Montana-Dakota Utilities Co.

Electric Utility - South Dakota
Lambda and Capacity Costs
July 2013 through June 2014

		Lambda		
Month		On-Peak $/MWh	Off-Peak $/MWh	Total $/MWh
July	2013	$31.22	$30.65	$30.79
August	2013	31.22	28.69	29.29
September	2013	21.48	21.41	21.43
October	2013		21.27	21.27
November	2013		21.29	21.29
December	2013		29.35	29.35
January	2014		30.35	30.35
February	2014		30.69	30.69
March	2014		22.57	22.57
April	2014		22.53	22.53
May	2014		22.64	22.64
June	2014	32.78	28.74	29.68
Average		$29.18	$25.85	$25.99

Monthly Capacity Payments

Rate 96	$8.661	$/kW-Month	(Cost of an installed peaking combustion turbine)
Rate 97	$31.683	$/kW-Month	(Cost of an installed baseload unit)

Montana-Dakota Utilities Co.
Electric Utility - South Dakota
Calculation of Capacity Payments
July 2013 through June 2014

Rate 96

Monthly Capacity Payments:	$8.661	$/kW-Month	Cost of an installed peaking combustion turbine
Capital cost of combustion turbine	$973		
Escalation rate	3%		
Levelized Fixed Charge	11.332%	1/	
Rate 96 Capacity Payment formula:	= $973 x 1.03^(2013-2015) x .11332 / 12		

Rate 97

Monthly Capacity Payments:	$31.683	$/kW-Month	Cost of an installed baseload unit
Capital cost of installed baseload unit	$3,520		
Escalation rate	3%		
Levelized Fixed Charge	10.801%	2/	
Rate 96 Capacity Payment formula:	= $3,520 x 1.03^(2013-2013) x .10801 / 12		

1/ See Attachment A pages 3-5. Turbine with 35-year book life.
2/ See Attachment A pages 6-8. Base load unit with 50-year book life.

****
* LEVELIZED FIXED CHARGE PROGRAM *
****

Computation of Levelized Fixed Charges

South Dakota

Title1 Fixed Charge Rate for Turbine
Title2

Basic assumptions used in this calculation are shown below

Capitalization Ratios (as percentages)	
Long Term Debt	47.139
Preferred Stock	1.938
Common Stock	50.923
Interest Rates (as percentages)	
Bonds	5.874
Preferred Stock	4.582
Common Stock	10.75
Tax Rates (as percentages)	
Income Taxes	35
Investment Credit	0
Deferred Federal Income Taxes	35
Book Life (in years)	35
Tax Life (in years - 5, 7, 10, 15, 20 , or 39)	15

Depreciation Method used for tax purposes is: MDU-MACRS Declining Balance/Strt-Line
Deferred federal income tax reflects normalixation
General tax rate (as percent) 1.027
Salvage Value =

Operations and Maintenance Method used is:

Weighted Cost of Capital =		
Debt	0.02769	
PFD	0.00089	
Common	0.05474	
Composite	0.08332	
WACC reflecting tax deduction of debt interest		0.07363

The results obtained based on the foregoing assumptions are as follows

Sum of P.W. Values	**Capital Recovery Factor**	**Levelized Fixed Charge**
127.739	0.08871	11.332

