0025111

SUSITNA HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION
PROJECT No. 7114

HARZA-EBASCO
Susitna Joint Venture
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ALASKA POWER AUTHORITY RESPONSE TO FEDERAL ENERGY REGULATORY COMMISSION DATA REQUEST OF OCTOBER 24, 1984

VOLUME II

APPENDIX 1

OGP-6 OUTPUT

HARZA-EBASCO
SUSITNA JOINT VENTURE

NOVEMBER 13, 1984

ALASKA POWER AUTHORITY

APPENDIX 1
PART A

"With-Susitna" Expansion Plan

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISSU3 W2185 'N 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

GENERATION SYSTEM

	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	TYPES	
TYPE	1	2	3	4	5	6	7-10	
OPTMZING	0	1993	1993	0	0	1993	***	
PCT TRIM	0	0	0	0	0	0		
1992 MW	0	59	254	166	6	317	143	SUM= 945

YR	YEARLY MW				ADDITIONS			TOTAL CAPAB. + TIES
**	*******	*******	*******	*******	*******	*******	*****	****** ****
93			1X 87					
94			1X 87				539*	1518
95			1X 87					1605
96								1627
97								1533
98								1443
99								1417
0			1X 87					1416
1								1476
2								1476
3							635*	1995
4								1995
5								1995
6								1995
7								1995
8								1995
9								1995
10								1856
11							49*	1892
12			1X 87					1892
13			2X 87					1801
14			2X 87					1888
15								1975
16			1X 87					1888
17								1975
18								1975
19			1X 87					1975
20		1X 200						2062
								2175
MW ADD	0	200	957	0	0	0	1223	SUM= 2380
MW RET	0	-59	-602	-166	-6	-317	0	SUM= -1150
2020	0	200	609	0	0	0	1366	SUM= 2175
PCT TOT	0.	9.2	28.0	0.	0.	0.	62.8	SUM=100 PCT
AUTO	0	200	957	0	0	0	0	SUM= 1157
PCT TOT	0.	17.3	82.7	0.	0.	0.	0.	SUM=100 PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
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ALASKA RAILBELT
DEISSU3 W2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
****

GENERATION SYSTEM

	THERMAL	HYDRO	PSH	ES-2	ES-3	
TYPE	1-6	7	8	9	10	
OPTMZING		***	0	0	0	
PCT TRIM			0	0	0	
1992 MW	802	143	0	0	0	SUM= 945

****

YR	YEARLY MW ADDITIONS					TOTAL CAPAB. +TIES	LOAD MW	LOLP D/Y
**	******	******	******	******	******	******	*****	*******
93	87	539*				1518	915	0.0920
94	87					1605	935	0.0201
95	87					1627	955	0.0213
96						1533	972	0.0014
97						1443	989	0.0194
98						1417	1005	0.0549
99						1416	1023	0.0673
0	87					1476	1040	0.0302
1						1476	1065	0.0494
2		635*				1995	1090	0.0000
3						1995	1114	0.0000
4						1995	1140	0.0000
5						1995	1165	0.0000
6						1995	1200	0.0000
7						1995	1234	0.0000
8						1995	1269	0.0001
9						1856	1305	0.0010
10		49*				1892	1339	0.0117
11						1892	1373	0.0164
12	87					1801	1408	0.0631
13	174					1888	1444	0.
14	174					1975	1481	0.
15						1888	1519	0.0535
16	87					1975	1558	0.0307
17						1975	1598	0.0360
18						1975	1639	0.0882
19	87					2062	1681	0.0479
20	200					2175	1724	0.0310

****

MW ADD	1157	1223	0	0	0	SUM= 2380
MW RET	-1150	0	0	0	0	SUM= -1150
******	******	******	******	******	******	**********
2020	809	1366	0	0	0	SUM= 2175
PCT TOT	37.2	62.8	0.	0.	0.	SUM= 100 PCT

****

AUTO	1157		0	0	0	SUM= 1157
PCT TOT	100.0		0.	0.	0.	SUM= 100 PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY
OGP--6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
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ALASKA RAILBELT
DEISSU3 W2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
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YEAR	LOAD	TOTAL CAPABILIT. (INCLUDING TIES) YEAR END	TIME OF PEAK	PCT. RES.	LOSS OF LOAD PROBABILITY D/Y	H/Y	COST IN MILLION $ YEARLY COST	CUM. PW TOTAL
****	*****	*****	*****	****	******	******	*******	*******
1993	915	1518	1518	65.9	0.092	0.	232.0	158.9
1994	935	1605	1605	71.7	0.020	0.	238.6	316.8
1995	955	1627	1627	70.4	0.021	0.	247.4	475.0
1996	972	1533	1533	57.7	0.001	0.	250.2	629.6
1997	989	1443	1443	45.9	0.019	0.	249.8	778.7
1998	1005	1417	1417	41.0	0.055	0.	253.5	924.9
1999	1023	1416	1416	38.4	0.067	0.	258.0	1068.6
2000	1040	1476	1476	42.0	0.030	0.	265.1	1211.3
2001	1065	1476	1476	38.6	0.049	0.	271.3	1352.4
2002	1090	1995	1995	83.0	0.000	0.	277.7	1492.0
2003	1114	1995	1995	79.1	0.000	0.	277.7	1626.8
2004	1140	1995	1995	75.0	0.000	0.	277.7	1757.1
2005	1165	1995	1995	71.2	0.000	0.	277.7	1883.0
2006	1200	1995	1995	66.3	0.000	0.	275.8	2003.8
2007	1234	1995	1995	61.7	0.000	0.	275.8	2120.5
2008	1269	1995	1995	57.2	0.000	0.	275.8	2233.3
2009	1305	1856	1856	42.2	0.001	0.	280.3	2344.0
2010	1339	1892	1892	41.3	0.012	0.	273.5	2448.4
2011	1373	1892	1892	37.8	0.016	0.	279.4	2551.4
2012	1408	1801	1801	27.9	0.063	0.	281.4	2651.7
2013	1444	1888	1888	30.7	0.	0.	288.2	2750.9
2014	1481	1975	1975	33.4	0.	0.	302.4	2851.4
2015	1519	1888	1888	24.3	0.054	0.	306.8	2950.0
2016	1558	1975	1975	26.8	0.031	0.	329.3	3052.3
2017	1598	1975	1975	23.6	0.036	0.	339.1	3154.0
2018	1639	1975	1975	20.5	0.088	0.	352.7	3256.2
2019	1681	2062	2062	22.7	0.048	0.	380.9	3362.9
2020	1724	2175	2175	26.2	0.031	0.	416.5	3475.6

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

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JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

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YEAR	EXCESS (MW)	DAYS/YEAR	LOSS OF LOAD PROBABILITY JAN. JULY	FEB. AUG.	MARCH SEPT.	APRIL OCT.	MAY NOV.	JUNE DEC.
1993	4.	0.0920	0.0066	0.0084	0.0165	0.0099	0.0022	0.0178
			0.0073	0.0013	0.0012	0.0100	0.0064	0.0043
1994	59.	0.0201	0.0015	0.0019	0.0035	0.0020	0.0004	0.0038
			0.0013	0.0004	0.0004	0.0025	0.0014	0.0010
1995	57.	0.0213	0.0016	0.0019	0.0040	0.0018	0.0006	0.0038
			0.0014	0.0006	0.0005	0.0024	0.0016	0.0011
1996	147.	0.0014	0.0001	0.0000	0.0002	0.0001	0.0000	0.0006
			0.0002	0.0000	0.0000	0.0001	0.0000	0.0001
1997	62.	0.0194	0.0009	0.0007	0.0028	0.0021	0.0002	0.0075
			0.0022	0.0002	0.0003	0.0011	0.0003	0.0013
1998	27.	0.0549	0.0042	0.0026	0.0066	0.0054	0.0006	0.0187
			0.0063	0.0006	0.0005	0.0042	0.0008	0.0044
1999	15.	0.0673	0.0047	0.0043	0.0087	0.0066	0.0007	0.0221
			0.0070	0.0006	0.0005	0.0047	0.0016	0.0058
2000	47.	0.0302	0.0015	0.0013	0.0052	0.0024	0.0004	0.0109
			0.0027	0.0003	0.0003	0.0014	0.0007	0.0032
2001	30.	0.0494	0.0061	0.0030	0.0076	0.0046	0.0009	0.0126
			0.0035	0.0005	0.0006	0.0034	0.0008	0.0059
2002	310.	0.0000	0.	0.	0.	0.	0.0000	0.
			0.	0.	0.	0.	0.0000	0.
2003	295.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2004	305.	0.0000	0.	0.	0.	0.	0.0000	0.
			0.	0.	0.	0.	0.0000	0.0000
2005	273.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006	248.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2007	233.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2008	219.	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2009	125.	0.0010	0.0001	0.0002	0.0000	0.0000	0.0003	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0002	0.0002
2010	65.	0.0117	0.0002	0.0002	0.0002	0.0009	0.0044	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0040	0.0018
2011	39.	0.0164	0.0016	0.0002	0.0009	0.0008	0.0046	0.0000
			0.0002	0.0000	0.0000	0.0000	0.0040	0.0040
2012	12.	0.0631	0.0060	0.0057	0.0062	0.0068	0.0262	0.0002
			0.0002	0.0000	0.0000	0.0002	0.0060	0.0057
2013	0.	0.	0.0060	0.0057	0.0062	0.0068	0.0262	0.0002
			0.0002	0.0000	0.0000	0.0002	0.0060	0.0057
2014	0.	0.	0.0060	0.0057	0.0062	0.0068	0.0262	0.0002
			0.0002	0.0000	0.0000	0.0002	0.0060	0.0057
2015	3.	0.0535	0.0059	0.0007	0.0031	0.0031	0.0142	0.0001
			0.0001	0.0001	0.0000	0.0007	0.0122	0.0134
2016	56.	0.0307	0.0016	0.0016	0.0018	0.0016	0.0019	0.0001
			0.0001	0.0001	0.0000	0.0001	0.0108	0.0111
2017	28.	0.0360	0.0016	0.0015	0.0021	0.0018	0.0069	0.0001
			0.0001	0.0001	0.0000	0.0001	0.0111	0.0106
2018	13.	0.0882	0.0116	0.0015	0.0020	0.0019	0.0246	0.0001
			0.0003	0.0003	0.0001	0.0001	0.0234	0.0223
2019	45.	0.0479	0.0036	0.0002	0.0034	0.0009	0.0042	0.0000
			0.0000	0.0000	0.0000	0.0000	0.0171	0.0185
2020	29.	0.0310	0.0022	0.0019	0.0026	0.0026	0.0024	0.0000
			0.0001	0.0000	0.0000	0.0001	0.0091	0.0100

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JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

****

YR	POOL PEAK (MW)	TOTAL ENERGY (GWH)	LOAD FACTOR	TOTAL COSTS (MIL.$)	YEARLY $/MWH				
					INV.	FUEL	O+M	N.I.	TOTAL
**	******	*******	******	******	*****	*****	*****	*****	******
93	915	4397	54.86	232	39.65	7.94	5.18	0.	52.77
94	935	4492	54.84	239	39.49	8.39	5.24	0.	53.11
95	955	4588	54.84	247	39.32	9.41	5.20	0.	53.93
96	972	4670	54.70	250	38.63	9.98	4.96	0.	53.57
97	989	4751	54.84	250	37.97	10.37	4.23	0.	52.57
98	1005	4833	54.90	253	37.33	10.97	4.15	0.	52.45
99	1023	4915	54.85	258	36.71	11.69	4.08	0.	52.48
0	1040	4996	54.69	265	36.72	12.48	3.86	0.	53.05
1	1065	5117	54.85	271	35.85	13.39	3.77	0.	53.02
2	1090	5238	54.86	278	49.32	0.	3.70	0.	53.02
3	1114	5359	54.92	278	48.20	0.	3.62	0.	51.82
4	1140	5481	54.73	278	47.13	0.	3.54	0.	50.67
5	1165	5602	54.89	278	46.11	0.	3.46	0.	49.58
6	1200	5771	54.90	276	44.76	0.	3.03	0.	47.79
7	1234	5939	54.94	276	43.50	0.	2.94	0.	46.44
8	1269	6107	54.79	276	42.30	0.	2.86	0.	45.16
9	1305	6276	54.90	280	41.16	0.97	2.53	0.	44.66
10	1339	6444	54.94	274	40.09	0.	2.36	0.	42.44
11	1373	6610	54.96	279	39.08	0.89	2.30	0.	42.27
12	1408	6780	54.82	281	38.55	0.93	2.03	0.	41.51
13	1444	6955	54.98	288	38.02	1.35	2.07	0.	41.44
14	1481	7135	55.00	302	37.48	2.78	2.12	0.	42.38
15	1519	7318	55.00	307	36.13	3.82	1.98	0.	41.92
16	1558	7507	54.85	329	35.63	6.22	2.02	0.	43.87
17	1598	7701	55.01	339	34.73	7.34	1.97	0.	44.04
18	1639	7899	55.02	353	33.86	8.87	1.93	0.	44.65
19	1681	8103	55.03	381	33.38	11.66	1.97	0.	47.00
20	1724	8312	54.89	416	35.67	11.01	3.43	0.	50.10

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JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

GENERATION SYSTEM

TYPE	1	2	3	4	5	6	7	8	9	10	SUM
92	0	59	254	166	6	317	143	0	0	0	945

YR	YEARLY	PERCENT						MIX			TOTAL CAPAB.
93	0.	3.9	19.0	10.9	0.4	20.9	44.9	0.	0.	0.	1518
94	0.	3.7	23.4	10.3	0.4	19.8	42.5	0.	0.	0.	1605
95	0.	3.6	24.8	9.8	0.4	19.5	41.9	0.	0.	0.	1627
96	0.	3.8	26.3	4.2	0.4	20.7	44.5	0.	0.	0.	1533
97	0.	2.4	28.0	0.	0.4	22.0	47.3	0.	0.	0.	1443
98	0.	2.4	26.6	0.	0.5	22.4	48.1	0.	0.	0.	1417
99	0.	2.4	26.7	0.	0.4	22.4	48.2	0.	0.	0.	1416
0	0.	0.9	31.5	0.	0.0	21.5	46.2	0.	0.	0.	1476
1	0.	0.9	31.5	0.	0.0	21.5	46.2	0.	0.	0.	1476
2	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
3	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
4	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
5	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
6	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
7	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
8	0.	0.7	18.7	0.	0.0	9.6	71.0	0.	0.	0.	1856
9	0.	0.	18.4	0.	0.0	9.4	72.2	0.	0.	0.	1892
10	0.	0.	18.4	0.	0.0	9.4	72.2	0.	0.	0.	1892
11	0.	0.	24.2	0.	0.0	0.	75.8	0.	0.	0.	1801
12	0.	0.	27.6	0.	0.0	0.	72.4	0.	0.	0.	1888
13	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
14	0.	0.	27.6	0.	0.0	0.	72.4	0.	0.	0.	1888
15	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
16	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
17	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
18	0.	0.	33.8	0.	0.0	0.	66.2	0.	0.	0.	2062
19	0.	9.2	28.0	0.	0.0	0.	62.8	0.	0.	0.	2175
20	0.	9.2	28.0	0.	0.0	0.	62.8	0.	0.	0.	2175

ADD	0	200	957	0	0	0	1223	0	0	0	2380
RET	0	-59	-602	-166	-6	-317	0	0	0	0	-1150
20	0	200	609	0	0	0	1366	0	0	0	2175

ALL AVAILABLE DATA HAVE BEEN PROCESSED

READY

2020 YEARLY PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1724. MW
SPINNING RESERVE 200. MW

THERMAL PEAK 360. MW
MAXIMUM OFF-PEAK EXCESS 100. MW

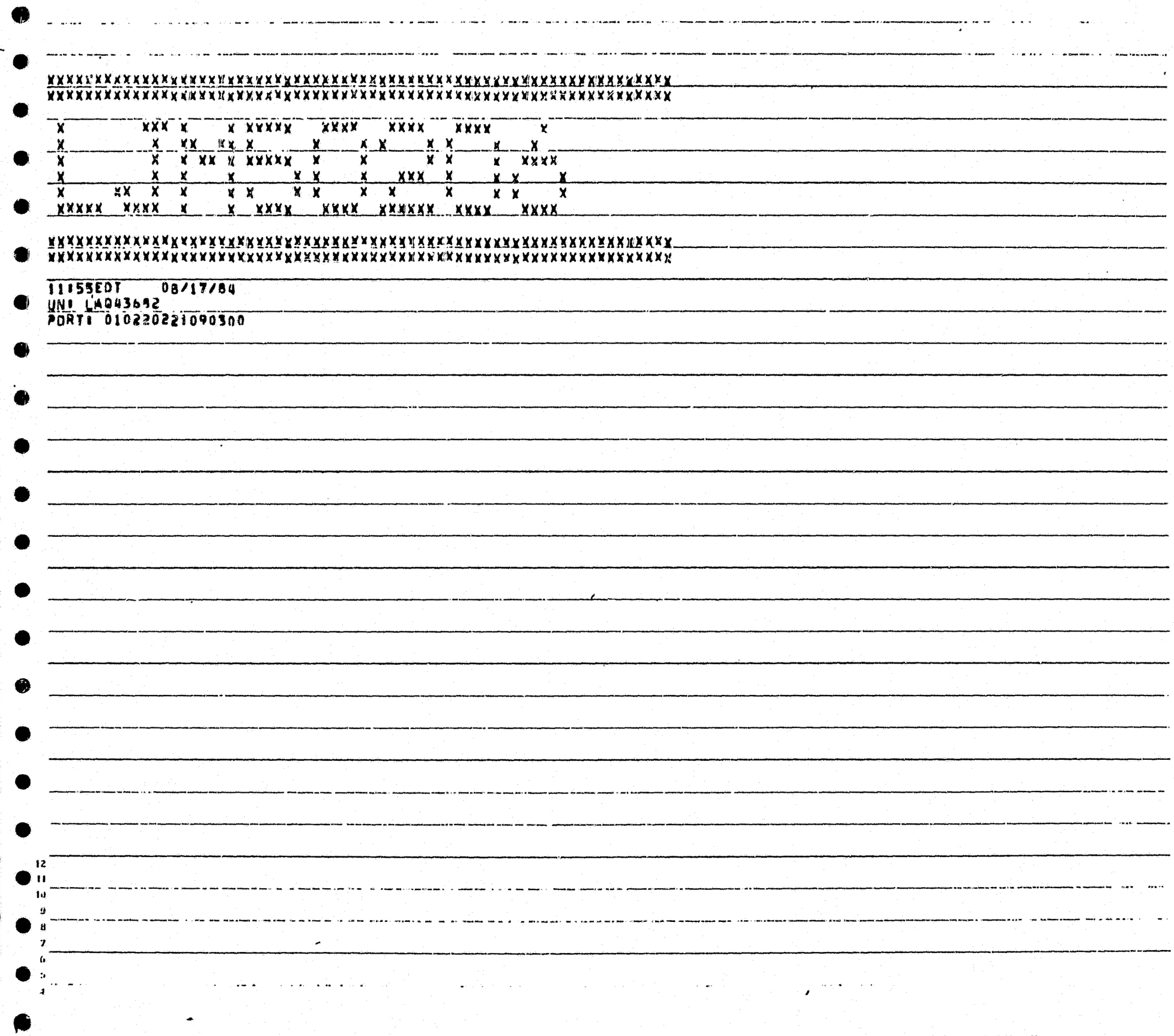
UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
25	COAL STEAM	RAILBT	2	11	200.0	0 AUG.	1	847034.	7353.	0.482	(26233.)	13330.	0.	0.086	0.120	2.801
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	151270.	8081.	0.198	30060.	704.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.	3	112936.	6404.	0.148	23235.	694.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	47553.	2721.	0.062	9835.	675.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JUNE	3	8300.	476.	0.011	1719.	664.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	1735.	100.	0.002	360.	663.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	142.	8.	0.000	30.	662.	0.	0.080	0.032	9.868
	TIE ENERGY						3	20.	1.	0.000	4.	662.	0.	0.080	0.032	9.868
	TOTAL THERMAL				809.0			1168990.			91475.	18054.	0.			
	CONV. HYDRO				1366.0			7461500.				10443.				
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-318560.			-0.					
	SYSTEM TOTALS				2175.0			8311930.			91475.	28497.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	200.	847034.	0.4821	26233.	13330.	46.71
3 NGASGT	609.	321955.	0.0602	65242.	4725.	217.32
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		1.		0.		10.00
TOTAL	809.	1168990.		91475.	18054.	93.70

EXTENSION OF DEISSU3 (LJM5)
LA, LOLP=.1, MAT-1993

REFERENCE FORECAST 8/16/84
O&M COAL, SHCA GAS, EBASCOAL

YEAR	TOTAL CAPITAL COST (10+6$)	O&M COST (10+6$)	FUEL COST (10+6$)	TOTAL ANNUAL COST (10+6$)	PRESENT WORTH (10+6$)	CUMULATIVE PRESENT WORTH (10+6$)	YEAR	FUEL COST (MILLIONS OF $) NENANA COAL	BELUGA COAL	BELUGA GAS	ANCH. GAS
2020	299.7	28.5	91.5	419.7	113.6	3485.0	2020	0.0	26.2	65.2	0.0
2021	299.7	28.5	92.7	420.9	110.0	3595.1	2021	0.0	26.7	66.0	0.0
2022	299.7	28.5	93.9	422.1	106.6	3701.7	2022	0.0	27.2	66.7	0.0
2023	299.7	28.5	95.2	423.4	103.3	3805.0	2023	0.0	27.7	67.5	0.0
2024	299.7	28.5	96.4	424.6	100.1	3905.1	2024	0.0	28.2	68.2	0.0
2025	299.7	28.5	97.7	425.9	97.0	4002.1	2025	0.0	28.7	69.0	0.0
2026	299.7	28.5	99.0	427.2	94.0	4096.2	2026	0.0	29.2	69.8	0.0
2027	299.7	28.5	100.3	428.5	91.1	4187.3	2027	0.0	29.7	70.6	0.0
2028	299.7	28.5	101.7	429.9	88.3	4275.6	2028	0.0	30.3	71.4	0.0
2029	299.7	28.5	103.0	431.2	85.6	4361.2	2029	0.0	30.8	72.2	0.0
2030	299.7	28.5	104.4	432.6	83.0	4444.2	2030	0.0	31.4	73.0	0.0
2031	299.7	28.5	105.6	433.8	80.4	4524.6	2031	0.0	31.9	73.6	0.0
2032	299.7	28.5	106.8	435.0	77.9	4602.5	2032	0.0	32.5	74.3	0.0
2033	299.7	28.5	108.0	436.2	75.5	4677.9	2033	0.0	33.1	74.9	0.0
2034	299.7	28.5	109.3	437.5	73.1	4751.1	2034	0.0	33.7	75.6	0.0
2035	299.7	28.5	110.5	438.7	70.9	4821.9	2035	0.0	34.3	76.3	0.0
2036	299.7	28.5	111.8	440.0	68.7	4890.6	2036	0.0	34.9	76.9	0.0
2037	299.7	28.5	113.1	441.3	66.5	4957.1	2037	0.0	35.5	77.6	0.0
2038	299.7	28.5	114.4	442.6	64.5	5021.6	2038	0.0	36.2	78.3	0.0
2039	299.7	28.5	115.8	444.0	62.5	5084.1	2039	0.0	36.8	79.0	0.0
2040	299.7	28.5	117.1	445.3	60.6	5144.6	2040	0.0	37.5	79.6	0.0
2041	299.7	28.5	118.4	446.6	58.7	5203.3	2041	0.0	38.1	80.3	0.0
2042	299.7	28.5	119.7	447.9	56.9	5260.1	2042	0.0	38.8	80.9	0.0
2043	299.7	28.5	121.0	449.2	55.1	5315.2	2043	0.0	39.5	81.6	0.0
2044	299.7	28.5	122.4	450.6	53.4	5368.6	2044	0.0	40.1	82.2	0.0
2045	299.7	28.5	123.7	451.9	51.7	5420.4	2045	0.0	40.8	82.9	0.0
2046	299.7	28.5	125.1	453.3	50.1	5470.5	2046	0.0	41.5	83.6	0.0
2047	299.7	28.5	126.5	454.7	48.6	5519.1	2047	0.0	42.3	84.2	0.0
2048	299.7	28.5	127.9	456.1	47.1	5566.2	2048	0.0	43.0	84.9	0.0
2049	299.7	28.5	129.3	457.5	45.6	5611.8	2049	0.0	43.7	85.6	0.0
2050	299.7	28.5	130.8	459.0	44.2	5656.1	2050	0.0	44.5	86.3	0.0
2051	299.7	28.5	132.2	460.4	42.9	5699.0	2051	0.0	45.3	87.0	0.0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UNI LMQ43692
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08/16/84 24LJM5 OGP-6

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GENERAL ELECTRIC COMPANY, OGP-6 GENERATION PLANNING PROGRAM V6.20.W
JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

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LISTING OF INPUT DATA

```
 1  $INPUT                                                          02430
 2  PWRATE=1.0350,                                                  02440
 3  PROVER=50,                                                      02450
 4  KOPOVR=1,0,0,1,1,0,1,1,1,1,                                     02460
 5  NYROVR=28*1,                                                    02470
 6  EXCHYD=1,                                                       02480
 7  EXCMAX=0,                                                       02490
 8  IYRAUT(1)=40,30,20,20,20,30,50,50,50,                           02500
 9  IVCSUB(1)=10*1,                                                 02510
10  PCTRIM=6*0,                                                     02520
11  SPRES=-1.0,                                                     02530
12  SRCRDT=1.0,.01,1.0,                                             02540
13  MIX=1,                                                          02550
14  MATOR=0,                                                        02560
15  NLPW=10,                                                        02570
16  EXMXPU=1.00,                                                    02580
17  EXDMWH=0.0001,                                                  02590
18  RANFOR=-1,                                                      02600
19  KEYENV=-1,                                                      02610
20  KOPT=1,0,0,1,1,0,1,1,1,1,1,                                     02620
21  FAIL=0,                                                         02630
22  KCYCLE=1,1,3,3,3,3,                                             02640
23  NUMZON=6,,                                                      02650
24  KZONE=4,8,8,4,12,12,                                            02660
25  KEYCMT=-1,                                                      02670
26  KORDER=1,3,2,                                                   02680
27  NKODE(8)=0,                                                     02690
28  IMSTYP=6,3,1,1,1,2,                                             02700
29  SHKFOR=2.0,1.5,1.0,1.0,1.0,1.0,1.25,                            02710
30  SHKPOR=2.0,1.5,1.0,1.0,1.0,1.0,1.25,                            02720
31  KEYPRC=-1,                                                      02730
32  HRINMX=1.0,                                                     02740
33  YRINMX=0.20,                                                    02745
34  KLOLP(1)=0.,                                                    02750
35  KLOLP(2)=0.,                                                    02760
36  KLOLP(4)=1,                                                     02770
37  RELENG=54000,49000,37000,40000,46000,33000,                     02780
38         36000,34000,37000,38000,34000,38000,                     02790
39  KOSTPC=1,                                                       02800
40  IFSP=0,                                                         02810
41  IYCST=0,                                                        02820
42  NKODE(1)=1,                                                     02830
43  NKODE(4)=0,                                                     02840
44  NKODE(5)=1,                                                     02850
45  KWHERE=0,                                                       02860
46  NFIRST=0,                                                       02870
47  MNTPKM=1,                                                       02880
48  MPRINT=12*0,                                                    02890
49  KODE3=24*0,                                                     02900
50  KODE2=28*-1,                                                    02910
51  KPPENV=3*1.0,                                                   02920
52  FEPRNT=5.0,                                                     02930
53  KPCUMT=1,                                                       02940
```

