

Appendix A

Hydro-Thermal Computation Error Corrected

Reshaping Savings for New Intertie

101 MW CC, Beluga CC#8

50% Heat Rate = 10,981
Incremental Heat Rate = 7,801

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.09	0.433	2,481	41	101.7	44.0		
1.14	0.359	2,115	71	150.1	53.9		
1.15	0.116	1,981	89	176.3	20.5		
1.19	0.092	1,704	97	165.3	15.2		
					133.6	37.5%	50.1

47 MW CC, AMLP #56

50% Heat Rate = 13,700
Incremental Heat Rate = 8,718

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.09	1	4,201	29.4	123.4	123.4		
1.14	0	3,791		0.0	0.0		
1.15	0	3,642		0.0	0.0		
1.19	0	3,332		0.0	0.0		
					123.4	37.5%	46.3

55 MW CT, Beluga #3

50% Heat Rate = 13,136
 Incremental Heat Rate = 9,552

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.09	1	2,728	34.4	93.8	93.8		
1.14	0	2,280		0.0	0.0		
1.15	0	2,116		0.0	0.0		
1.19	0	1,777		0.0	0.0		
					93.8	5.0%	4.7

87 MW CT, AMLP CT#8

50% Heat Rate = 14,029
 Incremental Heat Rate = 9,591

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.09	54.8%	3,579	39.6	141.8	77.6		
1.14	41.3%	3,128	71.0	221.9	91.6		
1.15	4.0%	2,964	85.7	254.0	10.0		
1.19	0.0%	2,623		0.0	0.0		
					179.3	9.0%	16.1

66 MW CT, Beluga CT #5

50% Heat Rate = 15,012
 Incremental Heat Rate = 10,914

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.09	82.8%	3,120	37.0	115.4	95.5		
1.14	17.2%	2,608	61.7	161.0	27.7		
1.15	0.0%	2,420		0.0	0.0		
1.19	0.0%	2,033		0.0	0.0		
					123.3	8.0%	9.9

33 MW CT, AMLP CT #4

50% Heat Rate = 18,475
 Incremental Heat Rate = 9,372

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings			
1.09	1.00	8,263	20.6	170.4	170.4			
1.14	0.00	7,823		0.0	0.0			
1.15	0.00	7,662		0.0	0.0			
1.19	0.00	7,330		0.0	0.0			
					170.4	3.0%	5.1	
					100.0%	132.2	MBtu/hr	

Reshaping Savings for Existing Intertie

101 MW CC, Beluga CC#8

50% Heat Rate = 10,981
 Incremental Heat Rate = 7,801

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings			
1.20	15.3%	1,581	30.7	48.6	7.4			
1.28	22.2%	1,021	44.8	45.7	10.2			
1.31	10.8%	769	57.1	43.9	4.7			
1.42	19.0%	0	68.3	0.0	0.0			
					22.3	37.5%	8.4	

47 MW CC, AMLP #56

50% Heat Rate = 13,700
 Incremental Heat Rate = 8,718

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings			
1.20	70.0%	3,195	24.1	77.0	53.9			
1.28	30.0%	2,569	41.7	107.2	32.1			
1.31	0	2,287		0.0	0.0			
1.42	0	1,286		0.0	0.0			
					86.0	37.5%	32.3	

55 MW CT, Beluga #3

50% Heat Rate = 13,136
 Incremental Heat Rate = 9,552

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.20	55.0%	1,626	25.1	40.8	22.5		
1.28	40.4%	940	44.8	42.1	17.0		
1.31	4.6%	631	54.1	34.1	1.6		
1.42	0	0		0.0	0.0		
					41.0	5.0%	2.1

87 MW CT, AMLP CT#8

50% Heat Rate = 14,029
 Incremental Heat Rate = 9,591

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.20	22.5%	2,472	29.1	71.9	16.2		
1.28	25.5%	1,783	44.8	79.8	20.4		
1.31	12.4%	1,473	57.1	84.2	10.4		
1.42	21.8%	371	68.3	25.4	5.5		
					52.5	9.0%	4.7