Levelized Income Tax	**Levelized Return on Capital**
1.969	5.478

Computation of Levelized Fixed Charges

Year	Debt	Preferred	Common	Book Deprectn	O&M and Insurance		Gross Income Tax	Total Chg	Present Worth Factor	Present Worth Value	Levelized Income Tax Sum	Levelized Return on Capital Sum
1	2.7689	0.0888	5.4742	2.8571	0.0000	1.0270	2.9955	15.2116	0.9231	14.0416	2.7651	7.6911
2	2.6812	0.0860	5.3007	2.8571	0.0000	1.0270	2.9005	14.8525	0.8521	12.6557	5.2366	14.5657
3	2.5598	0.0821	5.0607	2.8571	0.0000	1.0270	2.7692	14.3560	0.7866	11.2918	7.4147	20.6243
4	2.4437	0.0784	4.8311	2.8571	0.0000	1.0270	2.6436	13.8809	0.7261	10.0784	9.3341	25.9631
5	2.3324	0.0748	4.6111	2.8571	0.0000	1.0270	2.5232	13.4256	0.6702	8.9981	11.0252	30.6669
6	2.2256	0.0714	4.4000	2.8571	0.0000	1.0270	2.4077	12.9888	0.6187	8.0358	12.5148	34.8101
7	2.1229	0.0681	4.1971	2.8571	0.0000	1.0270	2.2966	12.5689	0.5711	7.1779	13.8264	38.4583
8	2.0241	0.0649	4.0018	2.8571	0.0000	1.0270	2.1897	12.1647	0.5272	6.4128	14.9807	41.6692
9	1.9289	0.0619	3.8135	2.8571	0.0000	1.0270	2.0867	11.7751	0.4866	5.7300	15.9962	44.4936
10	1.8342	0.0588	3.6263	2.8571	0.0000	1.0270	1.9843	11.3878	0.4492	5.1153	16.8875	46.9729
11	1.7396	0.0558	3.4392	2.8571	0.0000	1.0270	1.8819	11.0006	0.4146	4.5613	17.6678	49.1434
12	1.6449	0.0528	3.2520	2.8571	0.0000	1.0270	1.7795	10.6133	0.3828	4.0623	18.3489	51.0379
13	1.5503	0.0497	3.0649	2.8571	0.0000	1.0270	1.6771	10.2261	0.3533	3.6130	18.9415	52.6860
14	1.4556	0.0467	2.8777	2.8571	0.0000	1.0270	1.5747	9.8388	0.3261	3.2089	19.4550	54.1145
15	1.3609	0.0436	2.6906	2.8571	0.0000	1.0270	1.4723	9.4516	0.3011	2.8455	19.8983	55.3474
16	1.2663	0.0406	2.5034	2.8571	0.0000	1.0270	1.3699	9.0643	0.2779	2.5190	20.2790	56.4063
17	1.1716	0.0376	2.3163	2.8571	0.0000	1.0270	1.2675	8.6771	0.2565	2.2259	20.6041	57.3107
18	1.0769	0.0345	2.1291	2.8571	0.0000	1.0270	1.1651	8.2898	0.2368	1.9630	20.8800	58.0781
19	0.9823	0.0315	1.9420	2.8571	0.0000	1.0270	1.0627	7.9026	0.2186	1.7274	21.1123	58.7242
20	0.8876	0.0285	1.7548	2.8571	0.0000	1.0270	0.9602	7.5153	0.2018	1.5164	21.3060	59.2631
21	0.7930	0.0254	1.5677	2.8571	0.0000	1.0270	0.8578	7.1281	0.1863	1.3277	21.4658	59.7075
22	0.7199	0.0231	1.4233	2.8571	0.0000	1.0270	0.7788	6.8293	0.1719	1.1742	21.5997	60.0800
23	0.6685	0.0214	1.3216	2.8571	0.0000	1.0270	0.7232	6.6189	0.1587	1.0505	21.7145	60.3992
24	0.6171	0.0198	1.2200	2.8571	0.0000	1.0270	0.6676	6.4085	0.1465	0.9389	21.8123	60.6713
25	0.5657	0.0181	1.1183	2.8571	0.0000	1.0270	0.6119	6.1982	0.1352	0.8382	21.8950	60.9015
26	0.5142	0.0165	1.0166	2.8571	0.0000	1.0270	0.5563	5.9878	0.1248	0.7475	21.9645	61.0946
27	0.4628	0.0148	0.9150	2.8571	0.0000	1.0270	0.5007	5.7774	0.1152	0.6657	22.0222	61.2551
28	0.4114	0.0132	0.8133	2.8571	0.0000	1.0270	0.4450	5.5671	0.1064	0.5922	22.0695	61.3868
29	0.3600	0.0115	0.7116	2.8571	0.0000	1.0270	0.3894	5.3567	0.0982	0.5260	22.1077	61.4931
30	0.3085	0.0099	0.6100	2.8571	0.0000	1.0270	0.3338	5.1463	0.0906	0.4664	22.1380	61.5773
31	0.2571	0.0082	0.5083	2.8571	0.0000	1.0270	0.2782	4.9360	0.0837	0.4130	22.1613	61.6420
32	0.2057	0.0066	0.4067	2.8571	0.0000	1.0270	0.2225	4.7256	0.0772	0.3650	22.1785	61.6898
33	0.1543	0.0049	0.3050	2.8571	0.0000	1.0270	0.1669	4.5152	0.0713	0.3219	22.1904	61.7229
34	0.1028	0.0033	0.2033	2.8571	0.0000	1.0270	0.1113	4.3049	0.0658	0.2833	22.1977	61.7433
35	0.0514	0.0016	0.1017	2.8571	0.0000	1.0270	0.0556	4.0945	0.0607	0.2487	22.2011	61.7527

