

UPDATED STRATEGIST® ASSUMPTIONS AND RESULTS

Table 1: Fuel Cost Assumptions for Scenarios I & II

Year	Big Stone Unit II (nominal)	Lignite - LV- 21 (nominal)	Natural Gas		
			Ventura Hub (nominal)	Transportation (NOMINAL)	Delivered (nominal)
2007			\$7.67	\$2.88	\$10.55
2008			\$7.59	\$2.97	\$10.56
2009			\$7.64	\$3.06	\$10.69
2010	\$1.76	\$1.44	\$7.70	\$3.15	\$10.85
2011	\$1.81	\$1.48	\$7.88	\$3.24	\$11.12
2012	\$1.86	\$1.53	\$8.00	\$3.34	\$11.34
2013	\$1.92	\$1.57	\$8.18	\$3.44	\$11.62
2014	\$1.98	\$1.62	\$8.49	\$3.54	\$12.03
2015	\$2.04	\$1.67	\$8.80	\$3.65	\$12.45
2016	\$2.10	\$1.72	\$9.20	\$3.76	\$12.96
2017	\$2.16	\$1.77	\$9.56	\$3.87	\$13.43
2018	\$2.22	\$1.82	\$9.94	\$3.99	\$13.92
2019	\$2.29	\$1.88	\$10.33	\$1.64	\$11.97
2020	\$2.36	\$1.94	\$10.73	\$1.69	\$12.42
2021	\$2.43	\$1.99	\$11.15	\$1.74	\$12.89
2022	\$2.50	\$2.05	\$11.59	\$1.79	\$13.38
2023	\$2.58	\$2.12	\$12.05	\$1.85	\$13.89
2024	\$2.66	\$2.18	\$12.52	\$1.90	\$14.42
2025	\$2.74	\$2.24	\$13.01	\$1.96	\$14.97
2026	\$2.82	\$2.31	\$13.53	\$2.02	\$15.54

Table 2: Natural Cost Assumptions for Scenarios III & IV

Natural Gas Alternative (Scenarios III & IV)			
Year	Ventura Hub (nominal)	Transportation (NOMINAL)	Delivered (nominal)
2007	\$7.67	\$ 0.65	\$ 8.32
2008	\$7.59	\$ 0.67	\$ 8.26
2009	\$7.64	\$ 0.69	\$ 8.33
2010	\$7.70	\$ 0.71	\$ 8.41
2011	\$7.88	\$ 0.73	\$ 8.61
2012	\$8.00	\$ 0.75	\$ 8.75
2013	\$8.18	\$ 0.78	\$ 8.96
2014	\$8.49	\$ 0.80	\$ 9.29
2015	\$8.80	\$ 0.83	\$ 9.63
2016	\$9.20	\$ 0.85	\$ 10.05
2017	\$9.56	\$ 0.87	\$ 10.43
2018	\$9.94	\$ 0.90	\$ 10.84
2019	\$10.33	\$ 0.92	\$ 11.25
2020	\$10.73	\$ 0.96	\$ 11.69
2021	\$11.15	\$ 0.99	\$ 12.14
2022	\$11.59	\$ 1.01	\$ 12.60
2023	\$12.05	\$ 1.04	\$ 13.09
2024	\$12.52	\$ 1.08	\$ 13.60
2025	\$13.01	\$ 1.11	\$ 14.12
2026	\$13.53	\$ 1.14	\$ 14.67

Table 3: Load Forecast Assumptions

Year	October 2006		Supplemental Filing 03/08	
	Peak Demand (MW)	Energy Sales (GWH)	Peak Demand (MW)	Energy Sales (GWH)
2006	481.8	2,441		
2007	487.8	2,496	475.3	2,509
2008	492.4	2,540	481.9	2,562
2009	497.0	2,581	487.9	2,603
2010	502.4	2,624	493.7	2,653
2011	507.7	2,647	499.2	2,688
2012	512.9	2,669	504.7	2,722
2013	518.1	2,689	510.1	2,755
2014	523.3	2,706	515.6	2,789
2015	528.6	2,723	521.1	2,822
2016	533.6	2,740	526.6	2,853
2017	538.9	2,758	532.1	2,884
2018	544.1	2,775	537.5	2,914
2019	549.3	2,793	543.0	2,945
2020	554.5	2,811	548.4	2,976
2021	559.8	2,829	554.0	3,006
2022	564.8	2,847	559.4	3,037
2023	570.1	2,866	564.9	3,069
2024	575.3	2,884	570.4	3,100
2025	580.5	2,903	575.9	3,131
2026			581.4	3163
Avg Annual Growth	0.99%	0.92%	1.07%	1.23%

