

**Montana-Dakota Utilities Co.
South Dakota Lambda and Capacity Costs
July 2012 through June 2013**

<u>Month</u>		Lambda		Total
		<u>On-Peak</u>	<u>Off-Peak</u>	
		<u>\$/MWh</u>	<u>\$/MWh</u>	<u>\$/MWh</u>
July	2012	\$31.79	\$30.31	\$31.66
Aug.	2012	31.79	29.39	31.59
Sep.	2012	25.69	25.22	26.08
Oct.	2012		23.78	23.78
Nov.	2012		24.99	24.99
Dec.	2012		37.54	37.54
Jan.	2013		36.68	36.68
Feb.	2013		40.91	40.91
Mar.	2013		26.35	26.35
Apr.	2013		26.47	26.47
May	2013		26.31	26.31
June	2013	33.38	26.92	36.82
Average		\$30.66	\$29.57	\$30.77

Rate 96 Monthly Capacity Payments:
 9.407 \$/kW-Month
 (Cost of an installed peaking combustion turbine)

Rate 97 Monthly Capacity Payments:
 25.969 \$/kW-Month
 (Cost of an installed baseload unit)

Montana-Dakota Utilities Co.

**South Dakota Capacity Payments
July 2012 through June 2013**

Rate 96

Monthly Capacity Payments: \$9.407 \$/kW-Month Cost of an installed peaking combustion turbine

Capital cost of combustion turbine \$973
Escalation rate 3%
Levelized Fixed Charge 12.678% 1/

Rate 96 Capacity Payment formula: $= \$973 \times 1.03^{(2012-2015)} \times .12678 / 12$

Rate 97

Monthly Capacity Payments: \$25.969 \$/kW-Month Cost of an installed baseload unit

Capital cost of installed baseload unit \$2,560
Escalation rate 3%
Levelized Fixed Charge 11.474% 2/

Rate 96 Capacity Payment formula: $= \$2,560 \times 1.03^{(2012-2010)} \times .11474 / 12$

1/ See Attachment A pages 3-5. Turbine with 25-year book life.

2/ See Attachment A pages 6-8. Base load unit with 40-year 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	44.061
Preferred Stock	2.227
Common Stock	53.712

Interest Rates (as percentages)

Bonds	6.468
Preferred Stock	4.583
Common Stock	10.75

Tax Rates (as percentages)

Income Taxes	35
Investment Credit	0
Deferred Federal Income Taxes	35

Book Life (in years)	25
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) 0.941

Salvage Value =

Operations and Maintenance Method used is:

Weighted Cost of Capital =

Debt	0.02850	
PFD	0.00102	
Common	0.05774	
Composite	0.08726	
WACC reflecting tax deduction of debt interest		0.07729

The results obtained based on the foregoing assumptions are as follows

Sum of P.W. Values	Capital Recovery Factor	Levelized Fixed Charge
127.346	0.09955	12.678
Levelized Income Tax	Levelized Return on Capital	
2.059	5.678	