Computation of Levelized Fixed Charges

Period	Tax Depreciatn Accel	Tax Depreciatn Normal	Deferred Federal Income Tax	Amortized Investment Tax Credit	Net Investment		Y LFCR
1	3.7500	6.6667	0.3125	0.0000	100.0000	14.0416	15.2116
2	7.2190	6.6667	1.5267	0.0000	96.8304	26.6974	15.0392
3	6.6770	6.6667	1.3370	0.0000	92.4466	37.9892	14.8295
4	6.1770	6.6667	1.1620	0.0000	88.2525	48.0675	14.6200
5	5.7130	6.6667	0.9996	0.0000	84.2334	57.0657	14.4177
6	5.2850	6.6667	0.8498	0.0000	80.3767	65.1014	14.2246
7	4.8880	6.6667	0.7108	0.0000	76.6698	72.2794	14.0409
8	4.5220	6.6667	0.5827	0.0000	73.1019	78.6922	13.8666
9	4.4620	6.6667	0.5617	0.0000	69.6620	84.4222	13.7014
10	4.4610	6.6667	0.5614	0.0000	66.2432	89.5375	13.5442
11	4.4620	6.6667	0.5617	0.0000	62.8247	94.0988	13.3941
12	4.4610	6.6667	0.5614	0.0000	59.4058	98.1611	13.2504
13	4.4620	6.6667	0.5617	0.0000	55.9873	101.7742	13.1127
14	4.4610	6.6667	0.5614	0.0000	52.5685	104.9830	12.9807
15	4.4620	6.6667	0.5617	0.0000	49.1500	107.8285	12.8541
16	4.4610		0.5614	0.0000	45.7312	110.3475	12.7325
17	4.4620		0.5617	0.0000	42.3127	112.5734	12.6159
18	4.4610		0.5614	0.0000	38.8938	114.5365	12.5041
19	4.4620		0.5617	0.0000	35.4753	116.2639	12.3969
20	4.4610		0.5614	0.0000	32.0565	117.7803	12.2940
21	2.2310		-0.2192	0.0000	28.6380	119.1079	12.1955
22	0.0000		-1.0000	0.0000	26.0000	120.2821	12.1027
23	0.0000		-1.0000	0.0000	24.1429	121.3326	12.0165
24	0.0000		-1.0000	0.0000	22.2857	122.2714	11.9363
25	0.0000		-1.0000	0.0000	20.4286	123.1096	11.8615
26	0.0000		-1.0000	0.0000	18.5714	123.8571	11.7917
27	0.0000		-1.0000	0.0000	16.7143	124.5228	11.7265
28	0.0000		-1.0000	0.0000	14.8571	125.1150	11.6654
29	0.0000		-1.0000	0.0000	13.0000	125.6410	11.6081
30	0.0000		-1.0000	0.0000	11.1429	126.1074	11.5545
31	0.0000		-1.0000	0.0000	9.2857	126.5204	11.5041
32	0.0000		-1.0000	0.0000	7.4286	126.8853	11.4569
33	0.0000		-1.0000	0.0000	5.5714	127.2072	11.4125
34	0.0000		-1.0000	0.0000	3.7143	127.4905	11.3707
35	0.0000		-1.0000	0.0000	1.8571	127.7392	11.3315

****

* LEVELIZED FIXED CHARGE PROGRAM *

****

Computation of Levelized Fixed Charges

South Dakota

Title1	Fixed Charge Rate for Baseload
Title2	

Basic assumptions used in this calculation are shown below

Capitalization Ratios (as percentages)		
	Long Term Debt	47.139
	Preferred Stock	1.938
	Common Stock	50.923
Interest Rates (as percentages)		
	Bonds	5.874
	Preferred Stock	4.582
	Common Stock	10.75
Tax Rates (as percentages)		
	Income Taxes	35
	Investment Credit	0
	Deferred Federal Income Taxes	35
Book Life (in years)		50
Tax Life (in years - 5, 7, 10, 15, 20 , or 39)		20

Depreciation Method used for tax purposes is: MDU-MACRS Declining Balance/Strt-Line