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 54  KPSUM2=1,                                                          02950
 55  KPSUM4=1,                                                          02960
 56  KODE(6)=1,                                                         02970
 57  M3D=7,                                                             02980
 58  LSPARE=1,                                                          02990
 59  KEYSUM=0,                                                          03000
 60  M4D=8,                                                             03010
 61  IYREAD=1997$                                                       03020
 62  $INPUT                                                             03030
 63  KODE(7)=0,                                                         03040
 64  YRIMX=0.10,                                                        03050
 65  O4HYD=21.02,                                                       03055
 66  IYREAD=1996$                                                       03060
 67  $INPUT                                                             03070
 68  RELENG=349000,279000,225000,180000,185000, 92000,                  03100
 69         117000,316000,311000,236000,326000,403000,                  03110
 70  IYREAD=1997$                                                       03140
 71  $INPUT                                                             03150
 72  O4HYD=19.24,                                                       03155
 73  RELENG=349000,279000,225000,180000,185000, 92000,                  03160
 74         117000,325000,311000,236000,326000,403000,                  03170
 75  IYREAD=1998$                                                       03180
 76  $INPUT                                                             03190
 77  RELENG=349000,279000,225000,180000,185000, 92000,                  03200
 78         117000,338000,311000,236000,326000,403000,                  03210
 79  IYREAD=2000$                                                       03220
 80  $INPUT                                                             03230
 81  IYREAD=2001$                                                       03250
 82  $INPUT                                                             03260
 83  RELENG=349000,279000,225000,180000,185000, 92000,                  03270
 84         117000,347000,311000,236000,326000,403000,                  03280
 85  IYREAD=2002$                                                       03290
 86  $INPUT                                                             03300
 87  OMHYD=10,26,0,0,0,                                                 03310
 88  RELENG=538000,461000,465000,402000,350000,345000,                  03320
 89         346000,363000,380000,457000,505000,585000,                  03330
 90  IYREAD=2004$                                                       03340
 91  $INPUT                                                             03350
 92  RELENG=560000,497000,482000,420000,350000,362000,                  03360
 93         360000,378000,398000,474000,505000,591000,                  03370
 94  IYREAD=2006$                                                       03380
 95  $INPUT                                                             03390
 96  OMHYD= 8.67,0,0,0,                                                 03400
 97  RELENG=563000,504000,482000,423000,350000,384000,                  03410
 98         366000,401000,419000,478000,505000,591000,                  03420
 99  IYREAD=2008$                                                       03430
100  $INPUT                                                             03440
101  RELENG=563000,504000,482000,423000,350000,391000,                  03450
102         366000,420000,444000,478000,505000,591000,                  03460
103  IYREAD=2010$                                                       03470
104  $INPUT                                                             03480
105  OMHYD= 8,49,0,0,0,                                                 03490
106  RELENG=539000,483000,461000,409000,328000,421000,                  03500
107         368000,446000,470000,548000,493000,563000,                  03510
108  IYREAD=2012$                                                       03520
109  $INPUT                                                             03530
110  RELENG=539000,483000,461000,409000,328000,421000,                  03540
111         368000,452000,490000,548000,493000,563000,                  03550
112  IYREAD=2013$                                                       03560
113  $INPUT                                                             03570
114  KODE(7)=1,                                                         03580
115  PRGOAL=30,                                                         03590
116  IYREAD=2014$                                                       03600
```