66 MW CT, Beluga CT #5

50% Heat Rate = 15,012
 Incremental Heat Rate = 10,914

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings		
1.20	40.3%	1,861	26.5	49.3	19.8		
1.28	33.7%	1,077	44.8	48.2	16.2		
1.31	16.3%	724	57.1	41.4	6.8		
1.42	9.7%	0	63.6	0.0	0.0		
					42.8	8.0%	3.4

33 MW CT, AMLP CT #4

50% Heat Rate = 18,475
 Incremental Heat Rate = 9,372

Reshaping Energy Req't	Prob	Savings Btu/kWh	Avg MW Load	Unwtd MBtu/hr Savings	Wtd. MBtu/hr Savings			
1.20	100.0%	7,182	20.6	148.1	148.1			
1.28	0.0%	6,509		0.0	0.0			
1.31	0.0%	6,206		0.0	0.0			
1.42	0.0%	5,129		0.0	0.0			
					148.1	3.0%	4.4	
							100.0%	55.3
								MBtu/hr

Appendix B Hydro-Thermal Oversimplification Corrected

DFI set up computation bins for particular loading levels of the intertie. With the varying heat rate assumption, we found it computationally easier to set up bins to correspond to different loading levels of each turbine. The reshaping energy requirement for each bin was calculated by interpolating between transmission loss figures given by DFI for the intertie. We used the interpolation method suggested by DFI on page 3-5 of the 138 kV study.

Beluga CC#8

Unit Size = 101 MW
 Incremental Heat Rate, 50% - 100% = 7,801 Btu/kWh
 Heat Rate at 50% = 10,981 Btu/kWh

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range		Range Heat Rate Btu/kWh	EXISTING				NEW				Unprot-ected S -> N MW	Unprot-ected S -> N MW
	Load MW	Loading Prob.		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr		
0.0% - 5.0%	2.53	0.00%	71,401	1.01	63,529	160.4	0.00	1.00	63,578	160.5	0.00	0.0	0.00
5.0% - 10.0%	7.58	0.00%	29,001	1.03	20,948	158.7	0.00	1.01	21,124	160.0	0.00	0.0	0.00
10.0% - 15.0%	12.63	0.00%	20,521	1.06	12,243	154.6	0.00	1.02	12,588	158.9	0.00	0.0	0.00
15.0% - 20.0%	17.68	0.00%	16,887	1.09	8,413	148.7	0.00	1.02	8,898	157.3	0.00	0.0	0.00
20.0% - 25.0%	22.73	0.00%	14,868	1.12	6,130	139.3	0.00	1.03	6,811	154.8	0.00	0.0	0.00
25.0% - 30.0%	27.78	6.67%	13,583	1.15	4,612	128.1	8.54	1.04	5,469	151.9	10.13	0.0	0.00
30.0% - 35.0%	32.83	6.67%	12,693	1.19	3,434	112.7	7.51	1.05	4,522	148.4	9.90	0.0	0.00
35.0% - 40.0%	37.88	6.67%	12,041	1.23	2,479	93.9	6.26	1.06	3,806	144.1	9.61	2.9	0.19
40.0% - 45.0%	42.93	6.67%	11,542	1.25	1,808	77.6	5.17	1.06	3,236	138.9	9.26	7.9	0.53
45.0% - 50.0%	47.98	6.67%	11,148	1.25	1,358	65.2	4.34	1.07	2,782	133.5	8.90	13.0	0.87
50.0% - 55.0%	53.03	6.67%	10,830	1.28	831	44.1	2.94	1.08	2,385	126.4	8.43	18.0	1.20
55.0% - 60.0%	58.08	6.67%	10,566	1.31	359	20.9	1.39	1.09	2,060	119.6	7.97	23.1	1.54
60.0% - 65.0%	63.13	6.67%	10,345	1.35	0	0.0	0.00	1.10	1,758	111.0	7.40	0.0	0.00
65.0% - 70.0%	68.18	6.67%	10,157	1.40	0	0.0	0.00	1.11	1,506	102.7	6.85	0.0	0.00
70.0% - 75.0%	73.23	6.67%	9,994	1.46	0	0.0	0.00	1.12	1,266	92.7	6.18	0.0	0.00
75.0% - 80.0%	78.28	6.67%	9,853	1.53	0	0.0	0.00	1.13	1,041	81.5	5.43	0.0	0.00
80.0% - 85.0%	83.33	6.67%	9,728	1.60	0	0.0	0.00	1.14	845	70.4	4.69	0.0	0.00
85.0% - 90.0%	88.38	6.67%	9,618	1.70	0	0.0	0.00	1.15	650	57.4	3.83	0.0	0.00
90.0% - 95.0%	93.43	6.67%	9,520	1.75	0	0.0	0.00	1.16	466	43.5	2.90	0.0	0.00
95.0% - 100.0%	98.48	6.67%	9,432	1.79	0	0.0	0.00	1.17	293	28.8	1.92	0.0	0.00
			100%				36.2				103.4		4.33