Deferred federal income tax reflects normalixation

General tax rate (as percent) 1.027

Salvage Value =

Operations and Maintenance Method used is:

Weighted Cost of Capital =			
	Debt	0.02769	
	PFD	0.00089	
	Common	0.05474	
	Composite	0.08332	
	WACC reflecting tax deduction of debt interest		0.07363

The results obtained based on the foregoing assumptions are as follows

Sum of P.W. Values	**Capital Recovery Factor**	**Levelized Fixed Charge**
127.257	0.08487	10.801

Levelized Income Tax	**Levelized Return on Capital**
2.050	5.703

Computation of Levelized Fixed Charges

Year	Debt	Preferred	Common	Book Deprectn	O&M and Insurance	General Tax Rate	Gross Income Tax	Total Chg	Present Worth Factor	Present Worth Value	Levelized Income Tax Sum	Levelized Return on Capital Sum
1	2.7689	0.0888	5.4742	2.0000	0.0000	1.0270	2.9955	14.3544	0.9231	13.2504	2.7651	7.6911
2	2.6966	0.0865	5.3312	2.0000	0.0000	1.0270	2.9172	14.0585	0.8521	11.9792	5.2508	14.6053
3	2.5906	0.0831	5.1217	2.0000	0.0000	1.0270	2.8026	13.6250	0.7866	10.7169	7.4552	20.7368
4	2.4899	0.0799	4.9226	2.0000	0.0000	1.0270	2.6936	13.2131	0.7261	9.5935	9.4110	26.1768
5	2.3941	0.0768	4.7331	2.0000	0.0000	1.0270	2.5899	12.8209	0.6702	8.5928	11.1468	31.0051
6	2.3027	0.0738	4.5525	2.0000	0.0000	1.0270	2.4911	12.4472	0.6187	7.7007	12.6880	35.2919
7	2.2155	0.0711	4.3801	2.0000	0.0000	1.0270	2.3968	12.0904	0.5711	6.9047	14.0567	39.0991
8	2.1321	0.0684	4.2153	2.0000	0.0000	1.0270	2.3066	11.7493	0.5272	6.1938	15.2727	42.4813
9	2.0523	0.0658	4.0574	2.0000	0.0000	1.0270	2.2202	11.4228	0.4866	5.5586	16.3531	45.4864
10	1.9731	0.0633	3.9008	2.0000	0.0000	1.0270	2.1345	11.0986	0.4492	4.9854	17.3119	48.1534
11	1.8939	0.0607	3.7442	2.0000	0.0000	1.0270	2.0488	10.7745	0.4146	4.4676	18.1614	50.5163
12	1.8146	0.0582	3.5875	2.0000	0.0000	1.0270	1.9631	10.4504	0.3828	3.9999	18.9128	52.6063
13	1.7354	0.0557	3.4309	2.0000	0.0000	1.0270	1.8774	10.1263	0.3533	3.5778	19.5761	54.4513
14	1.6561	0.0531	3.2742	2.0000	0.0000	1.0270	1.7916	9.8021	0.3261	3.1969	20.1604	56.0766
15	1.5769	0.0506	3.1176	2.0000	0.0000	1.0270	1.7059	9.4780	0.3011	2.8534	20.6740	57.5051
16	1.4977	0.0480	2.9609	2.0000	0.0000	1.0270	1.6202	9.1538	0.2779	2.5439	21.1243	58.7575
17	1.4184	0.0455	2.8043	2.0000	0.0000	1.0270	1.5345	8.8297	0.2565	2.2651	21.5179	59.8525
18	1.3392	0.0429	2.6476	2.0000	0.0000	1.0270	1.4488	8.5055	0.2368	2.0141	21.8610	60.8067
19	1.2600	0.0404	2.4910	2.0000	0.0000	1.0270	1.3631	8.1814	0.2186	1.7884	22.1589	61.6354
20	1.1807	0.0379	2.3343	2.0000	0.0000	1.0270	1.2773	7.8573	0.2018	1.5854	22.4166	62.3523
21	1.1015	0.0353	2.1777	2.0000	0.0000	1.0270	1.1916	7.5332	0.1863	1.4031	22.6386	62.9697