```
      SINPUT                                                                    03610
      RELENG=539000,483000,461000,409000,328000,421000,                         03620
            368000,452000,520000,548000,493000,563000,                          03630
      IYREAD=20$S                                                               03632
      SINPUT                                                                    03634
      KODE(7)=0,                                                                03636
      PRGOAL=0,                                                                 03637
      IYREAD=20169                                                              03640
      SINPUT                                                                    03650
      RELENG=539000,483000,461000,409000,328000,421000,                         03660
            368000,452000,531000,548000,493000,563000,                          03670
      IYREAD=2018$                                                              03680
      SINPUT                                                                    03690
      RELENG=539000,483000,461000,409000,328000,421000,                         03700
            368000,452000,531000,548000,493000,563000,                          03710
      IYREAD=2020S                                                              03720
      KOPT=1,0,0,1,1,0,1,1,1,1,                                                 03725
      SINPUT                                                                    03730
      RELENG=539000,483000,461000,409000,328000,421000,                         03740
            368000,452000,531000,548000,493000,563000,                          03750
      IYREAD=0$                                                                 03760
```

ALASKA RAILBELT 08/16/84 10.178
DEISSUS N2185 TY 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
1	1979	AMLPD UNITCC	6	7	6	1	44. 139. 139.	532. 1182.	0.080	0.070	11.750	0.540	3.340	1	0.
2	1982	AMLPD UNIT#8	3	7	3	1	18. 90. 90.	428. 1125.	0.080	0.032	7.610	0.280	3.340	1	0.
3	1973	BELUGA GT#3	3	10	3	1	11. 53. 53.	201. 530.	0.080	0.032	7.610	0.280	3.020	5	0.
4	1975	BELUGA GT#5	3	10	3	1	19. 58. 58.	261. 580.	0.080	0.032	7.610	0.280	3.020	5	0.
5	1982	BELUGA CC#A	6	10	6	1	47. 178. 178.	681. 1513.	0.080	0.070	11.750	0.540	3.020	5	0.
6	1978	BERNICE GT#3	3	7	3	1	5. 26. 26.	235. 618.	0.080	0.032	7.610	0.280	3.340	1	0.
7	1982	BERNICE GT#4	3	7	3	1	5. 26. 26.	120. 317.	0.080	0.032	7.610	0.280	3.340	1	0.
8	1967	HEALY ST#1	2	2	2	1	13. 25. 25.	181. 330.	0.057	0.080	51.362	3.610	2.030	2	0.
9	1976	NOPOLE CT#1	4	4	4	1	13. 65. 65.	346. 910.	0.080	0.032	7.610	0.280	6.380	3	0.
10	1977	NOPOLE CT#2	4	4	4	1	13. 65. 65.	346. 910.	0.080	0.032	7.610	0.280	6.380	3	0.
11	1975	Z UNIT #3CT	4	4	4	1	1. 4. 4.	19. 49.	0.080	0.032	7.610	0.280	6.380	3	0.

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TV 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
12	1975	Z UNIT #4CT	4	4	4	1	1. 4. 4.	19. 49.	0.080	0.032	7.610	0.280	6.380	3	0.
13	1970	CHENA #5ST	2	2	2	1	11. 21. 21.	154. 290.	0.057	0.080	51.362	3.610	2.030	2	0.
14	1976	CHENA #6CT	4	4	4	1	6. 29. 29.	164. 432.	0.080	0.032	7.610	0.280	6.380	3	0.
15	1979	HOMERKEN IC	5	6	5	1	0. 1. 1.	5. 14.	0.050	0.010	0.550	5.380	7.040	3	0.
16	1980	UNIV AK #1ST	2	2	2	1	1. 2. 2.	10. 18.	0.057	0.080	51.364	3.610	2.030	2	0.
17	1980	UNIV AK #2ST	2	2	2	1	1. 2. 2.	10. 18.	0.057	0.080	51.364	3.610	2.030	2	0.
18	1980	UNIV AK #3ST	2	2	2	1	5. 10. 10.	66. 120.	0.057	0.080	51.362	3.610	2.030	2	0.
19	1980	UNIV AK #1IC	5	6	5	1	1. 3. 3.	11. 29.	0.050	0.010	0.550	5.380	7.040	3	0.
20	1980	UNIV AK #2IC	5	6	5	1	1. 3. 3.	11. 29.	0.050	0.010	0.550	5.380	7.040	3	0.
21	2021	BELUGA TRANS	1	5	1	1	0. 0. 1.	0. 0.	0.010	1.000	6825.000	0.110	0.	3	220000.
22	2021	NENANA TRANS	1	5	1	1	0. 0. 1.	0. 0.	0.010	1.000	6825.000	0.110	0.	3	117000.

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, DRY COAL,SHCA GAS, EBASCOAL 2MLJM5

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
23	2021	VENANA COAL1	2	11	2	1	75. 150. 150.	907. 1650.	0.057	0.080	68.400	3.100	2.030	4	2434.
24	0	NUCLEAR	1	1	1	1	750. 1500. 1500.	8663. 15750.	0.010	0.100	4.550	0.110	1.000	6	800.
25	0	COAL STEAM	2	11	2	1	100. 200. 200.	1133. 2060.	0.057	0.080	51.360	3.610	2.030	4	2552.
26	0	NGAS TURBINE	3	7	3	1	17. 87. 87.	366. 962.	0.080	0.032	7.610	0.280	3.340	1	479.
27	0	OIL GAS TURB	4	7	4	1	17. 87. 87.	366. 962.	0.080	0.032	7.610	0.280	3.340	1	479.
28	0	DIESEL IC	5	6	5	1	2. 10. 10.	44. 115.	0.050	0.010	0.550	5.380	7.040	3	869.
29	0	COM CYCLE CC	6	10	6	1	73. 228. 228.	852. 1892.	0.080	0.070	11.750	0.540	3.020	5	616.
30	0	PUMP STORAGE	8	0	100	25	0. 0. 333.	0. 0.	0.	0.	0.	0.	0.	0	0.
31	0	ENG STOR 2	9	0	100	25	0. 0. 250.	0. 0.	0.	0.	0.	0.	0.	0	0.
32	0	ENG STOR 3	10	0	100	25	0. 0. 50.	0. 0.	0.	0.	0.	0.	0.	0	0.

ALASKA RAILBELT 08/16/84 10.17B
DEISSUS N2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 24LJM5

UNIT SIZE GUIDE LINES = 1 BASE LOAD UNITS PER 1 YEARS OF LOAD GROWTH

LIST OF UNIT SELECTIONS
AND
OUTAGE RATE MULTIPLIERS

	SHAKEDOWN YEARS DURATION	MULTIPLIER F.O.R.	MULTIPLIER P.O.R.	UNIT ID	RATING MW	EARLIEST SERVICE YEAR
NUCLEAR	6	2.000	2.000	24	1500.	2050
COAL STEAM	3	1.500	1.500	25	200.	1982
NGAS TURBINE	1	1.000	1.000	26	87.	1982
OIL GAS TURB	1	1.000	1.000	27	87.	1982
DIESEL IC	1	1.000	1.000	28	10.	2050
COM CYCLE CC	2	1.250	1.250	29	228.	1982

ENERGY STORAGE SELECTIONS

	UNIT ID	GENERATOR MW	PUMP MW	STORAGE MWH
PUMP STORAGE	30	333.	333.	3330.
ENG STOR 2	31	250.	250.	2500.
ENG STOR 3	32	50.	50.	500.

ALASKA RAILBELT 08/15/84 10.17B
DEISSU3 N2185 IN 1993, LOLP 0.1, DRY COAL,SHCA GAS, EBASCOAL 2MLJM5

1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE

TARGET RISK INDEX = 0.200 DAYS/YEAR

EMERGENCY ENERGY COST 10.00 DOLLARS PER MWH
EMERGENCY ENERGY COST INFLATION FACTOR = 1.000

	WEEKDAY				WEEKEND	
COMMITTMENT ZONES	1	2	3	4	5	6
NUMBER OF HOURS	4	8	8	4	12	12

MINIMUM UP TIME POLICY
1 = NO SHUTDOWN
2 = SHUTDOWN ON WEEKEND ONLY
3 = SHUTDOWN ANYTIME

NUCLEAR	1
COAL STEAM	1
NGAS TURBINE	3
DIL GAS TURB	3
DIESEL IC	3
COM CYCLE CC	3

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5
OPTIMUM

NGASGT

1993 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 915. MW THERMAL PEAK 235. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 NOV.		1	34466.	6880.	0.393	933.	638.	0.	0.057	0.080	2.051
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 JUNE		1	5168.	6880.	0.393	140.	96.	0.	0.057	0.080	2.051
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 JUNE		1	5168.	6880.	0.393	140.	96.	0.	0.057	0.080	2.051
8	HEALY ST#1	RAILBT	2	2	25.0	0 MAY		1	85719.	6857.	0.391	2552.	1593.	0.	0.057	0.080	2.051
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	79370.	7559.	0.431	2385.	1365.	0.	0.057	0.080	2.051
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.		3	510986.	7375.	0.328	17708.	2367.	0.	0.080	0.070	3.136
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	248847.	5591.	0.204	10317.	1768.	0.	0.080	0.070	3.469
4	BELUGA GT#5	RAILBT	3	10	58.0	0		3	13852.	746.	0.027	611.	445.	0.	0.080	0.032	3.136
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.		3	1810.	104.	0.002	132.	663.	0.	0.080	0.032	3.469
7	BERNICE GT#4	RAILBT	3	7	26.4	0		3	3.	1.	0.000	0.	201.	0.	0.080	0.032	3.469
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	1.	0.	0.000	0.	685.	0.	0.080	0.032	3.469
6	BERNICE GT#3	RAILBT	3	7	26.4	0		3	0.	0.	0.	0.	201.	0.	0.080	0.032	3.469
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.322
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.322
9	NOPOLE GT#1	RAILBT	4	4	65.0	0		3	0.	0.	0.	0.	495.	0.	0.080	0.032	6.635
10	NOPOLE GT#2	RAILBT	4	4	65.0	0 JULY		3	0.	0.	0.	0.	495.	0.	0.080	0.032	6.635
11	Z UNIT #3CT	RAILBT	4	4	3.5	0		3	0.	0.	0.	0.	27.	0.	0.080	0.032	6.635
12	Z UNIT #4CT	RAILBT	4	4	3.5	0		3	0.	0.	0.	0.	27.	0.	0.080	0.032	6.635
14	CHENA #6CT	RAILBT	4	4	28.8	0		3	0.	0.	0.	0.	219.	0.	0.080	0.032	6.635
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	0.	0.	0.	0.	0.	0.050	0.010	7.322
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				836.0				985390.			34917.	11383.	0.			
	CONV. HYDRO				682.0				3883732.				11405.				
	HYDRO EXCESS	0.															
	HYDRO SPILL	715071.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-472125.			-0.					
	SYSTEM TOTALS				1518.0				4396997.			34917.	22788.	0.			

12
11
10

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	59.	209891.	0.4061	6149.	3786.	47.34
3 NGASGT	288.	15666.	0.0062	743.	2195.	187.52
4 OIL GT	166.	0.	0.	0.	1262.	0.
5 DIESEL	6.	0.	0.	0.	4.	0.
6 COMCYC	317.	759833.	0.2736	28025.	4135.	42.32
TIENG		0.		0.		10.00
TOTAL	836.	985390.		34917.	11383.	46.99

ALASKA RAILBELT 08/16/84 10.176
DEISSU3 #2185 IV 1993, LOLP 0.1, D&M COAL, SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1993 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	197287.	TON
7	NGAS1A	2997.	MCF
10	NGAS4A	5812.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IV 1993. LOLP 0.1. DRM COAL.84CA GAS. EHASCOAL 2MLJM5
OPTIMUM

NGASGT

1994 YEARLY PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 935. MW THERMAL PEAK 255. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 135. MW

	UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRY.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18		UNIV AK #3ST	RATLBT	2	2	10.0	0	JUNE	1	53862.	6880.	0.615	1376.	708.	0.	0.057	0.080	2.071
16		UNIV AK #1ST	RATLBT	2	2	1.5	0	NOV.	1	7494.	6880.	0.570	193.	104.	0.	0.057	0.080	2.071
17		UNIV AK #2ST	RATLBT	2	2	1.5	0	NOV.	1	7489.	6880.	0.570	193.	104.	0.	0.057	0.080	2.071
8		HEALY ST#1	RATLBT	2	2	25.0	0	MAY	1	85966.	6857.	0.393	2584.	1594.	0.	0.057	0.080	2.071
13		CHENA #5ST	RATLBT	2	2	21.0	0		1	79371.	7559.	0.431	2409.	1365.	0.	0.057	0.080	2.071
5		BELUGA CC#8	RATLBT	6	10	178.0	0	AUG.	3	505952.	7375.	0.324	18277.	2365.	0.	0.080	0.070	3.257
1		AMLPD UNITCC	RATLBT	6	7	139.0	0		3	263578.	5920.	0.216	11349.	1776.	0.	0.080	0.070	3.604
4		BELUGA GT#5	RATLBT	3	10	58.0	0		3	22250.	1199.	0.044	1019.	448.	0.	0.080	0.032	3.257
26		NGAS TURBINE	RATLBT	3	7	87.0	0	SEPT.	3	3498.	201.	0.005	268.	663.	0.	0.080	0.032	3.604
26		NGAS TURBINE	RATLBT	3	7	87.0	0		3	45.	3.	0.000	3.	662.	0.	0.080	0.032	3.604
7		BERNICE GT#4	RATLBT	3	7	26.4	0		3	0.	0.	0.000	0.	201.	0.	0.080	0.032	3.604
2		AMLPD UNIT#8	RATLBT	3	7	[illegible].0	0		3	0.	0.	0.000	0.	685.	0.	0.080	0.032	3.604
6		BERNICE GT#3	RATLBT	3	7	2[illegible].4	0		3	0.	0.	0.	0.	201.	0.	0.080	0.032	3.604
19		UNIV AK #1IC	RATLBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.614
20		UNIV AK #2IC	RATLBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.614
9		NOPOLE CT#1	RATLBT	4	4	65.0	0		3	0.	0.	0.	0.	495.	0.	0.080	0.032	6.901
10		NOPOLE CT#2	RATLBT	4	4	65.0	0	JULY	3	0.	0.	0.	0.	495.	0.	0.080	0.032	6.901
11		Z UNIT #3CT	RATLBT	4	4	3.5	0		3	0.	0.	0.	0.	27.	0.	0.080	0.032	6.901
12		Z UNIT #4CT	RATLBT	4	4	3.5	0		3	0.	0.	0.	0.	27.	0.	0.080	0.032	6.901
14		CHENA #6CT	RATLBT	4	4	28.8	0		3	0.	0.	0.	0.	219.	0.	0.080	0.032	6.901
15		HOMERKEN IC	RATLBT	5	6	0.9	0		3	0.	0.	0.	0.	0.	0.	0.050	0.010	7.614
		TIE ENERGY								-0.			-0.					
		TOTAL THERMAL				923.0				1029505.			37668.	12141.	0.			
		CONV. HYDRO				682.0				3902813.				11405.				
		HYDRO SPILL	630749.															
		PUMP STORAGE				0.				0.			0.	0.				
		ENG STOR 2				0.				0.			0.	0.				
		ENG STOR 3				0.				0.			0.	0.				
		OFF-PEAK EXCESS								-440275.			-0.					
		SYSTEM TOTALS				1605.0				4492043.			37668.	23546.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE.	0.	0.	0.	0.	0.	0.
	2 COAL	59.	234181.	0.4531	6756.	3876.	45.40
	3 NGASGT	375.	25793.	0.0079	1287.	2859.	160.77
	4 OIL GT	166.	0.	0.	0.	1262.	0.
	5 DIESEL	6.	0.	0.	0.	4.	0.
	6 COMCMC	317.	769531.	0.2771	29626.	4140.	43.88
	TIENG		-0.		-0.		10.00
	TOTALI	923.	1029505.		37668.	12141.	48.38

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EHASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1994 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALHI	214563.	TON
7	NGAS1A	3208.	MCF
10	NGAS4A	5895.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEI93U3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJMS
OPTIMUM

NGASGT

1995 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK	955. MW	THERMAL PEAK	275. MW
SPINNING RESERVE	178. MW		
		MAXIMUM OFF-PEAK EXCESS	135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	AUG.	1	63158.	7559.	0.721	1617.	742.	0.	0.057	0.080	2.092
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	MAY	1	7885.	7559.	0.600	207.	106.	0.	0.057	0.080	2.092
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	APRIL	1	7825.	7582.	0.596	205.	105.	0.	0.057	0.080	2.092
8	HEALY ST#1	RAILBT	2	2	25.0	0	NOV.	1	95605.	7582.	0.437	2901.	1629.	0.	0.057	0.080	2.092
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	87595.	8261.	0.476	2681.	1395.	0.	0.057	0.080	2.092
5	BELUGA CC#E	RAILBT	6	10	178.0	0	AUG.	3	524665.	7375.	0.336	19416.	2375.	0.	0.080	0.070	3.382
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	301058.	6745.	0.247	13450.	1796.	0.	0.080	0.070	3.743
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	31308.	1799.	0.041	2462.	671.	0.	0.080	0.032	3.743
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	2923.	168.	0.004	230.	663.	0.	0.080	0.032	3.743
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	53.	3.	0.000	4.	662.	0.	0.080	0.032	3.743
7	BERNICE GT#4	RAILBT	3	7	26.4	0	MAY	3	0.	0.	0.000	0.	201.	0.	0.080	0.032	3.743
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	0.	0.	0.000	0.	685.	0.	0.080	0.032	3.743
6	BERNICE GT#3	RAILBT	3	7	26.4	0	JUNE	3	0.	0.	0.	0.	201.	0.	0.080	0.032	3.743
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.919
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	7.919
9	NOPOLE GT#1	RAILBT	4	4	65.0	0		3	0.	0.	0.	0.	495.	0.	0.080	0.032	7.177
10	NOPOLE GT#2	RAILBT	4	4	65.0	0	JULY	3	0.	0.	0.	0.	495.	0.	0.080	0.032	7.177
14	CHENA #6CT	RAILBT	4	4	28.8	0		3	0.	0.	0.	0.	219.	0.	0.080	0.032	7.177
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	0.	0.	0.	0.	0.	0.050	0.010	7.919
	TIE ENERGY								0.			0.					
	TOTAL THERMAL:				945.0				1122115.			43173.	12442.	0.			
	CONV. HYDRO				682.0				3918981.				11405.				
	HYDRO SPILL:	574078.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-453200.			-0.					
	SYSTEM TOTALS				1627.0				4587896.			43173.	23847.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE!	0.	0.	0.	0.	0.	0.
2 COAL!	59.	262108.	0.5071	7611.	3977.	44.21
3 NGAS GT	404.	34284.	0.0097	2696.	3083.	168.56
4 OIL GT	159.	0.	0.	0.	1208.	0.
5 DIESEL	6.	0.	0.	0.	4.	0.
6 COMCYC	317.	825723.	0.2974	32866.	4171.	44.85
TIENG		0.		0.		10.00
TOTAL!	945.	1122115.		43173.	12442.	49.56

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1995 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	239300.	TON
7	NGAS1A	4292.	MCF
10	NGAS4A	5712.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL ZMLJM5

MANUAL

1996 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 972. MW THERMAL PEAK 290. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. MONTHS UP	ENERGY HRS. OUTPUT RULE	HRS. ON MWH	CAPACTY LINE	FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 JUNE		1	61940.	7604.	0.705	1607.	737.	0.	0.057	0.080	2.114
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 MAY		1	8433.	7582.	0.640	221.	107.	0.	0.057	0.080	2.114
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 AUG.		1	8646.	7582.	0.656	226.	108.	0.	0.057	0.080	2.114
8	HEALY ST#1	RAILBT	2	2	25.0	0 JULY		1	96754.	7582.	0.441	2958.	1633.	0.	0.057	0.080	2.114
13	CHEVA #5ST	RAILBT	2	2	21.0	0		1	87946.	8283.	0.477	2718.	1396.	0.	0.057	0.080	2.114
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.		3	547094.	7397.	0.350	20727.	2387.	0.	0.080	0.070	3.513
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	315154.	7057.	0.258	14621.	1803.	0.	0.080	0.070	3.888
26	VGAS TURBINE	RAILBT	3	7	87.0	0		3	38137.	2191.	0.050	3115.	673.	0.	0.080	0.032	3.888
26	VGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.		3	4731.	272.	0.006	387.	663.	0.	0.080	0.032	3.888
26	VGAS TURBINE	RAILBT	3	7	87.0	0		3	104.	6.	0.000	9.	662.	0.	0.080	0.032	3.888
7	BERNICE GT#4	RAILBT	3	7	26.4	0 JULY		3	0.	0.	0.000	0.	201.	0.	0.080	0.032	3.888
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	0.	0.	0.000	0.	685.	0.	0.080	0.032	3.888
6	BERNICE GT#3	RAILBT	3	7	26.4	0 MAY		3	0.	0.	0.	0.	201.	0.	0.080	0.032	3.888
19	UNIV AK #1TC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	8.236
20	UNIV AK #2TC	RAILBT	5	6	2.8	0		3	0.	0.	0.	0.	2.	0.	0.050	0.010	8.236
10	NOPOLE CT#2	RAILBT	4	4	65.0	0		3	0.	0.	0.	0.	495.	0.	0.080	0.032	7.464
12	HOMERKEN TC	RAILBT	5	6	0.9	0		3	0.	0.	0.	0.	0.	0.	0.050	0.010	8.236
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				851.2				1168945.			46590.	11756.	0.			
	CONV. HYDRO				682.0				3925260.				11407.				
	HYDRO SPILL	137240.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-[illegible].			-0.					
	SYSTEM TOTALS				1533.2				4669925.			46590.	23163.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
11	1 NUKE	0.	0.	0.	0.	0.	0.
10	2 COAL	59.	263725.	0.5069	7731.	3982.	44.41
9	3 NGASGT	404.	42972.	0.0121	3511.	3085.	153.48
8	4 OIL GT	65.	0.	0.	0.	495.	0.
7	5 DIESEL	6.	0.	0.	0.	4.	0.
6	6 CO4CNC	317.	862248.	0.3097	35349.	4190.	45.86
5	TIENG		-0.		-0.		10.00
3	TOTAL	851.	1168945.		46590.	11756.	49.91

ALASKA RAILBELT 08/16/84 10.17B
DEISSUS N2185 IV 1995, LOLP 0.1, D&M COAL48HCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1996 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	240635.	TON
7	NGAS1A	4641.	MCF
10	NGAS4A	5871.	MCF

ALASKA RAILBELT 08/10/84 10.178
DEISSUE #2185 IV 1993, LOLP 0.1, D&M COAL,84CA GAS, EBASCOAL 2MLJM5
OPTIMUM

1997 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 989. MW THERMAL PEAK 305. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 120. MW

UNIT ID.	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 JULY		1	60972.	7559.	0.696	1600.	734.	0.	0.057	0.080	2.135
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 JULY		1	8548.	7559.	0.650	226.	108.	0.	0.057	0.080	2.135
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 JULY		1	8548.	7559.	0.650	226.	108.	0.	0.057	0.080	2.135
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	89773.	8261.	0.488	2791.	1403.	0.	0.057	0.080	2.135
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.		3	572155.	7375.	0.367	22131.	2400.	0.	0.080	0.070	3.648
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	338722.	7494.	0.278	16239.	1816.	0.	0.080	0.070	4.038
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	56164.	3222.	0.074	4761.	678.	0.	0.080	0.032	4.038
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.		3	13907.	799.	0.018	1180.	666.	0.	0.080	0.032	4.038
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1254.	72.	0.002	106.	662.	0.	0.080	0.032	4.038
7	BERNICE GT#4	RAILBT	3	7	26.4	0 JULY		3	5.	1.	0.000	0.	201.	0.	0.080	0.032	4.038
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	2.	0.	0.000	0.	685.	0.	0.080	0.032	4.038
6	BERNICE GT#3	RAILBT	3	7	26.4	0 MAY		3	0.	0.	0.000	0.	201.	0.	0.080	0.032	4.038
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.565
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.565
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	0.	0.000	0.	0.	0.	0.050	0.010	8.565
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				761.2				1150050.			49261.	9665.	0.			
	CONV. HYDRO				682.0				3939013.				10439.				
	HYDRO SPILL	864406.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-338015.			-0.					
	SYSTEM TOTALS				1443.2				4751048.			49261.	20105.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
	2 COAL	34.	167841.	0.5635	4843.	2352.	42.87
12	3 NGASGT	404.	71332.	0.0202	6048.	3093.	128.15
11	4 OIL GT	0.	0.	0.	0.	0.	0.
10	5 DIESEL	6.	0.	0.0000	0.	4.********	
9	6 COMCYC	317.	910877.	0.3280	38370.	4217.	46.75
8	TIENG		-0.		-0.		10.00
7							
6	TOTAL	761.	1150050.		49261.	9665.	51.24
5							
4							
3							

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 TO 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1997 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	149232.	TON
6	OIL#2C	0.	GAL
7	NGAS1A	5492.	MCF
10	NGASGA	6037.	MCF

ALASKA RAILBELT 08/10/88 10.178
DEISSU3 #2185 IV 1993, LOLP 0.1, DRY COAL,SHCA GAS, EBASCOAL 2MLJMS
OPTIMUM

1998 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1005. MW — THERMAL PEAK 325. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 120. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MAY	1	62161.	7559.	0.710	1643.	738.	0.	0.057	0.080	2.157
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	JULY	1	8961.	7559.	0.682	238.	109.	0.	0.057	0.080	2.157
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	JULY	1	8961.	7559.	0.682	238.	109.	0.	0.057	0.080	2.157
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	194923.	8261.	0.679	3728.	1530.	0.	0.057	0.080	2.157
5	BELUGA CCM8	RAILBT	6	10	178.0	0	AUG.	3	564258.	7375.	0.362	22777.	2396.	0.	0.080	0.070	3.788
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	345016.	7580.	0.283	17131.	1820.	0.	0.080	0.070	4.195
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	63146.	3614.	0.083	5552.	680.	0.	0.080	0.032	4.195
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	17688.	1016.	0.023	1559.	667.	0.	0.080	0.032	4.195
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1927.	111.	0.003	170.	663.	0.	0.080	0.032	4.195
7	BERNICE GT#4	RAILBT	3	7	26.4	0	JULY	3	19.	4.	0.000	2.	201.	0.	0.080	0.032	4.195
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	15.	1.	0.000	2.	685.	0.	0.080	0.032	4.195
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.908
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.908
15	HOMERKEN IC	RAILBT	3	6	0.9	0		3	0.	0.	0.000	0.	0.	0.	0.050	0.010	8.908
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				734.8				1197075.			53040.	9601.	0.			
	CONV. HYDRO				682.0				3949880.				10439.				
	HYDRO SPILL	788337.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-313875.			-0.					
	SYSTEM TOTALS				1416.8				4833080.			53040.	20040.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
	2 COAL	34.	205006.	0.6883	5848.	2486.	40.65
	3 NGASGT	377.	82795.	0.0250	7284.	2895.	122.94
12	4 OIL GT	0.	0.	0.	0.	0.	0.
11	5 DIESEL	6.	0.	0.0000	0.	4.********	
10	6 COMCMC	317.	909274.	0.3274	39908.	4216.	48.53
9	TIENG		0.		0.		10.00
8							
7	TOTAL	735.	1197075.		53040.	9601.	52.33
6							
5							
4							
3							

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, D&M COAL,ANCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1998 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	178386.	TON
6	OIL#2C	0.	GAL
7	NGAS1A	5792.	MCF
10	NGAS4A	5982.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJMS
OPTIMUM
1999 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1023. MW THERMAL PEAK 340. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE RTRY. MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 MAY	1	63124.	7559.	0.721	1683.	742.	0.	0.057	0.080	2.179
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 JULY	1	9079.	7559.	0.691	243.	110.	0.	0.057	0.080	2.179
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 JULY	1	9079.	7559.	0.691	243.	110.	0.	0.057	0.080	2.179
13	CHENA #5ST	RAILBT	2	2	21.0	0	1	127169.	8261.	0.691	3825.	1538.	0.	0.057	0.080	2.179
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.	3	589626.	7375.	0.378	24340.	2410.	0.	0.080	0.070	3.934
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	350921.	7651.	0.288	18041.	1823.	0.	0.080	0.070	4.357
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	70806.	4041.	0.093	6456.	682.	0.	0.080	0.032	4.357
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.	3	25161.	1445.	0.033	2303.	669.	0.	0.080	0.032	4.357
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	3665.	211.	0.005	336.	663.	0.	0.080	0.032	4.357
7	BERNICE GT#4	RAILBT	3	7	26.4	0 JULY	3	29.	6.	0.000	3.	201.	0.	0.080	0.032	4.357
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0	3	21.	1.	0.000	2.	685.	0.	0.080	0.032	4.357
19	UNIV AK #1IC	RAILBT	5	6	2.8	0	3	0.	0.	0.000	0.	2.	0.	0.050	0.010	9.264
20	UNIV AK #2IC	RAILBT	5	6	2.8	0	3	0.	0.	0.000	0.	2.	0.	0.050	0.010	9.264
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				733.9			1248680.			57475.	9634.	0.			
	CONV. HYDRO				682.0			3959401.				10439.				
	HYDRO EXCESS	0.														
	HYDRO SPILL	721690.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-293075.			-0.					
	SYSTEM TOTALS				1415.9			4915006.			57475.	20074.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
	2 COAL	34.	208451.	0.6999	5994.	2499.	40.74
	3 NGASGT	377.	99682.	0.0302	9100.	2900.	120.38
12	4 OIL GT	0.	0.	0.	0.	0.	0.
11	5 DIESEL	6.	0.	0.0000	0.	3.	********
10	6 COMCYC	317.	940547.	0.3387	42381.	4233.	49.56
9	TIENG		0.		0.		10.00
8							
7	TOTAL	734.	1248680.		57475.	9634.	53.74
6							
5							
4							
3							

ALASKA RAILBELT 08/16/84 10.178
REISSU3 N2185 IY 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1999 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	181009.	TON
6	OIL#2C	2.	GAL
7	NGAS1A	6198.	MCF
10	NGAS4A	6156.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5
OPTIMUM

NGASGT

2000 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1040. MW THERMAL PEAK 360. MW
SPINNING RESERVE 178. MW MAXIMUM OFF-PEAK EXCESS 125. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 MAY	1	64060.	7582.	0.729	1722.	745.	0.	0.057	0.080	2.200
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 MAY	1	9061.	7582.	0.688	245.	110.	0.	0.057	0.080	2.200
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	1	9721.	8283.	0.738	264.	112.	0.	0.057	0.080	2.200
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.	3	679675.	7397.	0.435	27832.	2459.	0.	0.080	0.070	4.086
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	368386.	7747.	0.302	19380.	1832.	0.	0.080	0.070	4.526
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	91744.	5169.	0.120	8623.	688.	0.	0.080	0.032	4.526
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.	3	36528.	2093.	0.048	3468.	672.	0.	0.080	0.032	4.526
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	7716.	443.	0.010	734.	664.	0.	0.080	0.032	4.526
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JULY	3	731.	42.	0.001	70.	662.	0.	0.080	0.032	4.526
7	BERNICE GT#4	RAILBT	3	7	26.4	0	3	5.	1.	0.000	0.	201.	0.	0.080	0.032	4.526
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0	3	8.	0.	0.000	1.	685.	0.	0.080	0.032	4.526
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				794.4			1267635.			62340.	8830.	0.			
	CONV. HYDRO				682.0			3963988.				10441.				
	HYDRO SPILL	492560.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-235545.			-0.					
	SYSTEM TOTALS				1476.4			4996078.			62340.	19271.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	82842.	0.7255	2232.	967.	38.61
3 NGASGT	464.	136732.	0.0335	12896.	3572.	120.44
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	1048061.	0.3764	47213.	4291.	49.14
TIENG		0.		0.		10.00
TOTAL	794.	1267635.		62340.	8830.	56.14

ALASKA RAILBELT 08/16/84 10.17B
DEISSUS #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2000 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	66725.	TON
7	NGAS1A	7097.	MCF
10	NGAS4A	6778.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IV 1993, LOLP 0.1, D&M COAL,SHCA GAS, FBASCOAL 2MLJMS
OPTIMUM
2001 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1065. MW THERMAL PEAK 385. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 130. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MAY	1	65630.	7559.	0.749	1777.	751.	0.	0.057	0.080	2.222
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	MAY	1	9308.	7559.	0.708	254.	111.	0.	0.057	0.080	2.222
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	9947.	8261.	0.757	272.	113.	0.	0.057	0.080	2.222
5	BELUGA CC#5	RAILBT	6	10	178.0	0	AUG.	3	715154.	7375.	0.459	29912.	2478.	0.	0.080	0.070	4.243
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	381499.	7873.	0.313	20688.	1839.	0.	0.080	0.070	4.701
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	98225.	5464.	0.129	9518.	690.	0.	0.080	0.032	4.701
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	45139.	2573.	0.059	4437.	675.	0.	0.080	0.032	4.701
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	15093.	866.	0.020	1490.	666.	0.	0.080	0.032	4.701
26	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	1815.	104.	0.002	179.	663.	0.	0.080	0.032	4.701
7	BERNICE GT#4	RAILBT	3	7	26.4	0		3	26.	5.	0.000	3.	201.	0.	0.080	0.032	4.701
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	44.	2.	0.000	5.	685.	0.	0.080	0.032	4.701
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				794.4				1341880.			68535.	8870.	0.			
	CONV. HYDRO				682.0				3979180.				10439.				
	HYDRO SPILL	583240.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-204115.			-0.					
	SYSTEM TOTALS				1476.4				5116945.			68535.	19309.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	13.	80885.	0.7454	2302.	974.	38.60
3	NGASGT	464.	160342.	0.0394	15632.	3579.	119.81
4	DILLGT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	317.	1096653.	0.3949	50600.	4317.	50.08
	TIENG		0.		0.		10.00
	TOTAL	794.	1341880.		68535.	8870.	57.68

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IV 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2001 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	68154.	TON
7	NGAS1A	7688.	MCF
10	NGAS4A	7015.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993. LOLP 0.1. D&M COAL.SHCA GAS. EBASCOAL. 2MLJM5

MANUAL

2002 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1090. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRY.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.245
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.245
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.245
5	BELUGA CC#8	RAILBT	6	10	178.0	0	JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	4.406
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	0.	0.	0.	0.	1633.	0.	0.080	0.070	4.883
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	4.883
26	NGAS TURBINE	RAILBT	3	7	87.0	0	FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	4.883
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	4.883
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	4.883
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				678.0				0.			0.	7041.	0.			
	CONV. HYDRO				1317.0				5238000.				12362.				
	HYDRO EXCESS	152562.															
	HYDRO SPILL	139500.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	SYSTEM TOTALS				1995.0				5238000.			0.	19403.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 24LJMS

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2002 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.17S
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

MANUAL

2003 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1114. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE.	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.267
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.267
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.267
5	BELUGA CC#8	RAILBT	6	10	178.0	0	JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	4.576
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	0.	0.	0.	0.	1633.	0.	0.080	0.070	5.072
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.072
26	NGAS TURBINE	RAILBT	3	7	87.0	0	FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.072
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.072
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.072
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				678.0				0.			0.	7041.	0.			
	CONV. HYDRO				1317.0				5359000.				12362.				
	HYDRO EXCESS	137819.															
	HYDRO SPILL	1270500.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	SYSTEM TOTALS				1995.0				5359000.			0.	19403.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL, SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2003 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.178
DEISSUS N2185 IV 1993, LOLP 0.1, DEM COAL,SHCA GAS, EBASCOAL 2MLJM5

MANUAL

2004 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1160. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT NO.	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRN.	MONTHS UP	MIN. ON LINE RULE	ENERGY OUTPUT MWH	HRS. ON LINE		CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
16	UNIV AK #3ST	RAILBT	2	2	10.0	0 MARCH	1		0.	0.	0.		0.	514.	0.	0.057	0.080	2.290
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 APRIL	1		0.	0.	0.		0.	77.	0.	0.057	0.080	2.290
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	1		0.	0.	0.		0.	77.	0.	0.057	0.080	2.290
5	BELUGA CCN8	RAILBT	6	10	172.0	0 JAN.	3		0.	0.	0.		0.	2092.	0.	0.080	0.070	4.752
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3		0.	0.	0.		0.	1633.	0.	0.080	0.070	5.268
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3		0.	0.	0.		0.	662.	0.	0.080	0.032	5.268
26	NGAS TURBINE	RAILBT	3	7	87.0	0 FEB.	3		0.	0.	0.		0.	662.	0.	0.080	0.032	5.268
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3		0.	0.	0.		0.	662.	0.	0.080	0.032	5.268
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3		0.	0.	0.		0.	662.	0.	0.080	0.032	5.268
	TIE ENERGY								0.				0.					
	TOTAL THERMAL				678.0				0.				0.	7041.	0.			
	CONV. HYDRO				1317.0				5481000.					12363.				
	HYDRO EXCESS	126149.																
	HYDRO SPILL	1148500.																
	PUMP STORAGE				0.				0.				0.	0.				
	ENG STOR 2				0.				0.				0.	0.				
	ENG STOR 3				0.				0.				0.	0.				
	SYSTEM TOTALS				1995.0				5481000.				0.	19404.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.17S
DETBSU3 N2185 IV 1993, LOLP 0.1, D&W COAL, SNCA GAS, FBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2004 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #2185 IY 1993, LOLP 0.1, D&M COAL, SHCA GAS, EBASCOAL 2MLJM3

MANUAL

2005 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1165. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN. MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.313
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.313
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.313
5	BELUGA CC#8	RAILBT	6	10	178.0	0 JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	4.935
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	0.	0.	0.	0.	1633.	0.	0.080	0.070	5.472
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.472
26	NGAS TURBINE	RAILBT	3	7	87.0	0 FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.472
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.472
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.472
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				678.0			0.			0.	7041.	0.			
	CONV. HYDRO				1317.0			5602000.				12362.				
	HYDRO EXCESS	111574.														
	HYDRO SPILL	1027500.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	SYSTEM TOTALS				1995.0			5602000.			0.	19403.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENO		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 42185 IV 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2005 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCIAL 2MLJM5

MANUAL

2006 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1200. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
16	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.336
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.336
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.336
5	BELUGA CC#8	RAILBT	6	10	178.0	0	JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	5.125