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	5.0000	-0.0875	0.0000	100.0000	15.4802
2	7.2190	5.0000	1.1267	0.0000	96.0875	29.3245
3	6.6770	5.0000	0.9370	0.0000	90.9609	41.5835
4	6.1770	5.0000	0.7620	0.0000	86.0239	52.4385
5	5.7130	5.0000	0.5996	0.0000	81.2620	62.0497
6	5.2850	5.0000	0.4498	0.0000	76.6624	70.5585
7	4.8880	5.0000	0.3108	0.0000	72.2127	78.0898
8	4.5220	5.0000	0.1827	0.0000	67.9019	84.7543
9	4.4620	5.0000	0.1617	0.0000	63.7192	90.6496
10	4.4610	5.0000	0.1614	0.0000	59.5575	95.8575
11	4.4620	5.0000	0.1617	0.0000	55.3961	100.4502
12	4.4610	5.0000	0.1614	0.0000	51.2344	104.4930
13	4.4620	5.0000	0.1617	0.0000	47.0731	108.0446
14	4.4610	5.0000	0.1614	0.0000	42.9114	111.1578
15	4.4620	5.0000	0.1617	0.0000	38.7500	113.8801
16	4.4610	5.0000	0.1614	0.0000	34.5883	116.2541
17	4.4620	5.0000	0.1617	0.0000	30.4270	118.3183
18	4.4610	5.0000	0.1614	0.0000	26.2653	120.1070
19	4.4620	5.0000	0.1617	0.0000	22.1039	121.6513
20	4.4610	5.0000	0.1614	0.0000	17.9422	122.9787
21	2.2310		-0.6192	0.0000	13.7809	124.1143
22	0.0000		-1.4000	0.0000	10.4000	125.0949
23	0.0000		-1.4000	0.0000	7.8000	125.9516
24	0.0000		-1.4000	0.0000	5.2000	126.6981
25	0.0000		-1.4000	0.0000	2.6000	127.3465
	0.0000					16.8310
	0.0000					16.6081
	0.0000					16.3476
	0.0000					16.0889
	0.0000					15.8393
	0.0000					15.6006
	0.0000					15.3733
	0.0000					15.1573
	0.0000					14.9522
	0.0000					14.7568
	0.0000					14.5702
	0.0000					14.3917
	0.0000					14.2207
	0.0000					14.0570
	0.0000					13.9001
	0.0000					13.7498
	0.0000					13.6058
	0.0000					13.4680
	0.0000					13.3360
	0.0000					13.2098
	0.0000					13.0892
	0.0000					12.9754
	0.0000					12.8693
	0.0000					12.7704
	0.0000					12.6779

* 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	44.061
Preferred Stock	2.227
Common Stock	53.712

Interest Rates (as percentages)

Bonds	6.468
Preferred Stock	4.583
Common Stock	10.75

Tax Rates (as percentages)

Income Taxes	35
Investment Credit	0
Deferred Federal Income Taxes	35

Book Life (in years)	40
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) 0.941

Salvage Value =

Operations and Maintenance Method used is:

Weighted Cost of Capital =

Debt	0.02850	
PFD	0.00102	
Common	0.05774	
Composite	0.08726	
WACC reflecting tax deduction of debt interest		0.07729

The results obtained based on the foregoing assumptions are as follows

Sum of P.W. Values	Capital Recovery Factor	Levelized Fixed Charge
126.865	0.09044	11.474
Levelized Income Tax	Levelized Return on Capital	
2.138	5.896	

