.0000	0.0000
8998.7385	7541.3375	335.6960	-1457.4010	7617.1734
335.1145	124.9705	57.8508	664265.7895	-8.2680
-8.2721				
[81724]ENERGY: 19820000	3663.3256	5986.3020	5844.2451	
342.7528	-15458.3855	-1825.0408	0.0000	0.0000
8990.8793	7544.0785	335.4028	-1446.8008	7615.4450
334.9868	-47.2650	-24.9880	664265.7895	-8.3551
-8.3384				

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[81774]ENERGY: 19830000	3606.6820	5999.3987	5893.7790
356.3058	-15414.2567	-1872.4937	0.0000
8974.6414	7544.0565	334.7971	-1430.5849
334.8889	17.1359	-8.5380	664265.7895
-8.7365			-8.7488
[81810]ENERGY: 19840000	3681.1097	6009.3621	5859.7201
354.9645	-15461.7038	-1871.2772	0.0000
8970.6017	7542.7771	334.6464	-1427.8246
335.0751	61.7126	-69.3298	664265.7895
-7.3410			-7.3106
[81860]ENERGY: 19850000	3640.3434	5883.7024	5926.7158
365.0565	-15370.2766	-1880.1162	0.0000
8978.6551	7544.0802	334.9468	-1434.5748
335.0348	66.8633	-66.5428	664265.7895
-9.7155			-9.7198
[81896]ENERGY: 19860000	3683.3255	5903.4426	5914.8916
352.6396	-15431.8890	-1800.7935	0.0000
8924.5065	7546.1233	332.9268	-1378.3832
335.1501	27.5341	26.6772	664265.7895
-4.8609			-4.8686
[81946]ENERGY: 19870000	3670.0106	5942.2603	5910.3937
363.5375	-15441.6755	-1835.9320	0.0000
8940.0457	7548.6403	333.5065	-1391.4054
335.0312	-10.1726	-21.7286	664265.7895
-7.2075			-7.2188
[81982]ENERGY: 19880000	3683.9541	5970.5241	5870.3836
370.3940	-15455.7838	-1838.2038	0.0000
8944.0294	7545.2977	333.6551	-1398.7317
335.0395	89.3374	76.4723	664265.7895
-8.3269			-8.3211
[82032]ENERGY: 19890000	3624.0955	5917.7220	5865.3720
334.0565	-15422.0638	-1809.3489	0.0000
9037.9000	7547.7332	337.1569	-1490.1667
335.1868	130.9413	17.7935	664265.7895
-12.4616			-12.4762
[82071]ENERGY: 19900000	3645.8248	5989.6009	5909.2283
362.9527	-15503.3663	-1835.3756	0.0000
8974.8844	7543.7492	334.8061	-1431.1352
335.2392	-8.3196	-79.1421	664265.7895
-11.8633			-11.8494
[82121]ENERGY: 19910000	3644.4354	5990.1747	5868.9478
376.8259	-15528.7459	-1784.5449	0.0000
8978.5999	7545.6929	334.9447	-1432.9070
335.2354	-7.1650	3.7928	664265.7895
-8.1353			-8.1253
[82157]ENERGY: 19920000	3696.7217	6032.7140	5864.4661
353.7606	-15586.2617	-1806.6178	0.0000
8991.0074	7545.7902	335.4076	-1445.2172
335.2579	73.7068	22.8379	664265.7895
-10.7575			-10.7409
[82207]ENERGY: 19930000	3628.1049	5875.3370	5980.1045
379.4657	-15492.1588	-1872.5545	0.0000
9047.9359	7546.2348	337.5313	-1501.7011
335.1571	-9.4016	-15.0346	664265.7895
			-12.2481

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-12.2294
 [82243]ENERGY: 19940000 3730.7512 5876.0600 5889.7032
 355.1020 -15408.5337 -1885.2163 0.0000 0.0000
 8987.6588 7545.5252 335.2827 -1442.1336 7618.3223
 335.1870 -109.4774 -174.5870 664265.7895 -8.8332
 -8.8405
 [82293]ENERGY: 19950000 3703.7563 5847.4328 5873.8903
 335.8592 -15370.4397 -1862.6807 0.0000 0.0000
 9019.9436 7547.7619 336.4871 -1472.1817 7618.9998
 335.0428 16.6848 58.1485 664265.7895 -10.1633
 -10.1352
 [82329]ENERGY: 19960000 3577.9693 5884.2922 5921.9310
 388.6639 -15395.0622 -1836.6339 0.0000 0.0000
 9006.6605 7547.8209 335.9915 -1458.8397 7617.2164
 334.8656 37.4979 100.6687 664265.7895 -8.5862
 -8.5934
 [82379]ENERGY: 19970000 3668.1476 5999.0197 5927.6697
 356.2152 -15489.4931 -1880.2959 0.0000 0.0000
 8962.1177 7543.3809 334.3299 -1418.7368 7616.6982
 335.0338 -38.1313 -36.0085 664265.7895 -5.7119
 -5.7287
 [82415]ENERGY: 19980000 3662.6598 5882.5886 5912.6364
 369.6424 -15453.8194 -1840.7259 0.0000 0.0000
 9011.7375 7544.7195 336.1809 -1467.0181 7618.6432
 335.2995 -16.4432 -39.0769 664265.7895 -15.5055
 -15.4924
 [82465]ENERGY: 19990000 3622.9186 5946.4593 5847.0585
 352.4763 -15356.6894 -1886.1192 0.0000 0.0000
 9018.0070 7544.1111 336.4148 -1473.8959 7618.0728
 335.1493 -120.9222 -64.7377 664265.7895 -8.2970
 -8.3024
 [82504]ENERGY: 20000000 3670.6430 5934.7480 5899.1671
 369.0531 -15453.2987 -1875.9043 0.0000 0.0000
 9000.0801 7544.4884 335.7460 -1455.5917 7619.7670
 335.0234 81.6217 69.9675 664265.7895 -9.7996
 -9.8123