Table 4: Assumptions for Alternative Resource Options

New Generation Resource Options

Unit	Fuel	Capacity (MW)	Full Load Heat Rate (Btu/kWh)	Capital Cost \$/kW (2006) ²	First Year Available	Fixed Cost \$/kW (2006)	Variable Cost \$/MWh (2006)
Combustion Turbine	Natural Gas	43.5	9,000	975	2009	32.22	3.67
Combined Cycle	Natural Gas	120	7,548	1,795	2010	18.85	3.73
Big Stone Unit II ³	Coal	116	8,988	2,853	2013	31.27	1.58
Wind (2010 - 2012) ¹	Wind	31.5		2,000	2010	56.54	4.60
Wind 2012 ²	Wind	31.5		2035	2012	56.54	6.60
Wind no PTC	Wind	31.5		2,000	2013	56.54	4.60
IGCC	Coal	116	9,612	3,006	2013	24.15	6.06
LV -21	Coal	175	10,440	3,050	2013	46.72	2.75

1. First 126 MW of wind in addition to the 30 MW of Diamond Willow
2. Next 62.5 MW of wind.
3. Scenarios III & IV modeled Big Stone Unit II in 25 MW increments

Table 5: Demand Side Management Options

Program	Demand (MW)	Program Cost (2007 Dollars)	Total Energy Reduction kWh	Average Cost per kWh
Residential Refrigerators and Freezers (DSM 1)	0.949	\$517,491	20,750,835	\$0.03
Residential and Commercial AC Cycling (DSM 2)	8.024	\$3,366,852	26,793,912	\$0.13
High Efficiency Commercial AC and Motors (DSM 3)	0.337	\$309,978	11,561,276	\$0.0268
Interruptible Rate (DSM 4)	4.5	\$553,255	3,400,252	\$0.16