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	2.8499	0.1021	5.7740	2.5000	0.0000	0.9410	3.1641	15.3310	0.9197	14.1006	2.9101	8.0257
2	2.7662	0.0991	5.6044	2.5000	0.0000	0.9410	3.0711	14.9818	0.8459	12.6735	5.5081	15.1904
3	2.6478	0.0948	5.3647	2.5000	0.0000	0.9410	2.9398	14.4881	0.7780	11.2723	7.7953	21.4982
4	2.5349	0.0908	5.1359	2.5000	0.0000	0.9410	2.8144	14.0170	0.7156	10.0305	9.8093	27.0524
5	2.4270	0.0869	4.9173	2.5000	0.0000	0.9410	2.6946	13.5668	0.6582	8.9292	11.5827	31.9433
6	2.3237	0.0832	4.7080	2.5000	0.0000	0.9410	2.5799	13.1358	0.6053	7.9517	13.1444	36.2503
7	2.2247	0.0797	4.5074	2.5000	0.0000	0.9410	2.4699	12.7227	0.5568	7.0835	14.5196	40.0428
8	2.1296	0.0763	4.3148	2.5000	0.0000	0.9410	2.3644	12.3260	0.5121	6.3119	15.7304	43.3818
9	2.0382	0.0730	4.1295	2.5000	0.0000	0.9410	2.2629	11.9446	0.4710	5.6257	16.7961	46.3211
10	1.9474	0.0697	3.9455	2.5000	0.0000	0.9410	2.1621	11.5657	0.4332	5.0100	17.7327	48.9040
11	1.8566	0.0665	3.7616	2.5000	0.0000	0.9410	2.0613	11.1869	0.3984	4.4570	18.5539	51.1688
12	1.7658	0.0632	3.5776	2.5000	0.0000	0.9410	1.9604	10.8080	0.3664	3.9605	19.2723	53.1500
13	1.6750	0.0600	3.3936	2.5000	0.0000	0.9410	1.8596	10.4291	0.3370	3.5149	19.8990	54.8784
14	1.5841	0.0567	3.2096	2.5000	0.0000	0.9410	1.7588	10.0502	0.3100	3.1154	20.4442	56.3820
15	1.4933	0.0535	3.0256	2.5000	0.0000	0.9410	1.6580	9.6714	0.2851	2.7573	20.9169	57.6856
16	1.4025	0.0502	2.8416	2.5000	0.0000	0.9410	1.5571	9.2925	0.2622	2.4367	21.3252	58.8117
17	1.3117	0.0470	2.6576	2.5000	0.0000	0.9410	1.4563	8.9136	0.2412	2.1498	21.6765	59.7803
18	1.2209	0.0437	2.4736	2.5000	0.0000	0.9410	1.3555	8.5347	0.2218	1.8932	21.9771	60.6095
19	1.1301	0.0405	2.2896	2.5000	0.0000	0.9410	1.2547	8.1559	0.2040	1.6639	22.2331	61.3154
20	1.0393	0.0372	2.1056	2.5000	0.0000	0.9410	1.1538	7.7770	0.1876	1.4593	22.4496	61.9126
21	0.9485	0.0340	1.9216	2.5000	0.0000	0.9410	1.0530	7.3981	0.1726	1.2768	22.6314	62.4138
22	0.8799	0.0315	1.7827	2.5000	0.0000	0.9410	0.9769	7.1120	0.1587	1.1289	22.7864	62.8414
23	0.8336	0.0299	1.6889	2.5000	0.0000	0.9410	0.9255	6.9188	0.1460	1.0101	22.9215	63.2140
24	0.7873	0.0282	1.5951	2.5000	0.0000	0.9410	0.8741	6.7256	0.1343	0.9031	23.0389	63.5377
25	0.7410	0.0265	1.5013	2.5000	0.0000	0.9410	0.8227	6.5324	0.1235	0.8068	23.1405	63.8179
26	0.6947	0.0249	1.4074	2.5000	0.0000	0.9410	0.7712	6.3392	0.1136	0.7201	23.2281	64.0595
27	0.6483	0.0232	1.3136	2.5000	0.0000	0.9410	0.7198	6.1460	0.1045	0.6421	23.3033	64.2669
28	0.6020	0.0216	1.2198	2.5000	0.0000	0.9410	0.6684	5.9528	0.0961	0.5720	23.3675	64.4440
29	0.5557	0.0199	1.1259	2.5000	0.0000	0.9410	0.6170	5.7596	0.0884	0.5090	23.4221	64.5944
30	0.5094	0.0182	1.0321	2.5000	0.0000	0.9410	0.5656	5.5663	0.0813	0.4525	23.4680	64.7212
31	0.4631	0.0166	0.9383	2.5000	0.0000	0.9410	0.5142	5.3731	0.0748	0.4017	23.5065	64.8272
32	0.4168	0.0149	0.8445	2.5000	0.0000	0.9410	0.4627	5.1799	0.0688	0.3562	23.5383	64.9149
33	0.3705	0.0133	0.7506	2.5000	0.0000	0.9410	0.4113	4.9867	0.0632	0.3154	23.5643	64.9867
34	0.3242	0.0116	0.6568	2.5000	0.0000	0.9410	0.3599	4.7935	0.0582	0.2788	23.5852	65.0444
35	0.2779	0.0100	0.5630	2.5000	0.0000	0.9410	0.3085	4.6003	0.0535	0.2461	23.6018	65.0899
36	0.2316	0.0083	0.4691	2.5000	0.0000	0.9410	0.2571	4.4071	0.0492	0.2168	23.6144	65.1248
37	0.1852	0.0066	0.3753	2.5000	0.0000	0.9410	0.2057	4.2139	0.0453	0.1907	23.6237	65.1505
38	0.1389	0.0050	0.2815	2.5000	0.0000	0.9410	0.1542	4.0206	0.0416	0.1674	23.6301	65.1682
39	0.0926	0.0033	0.1877	2.5000	0.0000	0.9410	0.1028	3.8274	0.0383	0.1465	23.6341	65.1790
40	0.0463	0.0017	0.0938	2.5000	0.0000	0.9410	0.0514	3.6342	0.0352	0.1280	23.6359	65.1840