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	0.	0.	0.	0.	1633.	0.	0.080	0.070	5.683
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.683
26	NGAS TURBINE	RAILBT	3	7	87.0	0	FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.683
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.683
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	5.683
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				678.0				0.			0.	7041.	0.			
	CONV. HYDRO				1317.0				5771000.				10447.				
	HYDRO EXCESS	93998.															
	HYDRO SPILL	858500.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	SYSTEM TOTALS				1995.0				5771000.			0.	17487.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL:	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2006 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

MANUAL

2007 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1234. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.359
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.359
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.359
5	BELUGA GCWB	RAILBT	6	10	178.0	0	JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	6.600
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	0.	0.	0.	0.	1633.	0.	0.080	0.070	6.627
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.627
26	NGAS TURBINE	RAILBT	3	7	87.0	0	FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.627
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.627
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.627
	ENERGY								0.			0.					
	TOTAL THERMAL				678.0				0.			0.	7041.	0.			
	CONV. HYDRO				1317.0				5939000.				10447.				
	HYDRO EXCESS	75406.															
	HYDRO SPILL	690500.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	SYSTEM TOTALS				1995.0				5939000.			0.	17487.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCMC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #2185 IN 1993, LOLP 0.1, DRM COAL,GHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2007 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/04 10.17B
DEISSU3 N2185 IY 1993, LOLP 0.1, D&M COAL,94CA GAS, EBASCOAL 2MLJM5

MANUAL

2008 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1269. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH	1	0.	0.	0.	0.	514.	0.	0.057	0.080	2.383
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.383
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	0.	0.	0.	0.	77.	0.	0.057	0.080	2.383
5	BELUGA CC#8	RAILBT	6	10	178.0	0	JAN.	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	6.546
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	0.	0.	0.	0.	1633.	0.	0.080	0.070	6.873
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.873
26	NGAS TURBINE	RAILBT	3	7	87.0	0	FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.873
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.873
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	6.873
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				678.0				0.			0.	7041.	0.			
	CONV. HYDRO				1317.0				6107000.				10447.				
	HYDRO EXCESS	56060.															
	HYDRO SPILL	522500.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	SYSTEM TOTALS				1995.0				6107000.			0.	17488.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	0.	0.	0.	668.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	317.	0.	0.	0.	3725.	0.
TIENG		0.		0.		0.
TOTAL	678.	0.		0.	7041.	0.

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #218C TY 1993, LOLP 0.1, DRY COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2008 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.178
DEISSUE #2185 IY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

OPTIMUM

2009 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1305. MW THERMAL PEAK 10. MW
SPINNING RESERVE 178. MW MAXIMUM OFF-PEAK EXCESS 80. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. ON RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 FEB.		1	3508.	702.	0.040	111.	526.	0.	0.057	0.080	2.407
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 APRIL		1	526.	702.	0.040	17.	79.	0.	0.057	0.080	2.407
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	526.	702.	0.040	17.	79.	0.	0.057	0.080	2.407
5	BELUGA CC#8	RAILBT	6	10	178.0	0		3	42186.	684.	0.027	3465.	2114.	0.	0.080	0.070	7.100
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	11910.	684.	0.016	1784.	665.	0.	0.080	0.032	7.129
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JAN.		3	4583.	263.	0.006	687.	663.	0.	0.080	0.032	7.129
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.129
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.129
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				539.0				3240.			6081.	5451.	0.			
	CONV. HYDRO				1317.0				6272013.				10447.				
	HYDRO EXCESS	34947.															
	HYDRO SPILL	2302406.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-59255.			-0.					
	SYSTEM TOTALS				1856.0				6275998.			6081.	15898.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	13.	4560.	0.0400	145.	684.	181.80
3 NGASGT	348.	16493.	0.0054	2471.	2653.	310.66
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	178.	42186.	0.0271	3465.	2114.	132.25
TIENG		-0.		-0.		10.00
TOTAL:	539.	63240.		6081.	5451.	182.35

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, D&M COAL,84CA GAS, FBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2009 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALHI	3960.	TON
7	NGAS1A	345.	MCF
10	NGAS4A	486.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IV 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5
OPTIMUM

2010 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1339. MW THERMAL PEAK 0. MW
SPINNING RESERVE 178. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP MONTHS RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
5	BELUGA CC#8	RAILBT	6	10	178.0	0	3	0.	0.	0.	0.	2092.	0.	0.080	0.070	7.313
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.343
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JAN.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.343
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.343
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.343
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				526.0			0.			0.	4740.	0.			
	CONV. HYDRO				1366.0			6444000.				10442.				
	HYDRO EXCESS	121153.														
	HYDRO SPILL	7122500.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	SYSTEM TOTALS				1892.0			6444000.			0.	15182.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	348.	0.	0.	0.	2648.	0.
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	178.	0.	0.	0.	2092.	0.
TIENG		0.		0.		0.
TOTAL	526.	0.		0.	4740.	0.

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IV 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2010 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

OPTIMUM

2011 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1373. MW THERMAL PEAK 8. MW
SPINNING RESERVE 178. MW
MAXIMUM OFF-PEAK EXCESS 75. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
5	BELUGA CC#8	RAILBT	6	10	178.0	0		3	42082.	684.	0.027	3671.	2114.	0.	0.080	0.070	7.535
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	11915.	684.	0.016	1893.	665.	0.	0.080	0.032	7.563
26	NGAS TURBINE	RAILBT	3	7	87.0	0	JAN.	3	1803.	108.	0.002	287.	663.	0.	0.080	0.032	7.563
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.563
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.563
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				526.0				55800.			5850.	4766.	0.			
	CONV. HYDRO				1366.0				6609853.				10442.				
	HYDRO EXCESS	104058.															
	HYDRO SPILL	5961529.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-55695.			-0.					
	SYSTEM TOTALS				1892.0				6609958.			5850.	15209.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	0.	0.	0.	0.	0.	0.
3	NGASGT	348.	13718.	0.0045	2180.	2652.	352.22
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	178.	42082.	0.0270	3671.	2114.	137.47
	TIENG		-0.		-0.		10.00
	TOTAL	526.	55800.		5850.	4766.	190.26

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ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993. LOLP 0.1, D&M COAL, SHCA GAS, E&ASCOAL 2MLJMS

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2011 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGAS1A	287.	MCF
10	NGAS4A	485.	MCF

ALASKA RAILBELT
DEISSUS #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 08/16/84 10.178
OPTIMUM 2MLIMS

NGASGT

2012 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1408. MW
SPINNING RESERVE 87. MW

THERMAL PEAK 40. MW

MAXIMUM OFF-PEAK EXCESS 35. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRV.	MIN. MONTHS UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	28071.	1369.	0.037	4183.	670.	0.	0.080	0.032	7.790
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JAN.	3	12788.	735.	0.017	2093.	666.	0.	0.080	0.032	7.790
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	40.	2.	0.000	6.	662.	0.	0.080	0.032	7.790
26	NGAS TURBINE	RAILBT	3	7	87.0	0 FEB.	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.790
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	7.790
	TIE ENERGY							1.			0.					
	TOTAL THERMAL				435.0			40900.			6283.	3322.	0.			
	CONV. HYDRO				1366.0			6775486.				10443.				
	HYDRO EXCESS	90395.														
	HYDRO SPILL	4802085.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-36410.			-0.					
	SYSTEM TOTALS				1801.0			6779978.			6283.	13765.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	435.	40899.	0.0107	6283.	3322.	234.85
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		1.		0.		10.00
TOTAL	435.	40900.		6283.	3322.	234.84

ALASKA RAILBELT 08/16/94 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, D&M COAL,RHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2012 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGASIA	805.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5
OPTIMUM

NGASGT

2013 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1444. MW THERMAL PEAK 80. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 35. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP MONTHS RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	43337.	2053.	0.057	6548.	674.	0.	0.080	0.032	8.024
26	NGAS TURBINE	RAILBT	3	7	87.0	0 FEB.	3	16452.	944.	0.022	2771.	667.	0.	0.080	0.032	8.024
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	369.	15.	0.000	48.	662.	0.	0.080	0.032	8.024
26	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL	3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.024
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.024
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.024
	TIE ENERGY							2.			0.					
	TOTAL THERMAL				522.0			60060.			9364.	3989.	0.			
	CONV. HYDRO				1366.0			6931665.				10442.				
	HYDRO EXCESS	69139.														
	HYDRO SPILL	3708844.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-36645.			-0.					
	SYSTEM TOTALS				1888.0			6955080.			9364.	14432.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	0.	0.	0.	0.	0.	0.
3	NGASGT	522.	60058.	0.0131	9364.	3989.	222.34
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	0.	0.	0.	0.	0.	0.
	TIENG		2.		0.		10.00
	TOTAL	522.	60060.		9364.	3989.	222.34

FORM 1411-1
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ALASKA RAILBELT 08/16/84 10.178
DEISSUS #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 24LJMS

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2013 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGASIA	1161.	MCF

ALASKA RAILBELT 08/16/84 10.176
DEISSUS N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJMS
OPTIMUM

NGASGT

2014 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1481. MW THERMAL PEAK 115. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 35. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	94171.	4019.	0.124	13861.	688.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	32982.	1884.	0.043	5707.	671.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1696.	97.	0.002	294.	663.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0	MAY	3	3.	0.	0.000	1.	662.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.264
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.264
	TIE ENERGY								4.			0.					
	TOTAL THERMAL				609.0				128855.			19863.	4671.	0.			
	CONV. HYDRO				1366.0				7086381.				10442.				
	HYDRO EXCESS	51317.															
	HYDRO SPILL	2625831.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-80245.			-0.					
	SYSTEM TOTALS				1975.0				7134991.			19863.	15113.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
	2 COAL	0.	0.	0.	0.	0.	0.
	3 NGASGT	609.	128851.	0.0242	19863.	4671.	190.40
	4 OIL GT	0.	0.	0.	0.	0.	0.
	5 DIESEL	0.	0.	0.	0.	0.	0.
	6 COMCYC	0.	0.	0.	0.	0.	0.
	TIENG		4.		0.		10.00
	TOTAL	609.	128855.		19863.	4671.	190.40

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2014 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION
7	NGASIA	2393. MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,RHCA GAS, EBASCOAL 2MLJM5

OPTIMUM

2015 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1519. MW THERMAL PEAK 155. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 35. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP MONTHS RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	127073.	4681.	0.167	17898.	698.	0.	0.080	0.032	8.512
26	NGAS TURBINE	RAILBT	3	7	87.0	0 MAY	3	51683.	2870.	0.068	9060.	677.	0.	0.080	0.032	8.512
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	5145.	292.	0.007	914.	664.	0.	0.080	0.032	8.512
26	NGAS TURBINE	RAILBT	3	7	87.0	0 JUNE	3	318.	18.	0.000	57.	662.	0.	0.080	0.032	8.512
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	3.	0.	0.000	0.	662.	0.	0.080	0.032	8.512
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.512
	TIE ENERGY							3.			0.					
	TOTAL THERMAL				522.0			184225.			27930.	4024.	0.			
	CONV. HYDRO				1366.0			7221642.				10442.				
	HYDRO EXCESS	35294.														
	HYDRO SPILL	1679008.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-8780.			-0.					
	SYSTEM TOTALS				1888.0			7318057.			27930.	14466.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	522.	184222.	0.0403	27930.	4024.	173.46
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		3.		0.		10.00
TOTAL	522.	184225.		27930.	4024.	173.45

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IY 1993, LOLP 0.1, D&M COAL, SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2015 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGASIA	3265.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, DRY COAL,SHCA GAS, EBASCOAL 2MLJM5
OPTIMUM

NGASGT

2016 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1558. MW THERMAL PEAK 190. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 55. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRY.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACTY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	181322.	6734.	0.237	26410.	713.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0	AUG.	3	92765.	5116.	0.121	16682.	688.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	18418.	1042.	0.024	3362.	667.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	1416.	81.	0.002	261.	662.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	56.	3.	0.000	10.	662.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.768
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	8.768
	TIE ENERGY								3.			0.					
	TOTAL THERMAL				609.0				293980.			46725.	4717.	0.			
	CONV. HYDRO				1366.0				7338520.				10443.				
	HYDRO EXCESS	23180.															
	HYDRO SPILL	860858.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-125505.			-0.					
	SYSTEM TOTALS				1975.0				7506955.			46725.	15160.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 CC-LI	0.	0.	0.	0.	0.	0.
3 NGASGT	609.	293977.	0.0550	46725.	4717.	174.99
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		3.		0.		10.00
TOTALI	609.	293980.		46725.	4717.	174.98

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2016 YEARLY

TYPE TO	TYPE	FUEL CONSUMPTION	
T	NGASIA	5303.	MCF

ALASKA RAILBELT
DEISSU3 N2185 TY 1993, LOLP 0.1, DRM COAL,SHCA GAS, FBASCOAL 08/16/84 10.178
OPTIMUM 2MLJM5
2017 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1598. MW
SPINNING RESERVE 87. MW
THERMAL PEAK 230. MW
MAXIMUM OFF-PEAK EXCESS 55. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRY.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILRT	3	7	87.0	0		3	220760.	6712.	0.290	30212.	724.	0.	0.080	0.032	9.031
26	NGAS TURBINE	RAILRT	3	7	87.0	0	AUG.	3	123097.	6328.	0.162	21900.	697.	0.	0.080	0.032	9.031
26	NGAS TURBINE	RAILRT	3	7	87.0	0		3	21658.	1166.	0.028	3956.	668.	0.	0.080	0.032	9.031
26	NGAS TURBINE	RAILRT	3	7	87.0	0	SEPT.	3	2118.	116.	0.003	391.	663.	0.	0.080	0.032	9.031
26	NGAS TURBINE	RAILRT	3	7	87.0	0		3	376.	21.	0.000	71.	662.	0.	0.080	0.032	9.031
26	NGAS TURBINE	RAILRT	3	7	87.0	0		3	6.	0.	0.000	1.	662.	0.	0.080	0.032	9.031
	TIE ENERGY				87.0	0		3	0.	0.	0.	0.	662.	0.	0.080	0.032	9.031
									1.			0.					
	TOTAL THERMAL				609.0				368015.			56532.	4738.	0.			
	CONV. HYDRO				1366.0				7405033.				1042.				
	HYDRO EXCESS	5889.															
	HYDRO SPILL	395268.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-72080.			-0.					
	SYSTEM TOTALS				1975.0				7700968.			56532.	15180.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	609.	368014.	0.0690	56532.	4738.	166.49
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		1.		0.		10.00
TOTAL	609.	368015.		56532.	4738.	166.49

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2017 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGASIA	6229.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEIGSUS A2185 IN 1993, LOLP 0.1, DEM COAL,SHCA GAS, EBASCOAL 2MLJM5

OPTIMUM

2018 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1639. MW THERMAL PEAK 275. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 55. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRTY. MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0		3	295195.	6712.	0.387	37053.	745.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0 AUG.	3	146641.	6712.	0.192	25209.	703.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	32140.	1635.	0.042	5856.	671.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.	3	8651.	475.	0.011	1645.	664.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	1399.	80.	0.002	272.	662.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	92.	5.	0.000	18.	662.	0.	0.080	0.032	9.302
26	NGAS TURBINE	RAILBT	3	7	87.0	0	3	1.	0.	0.000	0.	662.	0.	0.080	0.032	9.302
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				609.0			484120.			70053.	4770.	0.			
	CONV. HYDRO				1366.0			7437086.				10442.				
	HYDRO SPILL	170902.														
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-22120.			-0.					
	SYSTEM TOTALS				1975.0			7899086.			70053.	15212.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	609.	484120.	0.0907	70053.	4770.	154.55
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		0.		0.		10.00
TOTAL	609.	484120.		70053.	4770.	154.55

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2018 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGAS1A	7494.	MCF

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IV 1993. LOLP 0.1. D&M COAL.SHCA GAS. EBASCOAL 2MLJM5
OPTIMUM

NGASGT

2019 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1661. MW THERMAL PEAK 315. MW
SPINNING RESERVE 87. MW
MAXIMUM OFF-PEAK EXCESS 25. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	393579.	7375.	0.516	47618.	772.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0	AUG.	3	180149.	7375.	0.236	30091.	713.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	75482.	3694.	0.099	13860.	683.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	12361.	635.	0.016	2332.	666.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2495.	132.	0.003	479.	663.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	499.	28.	0.001	99.	662.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0	JUNE	3	12.	1.	0.000	2.	662.	0.	0.080	0.032	9.581
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1.	0.	0.000	0.	662.	0.	0.080	0.032	9.581
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				696.0				664580.			94482.	5483.	0.			
	CONV. HYDRO				1366.0				7450922.				10442.				
	HYDRO SPILL	74049.															
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-12470.			-0.					
	SYSTEM TOTALS				2062.0				8103032.			94482.	15925.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE.	0.	0.	0.	0.	0.	0.
2 COAL	0.	0.	0.	0.	0.	0.
3 NGASGT	696.	664580.	0.1090	94482.	5483.	150.42
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	0.	0.	0.	0.	0.	0.
TIENG		0.		0.		10.00
TOTAL	696.	664580.		94482.	5483.	150.42

ALASKA RAILBELT 08/16/84 10.178
DEISSUS #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2019 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION
7	NGASIA	9813. MCF

ALASKA RAILBELT 08/16/84 10.178
DEIS8U3 N2185 IN 1993, LOLP 0.1, DEM COAL,84CA GAS, EBASCOAL 2MLJM5
OPTIMUM

COAL

2020 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1724. MW THERMAL PEAK 360. MW
SPINNING RESERVE 200. MW MAXIMUM OFF-PEAK EXCESS 100. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
25	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	847034.	7353.	0.482	26233.	13330.	0.	0.086	0.120	2.801
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	151270.	8081.	0.198	30060.	704.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	112936.	6404.	0.148	23235.	694.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	47553.	2721.	0.062	9835.	675.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0	JUNE	3	8300.	476.	0.011	1719.	664.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1735.	100.	0.002	360.	663.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	142.	8.	0.000	30.	662.	0.	0.080	0.032	9.868
26	NGAS TURBINE	RAILBT	3	7	87.0	0		3	20.	1.	0.000	4.	662.	0.	0.080	0.032	9.868
	TIE ENERGY								1.			0.					
	TOTAL THERMAL				809.0				1168990.			91475.	18054.	0.			
	CONV. HYDRO				1366.0				7461500.				10843.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-318560.			-0.					
	SYSTEM TOTALS				2175.0				8311930.			91475.	28897.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	200.	847034.	0.4821	26233.	13330.	46.71
3	NGASGT	609.	321955.	0.0602	65242.	4725.	217.32
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	0.	0.	0.	0.	0.	0.
	TIENG		1.		0.		10.00
	TOTAL	809.	1168990.		91475.	18054.	93.70

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IV 1993, LOLP 0.1, D&M COAL, SHCA GAS, EBASCOAL 2MLJM5

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2020 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
7	NGASIA	6578.	MCF
11	COAL B	624442.	TON

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 A2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL ZMLJM5

UNIT SIZE GUIDE = INSTALL 1 BASE LOAD UNITS IN 1 YEARS

FUEL + O+M COSTS LEVELIZED OVER 10 YEARS

1982 PRESENT WORTH AT 3.500 PERCENT INTEREST RATE

		* UNITS ADDED OR RETIRED *					PEAK	TOTAL CAPAB.,MW		*** 0.10 DAYS/YEAR ***			*** 1.0 HOURS/YEAR ***			
		UNIT	RATING	UNIT			LOAD	YEAR	TIME	EXCESS		CAPABIL.	EXCESS		CAPABIL.	PERCENT	MW
YEAR	RUN	ID	MW	TYPE	MONTH	CO.	MW	END	OF PK.	LOAD-MW	DAYS/YEAR	LOAD-MW	LOAD-MW	HOURS/YEAR	LOAD-MW	RESERVE	SLOPE
1993	1	HYD	539.	7													
1993	1	3	-53.	3	0	1											
1993	1	0	0.	0	0	0	915.	1431.	1431.	-65.	0.483938	850.	0.	0.	0.	56.4	30.
1993	2	25	200.	2	0	1	915.	1631.	1631.	30.	0.050885	945.	0.	0.	0.	78.3	43.
1993	ALTERNATIVE	1	MW ADDED=	739.	COSTS,INVEST=	200.3	FUEL=	34.9	O+M=	34.2	INVTRY=	0.	TOTAL=	269.4			
1993	1	HYD	539.	7													
1993	1	3	-53.	3	0	1											
1993	1	0	0.	0	0	0	915.	1431.	1431.	-65.	0.483938	850.	0.	0.	0.	56.4	30.
1993	2	26	87.	3	0	1	915.	1518.	1518.	4.	0.091969	919.	0.	0.	0.	65.9	33.
1993	ALTERNATIVE	2	MW ADDED=	626.	COSTS,INVEST=	174.3	FUEL=	34.0	O+M=	22.6	INVTRY=	0.	TOTAL=	230.9			
1993	1	HYD	539.	7													
1993	1	3	-53.	3	0	1											
1993	1	0	0.	0	0	0	915.	1431.	1431.	-65.	0.483938	850.	0.	0.	0.	56.4	30.
1993	2	29	228.	6	0	1	915.	1659.	1659.	26.	0.054933	941.	0.	0.	0.	81.3	41.
1993	ALTERNATIVE	3	MW ADDED=	767.	COSTS,INVEST=	179.3	FUEL=	39.3	O+M=	24.7	INVTRY=	0.	TOTAL=	243.3			
1993	1	HYD	539.	7													
1993	1	3	-53.	3	0	1											
1993	1	0	0.	0	0	0	915.	1431.	1431.	-65.	0.483938	850.	0.	0.	0.	56.4	30.
1993	2	26	87.	3	0	1	915.	1518.	1518.	4.	0.091969	919.	0.	0.	0.	65.9	33.
**********															**********		
1993	ALTERNATIVE	2	MW ADDED=	626.	COSTS,INVEST=	174.3	FUEL=	34.9	O+M=	22.8	INVTRY=	0.	TOTAL=	232.0			
			CUMULATIVE P.W.		INVEST=	119.4	FUEL=	23.9	O+M=	15.6	INVTRY=	0.					
1993	OPTIMUM = ALTERNATIVE	2	TOTAL COST IN MILLION DOLLARS =			232.0	CUMULATIVE COST =		232.0								
			PRESENT WORTH TOTAL		=	158.9	CUMULATIVE P.W. =		158.9								
**********																	
1994	1	0	0.	0	0	0	935.	1518.	1518.	-10.	0.128489	925.	0.	0.	0.	62.4	33.
1994	2	25	200.	2	0	1	935.	1718.	1718.	85.	0.014083	1020.	0.	0.	0.	83.7	45.

1994 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 203.4 FUEL= 36.7 O+M= 34.9 INVTRY= 0. TOTAL= 275.0

1994	1	0	0.	0	0	0	935.	1518.	1518.	-10.	0.128489	925.	0.	0.		0.	62.4	33.
1994	2	26	87.	3	0	1	935.	1605.	1605.	59.	0.020097	994.	0.	0.		0.	71.7	35.

1994 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 177.4 FUEL= 37.6 O+M= 23.3 INVTRY= 0. TOTAL= 238.3

1994	1	0	0.	0	0	0	935.	1518.	1518.	-10.	0.128489	925.	0.	0.		0.	62.4	33.
1994	2	29	228.	6	0	1	935.	1746.	1746.	82.	0.015681	1017.	0.	0.		0.	86.7	45.

1994 ALTERNATIVE 3 MW ADDED= 228. COSTS,INVEST= 182.3 FUEL= 42.6 O+M= 25.4 INVTRY= 0. TOTAL= 250.3

1994	1	0	0.	0	0	0	935.	1518.	1518.	-10.	0.128489	925.	0.	0.		0.	62.4	33.
1994	2	26	87.	3	0	1	935.	1605.	1605.	59.	0.020097	994.	0.	0.		0.	71.7	35.

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1994 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 177.4 FUEL= 37.7 O+M= 23.5 INVTRY= 0. TOTAL= 238.6

CUMULATIVE P.W. INVEST= 236.8 FUEL= 48.8 O+M= 31.2 INVTRY= 0.

1994 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 238.6 CUMULATIVE COST = 470.6
PRESENT WORTH TOTAL = 157.9 CUMULATIVE P.W. = 316.8

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1995	1	12	-4.	4	0	1												
1995	1	11	-4.	4	0	1												
1995	1	4	-58.	3	0	1												
1995	1	0	0.	0	0	0	955.	1540.	1540.	-10.	0.127261	945.	0.	0.		0.	61.3	31.
1995	2	25	200.	2	0	1	955.	1740.	1740.	87.	0.014181	1042.	0.	0.		0.	82.2	45.

1995 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 206.4 FUEL= 39.3 O+M= 39.1 INVTRY= 0. TOTAL= 280.8

1995	1	12	-4.	4	0	1												
1995	1	11	-4.	4	0	1												
1995	1	4	-58.	3	0	1												
1995	1	0	0.	0	0	0	955.	1540.	1540.	-10.	0.127261	945.	0.	0.		0.	61.3	31.
1995	2	26	87.	3	0	1	955.	1627.	1627.	57.	0.0212	1012.	0.	0.		0.	70.4	39.

1995 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 180.4 FUEL= 41.6 O+M= 23.6 INVTRY= 0. TOTAL= 245.5

1995	1	12	-4.	4	0	1												
1995	1	11	-4.	4	0	1												
1995	1	4	-58.	3	0	1												
1995	1	0	0.	0	0	0	955.	1540.	1540.	-10.	0.127261	945.	0.	0.		0.	61.3	31.
1995	2	29	228.	6	0	1	955.	1768.	1768.	83.	0.015725	1038.	0.	0.		0.	85.1	43.

1995 ALTERNATIVE 3 MW ADDED= 228. COSTS,INVEST= 185.4 FUEL= 45.7 O+M= 25.6 INVTRY= 0. TOTAL= 256.7

1995	1	12	-4.	4	0	1												
1995	1	11	-4.	4	0	1												
1995	1	4	-58.	3	0	1												
1995	1	0	0.	0	0	0	955.	1540.	1540.	-10.	0.127261	945.	0.	0.		0.	61.3	31.
1995	2	26	87.	3	0	1	955.	1627.	1627.	57.	0.021263	1012.	0.	0.		0.	70.4	39.

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1995 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 180.4 FUEL= 43.2 O+M= 23.8 INVTRY= 0. TOTAL= 247.4

CUMULATIVE P.W. INVEST= 352.1 FUEL= 76.4 O+M= 46.4 INVTRY= 0.

1995 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 247.4 CUMULATIVE COST = 718.0
PRESENT WORTH TOTAL = 158.2 CUMULATIVE P.W. = 475.0

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1996	1	14	-29.	4	0	1											
1996	1	9	-65.	4	0	1											
1996	1	0	0.	0	0	0	972.	1533.	1533.	147.	0.001385	1119.	0.	0.	0.	57.7	31.

1996 COMMITTED MW ADDED= 0. COSTS,INVEST= 180.4 FUEL= 46.6 O+M= 23.2 INVTRY= 0. TOTAL= 250.2

CUMULATIVE P.W. INVEST= 463.6 FUEL= 105.2 O+M= 60.7 INVTRY= 0.

1996 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 250.2 CUMULATIVE COST = 968.2
PRESENT WORTH TOTAL = 154.5 CUMULATIVE P.W. = 629.6

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1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.

1997 COMMITTED MW ADDED= 0. COSTS,INVEST= 180.4 FUEL= 50.8 O+M= 19.9 INVTRY= 0. TOTAL= 251.2

1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.
1997	2	25	200.	2	0	1	989.	1643.	1643.	160.	0.002017	1149.	0.	0.	0.	66.1	43.

1997 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 209.5 FUEL= 47.3 O+M= 32.4 INVTRY= 0. TOTAL= 289.1

1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.

1997 COMMITTED MW ADDED= 0. COSTS,INVEST= 180.4 FUEL= 50.8 O+M= 19.9 INVTRY= 0. TOTAL= 251.2

1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.
1997	2	26	87.	3	0	1	989.	1530.	1530.	129.	0.002719	1118.	0.	0.	0.	54.7	33.

1997 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 183.4 FUEL= 50.9 O+M= 20.6 INVTRY= 0. TOTAL= 255.0

1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.

1997 COMMITTED MW ADDED= 0. COSTS,INVEST= 180.4 FUEL= 50.8 O+M= 19.9 INVTRY= 0. TOTAL= 251.2

1997	1	10	-65.	4	0	1											
1997	1	8	-25.	2	0	1											
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.	0.	45.9	30.
1997	2	29	228.	6	0	1	989.	1671.	1671.	157.	0.002320	1146.	0.	0.	0.	69.0	43.

1997 ALTERNATIVE 6 MW ADDED= 228. COSTS,INVEST= 188.4 FUEL= 55.5 O+M= 22.7 INVTRY= 0. TOTAL= 266.6

1997	1	10	-65.	4	0	1												
1997	1	8	-25.	2	0	1												
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.		0.	45.9	30.
1997	1	10	-65.	4	0	1												
1997	1	8	-25.	2	0	1												
1997	1	0	0.	0	0	0	989.	1443.	1443.	62.	0.019419	1051.	0.	0.		0.	45.9	30.

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1997 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 180.4 FUEL= 49.3 O+M= 20.1 INVTRY= 0. TOTAL= 249.8

CUMULATIVE P.W. INVEST= 571.3 FUEL= 134.6 O+M= 72.7 INVTRY= 0.

1997 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 249.8 CUMULATIVE COST = 1218.0
PRESENT WORTH TOTAL = 149.1 CUMULATIVE P.W. = 778.7

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1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		180.4	FUEL=	56.9	O+M=	19.8	INVTRY=	0.	TOTAL=		257.1		
1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	2	25	200.	2	0	1	1005.	1617.	1617.	125.	0.005675	1130.	0.	0.		0.	60.9	43.

1998 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 209.5 FUEL= 50.1 O+M= 32.2 INVTRY= 0. TOTAL= 291.8

1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		180.4	FUEL=	56.9	O+M=	19.8	INVTRY=	0.	TOTAL=		257.1		
1998		6	-26.	3	0	1												
1998		0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	2	26	87.	3	0	1	1005.	1504.	1504.	94.	0.008636	1099.	0.	0.		0.	49.6	31.

1998 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 193.4 FUEL= 57.2 O+M= 20.5 INVTRY= 0. TOTAL= 261.1

1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		180.4	FUEL=	56.9	O+M=	19.8	INVTRY=	0.	TOTAL=		257.1		
1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	2	29	228.	6	0	1	1005.	1645.	1645.	121.	0.006371	1126.	0.	0.		0.	63.7	43.

1998 ALTERNATIVE 6 MW ADDED= 228. COSTS,INVEST= 188.4 FUEL= 60.9 O+M= 22.5 INVTRY= 0. TOTAL= 271.8

1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.
1998	1	6	-26.	3	0	1												
1998	1	0	0.	0	0	0	1005.	1417.	1417.	27.	0.054884	1032.	0.	0.		0.	41.0	27.

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1998 ALTERNATIVE 1 MW ADDED= 0. COSTS.INVEST= 180.4 FUEL= 53.0 O+M= 20.0 INVTRY= 0. TOTAL= 253.5

CUMULATIVE P.W. INVEST= 675.3 FUEL= 165.2 O+M= 84.3 INVTRY= 0.

1998 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 253.5 CUMULATIVE COST = 1471.5
PRESENT WORTH TOTAL = 146.2 CUMULATIVE P.W. = 924.9

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1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.

1999 COMMITTED MW ADDED= 0. COSTS.INVEST= 180.4 FUEL= 64.1 O+M= 19.8 INVTRY= 0. TOTAL= 264.3

1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.
1999	2	25	200.	2	0	1	1023.	1616.	1616.	115.	0.006936	1138.	0.	0.	0.	58.0	43.

1999 ALTERNATIVE 2 MW ADDED= 200. COSTS.INVEST= 209.5 FUEL= 53.6 O+M= 32.3 INVTRY= 0. TOTAL= 295.3

1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.

1999 COMMITTED MW ADDED= 0. COSTS.INVEST= 180.4 FUEL= 64.1 O+M= 19.8 INVTRY= 0. TOTAL= 264.3

1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.
1999	2	26	57.	3	0	1	1023.	1503.	1503.	83.	0.010604	1106.	0.	0.	0.	46.9	31.

1999 ALTERNATIVE 4 MW ADDED= 87. COSTS.INVEST= 183.4 FUEL= 64.0 O+M= 20.5 INVTRY= 0. TOTAL= 268.0

1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.
1999	2	29	228.	6	0	1	1023.	1644.	1644.	109.	0.007910	1132.	0.	0.	0.	60.7	43.

1999 ALTERNATIVE 6 MW ADDED= 228. COSTS.INVEST= 188.4 FUEL= 66.3 O+M= 22.6 INVTRY= 0. TOTAL= 277.2

1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.
1999	1	15	-1.	5	0	1											
1999	1	0	0.	0	0	0	1023.	1416.	1416.	15.	0.067253	1038.	0.	0.	0.	38.4	27.

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1999 ALTERNATIVE 1 MW ADDED= 0. COSTS.INVEST= 180.4 FUEL= 57.5 O+M= 20.1 INVTRY= 0. TOTAL= 258.0

CUMULATIVE P.W. INVEST= 775.8 FUEL= 197.2 O+M= 95.5 INVTRY= 0.

1999 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 258.0 CUMULATIVE COST = 1729.4
PRESENT WORTH TOTAL = 143.7 CUMULATIVE P.W. = 1068.6

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2000	1	20	-3.	5	0	1											
2000	1	19	-3.	5	0	1											
2000	1	13	-21.	2	0	1											
2000	1	0	0.	0	0	0	1040.	1389.	1389.	-22.	0.167991	1018.	0.	0.	0.	33.6	26.
2000	2	25	200.	2	0	1	1040.	1589.	1589.	80.	0.016643	1120.	0.	0.	0.	52.8	41.

2000 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 209.5 FUEL= 59.6 O+M= 31.1 INVTRY= 0. TOTAL= 300.1

2000	1	20	-3.	5	0	1											
2000	1	19	-3.	5	0	1											
2000	1	13	-21.	2	0	1											
2000	1	0	0.	0	0	0	1040.	1389.	1389.	-22.	0.167991	1018.	0.	0.	0.	33.6	26.
2000	2	26	87.	3	0	1	1040.	1476.	1476.	47.	0.030164	1087.	0.	0.	0.	42.0	31.

2000 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 183.4 FUEL= 72.3 O+M= 19.1 INVTRY= 0. TOTAL= 274.9

2000	1	20	-3.	5	0	1											
2000	1	19	-3.	5	0	1											
2000	1	13	-21.	2	0	1											
2000	1	0	0.	0	0	0	1040.	1389.	1389.	-22.	0.167991	1018.	0.	0.	0.	33.6	26.
2000	2	26	87.	3	0	1											
2000	2	26	87.	3	0	1	1040.	1563.	1563.	115.	0.004945	1155.	0.	0.	0.	50.3	46.

2000 ALTERNATIVE 3 MW ADDED= 174. COSTS,INVEST= 186.5 FUEL= 72.1 O+M= 19.8 INVTRY= 0. TOTAL= 278.3

2000	1	20	-3.	5	0	1											
2000	1	19	-3.	5	0	1											
2000	1	13	-21.	2	0	1											
2000	1	0	0.	0	0	0	1040.	1389.	1389.	-22.	0.167991	1018.	0.	0.	0.	33.6	26.
2000	2	29	228.	6	0	1	1040.	1617.	1617.	71.	0.019540	1111.	0.	0.	0.	55.5	43.

2000 ALTERNATIVE 4 MW ADDED= 228. COSTS,INVEST= 188.4 FUEL= 74.3 O+M= 21.2 INVTRY= 0. TOTAL= 284.0

2000	1	20	-3.	5	0	1											
2000	1	19	-3.	5	0	1											
2000	1	13	-21.	2	0	1											
2000	1	0	0.	0	0	0	1040.	1389.	1389.	-22.	0.167991	1018.	0.	0.	0.	33.6	26.
2000	2	26	87.	3	0	1	1040.	1476.	1476.	47.	0.030164	1087.	0.	0.	0.	42.0	31.

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2000 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 183.4 FUEL= 82.3 O+M= 19.3 INVTRY= 0. TOTAL= 285.1

CUMULATIVE P.W. INVEST= 874.6 FUEL= 230.8 O+M= 105.9 INVTRY= 0.