Table 6: Summary Results For Scenario I

Scenario I: Q3 2007

CON 11-07 Base 500
PA CONSULTING

GENERATION AND FUEL MODULE
SYSTEM REPORT

MDU SYSTEM	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
ENERGY REQUIRED	2,509	2,561	2,600	2,648	2,683	2,716	2,750	2,784	2,817	2,847	2,878	2,908	2,939	2,970	3,001	3,032	3,063	3,094	3,125	3,157
THERM GENERATION	2,160	2,122	2,142	2,032	1,943	1,975	2,360	2,394	2,382	2,411	2,443	2,473	2,504	2,534	2,566	2,597	2,628	2,658	2,690	2,722
EMERGENCY ENERGY	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NET TRANSACTIONS	326	436	455	615	739	740	389	389	435	436	435	435	435	436	435	435	435	436	435	435
PEAK LOAD	475	477	480	483	486	492	497	503	508	514	519	524	530	535	541	546	552	557	563	568
LOAD FACTOR	60.27	61.09	61.79	62.55	63	62.9	63.15	63.23	63.29	63.12	63.29	63.31	63.31	63.16	63.33	63.35	63.36	63.2	63.39	63.41
INSTALLED CAPACITY	568	578	583	595	607	607	608	608	611	611	611	611	611	611	611	611	611	611	611	611
RESERVE MARGIN	93	101	102	112	121	116	111	100	103	97	92	86	81	119	113	108	102	97	91	86
RESERVE MARGIN	19.54	21.07	21.31	23.1	24.91	23.52	22.38	21.04	20.18	18.69	17.63	16.42	15.21	22.18	20.91	19.72	18.52	17.35	16.21	15.08
CAPACITY MARGIN	16.35	17.4	17.57	18.77	19.94	19.04	18.29	17.38	16.79	15.89	14.99	14.11	13.2	18.15	17.3	16.47	15.63	14.79	13.95	13.11
ENERGY RESV MARGIN	-86.99	-82.96	-82.51	-80.91	-80.58	-80.82	-93.78	-93.86	-92.3	-92.39	-92.47	-92.55	-92.62	-92.7	-92.77	-92.85	-92.92	-92.99	-93.06	-93.13
FUEL BURNED	24,128	23,467	23,704	22,433	21,392	21,765	24,888	24,462	24,337	24,848	24,972	25,289	25,608	25,896	26,232	26,558	26,887	27,201	26,810	27,060
TOTAL FUEL COST	35,312	34,803	36,804	34,448	32,538	34,217	40,760	39,961	40,912	42,845	44,933	47,070	48,937	51,039	53,507	56,030	58,686	61,382	63,230	66,178
VAR O&M COST	5,018	4,972	5,220	4,953	4,736	4,949	5,053	4,554	4,645	4,832	5,023	5,219	5,425	5,616	5,846	6,080	6,325	6,572	6,852	7,136
FIXED O&M COST	10,618	10,883	11,156	11,434	11,720	12,013	14,841	17,040	17,466	17,903	18,351	18,809	19,280	22,868	23,439	24,025	24,626	25,242	25,873	26,520
TOTAL THERM COST	50,947	50,659	53,179	50,836	48,994	51,179	60,654	61,575	63,024	65,580	68,306	71,098	73,641	79,523	82,792	86,136	89,637	93,196	95,955	99,833
THERMAL COST	23.37	23.87	24.82	25.02	25.22	25.91	25.71	25.72	26.46	27.2	27.96	28.75	29.41	31.38	32.27	33.17	34.11	35.06	35.67	36.68
NET TRANS COST	24,107	30,093	32,453	41,146	47,605	56,324	18,198	18,652	22,029	22,622	23,145	23,723	24,316	24,970	25,547	26,186	26,841	27,562	28,200	28,905
EMERGENCY COST	202	189	224	145	93	103	86	26	25	30	36	41	48	14	17	20	23	27	32	38
TOTAL SYS. COST	75,256	80,941	85,856	92,127	96,893	107,606	78,937	80,253	85,078	88,232	91,486	94,863	98,006	104,507	108,356	112,342	116,502	120,786	124,187	128,776
SYSTEM COST	29,99	31,61	33,02	34,79	36,04	39,62	28,71	28,83	30,2	30,99	31,79	32,62	33,35	35,19	36,11	37,05	38,04	39,04	39,73	40,79
AVG. MARG. COST	40.48	39.5	42.55	38.41	34.81	36.48	31.61	24.01	24.58	26.04	27.55	29.01	29.28	29.33	30.92	32.5	34.41	36.14	38.53	40.75
TRANS PURCH	326	436	455	615	739	740	389	389	435	436	435	435	435	436	435	435	435	436	435	435
TRANS PURCH COST	24,107	30,093	32,453	41,146	47,605	56,324	18,198	18,652	22,029	22,622	23,145	23,723	24,316	24,970	25,547	26,186	26,841	27,562	28,200	28,905
TOTAL PURCH	326	436	455	615	739	740	389	389	435	436	435	435	435	436	435	435	435	436	435	435
TOTAL PURCH COST	24,107	30,093	32,453	41,146	47,605	56,324	18,198	18,652	22,029	22,622	23,145	23,723	24,316	24,970	25,547	26,186	26,841	27,562	28,200	28,905
TOTAL SALES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL SALES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 7: Summary Results For Scenario II

Scenario II: Q3 2007 Allowing for up to Four 5 MW Increments of Big Stone Unit II