AML P CC#56

Unit Size = 47 MW
 Incremental Heat Rate, 50% - 100% = 8,718 Btu/kWh
 Heat Rate at 50% = 13,700 Btu/kWh.

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range		Range Heat Rate	EXISTING				NEW				Unprot-ected S -> N Transfer MW	Unprot-ected S -> N Transfer MW
	Load MW	Loading Prob.		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr		
0.0% - 5.0%	1.18	0.00%	108,358	1.00	99,601	117.0	0.00	1.00	99,628	117.1	0.00	0.0	0.00
5.0% - 10.0%	3.53	0.00%	41,931	1.01	33,094	116.7	0.00	1.00	33,177	116.9	0.00	0.0	0.00
10.0% - 15.0%	5.88	0.00%	28,646	1.02	19,728	115.9	0.00	1.01	19,867	116.7	0.00	0.0	0.00
15.0% - 20.0%	8.23	0.00%	22,952	1.04	13,912	114.4	0.00	1.01	14,137	116.3	0.00	0.0	0.00
20.0% - 25.0%	10.58	0.00%	19,789	1.05	10,665	112.8	0.00	1.01	10,949	115.8	0.00	0.0	0.00
25.0% - 30.0%	12.93	6.67%	17,776	1.06	8,525	110.2	7.35	1.02	8,899	115.0	7.67	0.0	0.00
30.0% - 35.0%	15.28	6.67%	16,383	1.07	7,045	107.6	7.17	1.02	7,480	114.3	7.62	0.0	0.00
35.0% - 40.0%	17.63	6.67%	15,361	1.09	5,891	103.8	6.92	1.02	6,433	113.4	7.56	0.0	0.00
40.0% - 45.0%	19.98	6.67%	14,579	1.10	5,020	100.3	6.69	1.03	5,614	112.1	7.48	0.0	0.00
45.0% - 50.0%	22.33	6.67%	13,962	1.11	4,244	94.7	6.32	1.03	4,972	111.0	7.40	0.0	0.00
50.0% - 55.0%	24.68	6.67%	13,463	1.13	3,604	88.9	5.93	1.04	4,434	109.4	7.29	0.0	0.00
55.0% - 60.0%	27.03	6.67%	13,050	1.14	3,073	83.0	5.54	1.04	3,996	108.0	7.20	0.0	0.00
60.0% - 65.0%	29.38	6.67%	12,704	1.16	2,580	75.8	5.05	1.04	3,611	106.1	7.07	0.0	0.00
65.0% - 70.0%	31.73	6.67%	12,408	1.18	2,111	67.0	4.46	1.05	3,290	104.4	6.96	0.0	0.00
70.0% - 75.0%	34.08	6.67%	12,154	1.20	1,704	58.1	3.87	1.05	3,009	102.5	6.84	0.0	0.00
75.0% - 80.0%	36.43	6.67%	11,932	1.22	1,299	47.3	3.16	1.05	2,742	99.9	6.66	1.4	0.10
80.0% - 85.0%	38.78	6.67%	11,737	1.23	998	38.7	2.58	1.06	2,521	97.7	6.52	3.8	0.25
85.0% - 90.0%	41.13	6.67%	11,565	1.25	663	27.3	1.82	1.06	2,309	94.9	6.33	6.1	0.41
90.0% - 95.0%	43.48	6.67%	11,411	1.25	532	23.1	1.54	1.06	2,128	92.5	6.17	8.5	0.57
95.0% - 100.0%	45.83	6.67%	11,273	1.24	471	21.6	1.44	1.07	1,950	89.4	5.96	10.8	0.72
			100%				69.8				104.7		2.04