2000 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 265.1 CUMULATIVE COST = 1994.5
PRESENT WORTH TOTAL = 142.7 CUMULATIVE P.W. = 1211.3

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2001	1	0	0.	0	0	0	1065.	1476.	1476.	30.	0.049419	1095.	0.	0.	0.	38.6	31.
2001	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		183.4	FUEL=	80.1	O+M=	19.2	INVTRY=	0.	TOTAL=	282.7		
2001	1	0	0.	0	0	0	1065.	1476.	1476.	30.	0.049419	1095.	0.	0.	0.	38.6	31.
2001	2	25	200.	2	0	1	1065.	1676.	1676.	132.	0.005206	1197.	0.	0.	0.	57.4	46.

2001 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 212.5 FUEL= 65.0 O+M= 31.9 INVTRY= 0. TOTAL= 309.4

2001	1	0	0.	0	0	0	1065.	1476.	1476.	30.	0.049419	1095.	0.	0.	0.	38.6	31.
2001	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		183.4	FUEL=	80.1	O+M=	19.2	INVTRY=	0.	TOTAL=	282.7		
2001	1	0	0.	0	0	0	1065.	1476.	1476.	30.	0.049419	1095.	0.	0.	0.	38.6	31.
2001	2	26	87.	3	0	1	1065.	1563.	1563.	99.	0.008093	1164.	0.	0.	0.	46.8	46.

2001 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 186.5 FUEL= 81.0 O+M= 19.9 INVTRY= 0. TOTAL= 287.3

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2001  1    0     0.    0    0    0   1065.  1476.  1476.    30.  0.049419  1095.     0.     0.          0.   38.6      31.
2001  COMMITTED          MW ADDED=     0.  COSTS.INVEST=    183.4 FUEL=      80.1  O+M=    19.2  INVTRY=     0.  TOTAL=      282.7

2001  1    0     0.    0    0    0   1065.  1476.  1476.    30.  0.049419  1095.     0.     0.          0.   38.6      31.
2001  2   20   228.    6    0    1   1065.  1704.  1704.   128.  0.005750  1193.     0.     0.          0.   60.0      46.

2001  ALTERNATIVE  6  MW ADDED=   228.  COSTS.INVEST=    191.4 FUEL=      83.2  O+M=    22.0  INVTRY=     0.  TOTAL=      296.6

2001  1    0     0.    0    0    0   1065.  1476.  1476.    30.  0.049419  1095.     0.     0.          0.   38.6      31.
2001  1    0     0.    0    0    0   1065.  1476.  1476.    30.  0.049419  1095.     0.     0.          0.   38.6      31.

**********************************                                                                  **********************************

2001  ALTERNATIVE  1  MW ADDED=     0.  COSTS.INVEST=    183.4 FUEL=      68.5  O+M=    19.3  INVTRY=     0.  TOTAL=      271.3

                      CUMULATIVE P.W.       INVEST=    970.0 FUEL=     266.5  O+M=   115.9  INVTRY=     0.

2001  OPTIMUM = ALTERNATIVE  1        TOTAL COST IN MILLION DOLLARS =      271.3   CUMULATIVE COST =     2265.8
                                      PRESENT WORTH TOTAL           =      141.1   CUMULATIVE P.W. =     1352.4

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2002  1   HYD   635.    7
2002  1    7    -26.    3    0    1
2002  1    2    -90.    3    0    1
2002  1    0     0.     0    0    0   1090.  1995.  1995.   310.  0.000001  1400.     0.     0.          0.   83.0      26.
2002  COMMITTED          MW ADDED=  1174.  COSTS.INVEST=    258.3 FUEL=       0.  O+M=    19.4  INVTRY=     0.  TOTAL=      277.7

                      CUMULATIVE P.W.       INVEST=   1099.9 FUEL=     266.5  O+M=   125.7  INVTRY=     0.

2002  OPTIMUM = MANUAL                TOTAL COST IN MILLION DOLLARS =      277.7   CUMULATIVE COST =     2543.5
                                      PRESENT WORTH TOTAL           =      139.6   CUMULATIVE P.W. =     1492.0

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2003  1    0     0.    0    0    0   1114.  1995.  1995.   295.  0.000002  1409.     0.     0.          0.   79.1      26.
2003  COMMITTED          MW ADDED=     0.  COSTS.INVEST=    258.3 FUEL=       0.  O+M=    19.4  INVTRY=     0.  TOTAL=      277.7

                      CUMULATIVE P.W.       INVEST=   1225.3 FUEL=     266.5  O+M=   135.1  INVTRY=     0.

2003  OPTIMUM = MANUAL                TOTAL COST IN MILLION DOLLARS =      277.7   CUMULATIVE COST =     2821.2
                                      PRESENT WORTH TOTAL           =      134.9   CUMULATIVE P.W. =     1626.8

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2004  1    0     0.    0    0    0   1140.  1995.  1995.   305.  0.000001  1445.     0.     0.          0.   75.0      26.
2004  COMMITTED          MW ADDED=     0.  COSTS.INVEST=    258.3 FUEL=       0.  O+M=    19.4  INVTRY=     0.  TOTAL=      277.7

                      CUMULATIVE P.W.       INVEST=   1346.5 FUEL=     266.5  O+M=   144.2  INVTRY=     0.

2004  OPTIMUM = MANUAL                TOTAL COST IN MILLION DOLLARS =      277.7   CUMULATIVE COST =     3099.0
                                      PRESENT WORTH TOTAL           =      130.3   CUMULATIVE P.W. =     1757.1

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2005  1    0     0.    0    0    0   1165.  1995.  1995.   273.  0.000007  1438.     0.     0.          0.   71.2      26.
2005  COMMITTED          MW ADDED=     0.  COSTS.INVEST=    258.3 FUEL=       0.  O+M=    19.4  INVTRY=     0.  TOTAL=      277.7

                      CUMULATIVE P.W.       INVEST=   1463.6 FUEL=     266.5  O+M=   153.0  INVTRY=     0.
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2005 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 277.7 CUMULATIVE COST = 3376.7
PRESENT WORTH TOTAL = 125.9 CUMULATIVE P.W. = 1883.0

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2006 1 0 0. 0 0 0 1200. 1995. 1995. 248. 0.000026 1448. 0. 0. 0. 66.3 26.
2006 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 0. O+M= 17.5 INVTRY= 0. TOTAL= 275.8

CUMULATIVE P.W. INVEST= 1576.7 FUEL= 266.5 O+M= 160.6 INVTRY= 0.

2006 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 275.8 CUMULATIVE COST = 3652.5
PRESENT WORTH TOTAL = 120.8 CUMULATIVE P.W. = 2003.8

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2007 1 0 0. 0 0 0 1234. 1995. 1995. 233. 0.000041 1467. 0. 0. 0. 61.7 26.
2007 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 0. O+M= 17.5 INVTRY= 0. TOTAL= 275.8

CUMULATIVE P.W. INVEST= 1686.0 FUEL= 266.5 O+M= 168.0 INVTRY= 0.

2007 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 275.8 CUMULATIVE COST = 3928.3
PRESENT WORTH TOTAL = 116.7 CUMULATIVE P.W. = 2120.5

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2008 1 0 0. 0 0 0 1269. 1995. 1995. 219. 0.000072 1486. 0. 0. 0. 57.2 26.
2008 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 0. O+M= 17.5 INVTRY= 0. TOTAL= 275.8

CUMULATIVE P.W. INVEST= 1791.6 FUEL= 266.5 O+M= 175.2 INVTRY= 0.

2008 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 275.8 CUMULATIVE COST = 4204.1
PRESENT WORTH TOTAL = 112.8 CUMULATIVE P.W. = 2233.3

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2009 1 1 -139. 6 0 1
2009 1 0 0. 0 0 0 1305. 1856. 1856. 125. 0.001005 1430. 0. 0. 0. 42.2 23.
2009 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 6.5 O+M= 15.9 INVTRY= 0. TOTAL= 280.7

2009 1 1 -139. 6 0 1
2009 1 0 0. 0 0 0 1305. 1856. 1856. 125. 0.001005 1430. 0. 0. 0. 42.2 23.
2009 2 25 200. 2 0 1 1305. 2056. 2056. 216. 0.000100 1521. 0. 0. 0. 57.5 26.

2009 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 287.4 FUEL= 2.3 O+M= 26.4 INVTRY= 0. TOTAL= 316.0

2009 1 1 -139. 6 0 1
2009 1 0 0. 0 0 0 1305. 1856. 1856. 125. 0.001005 1430. 0. 0. 0. 42.2 23.
2009 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 6.5 O+M= 15.9 INVTRY= 0. TOTAL= 280.7

2009 1 1 -139. 6 0 1
2009 1 0 0. 0 0 0 1305. 1856. 1856. 125. 0.001005 1430. 0. 0. 0. 42.2 23.
2009 2 26 87. 3 0 1 1305. 1943. 1943. 194. 0.000095 1499. 0. 0. 0. 48.9 23.

2009 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 261.4 FUEL= 6.5 O+M= 16.6 INVTRY= 0. TOTAL= 284.4

2009 1 1 -139. 6 0 1
2009 1 0 0. 0 0 0 1305. 1856. 1856. 125. 0.001005 1430. 0. 0. 0. 42.2 23.
2009 COMMITTED MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 6.5 O+M= 15.9 INVTRY= 0. TOTAL= 280.7

2009	1	1	-139.	6	0	1												
2009	1	0	0.	0	0	0	1305.	1856.	1856.	125.	0.001005	1430.	0.	0.	0.	42.2	23.	
2009	2	29	228.	6	0	1	1305.	2084.	2084.	202.	0.000131	1507.	0.	0.	0.	59.7	23.	
2009	ALTERNATIVE	6	MW ADDED=	228.	COSTS.INVEST=	266.3	FUEL=	5.3	O+M=	18.6	INVTRY=	0.	TOTAL=	290.2				
2009	1	1	-139.	6	0	1												
2009	1	0	0.	0	0	0	1305.	1856.	1856.	125.	0.001005	1430.	0.	0.	0.	42.2	23.	
2009	1	1	-139.	6	0	1												
2009	1	0	0.	0	0	0	1305.	1856.	1856.	125.	0.001005	1430.	0.	0.	0.	42.2	23.	
**********																**********		
2009	ALTERNATIVE	1	MW ADDED=	0.	COSTS.INVEST=	258.3	FUEL=	6.1	O+M=	15.9	INVTRY=	0.	TOTAL=	280.3				
	CUMULATIVE P.W.		INVEST=	1893.7	FUEL=	268.9	O+M=	181.5	INVTRY=	0.								
2009	OPTIMUM = ALTERNATIVE	1	TOTAL COST IN MILLION DOLLARS =	280.3	CUMULATIVE COST =	4484.4												
	PRESENT WORTH TOTAL	=	110.7	CUMULATIVE P.W. =	2344.0													
**********																		
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	COMMITTED		MW ADDED=	1223.	COSTS.INVEST=	258.3	FUEL=	0.	O+M=	15.2	INVTRY=	0.	TOTAL=	273.5				
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	2	25	200.	2	0	1	1339.	2092.	2092.	163.	0.001018	1502.	0.	0.	0.	56.2	26.	
2010	ALTERNATIVE	2	MW ADDED=	1423.	COSTS.INVEST=	287.4	FUEL=	0.	O+M=	25.5	INVTRY=	0.	TOTAL=	312.8				
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	COMMITTED		MW ADDED=	1223.	COSTS.INVEST=	258.3	FUEL=	0.	O+M=	15.2	INVTRY=	0.	TOTAL=	273.5				
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	2	26	87.	3	0	1	1339.	1979.	1979.	134.	0.001376	1473.	0.	0.	0.	47.8	23.	
2010	ALTERNATIVE	4	MW ADDED=	1310.	COSTS.INVEST=	261.4	FUEL=	0.	O+M=	15.8	INVTRY=	0.	TOTAL=	277.2				
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	COMMITTED		MW ADDED=	1223.	COSTS.INVEST=	258.3	FUEL=	0.	O+M=	15.2	INVTRY=	0.	TOTAL=	273.5				

2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	2	29	228.	6	0	1	1339.	2120.	2120.	152.	0.001188	1491.	0.	0.	0.	58.3	23.	

2010 ALTERNATIVE 6 MW ADDED= 1451. COSTS,INVEST= 266.3 FUEL= 0. O+M= 17.9 INVTRY= 0. TOTAL= 284.2

2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	
2010	1	HYD	49.	7														
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1892.	1892.	65.	0.011678	1404.	0.	0.	0.	41.3	23.	

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2010 ALTERNATIVE 1 MW ADDED= 1223. COSTS,INVEST= 258.3 FUEL= 0. O+M= 15.2 INVTRY= 0. TOTAL= 273.5

CUMULATIVE P.W. INVEST= 1992.3 FUEL= 268.9 O+M= 187.3 INVTRY= 0.

2010 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 273.5 CUMULATIVE COST = 4757.9
PRESENT WORTH TOTAL = 104.4 CUMULATIVE P.W. = 2448.4

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2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	258.3	FUEL=	0.2	O+M=	15.2	INVTRY=	0.	TOTAL=	273.7				
2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	2	25	200.	2	0	1	1373.	2092.	2092.	144.	0.001467	1517.	0.	0.	0.	52.4	26.	

2011 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 287.4 FUEL= 0.2 O+M= 25.5 INVTRY= 0. TOTAL= 313.0

2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	258.3	FUEL=	0.2	O+M=	15.2	INVTRY=	0.	TOTAL=	273.7				
2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	2	26	87.	3	0	1	1373.	1979.	1979.	115.	0.001908	1488.	0.	0.	0.	44.1	23.	

2011 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 261.4 FUEL= 0.2 O+M= 15.8 INVTRY= 0. TOTAL= 277.4

2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	258.3	FUEL=	0.2	O+M=	15.2	INVTRY=	0.	TOTAL=	273.7				
2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	2	29	228.	6	0	1	1373.	2120.	2120.	130.	0.003083	1503.	0.	0.	0.	54.4	23.	

2011 ALTERNATIVE 6 MW ADDED= 228. COSTS,INVEST= 266.3 FUEL= 0.3 O+M= 17.9 INVTRY= 0. TOTAL= 284.5

2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	
2011	1	0	0.	0	0	0	1373.	1892.	1892.	39.	0.016364	1412.	0.	0.	0.	37.8	23.	

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2011 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 258.3 FUEL= 5.9 O+M= 15.2 INVTRY= 0. TOTAL= 279.4

CUMULATIVE P.W. INVEST= 2087.5 FUEL= 271.0 O+M= 192.9 INVTRY= 0.

2011 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 279.4 CUMULATIVE COST = 5037.3
PRESENT WORTH TOTAL = 103.0 CUMULATIVE P.W. = 2551.4

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2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	25	200.	2	0	1	1408.	1914.	1914.	22.	0.044165	1430.	0.	0.	0.	35.9	23.

2012 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 287.4 FUEL= 4.9 O+M= 23.7 INVTRY= 0. TOTAL= 315.9

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	25	200.	2	0	1											
2012	2	25	200.	2	0	1	1408.	2114.	2114.	119.	0.003789	1527.	0.	0.	0.	50.1	23.

2012 ALTERNATIVE 2 MW ADDED= 400. COSTS,INVEST= 316.4 FUEL= 4.7 O+M= 34.2 INVTRY= 0. TOTAL= 355.3

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	26	87.	3	0	1	1408.	1801.	1801.	12.	0.063067	1420.	0.	0.	0.	27.9	23.

2012 ALTERNATIVE 3 MW ADDED= 87. COSTS,INVEST= 261.4 FUEL= 5.1 O+M= 13.8 INVTRY= 0. TOTAL= 280.2

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	26	87.	3	0	1											
2012	2	26	87.	3	0	1	1408.	1808.	1988.	79.	0.007159	1487.	0.	0.	0.	34.1	23.

2012 ALTERNATIVE 4 MW ADDED= 174. COSTS,INVEST= 264.4 FUEL= 5.1 O+M= 14.0 INVTRY= 0. TOTAL= 283.9

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	29	228.	6	0	1	1408.	1942.	1942.	21.	0.052442	1429.	0.	0.	0.	37.9	23.

2012 ALTERNATIVE 5 MW ADDED= 228. COSTS,INVEST= 266.3 FUEL= 8.4 O+M= 15.8 INVTRY= 0. TOTAL= 290.5

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	29	228.	6	0	1											
2012	2	29	228.	6	0	1	1408.	2170.	2170.	102.	0.005331	1510.	0.	0.	0.	54.1	23.

2012 ALTERNATIVE 6 MW ADDED= 456. COSTS,INVEST= 274.3 FUEL= 11.8 O+M= 18.5 INVTRY= 0. TOTAL= 304.6

2012	1	5	-178.	6	0	1											
2012	1	0	0.	0	0	0	1408.	1714.	1714.	-53.	0.514746	1355.	0.	0.	0.	21.7	23.
2012	2	26	87.	3	0	1	1408.	1801.	1801.	12.	0.063067	1420.	0.	0.	0.	27.9	23.

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2012 ALTERNATIVE 3 MW ADDED= 87. COSTS,INVEST= 261.4 FUEL= 6.3 O+M= 13.8 INVTRY= 0. TOTAL= 281.4

CUMULATIVE P.W. INVEST= 2180.6 FUEL= 273.3 O+M= 197.8 INVTRY= 0.

2012 OPTIMUM = ALTERNATIVE 3 TOTAL COST IN MILLION DOLLARS = 281.4 CUMULATIVE COST = 5318.7
PRESENT WORTH TOTAL = 100.3 CUMULATIVE P.W. = 2651.7

2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	25	200.	2	0	1	1444.	1914.	1914.	0.	0.		0.	0.	0.		0.	32.5	23.
2013	ALTERNATIVE	1	MW ADDED=	200.	COSTS:INVEST=	287.4	FUEL=	5.4	O+M=	23.7	INVTRY=	0.	TOTAL=	316.5					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	25	200.	2	0	1													
2013	2	25	200.	2	0	1	1444.	2114.	2114.	0.	0.		0.	0.	0.		0.	46.4	23.
2013	ALTERNATIVE	2	MW ADDED=	400.	COSTS:INVEST=	316.4	FUEL=	5.2	O+M=	34.2	INVTRY=	0.	TOTAL=	359.8					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	26	87.	3	0	1	1444.	1801.	1801.	0.	0.		0.	0.	0.		0.	24.7	23.
2013	3	26	87.	3	0	1	1444.	1888.	1888.	0.	0.		0.	0.	0.		0.	30.7	23.
2013	ALTERNATIVE	3	MW ADDED=	174.	COSTS:INVEST=	264.4	FUEL=	5.8	O+M=	14.4	INVTRY=	0.	TOTAL=	284.6					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	26	87.	3	0	1													
2013	2	26	87.	3	0	1													
2013	2	26	87.	3	0	1	1444.	1975.	1975.	0.	0.		0.	0.	0.		0.	36.8	23.
2013	ALTERNATIVE	4	MW ADDED=	261.	COSTS:INVEST=	267.4	FUEL=	5.8	O+M=	15.1	INVTRY=	0.	TOTAL=	288.3					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	29	228.	6	0	1	1444.	1942.	1942.	0.	0.		0.	0.	0.		0.	34.5	23.
2013	ALTERNATIVE	5	MW ADDED=	228.	COSTS:INVEST=	266.3	FUEL=	9.4	O+M=	15.9	INVTRY=	0.	TOTAL=	291.5					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	29	228.	6	0	1													
2013	2	29	228.	6	0	1	1444.	2170.	2170.	0.	0.		0.	0.	0.		0.	50.3	23.
2013	ALTERNATIVE	6	MW ADDED=	456.	COSTS:INVEST=	274.3	FUEL=	13.2	O+M=	18.5	INVTRY=	0.	TOTAL=	306.0					
2013	1	26	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1714.	1714.	0.	0.		0.	0.	0.		0.	18.7	23.
2013	2	26	87.	3	0	1	1444.	1801.	1801.	0.	0.		0.	0.	0.		0.	24.7	23.
2013	3	26	87.	3	0	1	1444.	1888.	1888.	0.	0.		0.	0.	0.		0.	30.7	23.
2013	ALTERNATIVE	3	MW ADDED=	174.	COSTS:INVEST=	264.4	FUEL=	9.4	O+M=	14.4	INVTRY=	0.	TOTAL=	288.2					
	CUMULATIVE P.W.				INVEST=	2271.6	FUEL=	276.5	O+M=	202.7	INVTRY=	0.							
2013	OPTIMUM = ALTERNATIVE	3			TOTAL COST IN MILLION DOLLARS =			288.2		CUMULATIVE COST =				5606.9					
					PRESENT WORTH TOTAL		=	99.2		CUMULATIVE P.W. =				2750.9					

2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	25	200.	2	0	1	1481.	2001.	2001.	0.	0.		0.	0.	0.		0.	35.1	23.
2014	ALTERNATIVE	1	MW ADDED=	200.	COSTS,INVEST=	290.4	FUEL=	11.6	O+M=	24.7	INVTRY=	0.	TOTAL=	326.7					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	25	200.	2	0	1													
2014	2	25	200.	2	0	1	1481.	2201.	2201.	0.	0.		0.	0.	0.		0.	48.6	23.
2014	ALTERNATIVE	2	MW ADDED=	400.	COSTS,INVEST=	319.4	FUEL=	10.7	O+M=	35.6	INVTRY=	0.	TOTAL=	365.7					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	26	87.	3	0	1	1481.	1888.	1888.	0.	0.		0.	0.	0.		0.	27.5	23.
2014	3	26	87.	3	0	1	1481.	1975.	1975.	0.	0.		0.	0.	0.		0.	33.4	23.
2014	ALTERNATIVE	3	MW ADDED=	174.	COSTS,INVEST=	267.4	FUEL=	13.2	O+M=	15.1	INVTRY=	0.	TOTAL=	295.8					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	26	87.	3	0	1													
2014	2	26	87.	3	0	1													
2014	2	26	87.	3	0	1	1481.	2062.	2062.	0.	0.		0.	0.	0.		0.	39.2	23.
2014	ALTERNATIVE	4	MW ADDED=	261.	COSTS,INVEST=	270.5	FUEL=	13.2	O+M=	15.8	INVTRY=	0.	TOTAL=	299.5					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	29	228.	6	0	1	1481.	2029.	2029.	0.	0.		0.	0.	0.		0.	37.0	23.
2014	ALTERNATIVE	5	MW ADDED=	228.	COSTS,INVEST=	269.4	FUEL=	20.1	O+M=	16.5	INVTRY=	0.	TOTAL=	306.0					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	29	228.	6	0	1													
2014	2	29	228.	6	0	1	1481.	2257.	2257.	0.	0.		0.	0.	0.		0.	52.4	23.
2014	ALTERNATIVE	6	MW ADDED=	456.	COSTS,INVEST=	277.3	FUEL=	27.7	O+M=	19.2	INVTRY=	0.	TOTAL=	324.3					
2014	1	26	-87.	3	0	1													
2014	1	0	0.	0	0	0	1481.	1801.	1801.	0.	0.		0.	0.	0.		0.	21.6	23.
2014	2	26	87.	3	0	1	1481.	1888.	1888.	0.	0.		0.	0.	0.		0.	27.5	23.
2014	3	26	87.	3	0	1	1481.	1975.	1975.	0.	0.		0.	0.	0.		0.	33.4	23.
**********																	**********		
2014	ALTERNATIVE	7	MW ADDED=	174.	COSTS,INVEST=	267.4	FUEL=	19.9	O+M=	15.1	INVTRY=	0.	TOTAL=	302.4					
			CUMULATIVE P.W.		INVEST=	2360.6	FUEL=	283.1	O+M=	207.8	INVTRY=	0.							
2014	OPTIMUM = ALTERNATIVE	3		TOTAL COST IN MILLION DOLLARS =		302.4	CUMULATIVE COST =	5909.3											
				PRESENT WORTH TOTAL		=	100.6	CUMULATIVE P.W. =	2851.4									
**********																			
2015	1	26	-87.	3	0	1													
2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.	
2015	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	264.4	FUEL=	21.7	O+M=	14.5	INVTRY=	0.	TOTAL=	300.6					

6	2015	1	26	-87.	3	0	1												
5	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
4	2015	2	25	200.	2	0	1	1519.	2088.	2088.	96.	0.004540	1615.	0.	0.		0.	37.5	23.
3																			
	2015	ALTERNATIVE	2	MW ADDED=	200.	COSTS,INVEST=	293.4	FUEL=	17.8	O+M=	25.6	INVTRY=	0.	TOTAL=	336.8				
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	2015	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	264.4	FUEL=	21.7	O+M=	14.5	INVTRY=	0.	TOTAL=	300.6				
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	2015	2	26	87.	3	0	1	1519.	1975.	1975.	75.	0.006763	1594.	0.	0.		0.	30.0	46.
	2015	ALTERNATIVE	4	MW ADDED=	87.	COSTS,INVEST=	267.4	FUEL=	21.7	O+M=	15.1	INVTRY=	0.	TOTAL=	304.3				
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	2015	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	264.4	FUEL=	21.7	O+M=	14.5	INVTRY=	0.	TOTAL=	300.6				
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	2015	2	29	228.	6	0	1	1519.	2116.	2116.	94.	0.005573	1613.	0.	0.		0.	39.3	46.
	2015	ALTERNATIVE	6	MW ADDED=	228.	COSTS,INVEST=	272.4	FUEL=	30.9	O+M=	17.2	INVTRY=	0.	TOTAL=	320.5				
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	2015	1	26	-87.	3	0	1												
	2015	1	0	0.	0	0	0	1519.	1888.	1888.	3.	0.053502	1522.	0.	0.		0.	24.3	23.
	**********																		
	2015	ALTERNATIVE	1	MW ADDED=	0.	COSTS,INVEST=	264.4	FUEL=	27.9	O+M=	14.5	INVTRY=	0.	TOTAL=	306.8				
				CUMULATIVE P.W.		INVEST=	2445.6	FUEL=	292.1	O+M=	212.4	INVTRY=	0.						
	2015	OPTIMUM = ALTERNATIVE	1	TOTAL COST IN MILLION DOLLARS =		306.8	CUMULATIVE COST =		6216.1										
				PRESENT WORTH TOTAL		=	98.6	CUMULATIVE P.W. =		2950.0									
	**********																		
	2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
	2016	2	25	200.	2	0	1	1558.	2088.	2088.	67.	0.020240	1625.	0.	0.		0.	34.0	23.
	2016	ALTERNATIVE	1	MW ADDED=	200.	COSTS,INVEST=	293.4	FUEL=	41.7	O+M=	26.7	INVTRY=	0.	TOTAL=	361.9				
	2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
	2016	2	25	200.	2	0	1												
	2016	2	25	200.	2	0	1	1558.	2288.	2288.	179.	0.001764	1737.	0.	0.		0.	46.9	46.
	2016	ALTERNATIVE	2	MW ADDED=	400.	COSTS,INVEST=	322.5	FUEL=	35.8	O+M=	38.4	INVTRY=	0.	TOTAL=	396.7				
	2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
	2016	2	26	87.	3	0	1	1558.	1975.	1975.	56.	0.030720	1614.	0.	0.		0.	26.8	46.
	2016	ALTERNATIVE	3	MW ADDED=	87.	COSTS,INVEST=	267.4	FUEL=	47.8	O+M=	15.1	INVTRY=	0.	TOTAL=	330.4				
	2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
12	2016	2	26	87.	3	0	1												
11	2016	2	26	87.	3	0	1	1558.	2062.	2062.	111.	0.002849	1669.	0.	0.		0.	32.3	23.

2016 ALTERNATIVE 4 MW ADDED= 174. COSTS,INVEST= 270.5 FUEL= 47.8 O+M= 15.8 INVTRY= 0. TOTAL= 334.1

2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1943.	0.	0.		0.	21.2	23.
2016	2	29	228.	6	0	1	1558.	2116.	2116.	69.	0.023923	1627.	0.	0.		0.	35.8	46.

2016 ALTERNATIVE 5 MW ADDED= 228. COSTS,INVEST= 272.4 FUEL= 70.7 O+M= 17.3 INVTRY= 0. TOTAL= 360.4

2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
2016	2	29	228.	6	0	1												
2016	2	29	228.	6	0	1	1558.	2344.	2344.	166.	0.002396	1724.	0.	0.		0.	50.4	46.

2016 ALTERNATIVE 6 MW ADDED= 456. COSTS,INVEST= 280.4 FUEL= 85.4 O+M= 20.2 INVTRY= 0. TOTAL= 386.0

2016	1	0	0.	0	0	0	1558.	1888.	1888.	-15.	0.237520	1543.	0.	0.		0.	21.2	23.
2016	2	26	87.	3	0	1	1558.	1975.	1975.	56.	0.030720	1614.	0.	0.		0.	26.8	46.

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2016 ALTERNATIVE 3 MW ADDED= 87. COSTS,INVEST= 267.4 FUEL= 46.7 O+M= 15.2 INVTRY= 0. TOTAL= 329.3

2016 CUMULATIVE P.W. INVEST= 2528.6 FUEL= 306.6 O+M= 217.1 INVTRY= 0.

2016 OPTIMUM = ALTERNATIVE 3 TOTAL COST IN MILLTON DOLLARS = 329.3 CUMULATIVE COST = 6545.4
PRESENT WORTH TOTAL = 102.2 CUMULATIVE P.W. = 3052.3

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2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.

2017 COMMITTED MW ADDED= 0. COSTS,INVEST= 267.4 FUEL= 63.7 O+M= 15.2 INVTRY= 0. TOTAL= 346.3

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.
2017	2	25	200.	2	0	1	1598.	2175.	2175.	119.	0.003157	1713.	0.	0.		0.	36.1	46.

2017 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 296.5 FUEL= 51.8 O+M= 27.8 INVTRY= 0. TOTAL= 376.1

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.

2017 COMMITTED MW ADDED= 0. COSTS,INVEST= 267.4 FUEL= 63.7 O+M= 15.2 INVTRY= 0. TOTAL= 346.3

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.
2017	2	26	87.	3	0	1	1598.	2062.	2062.	98.	0.004874	1696.	0.	0.		0.	29.0	23.

2017 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 270.5 FUEL= 63.7 O+M= 15.8 INVTRY= 0. TOTAL= 350.0

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.

2017 COMMITTED MW ADDED= 0. COSTS,INVEST= 267.4 FUEL= 63.7 O+M= 15.2 INVTRY= 0. TOTAL= 346.3

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.
2017	2	29	228.	6	0	1	1598.	2203.	2203.	117.	0.003606	1715.	0.	0.		0.	37.9	46.

2017 ALTERNATIVE 6 MW ADDED= 228. COSTS,INVEST= 275.4 FUEL= 89.7 O+M= 18.1 INVTRY= 0. TOTAL= 383.2

2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.
2017	1	0	0.	0	0	0	1598.	1975.	1975.	28.	0.035977	1626.	0.	0.		0.	23.6	46.

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2017 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 267.4 FUEL= 56.5 O+M= 15.2 INVTRY= 0. TOTAL= 339.1

2017 CUMULATIVE P.W. INVEST= 2608.8 FUEL= 323.5 O+M= 221.7 INVTRY= 0.

2017 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 339.1 CUMULATIVE COST = 6884.6
PRESENT WORTH TOTAL = 101.7 CUMULATIVE P.W. = 3154.0

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2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 COMMITTED MW ADDED= 0. COSTS.INVEST= 267.4 FUEL= 81.5 O+M= 15.2 INVTRY= 0. TOTAL= 364.1

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 2 25 200. 2 0 1 1639. 2175. 2175. 96. 0.007764 1735. 0. 0. 0. 32.7 46.

2018 ALTERNATIVE 2 MW ADDED= 200. COSTS.INVEST= 296.5 FUEL= 60.4 O+M= 28.1 INVTRY= 0. TOTAL= 384.9

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 COMMITTED MW ADDED= 0. COSTS.INVEST= 267.4 FUEL= 81.5 O+M= 15.2 INVTRY= 0. TOTAL= 364.1

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 2 26 87. 3 0 1 1639. 2062. 2062. 74. 0.012533 1713. 0. 0. 0. 25.8 23.

2018 ALTERNATIVE 4 MW ADDED= 87. COSTS.INVEST= 270.5 FUEL= 81.5 O+M= 15.9 INVTRY= 0. TOTAL= 367.8

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 COMMITTED MW ADDED= 0. COSTS.INVEST= 267.4 FUEL= 81.5 O+M= 15.2 INVTRY= 0. TOTAL= 364.1

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 2 29 228. 6 0 1 1639. 2203. 2203. 85. 0.009533 1724. 0. 0. 0. 34.4 46.

2018 ALTERNATIVE 6 MW ADDED= 228. COSTS.INVEST= 275.4 FUEL= 104.4 O+M= 18.1 INVTRY= 0. TOTAL= 397.9

2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.
2018 1 0 0. 0 0 0 1639. 1975. 1975. 13. 0.088191 1652. 0. 0. 0. 20.5 46.

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2018 ALTERNATIVE 1 MW ADDED= 0. COSTS.INVEST= 267.4 FUEL= 70.1 O+M= 15.2 INVTRY= 0. TOTAL= 352.7

CUMULATIVE P.W. INVEST= 2686.3 FUEL= 343.8 O+M= 226.1 INVTRY= 0.

2018 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 352.7 CUMULATIVE COST = 7237.3
PRESENT WORTH TOTAL = 102.2 CUMULATIVE P.W. = 3256.2

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2019 1 0 0. 0 0 0 1681. 1975. 1975. -49. 0.284124 1632. 0. 0. 0. 17.5 46.
2019 2 25 200. 2 0 1 1681. 2175. 2175. 61. 0.025431 1742. 0. 0. 0. 29.4 46.

2019 ALTERNATIVE 1 MW ADDED= 200. COSTS.INVEST= 296.5 FUEL= 77.3 O+M= 28.2 INVTRY= 0. TOTAL= 402.0

2019 1 0 0. 0 0 0 1681. 1975. 1975. -49. 0.284124 1632. 0. 0. 0. 17.5 46.
2019 2 25 200. 2 0 1
2019 2 25 200. 2 0 1 1681. 2375. 2375. 174. 0.002289 1855. 0. 0. 0. 41.3 46.

2019 ALTERNATIVE 2 MW ADDED= 400. COSTS.INVEST= 325.5 FUEL= 57.1 O+M= 40.6 INVTRY= 0. TOTAL= 423.2

2019 1 0 0. 0 0 0 1681. 1975. 1975. -49. 0.284124 1632. 0. 0. 0. 17.5 46.
2019 2 26 87. 3 0 1 1681. 2062. 2062. 45. 0.047852 1726. 0. 0. 0. 22.7 23.

2019 ALTERNATIVE 3 MW ADDED= 87. COSTS.INVEST= 270.5 FUEL= 109.5 O+M= 15.9 INVTRY= 0. TOTAL= 395.9

2019	1	0	0.	0	0	0	1681.	1975.	1975.	-49.	0.284124	1632.	0.	0.		0.	17.5	46.
2019	2	26	87.	3	0	1												
2019	2	26	87.	3	0	1	1681.	2149.	2149.	99.	0.004975	1780.	0.	0.		0.	27.8	23.
2019	ALTERNATIVE	4	MW ADDED=	174.	COSTS.INVEST=	273.5	FUEL=	109.5	O+M=	16.6	INVTRY=	0.	TOTAL=	399.6				
2019	1	0	0.	0	0	0	1681.	1975.	1975.	-49.	0.284124	1632.	0.	0.		0.	17.5	46.
2019	2	29	228.	6	0	1	1681.	2203.	2203.	44.	0.030275	1725.	0.	0.		0.	31.1	46.
2019	ALTERNATIVE	5	MW ADDED=	228.	COSTS.INVEST=	275.4	FUEL=	123.6	O+M=	18.1	INVTRY=	0.	TOTAL=	417.2				
2019	1	0	0.	0	0	0	1681.	1975.	1975.	-49.	0.284124	1632.	0.	0.		0.	17.5	46.
2019	2	29	228.	6	0	1												
2019	2	29	228.	6	0	1	1681.	2431.	2431.	163.	0.003077	1844.	0.	0.		0.	44.6	46.
2019	ALTERNATIVE	6	MW ADDED=	456.	COSTS.INVEST=	283.4	FUEL=	140.2	O+M=	21.0	INVTRY=	0.	TOTAL=	444.7				
2019	1	0	0.	0	0	0	1681.	1975.	1975.	-49.	0.284124	1632.	0.	0.		0.	17.5	46.
2019	2	26	87.	3	0	1	1681.	2062.	2062.	45.	0.047852	1726.	0.	0.		0.	22.7	23.
**********																		
2019	ALTERNATIVE	3	MW ADDED=	87.	COSTS.INVEST=	270.5	FUEL=	94.5	O+M=	15.9	INVTRY=	0.	TOTAL=	380.9				
			CUMULATIVE P.W.		INVEST=	2762.1	FUEL=	370.3	O+M=	230.5	INVTRY=	0.						
2019	OPTIMUM = ALTERNATIVE	3		TOTAL COST IN MILLION DOLLARS =		380.9	CUMULATIVE COST =	7618.2										
				PRESENT WORTH TOTAL		106.7	CUMULATIVE P.W. =	3362.9										
**********																		
2020	1	26	-87.	3	0	1												
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.		0.	14.6	46.
2020	2	25	200.	2	0	1	1724.	2175.	2175.	29.	0.030999	1753.	0.	0.		0.	26.2	46.
2020	ALTERNATIVE	1	MW ADDED=	200.	COSTS.INVEST=	296.5	FUEL=	100.7	O+M=	28.3	INVTRY=	0.	TOTAL=	425.5				
2020	1	26	-87.	3	0	1												
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.		0.	14.6	46.
2020	2	25	200.	2	0	1												
2020	2	25	200.	2	0	1	1724.	2375.	2375.	148.	0.002850	1872.	0.	0.		0.	37.8	46.
2020	ALTERNATIVE	2	MW ADDED=	400.	COSTS.INVEST=	325.5	FUEL=	65.4	O+M=	41.0	INVTRY=	0.	TOTAL=	431.9				
2020	1	26	-87.	3	0	1												
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.		0.	14.6	46.
2020	2	26	87.	3	0	1	1724.	2062.	2062.	15.	0.055347	1739.	0.	0.		0.	19.6	23.
2020	ALTERNATIVE	3	MW ADDED=	87.	COSTS.INVEST=	270.5	FUEL=	144.0	O+M=	16.0	INVTRY=	0.	TOTAL=	430.5				
2020	1	26	-87.	3	0	1												
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.		0.	14.6	46.
2020	2	26	87.	3	0	1												
2020	2	26	87.	3	0	1	1724.	2149.	2149.	71.	0.008426	1795.	0.	0.		0.	24.7	23.
2020	ALTERNATIVE	4	MW ADDED=	174.	COSTS.INVEST=	273.5	FUEL=	144.0	O+M=	16.6	INVTRY=	0.	TOTAL=	434.2				

2020	1	26	-87.	3	0	1											
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.	0.	14.6	46.
2020	2	29	228.	6	0	1	1724.	2203.	2203.	14.	0.034895	1738.	0.	0.	0.	27.8	46.

2020 ALTERNATIVE 5 MW ADDED= 228. COSTS.INVEST= 275.4 FUEL= 148.4 O+M= 18.2 INVTRY= 0. TOTAL= 442.0

2020	1	26	-87.	3	0	1											
2020	1	0	0.	0	0	0	1724.	1973.	1975.	-30.	0.345090	1694.	0.	0.	0.	14.6	46.
2020	2	29	228.	6	0	1											
2020	2	29	228.	6	0	1	1724.	2431.	2431.	139.	0.003647	1863.	0.	0.	0.	41.0	46.

2020 ALTERNATIVE 6 MW ADDED= 456. COSTS.INVEST= 283.4 FUEL= 157.9 O+M= 21.1 INVTRY= 0. TOTAL= 462.4

2020	1	26	-87.	3	0	1											
2020	1	0	0.	0	0	0	1724.	1975.	1975.	-30.	0.345090	1694.	0.	0.	0.	14.6	46.
2020	2	25	200.	2	0	1	1724.	2175.	2175.	29.	0.030999	1753.	0.	0.	0.	26.2	46.

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2020 ALTERNATIVE 1 MW ADDED= 200. COSTS.INVEST= 296.5 FUEL= 91.5 O+M= 28.5 INVTRY= 0. TOTAL= 416.5

CUMULATIVE P.W. INVEST= 2842.3 FUEL= 395.0 O+M= 238.3 INVTRY= 0.

2020 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 416.5 CUMULATIVE COST = 8034.6
PRESENT WORTH TOTAL = 112.7 CUMULATIVE P.W. = 3475.6

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ALASKA RAILBELT 08/16/84 10.178
DEISSUS #2185 TY 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL ZML,JMS

ORIGINAL SYSTEM

COMPANY	TOTAL CAP.	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	945.	0.	59.	254.	166.	6.	317.	143.	0.	0.	0.
POOL	945.	0.	59.	254.	166.	6.	317.	143.	0.	0.	0.

TYPE	TYPE ID
NUKE	1
COAL	2
NGASGT	3
OIL GT	4
DIESEL	5
COMCYC	6
HYDRO	7
PSH	8
ES-2	9
ES-3	10

ALASKA RAILBELT 08/16/84 10.178
DEISSUS #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 1993

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	53.	3	0	539.	7	0														
	0.	0	0	87.	3	0					0.	0.	34.	0.	0.	0.	539.	0.	0.	0.
							915.	1518.			0.	59.	288.	166.	6.	317.	682.	0.	0.	0.
POOL											0.	0.	34.	0.	0.	0.	539.	0.	0.	0.
	53.			626.			915.	1518.			0.	59.	288.	166.	6.	317.	682.	0.	0.	0.
									1518.	65.9										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		ENERGY DISPOSITION (MWH) *** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
985390.	3383732.	4396997.		0.	0.	0.	4396997.	4396997.

EXCESS HYDRO ENERGY = 0.

EXCESS HYDRO ENERGY SPILLED = 536303.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 919. MW LOLP AT 915. MW POOL PEAK= 0.092 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 1994

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

TIME OF PEAK

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	********** NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASOT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	********** ES-2	ES-3
1	0.	0	0	87.	3	0					0.	0.	121.	0.	0.	0.	539.	0.	0.	0.
							935.	1605.			0.	59.	375.	166.	6.	317.	682.	0.	0.	0.
POOL1											0.	0.	121.	0.	0.	0.	539.	0.	0.	0.
	0.			87.			935.	1605.			0.	59.	375.	166.	6.	317.	682.	0.	0.	0.
									1605.	71.7										

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
1029505.	3902813.	4492043.		0.	0.	0.	4492043.	4492043.

EXCESS HYDRO ENERGY SPILLED = 479062.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 994. MW LOLP AT 935. MW POOL PEAK= 0.020 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1995, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 1995

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTG	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	4.	4	0	87.	3	0														
	4.	4	0	0.	0	0														
	58.	3	0	0.	0	0					0.	0.	150.	-7.	0.	0.	539.	0.	0.	0.
							955.	1627.			0.	59.	404.	159.	6.	317.	682.	0.	0.	0.
POOL											0.	0.	150.	-7.	0.	0.	539.	0.	0.	0.
	65.			87.			955.	1627.			0.	59.	404.	159.	6.	317.	682.	0.	0.	0.
									1627.	70.4										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1122115.	3918981.	4587896.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4587896.	4587896.

EXCESS HYDRO ENERGY SPILLED = 430558.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1012. MW LOLP AT 955. MW POOL PEAK= 0.021 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSJ3 N2185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 1996

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. TNCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	29. 4 0	0. 0 0														
	65. 4 0	0. 0 0					0.	0.	150.	-101.	0.	0.	539.	0.	0.	0.
			972.	1533.			0.	59.	404.	65.	6.	317.	682.	0.	0.	0.
POOL							0.	0.	150.	-101.	0.	0.	539.	0.	0.	0.
	94.	0.	972.	1533.			0.	59.	404.	65.	6.	317.	682.	0.	0.	0.
					1533.	57.7										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
1164945.	3925260.	4669925.		0.	0.	0.	4669925.	4669925.

EXCESS HYDRO ENERGY SPILLED = 137240.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1119. MW LOLP AT 972. MW POOL PEAK= 0.001 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSUE #2185 IN 1993, LOLP 0.1, D&M COAL,RHCA GAS, EBASCOAL 2MLJM5

YEAR 1997

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	E8-2	E8-3
1	65. 0 0	0. 0 0														
	25. 2 0	0. 0 0					0.	-25.	150.	-166.	0.	0.	539.	0.	0.	0.
			989.	1443.			0.	34.	404.	-0.	6.	317.	682.	0.	0.	0.
POOL1							0.	-25.	150.	-166.	0.	0.	539.	0.	0.	0.
	90.	0.	989.	1443.			0.	34.	404.	-0.	6.	317.	682.	0.	0.	0.
					1443.	45.9										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1150050.	3600963.	4751048.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
E8-2	0.	0.	0.		
E8-3	0.	0.	0.		
	0.	0.	0.	4751048.	4751048.

EXCESS HYDRO ENERGY SPILLED = 740919.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1051. MW LOLP AT 989. MW POOL PEAK= 0.019 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2165 IN 1993, LOLP 0.1, D&M COAL,&HCA GAS, EBASCOAL 2MLJM5

YEAR 1998

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTCL	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	26.	3	0	0.	0	0					0.	-25.	124.	-166.	0.	0.	539.	0.	0.	0.
							1005.	1417.			0.	34.	377.	-0.	6.	317.	682.	0.	0.	0.
POOL											0.	-25.	124.	-166.	0.	0.	539.	0.	0.	0.
	26.			0.			1005.	1417.			0.	34.	377.	-0.	6.	317.	682.	0.	0.	0.
								1417.	41.0											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1197075.	3949880.	4833080.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4833080.	4833080.

EXCESS HYDRO ENERGY SPILLED = 675718.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1032. MW LOLP AT 1005. MW POOL PEAK= 0.055 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEIS3U3 #2185 IN 1993, LOLP 0.1, D&M COAL,RHCA GAS, EBASCOAL 2MLJM5

YEAR 1999