MDJ SYSTEM	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
ENERGY REQUIRED																					
GWH	2509	2561	2600	2648	2683	2716	2750	2784	2817	2847	2878	2908	2939	2970	3001	3032	3063	3094	3125	3157	
THERM GENERATION	2180	2122	2142	2172	2223	2256	2641	2677	2665	2695	2725	2756	2786	2818	2849	2880	2911	2942	2973	3004	
EMERGENCY ENERGY	3	3	3	4	4	4	3	1	1	1	1	1	1	0	0	1	1	1	1	1	
NET TRANSACTIONS	326	436	455	473	456	456	106	106	152	152	152	152	152	152	152	152	152	152	152	152	
PEAK LOAD																					
MW	475	477	480	483	486	492	497	503	508	514	519	524	530	535	541	546	552	557	563	568	
LOAD FACTOR	60.27	61.09	61.79	62.55	63	62.9	63.15	63.23	63.29	63.12	63.29	63.31	63.31	63.16	63.33	63.35	63.36	63.2	63.39	63.41	
INSTALLED CAPACITY	568	578	583	588	593	593	609	609	611	611	611	611	611	611	611	611	611	611	611	611	
RESERVE MARGIN	93	101	102	104	107	101	112	106	103	98	92	87	81	119	114	108	103	97	92	86	
CAPACITY MARGIN	19.54	21.07	21.31	21.6	21.93	20.57	22.48	21.14	20.28	18.99	17.73	16.52	15.31	22.27	21.01	19.81	18.62	17.45	16.3	15.17	
ENERGY RESV MARGIN	16.35	17.4	17.57	17.77	17.99	17.06	18.35	17.45	16.86	15.96	15.06	14.18	13.28	18.22	17.36	16.53	15.69	14.85	14.01	13.17	
LOSS LOAD	-86.99	-82.96	-82.51	-82.14	-83.01	-83.22	-86.15	-96.2	-94.62	-94.67	-94.73	-94.79	-94.84	-94.89	-94.93	-95	-95.05	-95.1	-95.15	-95.2	
HOURS	96	92	106	120	132	142	105	21	20	24	28	32	36	12	14	16	18	21	24	28	
PCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FUEL BURNED_000	24128	23467	23704	24059	24637	25012	27900	27201	27072	27400	27730	28057	28387	28679	29025	29361	29701	30027	29644	29923	
FIXED FUEL COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL FUEL COST	35312	34803	36804	38975	41472	43672	48946	45551	46645	48837	51170	53572	55543	57853	60613	63442	66426	69459	71688	75033	
VAR O&M COST	5018	4972	5220	5487	5785	6041	5865	4963	5062	5270	5485	5704	5934	6141	6401	6664	6938	7213	7531	7850	
FIXED O&M COST	10618	10863	11156	11434	11720	12013	15768	17612	18052	18503	18966	19440	19926	20520	21119	21722	22340	22973	23623	24288	
TOTAL THERM COST	50947	50659	53179	55901	58977	61726	69879	68126	69759	72610	75521	78716	81403	87525	91133	94827	98705	102645	105841	110170	
THERMAL COST	23.37	23.87	24.62	25.74	28.53	27.36	28.5	25.45	26.18	26.94	27.75	28.56	29.22	31.06	31.99	32.93	33.91	34.89	35.6	36.67	
NET TRANS COST	24107	30093	32453	34927	34682	43040	4620	4735	7764	7958	8157	8361	8570	8785	9004	9229	9460	9697	9939	10188	
EMERGENCY COST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL SYS. COST	202	189	224	256	287	312	231	45	44	53	62	71	82	25	30	35	41	47	55	64	
SYSTEM COST	75256	80941	85856	91084	93946	105077	74831	72906	77567	80621	83840	87149	90056	96335	100167	104032	108206	112389	115836	120422	
AVG MARG. COST	29.99	31.61	33.02	34.39	35.02	38.68	27.21	26.19	27.54	28.31	29.13	29.96	30.64	32.44	33.38	34.33	35.33	36.32	37.06	38.14	
TRANS PURCH	326	436	455	473	456	456	106	106	152	152	152	152	152	152	152	152	152	152	152	152	
TRANS SALES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TRANS SALES REV.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL PURCH	326	436	455	473	456	456	106	106	152	152	152	152	152	152	152	152	152	152	152	152	
TOTAL SALES	24107	30093	32453	34927	34682	43040	4620	4735	7764	7958	8157	8361	8570	8785	9004	9229	9460	9697	9939	10188	
TOTAL SALES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EXTERNAL COSTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CUST IMPACT COSTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table 8: Summary Results For Scenario III