Beluga CT#3

Unit Size = 55 MW
 Incremental Heat Rate, 50% - 100% = 9,552 Btu/kWh
 Heat Rate at 50% = 13,136 Btu/kWh

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range		Range Heat Rate Btu/kWh	EXISTING				NEW				Unprot-ected S -> N Transfer MW	Unprot-ected S -> N Transfer MW
	Load MW	Loading Prob.		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Gas Savings MBtu/hr		
0.0% - 5.0%	1.38	0.00%	81,232	1.00	71,637	98.5	0.00	1.00	71,667	98.5	0.00	0.0	0.00
5.0% - 10.0%	4.13	0.00%	33,445	1.02	23,719	97.8	0.00	1.01	23,840	98.3	0.00	0.0	0.00
10.0% - 15.0%	6.88	0.00%	23,888	1.03	14,073	96.8	0.00	1.01	14,256	98.0	0.00	0.0	0.00
15.0% - 20.0%	9.63	0.00%	19,792	1.04	9,841	94.7	0.00	1.01	10,119	97.4	0.00	0.0	0.00
20.0% - 25.0%	12.38	0.00%	17,516	1.06	7,427	91.9	0.00	1.02	7,803	96.6	0.00	0.0	0.00
25.0% - 30.0%	15.13	6.67%	16,068	1.07	5,837	88.3	5.89	1.02	6,314	95.5	6.37	0.0	0.00
30.0% - 35.0%	17.88	6.67%	15,066	1.09	4,690	83.8	5.59	1.03	5,270	94.2	6.28	0.0	0.00
35.0% - 40.0%	20.63	6.67%	14,331	1.10	3,783	78.0	5.20	1.03	4,508	93.0	6.20	0.0	0.00
40.0% - 45.0%	23.38	6.67%	13,768	1.12	3,069	71.7	4.78	1.03	3,904	91.3	6.08	0.0	0.00
45.0% - 50.0%	26.13	6.67%	13,325	1.14	2,471	64.6	4.30	1.04	3,418	89.3	5.95	0.0	0.00
50.0% - 55.0%	28.88	6.67%	12,965	1.16	1,874	54.1	3.61	1.04	3,017	87.1	5.81	0.0	0.00
55.0% - 60.0%	31.63	6.67%	12,669	1.18	1,386	43.8	2.92	1.05	2,677	84.7	5.64	0.0	0.00
60.0% - 65.0%	34.38	6.67%	12,419	1.20	969	33.3	2.22	1.05	2,385	82.0	5.47	0.0	0.00
65.0% - 70.0%	37.13	6.67%	12,207	1.22	557	20.7	1.38	1.06	2,123	78.8	5.25	2.1	0.14
70.0% - 75.0%	39.88	6.67%	12,024	1.25	109	4.3	0.29	1.06	1,896	75.6	5.04	4.9	0.33
75.0% - 80.0%	42.63	6.67%	11,864	1.24	0	0.0	0.00	1.06	1,708	72.8	4.85	7.6	0.51
80.0% - 85.0%	45.38	6.67%	11,724	1.24	0	0.0	0.00	1.07	1,524	69.2	4.61	0.0	0.00
85.0% - 90.0%	48.13	6.67%	11,600	1.25	0	0.0	0.00	1.07	1,356	65.2	4.35	0.0	0.00
90.0% - 95.0%	50.88	6.67%	11,489	1.28	0	0.0	0.00	1.08	1,193	60.7	4.05	0.0	0.00
95.0% - 100.0%	53.63	6.67%	11,390	1.29	0	0.0	0.00	1.08	1,049	56.3	3.75	0.0	0.00
			100%				36.2				79.7		0.98