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PBH	ES-2	ES-3
1	1, 5 0	0. 0 0					0.	-25.	124.	-166.	-1.	0.	539.	0.	0.	0.
			1023.	1416.			0.	34.	377.	-0.	6.	317.	682.	0.	0.	0.
POOL							0.	-25.	124.	-166.	-1.	0.	539.	0.	0.	0.
	1.	0.	1023.	1416.			0.	34.	377.	-0.	6.	317.	682.	0.	0.	0.
					1416.	38.4										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1248680.	3959401.	4915006.

EXCESS HYDRO ENERGY = 0.

EXCESS HYDRO ENERGY SPILLED = 618592.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4915006.	4915006.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1038. MW LOLP AT 1023. MW POOL PEAK= 0.067 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2000

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC.	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	3.	5	0	87.	3	0														
	3.	5	0	0.	0	0														
	21.	2	0	0.	0	0					0.	-46.	211.	-166.	-6.	0.	539.	0.	0.	0.
							1040.	1476.			0.	13.	464.	-0.	0.	317.	682.	0.	0.	0.
POOL											0.	-46.	211.	-166.	-6.	0.	539.	0.	0.	0.
	27.			87.			1040.	1476.			0.	13.	464.	-0.	0.	317.	682.	0.	0.	0.
								1476.	42.0											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1267635.	3963988.	4996078.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4996078.	4996078.

EXCESS HYDRO ENERGY SPILLED = 394048.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1087. MW LOLP AT 1040. MW POOL PEAK= 0.030 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEIS3U3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2001

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	0. 0 0					0.	-46.	211.	-166.	-6.	0.	539.	0.	0.	0.
			1065.	1476.			0.	13.	464.	-0.	0.	317.	682.	0.	0.	0.
POOL							0.	-46.	211.	-166.	-6.	0.	539.	0.	0.	0.
	0.	0.	1065.	1476.			0.	13.	464.	-0.	0.	317.	682.	0.	0.	0.
					1476.	38.6										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
1341880.	3779180.	5116945.

EXCESS HYDRO ENERGY SPILLED = 699920.

ENERGY DISPOSITION (MWH) *** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH 0.	0.	0.		
ES-2 0.	0.	0.		
ES-3 0.	0.	0.		
0.	0.	0.	5116945.	5116945.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1095. MW LOLP AT 1065. MW POOL PEAK= 0.049 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL ZMLJM5

YEAR 2002

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
											CUMULATIVE ADDITIONS BY TYPE (LINE 1)									
											TOTAL CAPACITY BY TYPE (LINE 2)									
1	26.	3	0	635.	7	0														
	90.	3	0	0.	0	0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
							1090.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL											0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	116.			635.			1090.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
								1995.	83.0											

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
0.	5238000.	5238000.		0.	0.	0.	5238000.	5238000.

EXCESS HYDRO ENERGY = 152562.

EXCESS HYDRO ENERGY SPILLED = 1391500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1400. MW LOLP AT 1090. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10-178
DEISSU3 N2185 IV 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2003

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. TYCL CRTC	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	0. 0 0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
			1114.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL1							0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	0.	0.	1114.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
				1995.	79.1											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
0.	5359000.	5359000.

ENERGY DISPOSITION (MWH)

	*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	5359000.	5359000.

EXCESS HYDRO ENERGY = 137019.

EXCESS HYDRO ENERGY SPILLED = 1270500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1409. MW LOLP AT 1114. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IN 1993, LOLP 0.1, DRM COAL, AMCA GAS, EBASCOAL 2MLJM5

YEAR 2004

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCLI CRTC.	PCT RES	NUKE	COAL	NGASGT	DIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
					**********		CUMULATIVE ADDITIONS BY TYPE (LINE 1)									**********
							TOTAL CAPACITY BY TYPE (LINE 2)									
1	0. 0 0	0. 0 0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
			1140.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL1							0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	0.	0.	1140.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
					1995.	75.0										

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
0.	5481000.	5481000.		0.	0.	0.	5481000.	5481000.

EXCESS HYDRO ENERGY = 126149.

EXCESS HYDRO ENERGY SPILLED = 1148500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1445. MW LOLP AT 1140. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.176
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2005

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK INCLI CRTCI	CAP. PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	0. 0 0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
			1165.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL1							0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	0.	0.	1165.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
					1995.	71.2										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
0.	5602000.	5602000.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	5602000.	5602000.

EXCESS HYDRO ENERGY = 111574.

EXCESS HYDRO ENERGY SPILLED = 1027900.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1438. MW LOLP AT 1165. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #2185 IY 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2006

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	TIME OF PEAK MW LOAD	CAP. TOTAL CAP.	********** INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3	**********
1	0. 0 0	0. 0 0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.	
			1200.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.	
POOL1							0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.	
	0.	0.	1200.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.	
				1995.	66.3												

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	ENERGY DISPOSITION (MWH) POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
0.	5771000.	5771000.		0.	0.	0.	5771000.	5771000.

EXCESS HYDRO ENERGY = 93998.

EXCESS HYDRO ENERGY SPILLED = 856500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1048. MW LOLP AT 1200. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IY 1993, LOLP 0.1, DRM COAL, RHCA GAS, EBASCOAL 2MLJM5

YEAR 2007

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	TIME OF PEAK MW LOAD	CAP. TOTAL CAP.	INCL CRTCL	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	0. 0 0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
			1234.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL1							0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	0.	0.	1234.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
				1995.	61.7											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
0.	5939000.	5939000.		0.	0.	0.	5939000.	5939000.

EXCESS HYDRO ENERGY = 75406.

EXCESS HYDRO ENERGY SPILLED = 696500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1467. MW LOLP AT 1234. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IN 1993, LOLP 0.1, DRM COAL,84CA GAS, FBASCOAL 2MLJMS

YEAR 2008

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK LOAD	CAP. TOTAL CAP.	INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
												CUMULATIVE ADDITIONS BY TYPE (LINE 1)								
												TOTAL CAPACITY BY TYPE (LINE 2)								
1	0.	0	0	0.	0	0					0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
							1269.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
POOL1											0.	-46.	94.	-166.	-6.	0.	1174.	0.	0.	0.
	0.			0.			1269.	1995.			0.	13.	348.	-0.	0.	317.	1317.	0.	0.	0.
								1995.	57.2											

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)					
			*** ENERGY STORAGE ***					
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
0.	6107009.	6107000.		0.	0.	0.	6107000.	6107000.

EXCESS HYDRO ENERGY = 56060.

EXCESS HYDRO ENERGY SPILLED = 922500.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1488. MW LOLP AT 1269. MW POOL PEAK= 0.000 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.17B
DEISSU3 #2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJMS

YEAR 2009

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL. CRTC.	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	139.	6	0	0.	0	0					0.	-46.	94.	-166.	-6.	-139.	1174.	0.	0.	0.
							1305.	1856.			0.	13.	348.	-0.	0.	178.	1317.	0.	0.	0.
POOL											0.	-46.	94.	-166.	-6.	-139.	1174.	0.	0.	0.
	139.			0.			1305.	1856.			0.	13.	348.	-0.	0.	178.	1317.	0.	0.	0.
								1856.	42.2											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		ENERGY DISPOSITION (MWH) *** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
63240.	6272013.	6275998.		0.	0.	0.	6275998.	6275998.

EXCESS HYDRO ENERGY = 34947.

EXCESS HYDRO ENERGY SPILLED = 2144920.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1430. MW LOLP AT 1305. MW POOL PEAK= 0.001 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSUS #2185 IN 1993, LOLP 0.1, DRM COAL,84CA GAS, EBASCOAL ZMLJMS

YEAR 2010

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

TIME OF PEAK

CO.	RETIREMENTS MW TYPE	M	ADDITIONS MW TYPE	M	MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	10. 2	0	49. 7	0														
	2. 2	0	0. 0	0														
	2. 2	0	0. 0	0					0.	-59.	94.	-166.	-6.	-139.	1223.	0.	0.	0.
					1339.	1892.			0.	0.	348.	-0.	0.	178.	1366.	0.	0.	0.
POOL									0.	-59.	94.	-166.	-6.	-139.	1223.	0.	0.	0.
	13.		49.		1339.	1892.			0.	0.	348.	-0.	0.	178.	1366.	0.	0.	0.
							1892.	41.3										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
0.	6444000.	6444000.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	6444000.	6444000.

EXCESS HYDRO ENERGY = 121153.

EXCESS HYDRO ENERGY SPILLED = 6105000.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1404. MW LOLP AT 1339. MW POOL PEAK= 0.012 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEIS3U3 N2185 IV 1995, LOLP 0.1, D&M COAL,SHCA GAS, ERASCOAL 2MLJM5

YEAR 2011

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCLI CRTCI	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0	0	0.	0	0					0.	-59.	94.	-166.	-6.	-139.	1223.	0.	0.	0.
							1373.	1892.			0.	0.	348.	-0.	0.	178.	1366.	0.	0.	0.
POOL1											0.	-59.	94.	-166.	-6.	-139.	1223.	0.	0.	0.
	0.			0.			1373.	1892.			0.	0.	348.	-0.	0.	178.	1366.	0.	0.	0.
								1892.	37.8											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
55800.	6609853.	6609958.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	6609958.	6609958.

EXCESS HYDRO ENERGY = 104058.

EXCESS HYDRO ENERGY SPILLED = 5109882.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1412. MW LOLP AT 1373. MW POOL PEAK= 0.016 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.17H
DEIS8U3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2012

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

TIME OF PEAK

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	178.	6	0	87.	3	0					0.	-59.	181.	-166.	-6.	-317.	1223.	0.	0.	0.
							1408.	1801.			0.	0.	435.	-0.	0.	0.	1366.	0.	0.	0.
POOL											0.	-59.	181.	-166.	-6.	-317.	1223.	0.	0.	0.
	178.			87.			1408.	1801.			0.	0.	435.	-0.	0.	0.	1366.	0.	0.	0.
									1801.	27.9										

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)					
			*** ENERGY STORAGE ***					
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
40900.	6775488.	6779978.		0.	0.	0.	6779978.	6779978.

EXCESS HYDRO ENERGY = 90395.

EXCESS HYDRO ENERGY SPILLED = 4116073.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1420. MW LOLP AT 1408. MW POOL PEAK= 0.063 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 TV 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2013

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS	ADDITIONS	MW	TOTAL	TIME OF PEAK CAP. INCL	PCT	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2)								
CO.	MW TYPE M	MW TYPE M	LOAD	CAP.	CRTC.	RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87. 3 0	87. 3 0														
	0. 0 0	87. 3 0					0.	-59.	268.	-166.	-6.	-317.	1223.	0.	0.	0.
			1444.	1888.			0.	0.	522.	-0.	0.	0.	1366.	0.	0.	0.
POOL							0.	-59.	268.	-166.	-6.	-317.	1223.	0.	0.	0.
	87.	174.	1444.	1888.			0.	0.	522.	-0.	0.	0.	1366.	0.	0.	0.
					1888.	30.7										

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
			*** ENERGY STORAGE ***				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
60060.	6931665.	6955080.		0.	0.	0.	6955080.	6955080.

EXCESS HYDRO ENERGY = 69139.

EXCESS HYDRO ENERGY SPILLED = 3179010.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 0. MW LOLP AT 1444. MW POOL PEAK= 0. DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 M2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2014

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCLI CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87.	3	0	87.	3	0														
	0.	0	0	87.	3	0					0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
							1481.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
POOL:											0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
	87.			174.			1481.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
									1975.	33.4										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
128855.	7086381.	7134991.		0.	0.	0.	7134991.	7134991.

EXCESS HYDRO ENERGY = 51317.

EXCESS HYDRO ENERGY SPILLED = 2250713.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 0. MW LOLP AT 1481. MW POOL PEAK= 0. DAYS/YEAR

YEAR 2015

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	REQUIREMENTS MW TYPE M	ADDITIONS MW TYPE M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTCL	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87. 3 0	0. 0 0					0.	-59.	268.	-166.	-6.	-317.	1223.	0.	0.	0.
			1519.	1888.			0.	0.	522.	-0.	0.	0.	1366.	0.	0.	0.
POOL							0.	-59.	268.	-166.	-6.	-317.	1223.	0.	0.	0.
	87.	0.	1519.	1888.			0.	0.	522.	-0.	0.	0.	1366.	0.	0.	0.
				1888.	24.3											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
154225.	7221642.	7316057.		0.	0.	0.	7316057.	7316057.

EXCESS HYDRO ENERGY = 35294.

EXCESS HYDRO ENERGY SPILLED = 1439150.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1922. MW LOLP AT 1519. MW POOL PEAK= 0.054 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 #2185 IV 1993, LOLP 0.1, DRM COAL,84CA GAS, FBASCOAL 2MLJM5

YEAR 2010

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TYPE OF PEAK CAP. INCL CRTC	PCT RES	********** CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	********** ES-2	ES-3
1	0. 0 0	87. 3 0					0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
			1558.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
POOL							0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
	0.	87.	1558.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
				1975.	26.8											

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
293980.	7338520.	7506955.		0.	0.	0.	7506955.	7506955.

EXCESS HYDRO ENERGY = 23180.

EXCESS HYDRO ENERGY SPILLED = 737879.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1614. MW LOLP AT 1558. MW POOL PEAK= 0.031 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2017

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS		ADDITIONS		TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
CO.	MW	TYPE M	MW	TYPE M														
1	0.	0 0	0.	0 0					0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
					1598.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
POOL1									0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
	0.		0.		1598.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
						1975.	23.6											

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY STORAGE *** PUMP	TOT. GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
368015.	7405033.	7700968.		0.	0.	0.	7700968.	7700968.

EXCESS HYDRO ENERGY = 5869.

EXCESS HYDRO ENERGY SPILLED = 338801.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1626. MW LOLP AT 1598. MW POOL PEAK= 0.036 DAYS/YEAR

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ALASKA RAILBELT 08/16/84 10.178
DECISSU3 42185 TY 1993, LOLP 0.1, D&M COAL,SHCA GAS, EBASCOAL 2MLJM5

YEAR 2018

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
									CUMULATIVE ADDITIONS BY TYPE (LINE 1)									
									TOTAL CAPACITY BY TYPE (LINE 2)									
1	0.	0 0	0.	0 0					0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
					1639.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
POOL									0.	-59.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
	0.		0.		1639.	1975.			0.	0.	609.	-0.	0.	0.	1366.	0.	0.	0.
						1975.	20.5											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
484120.	7437086.	7899085.

ENERGY DISPOSITION (MWH)

	*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	7899085.	7899085.

EXCESS HYDRO ENERGY SPILLED = 186487.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1652. MW LOLP AT 1639. MW POOL PEAK= 0.088 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEISSU3 N2185 IV 1993, LOLP 0.1, DBM COAL, SHCA GAS, EBASCOAL 2MLJM5

YEAR 2019

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	PCT NUKE	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0	0	87.	3	0					0.	-59.	442.	-166.	-6.	-317.	1223.	0.	0.	0.
							1681.	2062.			0.	0.	696.	-0.	0.	0.	1366.	0.	0.	0.
POOL 1											0.	-59.	442.	-166.	-6.	-317.	1223.	0.	0.	0.
	0.			87.			1681.	2062.			0.	0.	696.	-0.	0.	0.	1366.	0.	0.	0.
								2062.	22.7											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
664880.	7450922.	8103032.

EXCESS HYDRO ENERGY SPILLED = 63470.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT. GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	8103032.	8103032.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1726. MW LOLP AT 1681. MW POOL PEAK= 0.048 DAYS/YEAR

ALASKA AILBELT 08/16/84 10.178
DEISSU3 N2185 TY 1993, LOLP 0.1, DRM COAL,BHCA GAS, EBASCOAL 2MLJM5

YEAR 2020

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTCL	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87.	3	0	200.	2	0					0.	141.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
							1724.	2175.			0.	200.	609.	-0.	0.	0.	1366.	0.	0.	0.
POOL											0.	141.	355.	-166.	-6.	-317.	1223.	0.	0.	0.
	87.			200.			1724.	2175.			0.	200.	609.	-0.	0.	0.	1366.	0.	0.	0.
									2175.	26.2										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
1168990.	7461500.	8311930.		0.	0.	0.	8311930.	8311930.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1753. MW LOLP AT 1724. MW POOL PEAK= 0.031 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.178
DEIS9U3 W2185 IV 1993, LOLP 0.1, DEM COAL&SHCA GAS, EBASCOAL 2MLJM5

	POOL PEAK	TOTAL ENERGY	LOAD	YEARLY COSTS (MILLION $)					YEARLY COSTS ($/MWH)				
YEAR	(MW)	(GWH)	FACTOR	INVEST.	FUEL	O+M	NUC INV	TOTAL	INV.	FUEL	O+M	N.I.	TOTAL
1993	915.	4397.0	54.86	174.3	34.9	22.8	0.	232.0	39.6	7.9	5.2	0.	52.8
1994	935.	4492.0	54.84	177.4	37.7	23.5	0.	238.6	39.5	8.4	5.2	0.	53.1
1995	955.	4587.9	54.84	180.4	43.2	23.8	0.	247.4	39.3	9.4	5.2	0.	53.9
1996	972.	4669.9	54.70	180.4	46.6	23.2	0.	250.2	38.6	10.0	5.0	0.	53.6
1997	989.	4751.0	54.84	180.4	49.3	20.1	0.	249.8	38.0	10.4	4.2	0.	52.6
1998	1005.	4833.1	54.90	180.4	53.0	20.0	0.	253.5	37.3	11.0	4.1	0.	52.4
1999	1023.	4915.0	54.85	180.4	57.5	20.1	0.	258.0	36.7	11.7	4.1	0.	52.5
2000	1040.	4996.1	54.69	183.4	62.3	19.3	0.	265.1	36.7	12.5	3.9	0.	53.1
2001	1065.	5116.9	54.85	183.4	68.5	19.3	0.	271.3	35.9	13.4	3.8	0.	53.0
2002	1090.	5238.0	54.86	258.3	0.	19.4	0.	277.7	49.3	0.	3.7	0.	53.0
2003	1114.	5359.0	54.92	258.3	0.	19.4	0.	277.7	48.2	0.	3.6	0.	51.8
2004	1140.	5481.0	54.73	258.3	0.	19.4	0.	277.7	47.1	0.	3.5	0.	50.7
2005	1165.	5602.0	54.89	258.3	0.	19.4	0.	277.7	46.1	0.	3.5	0.	49.6
2006	1200.	5771.0	54.90	258.3	0.	17.5	0.	275.8	44.8	0.	3.0	0.	47.8
2007	1234.	5939.0	54.94	258.3	0.	17.5	0.	275.8	43.5	0.	2.9	0.	46.4
2008	1269.	6107.0	54.79	258.3	0.	17.5	0.	275.8	42.3	0.	2.9	0.	45.2
2009	1305.	6276.0	54.90	258.3	6.1	15.9	0.	280.3	41.2	1.0	2.5	0.	44.7
2010	1339.	6444.0	54.94	258.3	0.	15.2	0.	273.5	40.1	0.	2.4	0.	42.4
2011	1373.	6610.0	54.96	258.3	5.9	15.2	0.	279.4	39.1	0.9	2.3	0.	42.3
2012	1408.	6780.0	54.82	261.4	6.3	13.8	0.	281.4	38.5	0.9	2.0	0.	41.5
2013	1444.	6955.1	54.98	264.4	9.4	14.4	0.	288.2	38.0	1.3	2.1	0.	41.4
2014	1481.	7135.0	55.00	267.4	19.9	15.1	0.	302.4	37.5	2.8	2.1	0.	42.4
2015	1519.	7318.1	55.00	264.4	27.9	14.5	0.	306.8	36.1	3.8	2.0	0.	41.9
2016	1558.	7507.0	54.85	267.4	46.7	15.2	0.	329.3	35.6	6.2	2.0	0.	43.9
2017	1598.	7701.0	55.01	267.4	56.5	15.2	0.	339.1	34.7	7.3	2.0	0.	44.0
2018	1639.	7899.1	55.02	267.4	70.1	15.2	0.	352.7	33.9	8.9	1.9	0.	44.7
2019	1681.	8103.0	55.03	270.5	94.5	15.9	0.	380.9	33.4	11.7	2.0	0.	47.0
2020	1724.	8311.9	54.89	296.5	91.5	28.5	0.	416.5	35.7	11.0	3.4	0.	50.1

CUMULATIVE PRESENT WORTH (MILLION $)

YEAR	INVEST.	FUEL	O+M	NUC INV	TOTAL
1993	119.4	23.9	15.6	0.	158.9
1994	236.8	48.8	31.2	0.	316.8
1995	352.1	76.4	46.4	0.	475.0
1996	463.6	105.2	60.7	0.	629.6
1997	571.3	134.6	72.7	0.	778.7
1998	675.3	165.2	84.3	0.	924.9
1999	775.8	197.2	95.5	0.	1068.6
2000	874.6	230.8	105.9	0.	1211.3
2001	970.0	266.5	115.9	0.	1352.4
2002	1099.9	266.5	125.7	0.	1492.0
2003	1225.3	266.5	135.1	0.	1626.8
2004	1346.5	266.5	144.2	0.	1757.1
2005	1463.6	266.5	153.0	0.	1883.0
2006	1576.7	266.5	160.6	0.	2003.8
2007	1686.0	266.5	168.0	0.	2120.5
2008	1791.6	266.5	175.2	0.	2233.3
2009	1893.7	268.9	181.5	0.	2344.0
2010	1992.3	268.9	187.3	0.	2448.4
2011	2087.5	271.0	192.9	0.	2551.4
2012	2180.6	273.3	197.8	0.	2651.7
2013	2271.6	276.5	202.7	0.	2750.9
2014	2360.6	283.1	207.8	0.	2851.4
2015	2445.6	292.1	212.4	0.	2950.0
2016	2528.6	306.6	217.1	0.	3052.3
2017	2608.8	323.5	221.7	0.	3154.0
2018	2686.3	343.8	226.1	0.	3256.2
2019	2762.1	370.3	230.5	0.	3362.9
2020	2842.3	395.0	238.3	0.	3475.6

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISSU3 42185 IN 1993. LOLP 0.1. D&M COAL.SHCA GAS. EBASCOAL.
JOB NUMBER 2MLJM5 08/16/84 10.178
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

GENERATION SYSTEM

	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	TYPES		
TYPE	1	2	3	4	5	6	7-10		
OPTMZING	0	1993	1993	0	0	1993	***		
PCT TRIM	0	0	0	0	0	0			
1992 MW	0	59	254	166	6	317	143	SUM=	945

YR	YEARLY MW ADDITIONS							TOTAL CAPAB. + TIES
**	*******	*******	*******	*******	*******	*******	*****	****** ****
93			1x 87				539*	1518
94			1x 87					1605
95			1x 87					1627
96								1533
97								1443
98								1417
99								1416
0			1x 87					1476
1								1476
12 11 10 2								
9 8							635*	1995
7 6 5 3								1995
4 3 4								1995
5								1995
6								1995
7								1995
8								1995
9								1856
10							499	1892

11										1892
12				1X 87						1801
13				2X 87						1888
14				2X 87						1975
15										1888
16				1X 87						1975
17										1975
18										1975
19				1X 87						2062
20			1X 200							2175
12	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
11	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
10	MW ADD	0	200	957	0	0	0	1223	SUM=	2380
9	MW RET	0	-59	-602	-166	-6	-317	0	SUM=	-1150
8	******	******	******	******	******	******	******	****	**********	
7	2020	0	200	609	0	0	0	1366	SUM=	2175
6	PCT TOT	0.	9.2	28.0	0.	0.	0.	62.8	SUM=100	PCT
5	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
4	AUTO	0	200	957	0	0	0	0	SUM=	1157
3	PCT TOT	0.	17.3	82.7	0.	0.	0.	0.	SUM=100	PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY
GGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
****

ALASKA RAILBELT
DEISSU3 #2185 IN 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL1
JOB NUMBER 2MLJM5 08/16/84 10.17A
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
****

GENERATION SYSTEM

	THERMAL	HYDRO	PSH	ES-2	ES-3	
TYPE	1-6	7	8	9	10	
OPTMZING		***	0	0	0	
PCT TRIM			0	0	0	
1992 MW	802	143	0	0	0	SUM= 945

****

YR	YEARLY MW ADDITIONS					TOTAL CAPAB. *TIES	LOAD MW	LOLP D/Y
**	******	******	******	******	******	******	*****	*******
93								
	87							
		539*						
						1518	915	0.0920
94								
	87							
						1605	935	0.0201
95								
	87							
						1627	955	0.0213

96							
						1533	972	0.0014
97							
						1443	989	0.0194
98							
						1417	1005	0.0549
99							
						1416	1023	0.0673
0							
	87						
						1476	1040	0.0302
1							
						1476	1065	0.0494
2							
	435*						
						1995	1090	0.0000
3							
						1995	1114	0.0000
4							
						1995	1140	0.0000
5							
						1995	1165	0.0000
6							
						1995	1200	0.0000
7							
						1995	1234	0.0000
8							
						1995	1269	0.0001
9							
						1856	1305	0.0010
10							
	49*						
						1892	1339	0.0117
11							
						1892	1373	0.0164
12							
	87						
						1401	1408	0.0631
13							
	174						
						1888	1444	0.
14							
	174						
						1975	1481	0.
15							
						1888	1519	0.0535
16							
	87						
						1975	1558	0.0307
17							
						1975	1598	0.0360
18							
						1975	1639	0.0882
19							
	87						
						2062	1681	0.0479
20							
	200						
						2175	1724	0.0310

MW ADD	1157	1223	0	0	0	SUM= 2380
MW RET	-1150	0	0	0	0	SUM= -1150
2020	809	1366	0	0	0	SUM= 2175
PCT TOT	37.2	62.8	0.	0.	0.	SUM= 100 PCT
AUTO	1157		0	0	0	SUM= 1157
PCT TOT	100.0		0.	0.	0.	SUM= 100 PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY
JGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
****

ALASKA RAILBELT
DEISSU3 #2185 IN 1993, LOLP 0.1, DRM COAL, SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.17A
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
****

YEAR	LOAD	TOTAL CAPABILITY (INCLUDING TIES) YEAR END	TIME OF PEAK	PCT. RES.	LOSS OF LOAD PROBABILITY D/Y	H/Y	COST IN MILLION $ YEARLY COST	CUM. PW TOTAL
****	*****	*****	*****	****	******	******	*******	*******
1993	915	1518	1518	65.9	0.092	0.	232.0	158.9
1994	935	1605	1605	71.7	0.020	0.	238.6	316.8
1995	955	1627	1627	70.4	0.021	0.	247.4	475.0
1996	972	1533	1533	57.7	0.001	0.	250.2	629.6
1997	989	1443	1443	45.9	0.019	0.	249.8	778.7
1998	1005	1417	1417	41.0	0.055	0.	253.5	924.9
1999	1023	1416	1416	38.4	0.067	0.	258.0	1068.6
2000	1040	1476	1476	42.0	0.030	0.	265.1	1211.3
2001	1065	1476	1476	38.6	0.045	0.	271.3	1352.4
2002	1090	1995	1995	83.0	0.000	0.	277.7	1492.0
2003	1114	1995	1995	79.1	0.000	0.	277.7	1626.8
2004	1140	1995	1995	75.0	0.000	0.	277.7	1757.1
2005	1165	1995	1995	71.2	0.000	0.	277.7	1883.0
2006	1200	1995	1995	66.3	0.000	0.	275.8	2003.8
2007	1234	1995	1995	61.7	0.000	0.	275.8	2120.5
2008	1269	1995	1995	57.2	0.000	0.	275.8	2233.3
2009	1305	1856	1856	42.2	0.001	0.	280.3	2344.0
2010	1339	1892	1892	41.3	0.012	0.	273.5	2448.4
2011	1373	1892	1892	37.8	0.016	0.	279.4	2551.4
2012	1408	1801	1801	27.9	0.063	0.	281.4	2651.7
2013	1444	1888	1888	30.7	0.	0.	288.2	2750.9
2014	1481	1975	1975	33.4	0.	0.	302.4	2851.4
2015	1519	1888	1888	24.3	0.054	0.	306.8	2950.0
2016	1558	1975	1975	26.8	0.031	0.	329.3	3052.3
2017	1598	1975	1975	23.6	0.036	0.	339.1	3154.0
2018	1639	1975	1975	20.5	0.088	0.	352.7	3256.2
2019	1681	2062	2062	22.7	0.048	0.	380.9	3362.9
2020	1724	2175	2175	26.	0.031	0.	416.5	3475.6

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISSU3 N2185 IN 1993. LDLP 0.1. D&M COAL,84CA GAS. FBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.17R
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

YEAR	EXCESS (MW)	DAYS/YEAR	LOSS OF LOAD PROBABILITY JAN. JULY	FEB. AUG.	MARCH SEPT.	APRIL OCT.	MAY NOV.	JUNE DEC.
1993	4.	0.0920	0.0066	0.0084	0.0165	0.0099	0.0022	0.0178
1994	59.	0.0201	0.0073 0.0015	0.0013 0.0019	0.0012 0.0035	0.0100 0.0020	0.0064 0.0004	0.0043 0.0038
1995	87.	0.0213	0.0013 0.0016	0.0004 0.0019	0.0004 0.0040	0.0025 0.0018	0.0014 0.0006	0.0010 0.0038
1996	147.	0.0014	0.0014 0.0001	0.0006 0.0000	0.0005 0.0002	0.0024 0.0001	0.0016 0.0000	0.0011 0.0006
1997	62.	0.0194	0.0002 0.0009	0.0000 0.0007	0.0000 0.0028	0.0001 0.0021	0.0000 0.0002	0.0001 0.0075
1998	27.	0.0549	0.0022 0.0042	0.0002 0.0026	0.0003 0.0066	0.0011 0.0054	0.0003 0.0006	0.0013 0.0187
1999	15.	0.0673	0.0063 0.0047	0.0006 0.0043	0.0005 0.0087	0.0042 0.0066	0.0008 0.0007	0.0044 0.0221
2000	47.	0.0302	0.0020 0.0015	0.0006 0.0013	0.0005 0.0052	0.0047 0.0024	0.0016 0.0004	0.0058 0.0109
2001	30.	0.0494	0.0027 0.0061	0.0003 0.0030	0.0003 0.0076	0.0014 0.0048	0.0007 0.0009	0.0032 0.0126
2002	310.	0.0000	0.0035 0.	0.0005 0.	0.0006 0.	0.0034 0.	0.0008 0.0000	0.0059 0.
2003	295.	0.0000	0. 0.0000	0. 0.0000	0. 0.0000	0. 0.0000	0.0000 0.0000	0. 0.0000
2004	305.	0.0000	0.0000 0.	0.0000 0.	0.0000 0.	0.0000 0.	0.0000 0.0000	0.0000 0.
2005	273.	0.0000	0. 0.0000	0. 0.0000	0. 0.0000	0. 0.0000	0.0000 0.0000	0.0000 0.0000
2006	248.	0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
2007	233.	0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
2008	219.	0.0001	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
2009	125.	0.0010	0.0000 0.0001	0.0000 0.0002	0.0000 0.0000	0.0000 0.0000	0.0000 0.0003	0.0000 0.0000
2010	65.	0.0117	0.0000 0.0002	0.0000 0.0002	0.0000 0.0002	0.0000 0.0009	0.0002 0.0044	0.0002 0.0000
2011	39.	0.0164	0.0000 0.0016	0.0000 0.0002	0.0000 0.0009	0.0000 0.0008	0.0040 0.0046	0.0018 0.0000
2012	12.	0.0631	0.0002 0.0060	0.0000 0.0057	0.0000 0.0062	0.0000 0.0068	0.0040 0.0262	0.0040 0.0002
2013	0.	0.	0.0002 0.0060	0.0000 0.0057	0.0000 0.0062	0.0002 0.0068	0.0060 0.0262	0.0057 0.0002
2014	0.	0.	0.0002 0.0060	0.0000 0.0057	0.0000 0.0062	0.0002 0.0068	0.0060 0.0262	0.0057 0.0002
2015	3.	0.0535	0.0002 0.0050	0.0000 0.0007	0.0000 0.0031	0.0002 0.0031	0.0060 0.0142	0.0057 0.0001
2016	56.	0.0307	0.0001 0.0016	0.0001 0.0016	0.0000 0.0018	0.0007 0.0016	0.0122 0.0019	0.0134 0.0001
2017	28.	0.0360	0.0001 0.0016	0.0001 0.0015	0.0000 0.0021	0.0001 0.0018	0.0108 0.0069	0.0111 0.0001
2018	13.	0.0882	0.0001 0.0116	0.0001 0.0015	0.0000 0.0020	0.0001 0.0019	0.0111 0.0246	0.0106 0.0001
2019	45.	0.0479	0.0003 0.0036	0.0003 0.0002	0.0001 0.0034	0.0001 0.0009	0.0234 0.0042	0.0223 0.0000
2020	29.	0.0310	0.0000 0.0022 0.0001	0.0000 0.0019 0.0000	0.0000 0.0026 0.0000	0.0000 0.0026 0.0001	0.0171 0.0024 0.0001	0.0185 0.0000 0.0100

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
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ALASKA RAILBELT
DEISSU3 #2183 TY 1993, LOLP 0.1, DRY COAL, SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.17R
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
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YR	POOL PEAK (MW)	TOTAL ENERGY (GWH)	LOAD FACTOR	TOTAL COSTS (MIL.$)	YEARLY $/MWH INV.	FUEL	O+M	N.I.	TOTAL
93	915	4397	54.86	232	39.65	7.94	5.18	0.	52.77
94	935	4492	54.84	239	39.49	8.39	5.24	0.	53.11
95	955	4585	54.84	247	39.32	9.41	5.20	0.	53.93
96	972	4670	54.70	250	38.63	9.98	4.96	0.	53.57
97	989	4751	54.84	250	37.97	10.37	4.23	0.	52.57
98	1005	4833	54.90	253	37.33	10.97	4.15	0.	52.45
99	1023	4915	54.85	258	36.71	11.69	4.08	0.	52.48
0	1040	4996	54.69	265	36.72	12.48	3.86	0.	53.05
1	1065	5117	54.85	271	35.85	13.39	3.77	0.	53.02
2	1090	5238	54.86	278	49.32	0.	3.70	0.	53.02
3	1114	5359	54.92	278	48.20	0.	3.62	0.	51.82
4	1140	5481	54.73	278	47.13	0.	3.54	0.	50.67
5	1165	5602	54.89	278	46.11	0.	3.46	0.	49.58
6	1200	5771	54.90	276	44.76	0.	3.03	0.	47.79
7	1234	5939	54.94	276	43.50	0.	2.94	0.	46.44
8	1269	6107	54.79	276	42.30	0.	2.86	0.	45.16
9	1305	6276	54.90	280	41.16	0.97	2.53	0.	44.66
10	1339	6444	54.94	274	40.09	0.	2.36	0.	42.44
11	1373	6610	54.96	279	39.08	0.89	2.30	0.	42.27
12	1408	6780	54.82	281	38.55	0.93	2.03	0.	41.51
13	1444	6955	54.98	288	38.02	1.35	2.07	0.	41.44
14	1481	7135	55.00	302	37.48	2.78	2.12	0.	42.38
15	1519	7318	55.00	307	36.13	3.82	1.98	0.	41.92
16	1558	7507	54.85	329	35.63	6.22	2.02	0.	43.87
17	1598	7701	55.01	339	34.73	7.34	1.97	0.	44.04
18	1639	7899	55.02	353	33.56	8.87	1.93	0.	44.65
19	1681	8103	55.03	381	33.38	11.66	1.97	0.	47.00
20	1724	8312	54.89	416	35.67	11.01	3.43	0.	50.10

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISSU3 N2185 TN 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL
JOB NUMBER 2MLJM5 08/16/84 10.17A
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84

GENERATION SYSTEM

TYPE	1	2	3	4	5	6	7	8	9	10	SUM
92	0	59	254	166	6	317	143	0	0	0	945

YR	YEARLY				PERCENT				MIX		TOTAL CAPAB.
93	0.	3.9	19.0	10.9	0.4	20.9	44.9	0.	0.	0.	1518
94	0.	3.7	23.4	10.3	0.4	19.8	42.5	0.	0.	0.	1605
95	0.	3.6	24.8	9.8	0.4	19.5	41.9	0.	0.	0.	1627
96	0.	3.8	26.3	4.3	0.4	20.7	44.5	0.	0.	0.	1533
97	0.	2.4	28.0	0.	0.4	22.0	47.3	0.	0.	0.	1483
98	0.	2.4	26.6	0.	0.5	22.4	48.1	0.	0.	0.	1417
99	0.	2.4	26.7	0.	0.4	22.4	48.2	0.	0.	0.	1416
0	0.	0.9	31.5	0.	0.0	21.5	46.2	0.	0.	0.	1476
1	0.	0.9	31.5	0.	0.0	21.5	46.2	0.	0.	0.	1476
2	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
3	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
4	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
5	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
6	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
7	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
8	0.	0.7	17.4	0.	0.0	15.9	66.0	0.	0.	0.	1995
9	0.	0.7	18.7	0.	0.0	9.6	71.0	0.	0.	0.	1850
10	0.	0.	18.4	0.	0.0	9.4	72.2	0.	0.	0.	1892
11	0.	0.	18.4	0.	0.0	9.4	72.2	0.	0.	0.	1892
12	0.	0.	24.2	0.	0.0	0.	75.8	0.	0.	0.	1801
13	0.	0.	27.6	0.	0.0	0.	72.4	0.	0.	0.	1888
14	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
15	0.	0.	27.6	0.	0.0	0.	72.4	0.	0.	0.	1888
16	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
17	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
18	0.	0.	30.8	0.	0.0	0.	69.2	0.	0.	0.	1975
19	0.	0.	33.8	0.	0.0	0.	66.2	0.	0.	0.	2062
20	0.	9.2	28.0	0.	0.0	0.	62.8	0.	0.	0.	2175
ADD	0	200	957	0	0	0	1223	0	0	0	2380
RET	0	-59	-602	-166	-6	-317	0	0	0	0	-1150
20	0	200	609	0	0	0	1366	0	0	0	2175

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V9.20.W - SUMMARY OUTPUT
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ALASKA RAILBELT
DETSSU3 N2185 IN 1993, LOLP 0.1, D&M COAL,SHCA GAS, EHASCOAL.
JOB NUMBER 2MLJM5 08/16/84 10.17A
BASED ON DATA PREP JOB 1MLJM5 DATED 08/16/84
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YEAR	RUN	UNIT ID	RATING MW	RETIRED UNIT TYPE MO.	PEAK LOAD MW	TOTAL CAPABIL MW	* 0.10 DAYS/YR * * 1.0 HOURS/YR * EXCESS LOAD=MW	RISK DAYS/YR	PCT. RES.	TOTAL COST MS
1993		SIZES (MW)	0, 200, 87, 0,	0, 228,	0,	0,	0,			
ALT					MW	INV	FUEL	O+M	NI	TOTAL
2	0 0 1 0 0 0 0 0 0		626.0		174.	34.0	22.6	0.		230.9
3	0 0 0 0 0 1 0 0 0		767.0		179.	39.3	24.7	0.		243.3
1	0 1 0 0 0 0 0 0 0		739.0		200.	34.9	34.2	0.		269.4
		HYD 3	539.0 7 =53.0 3	0						
1993	1	0	0.	0 0	915.	1431.	=65. 0.	0.4839 0.	56.	
1993	2	26	87.0	3 0	915.	1518.	4. 0.	0.0920 0.	66.	
ALT	2 MW=		626.0 I=	174.3 F=	34.9 O=	22.8 N=	0.		232.0	
		I=	174.332 F=	34.917 O=	22.788 NI=	0.			232.037	
1993		CUM COST, MS=	232.0 CUM PW TOTAL=	158.9						
1994		SIZES (MW)	0, 200, 87, 0,	0, 228,	0,	0,	0,			
ALT					MW	INV	FUEL	O+M	NI	TOTAL
2	0 0 1 0 0 0 0 0 0		87.0		177.	37.6	23.3	0.		238.3
3	0 0 0 0 0 1 0 0 0		228.0		182.	42.6	25.4	0.		250.3
1	0 1 0 0 0 0 0 0 0		200.0		203.	36.7	34.9	0.		275.0
1994	1	0	0.	0 0	935.	1518.	=10. 0.	0.1285 0.	62.	
1994	2	26	87.0	3 0	935.	1605.	89. 0.	0.0201 0.	72.	
ALT	2 MW=		87.0 I=	177.4 F=	37.7 O=	23.5 N=	0.		238.6	
		I=	177.370 F=	37.668 O=	23.546 NI=	0.			238.585	
1990		CUM COST, MS=	470.6 CUM PW TOTAL=	316.8						
1995		SIZES (MW)	0, 200, 87, 0,	0, 228,	0,	0,	0,			
ALT					MW	INV	FUEL	O+M	NI	TOTAL
2	0 0 1 0 0 0 0 0 0		87.0		180.	41.6	23.6	0.		245.5
3	0 0 0 0 0 1 0 0 0		228.0		185.	45.7	25.6	0.		256.7
1	0 1 0 0 0 0 0 0 0		200.0		206.	39.3	35.1	0.		280.8