22	1.0439	0.0335	2.0638	2.0000	0.0000	1.0270	1.1293	7.2974	0.1719	1.2547	22.8328	63.5098
23	1.0079	0.0323	1.9926	2.0000	0.0000	1.0270	1.0904	7.1502	0.1587	1.1348	23.0058	63.9911
24	0.9719	0.0312	1.9215	2.0000	0.0000	1.0270	1.0514	7.0029	0.1465	1.0259	23.1598	64.4195
25	0.9359	0.0300	1.8503	2.0000	0.0000	1.0270	1.0125	6.8557	0.1352	0.9271	23.2968	64.8004
26	0.8999	0.0289	1.7791	2.0000	0.0000	1.0270	0.9735	6.7084	0.1248	0.8374	23.4183	65.1384
27	0.8639	0.0277	1.7080	2.0000	0.0000	1.0270	0.9346	6.5612	0.1152	0.7561	23.5260	65.4380
28	0.8279	0.0266	1.6368	2.0000	0.0000	1.0270	0.8956	6.4139	0.1064	0.6822	23.6212	65.7030
29	0.7919	0.0254	1.5656	2.0000	0.0000	1.0270	0.8567	6.2666	0.0982	0.6153	23.7054	65.9369
30	0.7559	0.0242	1.4945	2.0000	0.0000	1.0270	0.8178	6.1194	0.0906	0.5546	23.7795	66.1431
31	0.7199	0.0231	1.4233	2.0000	0.0000	1.0270	0.7788	5.9721	0.0837	0.4997	23.8446	66.3243
32	0.6839	0.0219	1.3521	2.0000	0.0000	1.0270	0.7399	5.8249	0.0772	0.4499	23.9018	66.4833
33	0.6479	0.0208	1.2810	2.0000	0.0000	1.0270	0.7009	5.6776	0.0713	0.4048	23.9518	66.6223
34	0.6119	0.0196	1.2098	2.0000	0.0000	1.0270	0.6620	5.5304	0.0658	0.3639	23.9953	66.7434
35	0.5759	0.0185	1.1386	2.0000	0.0000	1.0270	0.6231	5.3831	0.0607	0.3270	24.0332	66.8487
36	0.5399	0.0173	1.0675	2.0000	0.0000	1.0270	0.5841	5.2359	0.0561	0.2936	24.0659	66.9398
37	0.5039	0.0162	0.9963	2.0000	0.0000	1.0270	0.5452	5.0886	0.0518	0.2634	24.0941	67.0183
38	0.4680	0.0150	0.9251	2.0000	0.0000	1.0270	0.5062	4.9413	0.0478	0.2361	24.1183	67.0856
39	0.4320	0.0139	0.8540	2.0000	0.0000	1.0270	0.4673	4.7941	0.0441	0.2114	24.1389	67.1429
40	0.3960	0.0127	0.7828	2.0000	0.0000	1.0270	0.4284	4.6468	0.0407	0.1892	24.1564	67.1914
41	0.3600	0.0115	0.7116	2.0000	0.0000	1.0270	0.3894	4.4996	0.0376	0.1691	24.1710	67.2321
42	0.3240	0.0104	0.6405	2.0000	0.0000	1.0270	0.3505	4.3523	0.0347	0.1510	24.1832	67.2660
43	0.2880	0.0092	0.5693	2.0000	0.0000	1.0270	0.3115	4.2051	0.0320	0.1347	24.1931	67.2937
44	0.2520	0.0081	0.4982	2.0000	0.0000	1.0270	0.2726	4.0578	0.0296	0.1199	24.2012	67.3161
45	0.2160	0.0069	0.4270	2.0000	0.0000	1.0270	0.2336	3.9105	0.0273	0.1067	24.2076	67.3339
46	0.1800	0.0058	0.3558	2.0000	0.0000	1.0270	0.1947	3.7633	0.0252	0.0948	24.2125	67.3475
47	0.1440	0.0046	0.2847	2.0000	0.0000	1.0270	0.1558	3.6160	0.0233	0.0841	24.2161	67.3576
48	0.1080	0.0035	0.2135	2.0000	0.0000	1.0270	0.1168	3.4688	0.0215	0.0744	24.2186	67.3645
49	0.0720	0.0023	0.1423	2.0000	0.0000	1.0270	0.0779	3.3215	0.0198	0.0658	24.2202	67.3688
50	0.0360	0.0012	0.0712	2.0000	0.0000	1.0270	0.0389	3.1743	0.0183	0.0581	24.2209	67.3708