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	0.4375	0.0000	100.0000	14.1006	15.3310
2	7.2190	5.0000	1.6517	0.0000	97.0625	26.7741	15.1637
3	6.6770	5.0000	1.4620	0.0000	92.9109	38.0464	14.9571
4	6.1770	5.0000	1.2870	0.0000	88.9489	48.0769	14.7507
5	5.7130	5.0000	1.1246	0.0000	85.1620	57.0061	14.5518
6	5.2850	5.0000	0.9748	0.0000	81.5374	64.9577	14.3623
7	4.8880	5.0000	0.8358	0.0000	78.0627	72.0412	14.1825
8	4.5220	5.0000	0.7077	0.0000	74.7269	78.3530	14.0125
9	4.4620	5.0000	0.6867	0.0000	71.5192	83.9787	13.8519
10	4.4610	5.0000	0.6864	0.0000	68.3325	88.9887	13.6994
11	4.4620	5.0000	0.6867	0.0000	65.1461	93.4457	13.5542
12	4.4610	5.0000	0.6864	0.0000	61.9594	97.4062	13.4156
13	4.4620	5.0000	0.6867	0.0000	58.7731	100.9211	13.2832
14	4.4610	5.0000	0.6864	0.0000	55.5864	104.0365	13.1564
15	4.4620	5.0000	0.6867	0.0000	52.4000	106.7938	13.0351
16	4.4610	5.0000	0.6864	0.0000	49.2133	109.2305	12.9191
17	4.4620	5.0000	0.6867	0.0000	46.0270	111.3802	12.8080
18	4.4610	5.0000	0.6864	0.0000	42.8403	113.2734	12.7017
19	4.4620	5.0000	0.6867	0.0000	39.6539	114.9374	12.6000
20	4.4610	5.0000	0.6864	0.0000	36.4672	116.3966	12.5028
21	2.2310		-0.0942	0.0000	33.2809	117.6734	12.4099
22	0.0000		-0.8750	0.0000	30.8750	118.8024	12.3227
23	0.0000		-0.8750	0.0000	29.2500	119.8125	12.2421
24	0.0000		-0.8750	0.0000	27.6250	120.7156	12.1674
25	0.0000		-0.8750	0.0000	26.0000	121.5223	12.0981
26	0.0000		-0.8750	0.0000	24.3750	122.2424	12.0337
27	0.0000		-0.8750	0.0000	22.7500	122.8845	11.9738
28	0.0000		-0.8750	0.0000	21.1250	123.4565	11.9179
29	0.0000		-0.8750	0.0000	19.5000	123.9655	11.8658
30	0.0000		-0.8750	0.0000	17.8750	124.4179	11.8172
31	0.0000		-0.8750	0.0000	16.2500	124.8196	11.7718
32	0.0000		-0.8750	0.0000	14.6250	125.1758	11.7293
33	0.0000		-0.8750	0.0000	13.0000	125.4911	11.6896
34	0.0000		-0.8750	0.0000	11.3750	125.7700	11.6524
35	0.0000		-0.8750	0.0000	9.7500	126.0161	11.6176
36	0.0000		-0.8750	0.0000	8.1250	126.2329	11.5851
37	0.0000		-0.8750	0.0000	6.5000	126.4236	11.5546
38	0.0000		-0.8750	0.0000	4.8750	126.5910	11.5260
39	0.0000		-0.8750	0.0000	3.2500	126.7375	11.4993
40	0.0000		-0.8750	0.0000	1.6250	126.8654	11.4742