Scenario III: Q1 2008 with no Off-System Sales

MDU SYSTEM	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
ENERGY REQUIRED	2,509	2,561	2,600	2,648	2,683	2,716	2,750	2,784	2,817	2,847	2,878	2,908	2,939	2,970	3,001	3,032	3,063	3,094	3,125
THERM GENERATION	2,449	2,408	2,444	2,485	2,514	2,579	2,643	2,677	2,684	2,695	2,725	2,756	2,797	2,818	2,849	2,880	2,911	2,942	2,973
EMERGENCY ENERGY	3	3	3	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NET TRANSACTIONS	57	151	153	160	165	136	106	106	152	152	152	152	152	152	152	152	152	152	152
PEAK LOAD	475	477	480	483	486	492	497	503	508	514	519	524	530	535	541	546	552	557	563
LOAD FACTOR	60.27	61.09	61.79	62.55	63	62.9	63.23	63.29	63.29	63.12	63.29	63.31	63.31	63.16	63.33	63.35	63.36	63.2	63.39
INSTALLED CAPACITY	568	578	583	588	593	636	636	637	637	610	610	610	610	610	653	653	653	653	653
RESERVE MARGIN	93	101	102	104	107	145	99	84	81	96	91	85	80	118	112	107	101	96	90
RESERVE MARGIN	19.54	21.07	21.31	21.6	21.93	29.42	19.96	16.74	15.93	18.71	17.45	16.24	15.03	22	20.73	19.54	18.35	17.18	16.04
CAPACITY MARGIN	16.35	17.4	17.57	17.77	17.99	22.73	16.64	14.34	13.74	15.76	14.86	13.97	13.07	18.03	17.17	16.35	15.5	14.66	13.82
ENERGY RESV MARGIN	-99.43	-95.87	-95.93	-96	-96.05	-96.1	-96.15	-96.2	-94.62	-94.67	-94.73	-94.79	-94.84	-94.89	-94.95	-95	-95.05	-95.1	-95.15
LOSS LOAD	95	89	104	118	129	40	46	33	27	22	22	25	29	9	11	13	15	17	20
RENEWABLE ENERGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FUEL BURNED '000	27,076	26,607	27,028	27,508	27,847	28,423	28,325	28,078	27,953	27,806	27,888	28,202	28,519	28,824	29,154	29,478	29,603	30,119	29,718
FIXED FUEL COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL FUEL COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VARIABLE O&M COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FIXED O&M COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL O&M COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL THERM COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
THERMAL COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NET TRANS COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
EMERGENCY COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL SYS. COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SYSTEM COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Avg. MARG. COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TRANS PURCH	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TRANS PURCH COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TRANS SALES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TRANS SALES REV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
UNIT PURCH	43	45	47	54	59	30	-	-	-	-	-	-	-	-	-	-	-	-	-
UNIT PURCH COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
UNIT SALES	5,001	6,461	7,009	7,212	9,268	6,756	-	-	-	-	-	-	-	-	-	-	-	-	-
UNIT SALES REV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL PURCH	57	151	153	160	165	136	106	106	152	152	152	152	152	152	152	152	152	152	152
TOTAL PURCH COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL SALES	5,424	10,724	11,379	11,692	13,860	11,462	4,620	4,735	7,764	7,858	8,157	8,361	8,570	8,785	9,004	9,229	9,460	9,697	9,939
TOTAL SALES REV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 9: Summary Results For Scenario IV