AMLPT CT#8

Unit Size = 37 MW
 Incremental Heat Rate, 50% - 100% = 9,591 Btu/kWh
 Heat Rate at 50% = 14,029 Btu/kWh

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range		Range Heat Rate Btu/kWh	EXISTING				NEW				Unprot-ected S -> N MW	Wtd. Unprot-ected S -> N MW
	Load MW	Loading Prob.		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr		
0.0% - 5.0%	2.18	0.00%	98,351	1.01	88,673	192.9	0.00	1.00	88,733	193.0	0.00	0.0	0.00
5.0% - 10.0%	6.53	0.00%	39,178	1.03	29,322	191.3	0.00	1.01	29,506	192.5	0.00	0.0	0.00
10.0% - 15.0%	10.88	0.00%	27,343	1.05	17,259	187.7	0.00	1.01	17,617	191.6	0.00	0.0	0.00
15.0% - 20.0%	15.23	0.00%	22,271	1.07	11,998	182.7	0.00	1.02	12,477	190.0	0.00	0.0	0.00
20.0% - 25.0%	19.58	0.00%	19,453	1.10	8,937	174.9	0.00	1.03	9,604	188.0	0.00	0.0	0.00
25.0% - 30.0%	23.93	6.67%	17,660	1.13	6,866	164.3	10.95	1.03	7,741	185.2	12.35	0.0	0.00
30.0% - 35.0%	28.28	6.67%	16,419	1.16	5,335	150.9	10.06	1.04	6,444	182.2	12.15	0.0	0.00
35.0% - 40.0%	32.63	6.67%	15,508	1.19	4,124	134.5	8.97	1.05	5,462	178.2	11.98	0.0	0.00
40.0% - 45.0%	36.98	6.67%	14,812	1.22	3,115	115.2	7.68	1.05	4,701	173.8	11.59	2.0	0.13
45.0% - 50.0%	41.33	6.67%	14,263	1.23	2,430	100.4	6.70	1.06	4,079	168.6	11.24	6.3	0.42
50.0% - 55.0%	45.68	6.67%	13,818	1.24	1,935	88.4	5.89	1.07	3,561	162.7	10.84	10.7	0.71
55.0% - 60.0%	50.03	6.67%	13,450	1.27	1,230	61.5	4.10	1.08	3,134	156.8	10.45	15.0	1.00
60.0% - 65.0%	54.38	6.67%	13,141	1.29	744	40.5	2.70	1.08	2,744	149.2	9.95	19.4	1.29
65.0% - 70.0%	58.73	6.67%	12,878	1.31	278	16.3	1.09	1.09	2,405	141.2	9.42	23.7	1.58
70.0% - 75.0%	63.08	6.67%	12,652	1.35	0	0.0	0.00	1.10	2,094	132.1	8.81	0.0	0.00
75.0% - 80.0%	67.43	6.67%	12,454	1.40	0	0.0	0.00	1.11	1,835	123.7	8.25	0.0	0.00
80.0% - 85.0%	71.78	6.67%	12,281	1.44	0	0.0	0.00	1.12	1,581	113.5	7.56	0.0	0.00
85.0% - 90.0%	76.13	6.67%	12,127	1.49	0	0.0	0.00	1.12	1,349	102.7	6.84	0.0	0.00
90.0% - 95.0%	80.48	6.67%	11,990	1.56	0	0.0	0.00	1.13	1,124	90.5	6.03	0.0	0.00
95.0% - 100.0%	84.83	6.67%	11,867	1.63	0	0.0	0.00	1.14	914	77.5	5.17	0.0	0.00
		100%					58.1				142.5		5.14

Beluga CT#5

Unit Size = 66 MW
 Incremental Heat Rate, 50% - 100% = 10,914 Btu/kWh
 Heat Rate at 50% = 15,012 Btu/kWh