```
                12    -3.5  4    0
                11    -3.5  4    0
                 4    -58.0 5    0
1995  1    0     0.    0     0     955.   1540.   -10.   0.1273   61.
                                                  0.     0.
1995  2   26    87.0   3     0     955.   1627.    57.   0.0213   70.
                                                  0.     0.
ALT  2 MN=    87.0 I=    180.4 F=     43.2 O=     23.8 N=     0.       247.4

          I=   180.408 F=     43.173 O=    23.847 NI=     0.        247.428

1995          CUM COST, MS=    718.0 CUM PW TOTAL=     475.0
**********************************************************************
                14    -28.8  4    0
                 9    -65.0  4    0
1996  1    0     0.    0     0     972.   1533.   147.   0.0014   58.
                                                  0.     0.
MANUAL MN=     0.  I=    180.4 F=     46.6 O=     23.2 N=     0.       250.2

          I=   180.408 F=     46.590 O=    23.163 NI=     0.        250.161

1996          CUM COST, MS=    968.2 CUM PW TOTAL=     629.6
**********************************************************************

1997   SIZES (MW)     0. 200.  87.  0.   0. 228.   0.   0.   0.
ALT                              MW      INV      FUEL     O+M      NI       TOTAL
 1   0 0 0 0 0 0 0 0 0 0          0.      180.     50.8     19.9     0.       251.2
 3   0 0 0 0 0 0 0 0 0 0          0.      180.     50.8     19.9     0.       251.2
 5   0 0 0 0 0 0 0 0 0 0          0.      180.     50.8     19.9     0.       251.2
 4   0 0 1 0 0 0 0 0 0 0         87.0     183.     50.9     20.6     0.       255.0
 6   0 0 0 0 0 1 0 0 0 0        228.0     188.     55.5     22.7     0.       266.6
 2   0 1 0 0 0 0 0 0 0 0        200.0     209.     47.3     32.4     0.       289.1

                10    -65.0  4    0
                 8    -25.0  2    0
1997  1    0     0.    0     0     989.   1443.    62.   0.0194   46.
                                                  0.     0.
ALT  1 MN=     0.  I=    180.4 F=     49.3 O=     20.1 N=     0.       249.8

          I=   180.408 F=     49.261 O=    20.105 NI=     0.        249.774

1997          CUM COST, MS=   1218.0 CUM PW TOTAL=     778.7
**********************************************************************

1998   SIZES (MW)     0. 200.  87.  0.   0. 228.   0.   0.   0.
ALT                              MW      INV      FUEL     O+M      NI       TOTAL
 1   0 0 0 0 0 0 0 0 0 0          0.      180.     56.9     19.8     0.       257.1
 3   0 0 0 0 0 0 0 0 0 0          0.      180.     56.9     19.8     0.       257.1
 5   0 0 0 0 0 0 0 0 0 0          0.      180.     56.9     19.8     0.       257.1
 4   0 0 1 0 0 0 0 0 0 0         87.0     183.     57.2     20.5     0.       261.1
 6   0 0 0 0 0 1 0 0 0 0        228.0     188.     60.9     22.5     0.       271.8
 2   0 1 0 0 0 0 0 0 0 0        200.0     209.     50.1     32.2     0.       291.8

                 6    -26.4  3    0
1998  1    0     0.    0     0     1005.  1417.    27.   0.0549   41.
                                                  0.     0.
ALT  1 MN=     0.  I=    180.4 F=     53.0 O=     20.0 N=     0.       253.5

          I=   180.408 F=     53.040 O=    20.040 NI=     0.        253.488
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1998 CUM COST, MS= 1471.5 CUM PW TOTAL= 924.9

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1999 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	180.	64.1	19.8	0.	264.3
3	0	0	0	0	0	0	0	0	0	0.	180.	64.1	19.8	0.	264.3
5	0	0	0	0	0	0	0	0	0	0.	180.	64.1	19.8	0.	264.3
4	0	0	1	0	0	0	0	0	0	87.0	183.	64.0	20.5	0.	268.0
6	0	0	0	0	0	1	0	0	0	228.0	188.	66.3	22.6	0.	277.2
2	0	1	0	0	0	0	0	0	0	200.0	209.	53.6	32.3	0.	295.3

15 -0.9 5 0

1999 1 0 0. 0 0 1023. 1416. 15. 0.0673 38.
0. 0.