MDU SYSTEM	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
ENERGY REQUIRED	2,509	2,561	2,600	2,648	2,683	2,716	2,750	2,784	2,817	2,847	2,878	2,908	2,939	2,970	3,001	3,032	3,063	3,094	3,125
EMERG GENERATION	2,569	2,580	2,593	2,599	2,593	2,636	3,185	3,619	3,612	3,516	3,515	3,474	3,544	3,649	3,600	3,610	3,600	3,557	3,532
EMERG ENERGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET TRANSACTIONS	(62)	(22)	14	60	96	76	438	(836)	(756)	(668)	(638)	(567)	(606)	(679)	(600)	(579)	(537)	(463)	(407)
PEAK LOAD	475	477	480	483	486	492	497	503	508	514	519	524	530	535	541	546	552	557	563
LOAD FACTOR	60.27	61.09	61.79	62.55	63	62.9	63.15	63.23	63.29	63.12	63.29	63.31	63.31	63.16	63.33	63.35	63.36	63.2	63.39
INSTALLED CAPACITY	568	578	583	588	593	593	603	593	595	610	610	610	610	653	653	653	653	653	653
RESERVE MARGIN	93	101	102	104	107	101	106	91	87	96	91	85	80	118	112	107	101	96	90
CAPACITY MARGIN	19.54	21.07	21.31	21.6	21.93	20.57	21.27	18.04	17.21	18.71	17.45	16.24	15.03	22	20.73	19.54	18.35	17.18	16.04
CAPACITY RESV MARGIN	16.35	17.4	17.57	17.77	17.99	17.06	17.54	15.28	14.68	15.76	14.86	13.97	13.07	18.03	17.17	16.35	15.5	14.66	13.82
ENERGY RESV MARGIN	-99.43	-95.87	-95.93	-96	-96.05	-96.1	-96.15	-96.2	-94.62	-94.67	-94.73	-94.79	-94.84	-94.89	-94.95	-95.05	-95.15	-95.25	-95.35
LOSS LOAD	95	89	104	118	129	137	104	27	26	19	22	25	29	9	11	13	15	17	20
RENEWABLE ENERGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FUEL BURNED_000	28,492	28,646	28,679	28,707	28,671	29,256	33,977	37,872	37,789	36,350	36,347	35,875	36,645	37,700	37,175	37,280	37,173	36,705	35,709
FIXED FUEL COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL FUEL COST	42,078	43,907	45,182	46,256	47,754	52,280	65,977	75,911	78,176	79,887	82,785	83,432	89,009	98,239	97,672	101,588	104,208	103,762	103,632
VAR O&M COST	\$0	\$6,233	\$6,486	\$6,677	\$6,859	\$7,030	\$7,488	\$8,560	\$9,834	\$9,249	\$9,502	\$9,555	\$10,200	\$10,886	\$10,895	\$11,230	\$11,438	\$11,476	\$11,622
FIXED O&M COST	\$0	\$10,618	\$10,883	\$11,156	\$11,434	\$11,720	\$12,013	\$12,366	\$12,800	\$13,430	\$13,916	\$14,362	\$14,916	\$15,533	\$15,167	\$15,796	\$16,441	\$17,122	\$17,842
TOTAL THERM COST	\$0	\$58,929	\$61,276	\$62,995	\$64,504	\$67,782	\$80,575	\$102,881	\$105,810	\$108,566	\$112,202	\$113,401	\$120,133	\$133,678	\$133,733	\$138,614	\$142,089	\$143,240	\$145,033
THERMAL COST	\$22.94	\$23.75	\$24.39	\$24.97	\$25.75	\$27.24	\$28.13	\$28.43	\$29.29	\$30.88	\$31.92	\$32.64	\$33.89	\$36.64	\$37.15	\$38.4	\$39.47	\$40.02	\$40.5
NET TRANS COST	\$1,173	\$3,750	\$5,979	\$8,224	\$11,572	\$8,908	(25,131)	(47,588)	(46,775)	(40,485)	(40,285)	(36,500)	(40,982)	(50,892)	(44,024)	(44,598)	(43,019)	(36,773)	(33,546)
EMERG ENERGY COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL SYS. COST	\$60,302	\$65,209	\$69,193	\$73,026	\$78,392	\$80,890	\$84,579	\$89,595	\$90,900	\$88,121	\$87,477	\$86,856	\$89,215	\$92,805	\$90,732	\$94,043	\$99,089	\$105,604	\$109,430
SYSTEM COST	\$24.03	\$25.46	\$26.61	\$27.57	\$28.32	\$28.78	\$29.52	\$29.88	\$30.98	\$33.92	\$35.01	\$36.43	\$38.43	\$42,805	\$42,805	\$43,102	\$45,335	\$48,133	\$51,501
AVG WARG COST	\$46.12	\$49.36	\$49.97	\$51.21	\$52.27	\$53.39	\$54.54	\$55.81	\$57.17	\$58.67	\$60.17	\$61.77	\$63.42	\$65.12	\$66.86	\$68.64	\$70.46	\$72.31	\$74.19
TRANS PURCH	\$14	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106
TRANS PURCH COST	\$423	\$4,264	\$4,370	\$4,480	\$4,592	\$4,706	\$4,820	\$4,935	\$5,050	\$5,165	\$5,280	\$5,395	\$5,510	\$5,625	\$5,740	\$5,855	\$5,970	\$6,085	\$6,200
TRANS SALES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TRANS SALES REV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
UNIT PURCH	\$4	\$56	\$60	\$65	\$68	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95	\$95
UNIT PURCH COST	\$5,748	\$7,290	\$7,913	\$8,056	\$10,123	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922	\$12,922
UNIT SALES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
UNIT SALES REV	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ECON ENERGY PURCH	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PURCH COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AVE PURCH COST	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ECON ENERGY SALES	\$130	\$184	\$151	\$111	\$78	\$125	\$44	\$942	\$948	\$820	\$789	\$718	\$756	\$831	\$751	\$730	\$689	\$615	\$558
SALES REV	\$4988	\$7604	\$6305	\$4311	\$3143	\$8821	\$29750	\$5557	\$5454	\$48443	\$48443	\$44961	\$49552	\$96777	\$50228	\$58277	\$52460	\$46700	\$43689
AVE SALES REV	\$38.39	\$42.37	\$41.64	\$38.74	\$40.55	\$70.72	\$54.67	\$55.57	\$57.53	\$59.04	\$61.37	\$62.6	\$65.39	\$71.82	\$70.58	\$73.71	\$76.16	\$75.58	\$78.05
NET ECON ENERGY	\$-130	\$-184	\$-151	\$-111	\$-78	\$-125	\$-544	\$-942	\$-948	\$-820	\$-789	\$-718	\$-756	\$-831	\$-751	\$-730	\$-689	\$-615	\$-558
NET ECON COST	\$-4998	\$-7804	\$-6305	\$-4311	\$-3143	\$-8821	\$-29750	\$-52324	\$-54541	\$-48443	\$-44961	\$-49552	\$-96577	\$-50228	\$-53827	\$-52460	\$-46470	\$-43585	\$-39585
TOTAL PURCH	\$68	\$162	\$166	\$171	\$174	\$201	\$105	\$106	\$152	\$152	\$152	\$152	\$152	\$152	\$152	\$152	\$152	\$152	\$152
TOTAL PURCH COST	\$6,171	\$11,584	\$12,284	\$12,535	\$14,715	\$17,625	\$4,820	\$4,943	\$7,764	\$7,958	\$8,157	\$8,361	\$8,570	\$8,785	\$9,004	\$9,229	\$9,460	\$9,697	\$9,939
TOTAL SALES	\$130	\$184	\$151	\$111	\$78	\$125	\$44	\$942	\$948	\$820	\$789	\$718	\$756	\$831	\$751	\$730	\$689	\$615	\$558
TOTAL SALES	\$4,988	\$7,604	\$6,305	\$4,311	\$3,143	\$8,821	\$29,750	\$52,324	\$54,541	\$48,443	\$44,961	\$49,552	\$96,777	\$50,228	\$53,827	\$52,460	\$46,470	\$43,585	\$40,585