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range			Range Heat Rate Btu/kWh	EXISTING				NEW				Unprot-ected S -> N MW	Unprot-ected S -> N MW
	Range Load MW	Loading Prob.	Rate		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr		
0.0% - 5.0%	1.65	0.00%	92,874	1.00	81,911	135.2	0.00	1.00	81,945	135.2	0.00	0.0	0.00	
5.0% - 10.0%	4.95	0.00%	38,234	1.02	27,070	134.0	0.00	1.01	27,259	134.9	0.00	0.0	0.00	
10.0% - 15.0%	8.25	0.00%	27,306	1.04	15,988	131.9	0.00	1.01	16,270	134.2	0.00	0.0	0.00	
15.0% - 20.0%	11.55	0.00%	22,623	1.05	11,148	128.8	0.00	1.02	11,540	133.3	0.00	0.0	0.00	
20.0% - 25.0%	14.85	0.00%	20,021	1.07	8,331	123.7	0.00	1.02	8,876	131.8	0.00	0.0	0.00	
25.0% - 30.0%	18.15	6.67%	18,365	1.09	6,510	118.2	7.88	1.03	7,173	130.2	8.68	0.0	0.00	
30.0% - 35.0%	21.45	6.67%	17,219	1.11	5,110	109.6	7.31	1.03	5,979	128.3	8.55	0.0	0.00	
35.0% - 40.0%	24.75	6.67%	16,378	1.13	4,036	99.9	6.66	1.04	5,075	125.6	8.37	0.0	0.00	
40.0% - 45.0%	28.05	6.67%	15,735	1.16	3,123	87.6	5.84	1.04	4,384	123.0	8.20	0.0	0.00	
45.0% - 50.0%	31.35	6.67%	15,228	1.17	2,431	76.2	5.08	1.05	3,812	119.5	7.97	0.0	0.00	
50.0% - 55.0%	34.65	6.67%	14,817	1.20	1,734	60.1	4.01	1.05	3,352	116.2	7.74	0.0	0.00	
55.0% - 60.0%	37.95	6.67%	14,477	1.23	1,100	41.7	2.78	1.06	2,939	111.5	7.44	3.0	0.20	
60.0% - 65.0%	41.25	6.67%	14,192	1.23	728	30.0	2.00	1.06	2,604	107.4	7.16	6.3	0.42	
65.0% - 70.0%	44.55	6.67%	13,950	1.25	267	11.9	0.79	1.07	2,295	102.2	6.82	9.6	0.64	
70.0% - 75.0%	47.85	6.67%	13,740	1.25	43	2.1	0.14	1.07	2,035	97.4	6.49	12.9	0.86	
75.0% - 80.0%	51.15	6.67%	13,558	1.28	0	0.0	0.00	1.08	1,777	90.9	6.06	0.0	0.00	
80.0% - 85.0%	54.45	6.67%	13,398	1.29	0	0.0	0.00	1.08	1,565	85.2	5.68	0.0	0.00	
85.0% - 90.0%	57.75	6.67%	13,256	1.31	0	0.0	0.00	1.09	1,355	78.2	5.22	0.0	0.00	
90.0% - 95.0%	61.05	6.67%	13,129	1.33	0	0.0	0.00	1.10	1,168	71.3	4.75	0.0	0.00	
95.0% - 100.0%	64.35	6.67%	13,016	1.37	0	0.0	0.00	1.10	984	63.3	4.22	0.0	0.00	
		100%					42.5				103.4		2.11	

AMPL CT#4

Unit Size = 33 MW
 Incremental Heat Rate, 50% - 100% = 9,372 Btu/kWh
 Heat Rate at 50% = 18,475 Btu/kWh