Computation of Levelized Fixed Charges

Period	Tax Depreciatn Accel	Tax Depreciatn Normal	Deferred Federal Income Tax	Amortized Investment Tax Credit	Net Investment	ACC PW	Y LFCR
1	3.7500	5.0000	0.6125	0.0000	100.0000	13.2504	14.3544
2	7.2190	5.0000	1.8267	0.0000	97.3875	25.2296	14.2124
3	6.6770	5.0000	1.6370	0.0000	93.5609	35.9464	14.0321
4	6.1770	5.0000	1.4620	0.0000	89.9239	45.5400	13.8512
5	5.7130	5.0000	1.2996	0.0000	86.4620	54.1328	13.6767
6	5.2850	5.0000	1.1498	0.0000	83.1624	61.8335	13.5105
7	4.8880	5.0000	1.0108	0.0000	80.0127	68.7382	13.3530
8	4.5220	5.0000	0.8827	0.0000	77.0019	74.9320	13.2040
9	4.4620	5.0000	0.8617	0.0000	74.1192	80.4906	13.0633
10	4.4610	5.0000	0.8614	0.0000	71.2575	85.4760	12.9298
11	4.4620	5.0000	0.8617	0.0000	68.3961	89.9436	12.8026
12	4.4610	5.0000	0.8614	0.0000	65.5344	93.9436	12.6811
13	4.4620	5.0000	0.8617	0.0000	62.6731	97.5213	12.5648
14	4.4610	5.0000	0.8614	0.0000	59.8114	100.7182	12.4534
15	4.4620	5.0000	0.8617	0.0000	56.9500	103.5716	12.3466
16	4.4610	5.0000	0.8614	0.0000	54.0883	106.1155	12.2442
17	4.4620	5.0000	0.8617	0.0000	51.2270	108.3806	12.1461
18	4.4610	5.0000	0.8614	0.0000	48.3653	110.3947	12.0519
19	4.4620	5.0000	0.8617	0.0000	45.5039	112.1831	11.9617
20	4.4610	5.0000	0.8614	0.0000	42.6422	113.7685	11.8753
21	2.2310		0.0808	0.0000	39.7809	115.1716	11.7925
22	0.0000		-0.7000	0.0000	37.7000	116.4262	11.7147
23	0.0000		-0.7000	0.0000	36.4000	117.5610	11.6430
24	0.0000		-0.7000	0.0000	35.1000	118.5869	11.5766
25	0.0000		-0.7000	0.0000	33.8000	119.5141	11.5151
26	0.0000		-0.7000	0.0000	32.5000	120.3515	11.4580
27	0.0000		-0.7000	0.0000	31.2000	121.1075	11.4048
28	0.0000		-0.7000	0.0000	29.9000	121.7898	11.3553
29	0.0000		-0.7000	0.0000	28.6000	122.4051	11.3092
30	0.0000		-0.7000	0.0000	27.3000	122.9597	11.2661
31	0.0000		-0.7000	0.0000	26.0000	123.4594	11.2258
32	0.0000		-0.7000	0.0000	24.7000	123.9092	11.1881
33	0.0000		-0.7000	0.0000	23.4000	124.3140	11.1529
34	0.0000		-0.7000	0.0000	22.1000	124.6779	11.1199
35	0.0000		-0.7000	0.0000	20.8000	125.0049	11.0890
36	0.0000		-0.7000	0.0000	19.5000	125.2985	11.0600
37	0.0000		-0.7000	0.0000	18.2000	125.5619	11.0329
38	0.0000		-0.7000	0.0000	16.9000	125.7980	11.0074
39	0.0000		-0.7000	0.0000	15.6000	126.0095	10.9835
40	0.0000		-0.7000	0.0000	14.3000	126.1987	10.9611
41	0.0000		-0.7000	0.0000	13.0000	126.3678	10.9401
42	0.0000		-0.7000	0.0000	11.7000	126.5188	10.9203
43	0.0000		-0.7000	0.0000	10.4000	126.6534	10.9018
44	0.0000		-0.7000	0.0000	9.1000	126.7734	10.8845
45	0.0000		-0.7000	0.0000	7.8000	126.8801	10.8682
46	0.0000		-0.7000	0.0000	6.5000	126.9749	10.8529
47	0.0000		-0.7000	0.0000	5.2000	127.0589	10.8385
48	0.0000		-0.7000	0.0000	3.9000	127.1334	10.8250
49	0.0000		-0.7000	0.0000	2.6000	127.1992	10.8124
50	0.0000		-0.7000	0.0000	1.3000	127.2572	10.8006