Table 10: Montana-Dakota's Least Cost Expansion Plan Summary

October 2006		Scenario I Q3 2007	Scenario II Q3 2007	Scenario III Q1 2008	Scenario IV Q1 2008 with Off-System Sales
NPV (\$000)	1,780,543	2,203,347	2,183,038	2,124,493	2,051,745
2007	NSP Peaking	NSP Peaking	NSP Peaking	NSP Peaking	NSP Peaking
2008	S.D. Wind & Montana Wind	Montana Wind, DSM	Montana Wind, DSM	Montana Wind, DSM	Montana Wind, DSM
2009		DSM	DSM	DSM	DSM
2010		Wind			
2011	NSP Peaking contract extension	Wind, NSP Peaking contract extension	NSP Peaking contract extension	NSP Peaking contract extension	NSP Peaking contract extension
2012	Big Stone Unit II (116 MW)	NSP Peaking contract extension	NSP Peaking contract extension	NSP Peaking contract extension, CT	NSP Peaking contract extension
2013		Big Stone Unit II (116 MW)	Big Stone Unit II (131 MW)	Big Stone Unit II (75 MW)	Big Stone Unit II (125 MW)
2014	DSM				
2015	Montana Wind, CT & DSM	Montana Wind	Montana Wind	Montana Wind	Montana Wind
2016				Big Stone Unit II (25 MW)	CT
2017					
2018					
2019					
2020		CT	CT	CT	CT
2021					
2022					
2023	Wind				
2024	Wind				
2025					

- Scenario I: Big Stone Unit II option modeled as 116 MW share of a 500 MW plant
- Scenario II: Big Stone Unit II option modeled as a 116 MW share of a 500 MW plant with an option for up to four additional 5 MW increments
- Scenario III: Big Stone Unit II modeled with 25 MW increments
- Scenario IV: Big Stone Unit II modeled with 25 MW increments with pool sales.