Existing Transfer Limit, Output = 61 MW
 New Transfer Limit, Output = 139 MW

Available Anchorage Spin = 35 MW

Unit Loading	Average Range		Range Heat Rate Btu/kWh	EXISTING				NEW				Unprot-ected S -> N MW	Wtd. Unprot-ected S -> N MW
	Load MM	Loading Prob.		Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr	Reshape Req't MWh/MWh	Reshape Savings Btu/kWh	Gas Savings MBtu/hr	Weighted Gas Savings MBtu/hr		
0.0% - 5.0%	0.83	0.00%	191,432	1.00	182,060	150.2	0.00	1.00	182,060	150.2	0.00	0.0	0.00
5.0% - 10.0%	2.48	0.00%	70,059	1.01	60,602	150.0	0.00	1.00	60,661	150.1	0.00	0.0	0.00
10.0% - 15.0%	4.13	0.00%	45,784	1.02	36,241	149.5	0.00	1.01	36,360	150.0	0.00	0.0	0.00
15.0% - 20.0%	5.78	0.00%	35,381	1.02	25,794	149.0	0.00	1.01	25,943	149.8	0.00	0.0	0.00
20.0% - 25.0%	7.43	0.00%	29,601	1.03	19,927	148.0	0.00	1.01	20,137	149.5	0.00	0.0	0.00
25.0% - 30.0%	9.08	6.67%	25,923	1.04	16,159	146.6	9.78	1.01	16,433	149.1	9.94	0.0	0.00
30.0% - 35.0%	10.73	6.67%	23,377	1.05	13,568	145.5	9.70	1.01	13,873	148.8	9.92	0.0	0.00
35.0% - 40.0%	12.38	6.67%	21,509	1.06	11,610	143.7	9.58	1.02	11,979	148.2	9.88	0.0	0.00
40.0% - 45.0%	14.03	6.67%	20,081	1.07	10,090	141.5	9.43	1.02	10,524	147.6	9.84	0.0	0.00
45.0% - 50.0%	15.68	6.67%	18,954	1.08	8,869	139.0	9.27	1.02	9,384	147.1	9.81	0.0	0.00
50.0% - 55.0%	17.33	6.67%	18,042	1.09	7,862	136.2	9.08	1.02	8,444	146.3	9.75	0.0	0.00
55.0% - 60.0%	18.98	6.67%	17,288	1.09	7,060	134.0	8.93	1.03	7,663	145.4	9.69	0.0	0.00
60.0% - 65.0%	20.63	6.67%	16,654	1.10	6,305	130.0	8.67	1.03	7,017	144.7	9.65	0.0	0.00
65.0% - 70.0%	22.28	6.67%	16,115	1.11	5,667	126.2	8.42	1.03	6,450	143.7	9.58	0.0	0.00
70.0% - 75.0%	23.93	6.67%	15,650	1.13	5,102	122.1	8.14	1.03	5,958	142.5	9.50	0.0	0.00
75.0% - 80.0%	25.58	6.67%	15,245	1.14	4,596	117.5	7.84	1.04	5,525	141.3	9.42	0.0	0.00
80.0% - 85.0%	27.23	6.67%	14,889	1.15	4,111	111.9	7.46	1.04	5,155	140.4	9.36	0.0	0.00
85.0% - 90.0%	28.88	6.67%	14,574	1.16	3,691	106.6	7.11	1.04	4,813	139.0	9.26	0.0	0.00
90.0% - 95.0%	30.53	6.67%	14,293	1.17	3,357	102.5	6.83	1.04	4,504	137.5	9.16	0.0	0.00
95.0% - 100.0%	32.18	6.67%	14,040	1.18	2,970	95.6	6.37	1.05	4,237	136.3	9.09	0.0	0.00
			100%				126.6				143.9		0.00

Summary for All Units

Unit Name	Prob. Marginal	-- Existing --		--- New ---		-- Existing --	
		Reshape Savings MBtu/hr	Reshape Savings MBtu/hr	Reshape Savings MBtu/hr	Reshape Savings MBtu/hr	Unprot. Transfer MW	Unprot. Transfer MW
Beluga CC#8	37.5%	36.2	13.6	103.4	38.8	4.33	1.62
ANLP CC#56	37.5%	69.8	26.2	104.7	39.3	2.04	0.77
Beluga CT#3	5.0%	36.2	1.8	79.7	4.0	0.98	0.05
ANLP CT#8	9.0%	58.1	5.2	142.5	12.8	5.14	0.46
Beluga CT#5	8.0%	42.5	3.4	103.4	8.3	2.11	0.17
ANLP CT #4	3.0%	126.6	3.8	143.9	4.3	0.00	0.00
			54.0		107.4		3.07