ALT 1 MW= 0. I= 180.4 F= 57.5 O= 20.1 N= 0. 258.0

I= 180.408 F= 57.475 O= 20.074 NI= 0. 257.957

1999 CUM COST, MS= 1729.4 CUM PW TOTAL= 1068.6

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2000 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
2	0	0	1	0	0	0	0	0	0	87.0	183.	72.3	19.1	0.	274.9
3	0	0	2	0	0	0	0	0	0	174.0	186.	72.1	19.8	0.	278.3
4	0	0	0	0	0	1	0	0	0	228.0	188.	74.3	21.2	0.	284.0
1	0	1	0	0	0	0	0	0	0	200.0	209.	59.6	31.1	0.	300.1

20 -2.8 5 0

19 -2.8 5 0

13 -21.0 2 0

2000 1 0 0. 0 0 1040. 1389. -22. 0.1680 34.
0. 0.

2000 2 26 87.0 3 0 1040. 1476. 47. 0.0302 42.
0. 0.

ALT 2 MW= 87.0 I= 183.4 F= 62.3 O= 19.3 N= 0. 265.1

I= 183.446 F= 62.340 O= 19.271 NI= 0. 265.057

2000 CUM COST, MS= 1994.5 CUM PW TOTAL= 1211.3

****

2001 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	183.	80.1	19.2	0.	282.7
3	0	0	0	0	0	0	0	0	0	0.	183.	80.1	19.2	0.	282.7
5	0	0	0	0	0	0	0	0	0	0.	183.	80.1	19.2	0.	282.7
4	0	0	1	0	0	0	0	0	0	87.0	186.	81.0	19.9	0.	287.3
6	0	0	0	0	0	1	0	0	0	228.0	191.	83.2	22.0	0.	296.6
2	0	1	0	0	0	0	0	0	0	200.0	212.	65.0	31.9	0.	309.4

2001 1 0 0. 0 0 1063. 1476. 30. 0.0494 39.
0. 0.

ALT 1 MW= 0. I= 183.4 F= 68.5 O= 19.3 N= 0. 271.3

I= 183.446 F= 68.535 O= 19.309 NI= 0. 271.290

2001 C.IM COST, MS= 2265.8 CUM PW TOTAL= 1352.4
****
HYD 655.0 7
7 -26.4 3 0
2 -90.0 3 0
2002 1 0 0. 0 0 1090. 1995. 310. 0.0000 83.
0. 0.
MANUAL MW= 1174.0 I= 258.3 F= 0. O= 19.4 N= 0. 277.7

I= 258.322 F= 0. O= 19.403 NI= 0. 277.725

2002 C.IM COST, MS= 2543.5 CUM PW TOTAL= 1492.0
****
2003 1 0 0. 0 0 1114. 1995. 295. 0.0000 79.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 19.4 N= 0. 277.7

I= 258.322 F= 0. O= 19.403 NI= 0. 277.725

2003 C.IM COST, MS= 2821.2 CUM PW TOTAL= 1626.8
****
2004 1 0 0. 0 0 1140. 1995. 305. 0.0000 75.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 19.4 N= 0. 277.7

I= 258.322 F= 0. O= 19.404 NI= 0. 277.726

2004 C.IM COST, MS= 3099.0 CUM PW TOTAL= 1757.1
****
2005 1 0 0. 0 0 1165. 1995. 273. 0.0000 71.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 19.4 N= 0. 277.7

I= 258.322 F= 0. O= 19.403 NI= 0. 277.725

2005 C.IM COST, MS= 3376.7 CUM PW TOTAL= 1883.0
****
2006 1 0 0. 0 0 1200. 1995. 248. 0.0000 66.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 17.5 N= 0. 275.8

I= 258.322 F= 0. O= 17.487 NI= 0. 275.810

2006 C.IM COST, MS= 3652.5 CUM PW TOTAL= 2003.8
****
2007 1 0 0. 0 0 1234. 1995. 233. 0.0000 62.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 17.5 N= 0. 275.8

I= 258.322 F= 0. O= 17.487 NI= 0. 275.810

2007 C.IM COST, MS= 3928.3 CUM PW TOTAL= 2120.5
****
2008 1 0 0. 0 0 1269. 1995. 219. 0.0001 57.
0. 0.
MANUAL MW= 0. I= 258.3 F= 0. O= 17.5 N= 0. 275.8

I= 258.322 F= 0. O= 17.488 NI= 0. 275.810

2008 CUM COST, MS= 4204.1 CUM PW TOTAL= 2233.3

****

2009 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	258.	6.5	15.9	0.	280.7
3	0	0	0	0	0	0	0	0	0	0.	258.	6.5	15.9	0.	280.7
5	0	0	0	0	0	0	0	0	0	0.	258.	6.5	15.9	0.	280.7
4	0	0	1	0	0	0	0	0	0	87.0	261.	6.5	16.6	0.	284.4
6	0	0	0	0	0	1	0	0	0	228.0	266.	5.3	18.6	0.	290.2
2	0	1	0	0	0	0	0	0	0	200.0	287.	2.3	26.4	0.	316.0

1 =139.0 6 0

2009 1 0 0. 0 0 1305. 1856. 1.25. 0.0010 42.

0. 0.

ALT 1 MW= 0. I= 258.3 F= 6.1 O= 15.9 N= 0. 280.3

I= 258.322 F= 6.081 O= 15.898 NI= 0. 280.301

2009 CUM COST, MS= 4484.4 CUM PW TOTAL= 2344.0

****

2010 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	1223.0	258.	0.	15.2	0.	273.5
3	0	0	0	0	0	0	0	0	0	1223.0	258.	0.	15.2	0.	273.5
5	0	0	0	0	0	0	0	0	0	1223.0	258.	0.	15.2	0.	273.5
4	0	0	1	0	0	0	0	0	0	1310.0	261.	0.	15.8	0.	277.2
6	0	0	0	0	0	1	0	0	0	1451.0	266.	0.	17.9	0.	284.2
2	0	1	0	0	0	0	0	0	0	1423.0	287.	0.	25.5	0.	312.8

HYD 49.0 7

18 =10.0 2 0

17 =1.5 2 0

16 =1.5 2 0

2010 1 0 0. 0 0 1339. 1892. 65. 0.0117 41.

0. 0.

ALT 1 MW= 1223.0 I= 258.3 F= 0. O= 15.2 N= 0. 273.5

I= 258.322 F= 0. O= 15.182 NI= 0. 273.504

2010 CUM COST, MS= 4757.9 CUM PW TOTAL= 2448.4

****

2011 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	258.	0.2	15.2	0.	273.7
3	0	0	0	0	0	0	0	0	0	0.	258.	0.2	15.2	0.	273.7
5	0	0	0	0	0	0	0	0	0	0.	258.	0.2	15.2	0.	273.7
4	0	0	1	0	0	0	0	0	0	87.0	261.	0.2	15.8	0.	277.4
6	0	0	0	0	0	1	0	0	0	228.0	266.	0.3	17.9	0.	284.5
2	0	1	0	0	0	0	0	0	0	200.0	287.	0.2	25.5	0.	313.0

2011 1 0 0. 0 0 1373. 1892. 39. 0.0164 38.

0. 0.

ALT 1 MW= 0. I= 258.3 F= 5.9 O= 15.2 N= 0. 279.4

I= 258.322 F= 5.850 O= 15.209 NI= 0. 279.381

2011 CUM COST, MS= 5037.3 CUM PW TOTAL= 2551.4

****

2012 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	261.	5.1	13.8	0.	280.2
4	0	0	2	0	0	0	0	0	0	174.0	264.	5.1	14.4	0.	283.9
5	0	0	0	0	0	1	0	0	0	228.0	266.	8.4	15.8	0.	290.5
6	0	0	0	0	0	2	0	0	0	456.0	274.	11.8	18.5	0.	304.6
1	0	1	0	0	0	0	0	0	0	200.0	287.	4.9	23.7	0.	315.9
2	0	2	0	0	0	0	0	0	0	400.0	316.	4.7	34.2	0.	355.3

5 -178.0 6 0

2012	1	0	0.	0	0	1408.	1714.	-53.	0.5147	22.
								0.	0.	
2012	2	26	87.0	3	0	1408.	1801.	12.	0.0631	28.
								0.	0.	

ALT 3 MW= 87.0 I= 261.4 F= 6.3 O= 13.8 N= 0. 281.4

I= 261.360 F= 6.283 O= 13.765 NI= 0. 281.408

2012 CUM COST, MS= 5319.7 CUM PW TOTAL= 2651.7

****

2013 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	2	0	0	0	0	0	0	174.0	264.	5.8	14.4	0.	284.6
4	0	0	3	0	0	0	0	0	0	261.0	267.	5.8	15.1	0.	288.3
5	0	0	0	0	0	1	0	0	0	228.0	266.	9.4	15.8	0.	291.5
6	0	0	0	0	0	2	0	0	0	456.0	274.	13.2	18.5	0.	306.0
1	0	1	0	0	0	0	0	0	0	200.0	287.	5.4	23.7	0.	316.5
2	0	2	0	0	0	0	0	0	0	400.0	316.	5.2	34.2	0.	355.8

25 -87.0 3 0

2013	1	0	0.	0	0	1444.	1714.	0.	0.	19.
								0.	0.	
2013	2	26	87.0	3	0	1444.	1801.	0.	0.	25.
								0.	0.	
2013	3	26	87.0	3	0	1444.	1888.	0.	0.	31.
								0.	0.	

ALT 3 MW= 174.0 I= 264.4 F= 9.4 O= 14.4 N= 0. 288.2

I= 264.398 F= 9.364 O= 14.432 NI= 0. 288.194

2013 CUM COST, MS= 5606.9 CUM PW TOTAL= 2750.9

****

2014 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	2	0	0	0	0	0	0	174.0	267.	13.2	15.1	0.	295.8
4	0	0	3	0	0	0	0	0	0	261.0	270.	13.2	15.8	0.	299.5
5	0	0	0	0	0	1	0	0	0	228.0	269.	20.1	16.5	0.	306.0
6	0	0	0	0	0	2	0	0	0	456.0	277.	27.7	19.2	0.	324.3
1	0	1	0	0	0	0	0	0	0	200.0	290.	11.6	24.7	0.	326.7
2	0	2	0	0	0	0	0	0	0	400.0	319.	10.7	35.6	0.	365.7

26 -87.0 3 0

2014	1	0	0.	0	0	1481.	1801.	0.	0.	22.
								0.	0.	
2014	2	26	87.0	3	0	1481.	1888.	0.	0.	27.
								0.	0.	
2014	3	26	87.0	3	0	1481.	1975.	0.	0.	33.
								0.	0.	

ALT 3 MW= 174.0 I= 267.4 F= 19.9 O= 15.1 N= 0. 302.4

I= 267.436 F= 19.863 O= 15.113 NI= 0. 302.412

2014 CUM COST, MS= 5909.3 CUM PW TOTAL= 2851.4

****

2015 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	264.	21.7	14.5	0.	300.6
3	0	0	0	0	0	0	0	0	0	0.	264.	21.7	14.5	0.	300.6
5	0	0	0	0	0	0	0	0	0	0.	264.	21.7	14.5	0.	300.6
4	0	0	1	0	0	0	0	0	0	87.0	267.	21.7	15.1	0.	304.3
6	0	0	0	0	0	1	0	0	0	228.0	272.	30.9	17.2	0.	320.5
2	0	1	0	0	0	0	0	0	0	200.0	293.	17.8	25.6	0.	336.8

2015 1 36 =87.0 3 0

2015 1 0 0. 0 0 1519. 1888. 3. 0.0535 24.
0. 0.

ALT 1 MW= 0. I= 264.4 F= 27.9 O= 14.5 N= 0. 306.8

I= 264.398 F= 27.930 O= 14.466 NI= 0. 306.795

2015 CUM COST, MS= 6216.1 CUM PW TOTAL= 2950.0

****

2016 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	267.	47.8	15.1	0.	330.4
4	0	0	2	0	0	0	0	0	0	174.0	270.	47.8	15.8	0.	334.1
5	0	0	0	0	0	1	0	0	0	228.0	272.	70.7	17.3	0.	360.4
1	0	1	0	0	0	0	0	0	0	200.0	293.	41.7	26.7	0.	361.9
6	0	0	0	0	0	2	0	0	0	456.0	280.	85.4	20.2	0.	386.0
2	0	2	0	0	0	0	0	0	0	400.0	322.	35.8	38.4	0.	396.7

2016 1 0 0. 0 0 1558. 1888. -15. 0.2375 21.
0. 0.

2016 2 26 87.0 3 0 1558. 1975. 56. 0.0307 27.
0. 0.

ALT 3 MW= 87.0 I= 267.4 F= 46.7 O= 15.2 N= 0. 329.3

I= 267.436 F= 46.725 O= 15.160 NI= 0. 329.321

2016 CUM COST, MS= 6545.4 CUM PW TOTAL= 3052.3

****

2017 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	267.	63.7	15.2	0.	346.3
3	0	0	0	0	0	0	0	0	0	0.	267.	63.7	15.2	0.	346.3
5	0	0	0	0	0	0	0	0	0	0.	267.	63.7	15.2	0.	346.3
4	0	0	1	0	0	0	0	0	0	87.0	270.	63.7	15.8	0.	350.0
2	0	1	0	0	0	0	0	0	0	200.0	296.	51.6	27.8	0.	376.1
6	0	0	0	0	0	1	0	0	0	228.0	275.	89.7	18.1	0.	383.2

2017 1 0 0. 0 0 1598. 1975. 28. 0.0360 24.
0. 0.

ALT 1 MW= 0. I= 267.4 F= 56.5 O= 15.2 N= 0. 339.1

I= 267.436 F= 56.532 O= 15.180 NI= 0. 339.148

2017 CUM COST, MS= 6884.6 CUM PW TOTAL= 3154.0

****

2018 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	267.	81.5	15.2	0.	364.1
3	0	0	0	0	0	0	0	0	0	0.	267.	81.5	15.2	0.	364.1
5	0	0	0	0	0	0	0	0	0	0.	267.	81.5	15.2	0.	364.1
4	0	0	1	0	0	0	0	0	0	87.0	270.	81.5	15.9	0.	367.8
2	0	1	0	0	0	0	0	0	0	200.0	296.	60.4	18.1	0.	384.9
6	0	0	0	0	0	1	0	0	0	228.0	275.	104.4	18.1	0.	397.9

2018 1 0 0. 0 0 1639. 1975. 13. 0.0882 21.
0. 0.

ALT 1 MW= 0. I= 267.4 F= 70.1 O= 15.2 N= 0. 352.7

I= 267.436 F= 70.053 O= 15.212 NI= 0. 352.701

2018 CUM COST, MS= 7237.3 CUM PW TOTAL= 3256.2
****

2019 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	270.	109.5	15.9	0.	395.9
4	0	0	2	0	0	0	0	0	0	174.0	274.	109.5	16.6	0.	399.6
1	0	1	0	0	0	0	0	0	0	200.0	296.	77.3	28.2	0.	402.0
5	0	0	0	0	0	1	0	0	0	228.0	275.	123.6	18.1	0.	417.2
2	0	2	0	0	0	0	0	0	0	400.0	326.	57.1	40.6	0.	423.2
6	0	0	0	0	0	2	0	0	0	456.0	283.	140.2	21.0	0.	444.7

2019 1 0 0. 0 0 1681. 1975. -49. 0.2841 17.
0. 0.

2019 2 26 87.0 3 0 1681. 2062. 45. 0.0479 25.
0. 0.

ALT 3 MW= 87.0 I= 270.5 F= 94.5 O= 15.9 N= 0. 380.9

I= 270.474 F= 94.482 O= 15.925 NI= 0. 380.881

2019 CUM COST, MS= 7618.2 CUM PW TOTAL= 3362.9
****

2020 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	1	0	0	0	0	0	0	0	200.0	296.	100.7	28.3	0.	425.5
3	0	0	1	0	0	0	0	0	0	87.0	270.	144.0	16.0	0.	430.5
2	0	2	0	0	0	0	0	0	0	400.0	326.	63.4	41.0	0.	431.9
4	0	0	2	0	0	0	0	0	0	174.0	274.	144.0	16.6	0.	434.6
5	0	0	0	0	0	1	0	0	0	228.0	275.	148.4	18.2	0.	442.0
6	0	0	0	0	0	2	0	0	0	456.0	283.	157.9	21.1	0.	462.4

26 -87.0 3 0

2020 1 0 0. 0 0 1724. 1975. -30. 0.3451 15.
0. 0.

2020 2 25 200.0 2 0 1724. 2175. 29. 0.0310 26.
0. 0.

ALT 1 MW= 200.0 I= 296.5 F= 91.5 O= 28.5 N= 0. 416.5

I= 296.478 F= 91.475 O= 28.497 NI= 0. 416.450

2020 CUM COST, MS= 8034.6 CUM PW TOTAL= 3475.6
****

CASE TOTALS

TOTAL INVESTMENT AND PRODUCTION COST IN MILLION DOLLARS	8034.6
1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE	3475.6

ALASKA RAILBELT 08/16/84 10.178
DEIS003 N2185 IV 1993, LOLP 0.1, DRM COAL,SHCA GAS, EBASCOAL 2MLJM5

CASE TOTALS

TOTAL INVESTMENT AND PRODUCTION COST IN MILLION DOLLARS = 8034.606

1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE = 3475.573

APPENDIX 1
PART B

"Without-Susitna" Expansion Plan

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

****

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

****

GENERATION SYSTEM

	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	TYPES		
TYPE	1	2	3	4	5	6	7-10		
OPTMZING	0	1993	1993	0	0	1993	***		
PCT TRIM	0	0	0	0	0	0			
1992 MW	0	59	254	166	6	317	143	SUM=	945

****

YR	YEARLY MW ADDITIONS							TOTAL CAPAB. + TIES
**	*******	*******	*******	*******	*******	*******	*****	****** ****
93	1*	200*	1X 87			1X 228		1408
94								1408
95			1X 87					1430
96		200*						1536
97			1X 87					1533
98								1507
99								1506
0			1X 87					1566
1								1566
2			2X 87					1624
3								1624
4								1624
5	1*	1X 200						1825
6								1825
7								1825
8								1825
9		1X 200						1886
10								1873
11			1X 87					1960
12		1X 200						1982
13			1X 87					1982
14								1982
15			2X 87					2069
16								2069
17		1X 200						2182
18								2182
19			1X 87					2269
20			1X 87					2269

****

MW ADD	2	1200	1044	0	0	228	0	SUM=	2474
MW RET	0	-59	-602	-166	-6	-317	0	SUM=	-1150
******	******	******	******	******	******	******	****	**********	
2020	2	1200	696	0	0	228	143	SUM=	2269
PCT TOT	0.1	52.9	30.7	0.	0.	10.0	6.3	SUM=100	PCT

****

AUTO	0	800	1044	0	0	228	0	SUM=	2072
PCT TOT	0.	38.6	50.4	0.	0.	11.0	0.	SUM=100	PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

****

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

****

GENERATION SYSTEM

	THERMAL	HYDRO	PSH	ES-2	ES-3	
TYPE	1-6	7	8	9	10	
OPTMZING		***	0	0	0	
PCT TRIM			0	0	0	
1992 MW	802	143	0	0	0	SUM= 945

****

YR	YEARLY MW ADDITIONS					TOTAL CAPAB. +TIES	LOAD MW	LOLP D/Y
**	******	******	******	******	******	******	*****	*******
93	516					1408	915	0.0684
94						1408	935	0.0863
95	87					1430	955	0.0682
96	200					1536	972	0.0301
97	87					1533	989	0.0428
98						1507	1005	0.0771
99						1506	1023	0.0774
0	87					1566	1040	0.0418
1						1566	1065	0.0612
2	174					1624	1090	0.0386
3						1624	1114	0.0573
4						1624	1140	0.0786
5	201					1825	1165	0.0137
6						1825	1200	0.0201
7						1825	1234	0.0319
8						1825	1269	0.0405
9	200					1886	1305	0.0436
10						1873	1339	0.0721
11	87					1960	1373	0.0402
12	200					1982	1408	0.0445
13	87					1982	1444	0.0645
14						1982	1481	0.0922
15	174					2069	1519	0.0498
16						2069	1558	0.0732
17	200					2182	1598	0.0451
18						2182	1639	0.0689
19	87					2269	1681	0.0446
20	87					2269	1724	0.0616

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MW ADD	2474	0	0	0	0	SUM= 2474
MW RET	-1150	0	0	0	0	SUM= -1150
******	******	******	******	******	******	**********
2020	2126	143	0	0	0	SUM= 2269
PCT TOT	93.7	6.3	0.	0.	0.	SUM= 100 PCT

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AUTO	2072		0	0	0	SUM= 2072
PCT TOT	100.0		0.	0.	0.	SUM= 100 PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W -- SUMMARY OUTPUT

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ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B&MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

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YEAR	LOAD	TOTAL CAPABILITY (INCLUDING TIES) YEAR END	TOTAL CAPABILITY (INCLUDING TIES) TIME OF PEAK	PCT. RES.	LOSS OF LOAD PROBABILITY D/Y	LOSS OF LOAD PROBABILITY H/Y	COST IN MILLION $ YEARLY COST	COST IN MILLION $ CUM. PW TOTAL
****	*****	*****	*****	****	******	******	*******	*******
1993	915	1408	1408	53.9	0.068	0.	196.1	134.4
1994	935	1408	1408	50.6	0.086	0.	202.6	268.4
1995	955	1430	1430	49.7	0.068	0.	213.6	405.0
1996	972	1536	1536	58.0	0.030	0.	248.9	558.8
1997	989	1533	1533	55.0	0.043	0.	257.0	712.2
1998	1005	1507	1507	49.9	0.077	0.	262.6	863.7
1999	1023	1506	1506	47.2	0.077	0.	268.1	1013.1
2000	1040	1566	1566	50.6	0.042	0.	278.3	1162.9
2001	1065	1566	1566	47.1	0.061	0.	286.4	1311.9
2002	1090	1624	1624	49.0	0.039	0.	301.7	1463.5
2003	1114	1624	1624	45.8	0.057	0.	311.3	1614.7
2004	1140	1624	1624	42.5	0.079	0.	322.4	1766.0
2005	1165	1825	1825	56.7	0.014	0.	356.5	1927.5
2006	1200	1825	1825	52.1	0.020	0.	367.1	2088.3
2007	1234	1825	1825	47.9	0.032	0.	398.4	2256.9
2008	1269	1825	1825	43.8	0.040	0.	411.3	2425.1
2009	1305	1886	1886	44.5	0.044	0.	435.9	2597.3
2010	1339	1873	1873	39.9	0.072	0.	450.3	2769.1
2011	1373	1960	1960	42.8	0.040	0.	467.1	2941.4
2012	1408	1982	1982	40.8	0.045	0.	493.3	3117.1
2013	1444	1982	1982	37.3	0.064	0.	506.4	3291.4
2014	1481	1982	1982	33.8	0.092	0.	519.8	3464.3
2015	1519	2069	2069	36.2	0.050	0.	538.8	3637.5
2016	1558	2069	2069	32.8	0.073	0.	554.9	3809.8
2017	1598	2182	2182	36.5	0.045	0.	575.3	3982.4
2018	1639	2182	2182	33.1	0.069	0.	591.2	4153.7
2019	1681	2269	2269	35.0	0.045	0.	613.4	4325.5
2020	1724	2269	2269	31.6	0.062	0.	631.6	4496.4

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

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ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

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YEAR	EXCESS (MW)	DAYS/YEAR	LOSS OF LOAD PROBABILITY JAN. JULY	FEB. AUG.	MARCH SEPT.	APRIL OCT.	MAY NOV.	JUNE DEC.
1993	25.	0.0684	0.0099	0.0050	0.0015	0.0011	0.0010	0.0011
			0.0010	0.0011	0.0011	0.0013	0.0106	0.0336
1994	9.	0.0863	0.0123	0.0061	0.0021	0.0015	0.0014	0.0014
			0.0014	0.0015	0.0014	0.0018	0.0148	0.0405
1995	24.	0.0682	0.0106	0.0051	0.0017	0.0011	0.0012	0.0011
			0.0010	0.0012	0.0010	0.0015	0.0113	0.0314
1996	74.	0.0301	0.0045	0.0021	0.0006	0.0007	0.0007	0.0006
			0.0007	0.0007	0.0007	0.0007	0.0045	0.0136
1997	53.	0.0428	0.0063	0.0027	0.0010	0.0010	0.0009	0.0009
			0.0010	0.0009	0.0009	0.0011	0.0061	0.0200
1998	17.	0.0771	0.0111	0.0051	0.0018	0.0016	0.0015	0.0016
			0.0016	0.0015	0.0015	0.0018	0.0117	0.0363
1999	21.	0.0774	0.0101	0.0051	0.0018	0.0013	0.0011	0.0013
			0.0012	0.0015	0.0013	0.0017	0.0115	0.0394
2000	56.	0.0418	0.0067	0.0029	0.0010	0.0007	0.0008	0.0007
			0.0007	0.0008	0.0007	0.0009	0.0076	0.0184
2001	35.	0.0612	0.0096	0.0038	0.0013	0.0008	0.0009	0.0009
			0.0009	0.0010	0.0008	0.0014	0.0095	0.0302
2002	61.	0.0386	0.0057	0.0026	0.0007	0.0006	0.0006	0.0005
			0.0006	0.0006	0.0006	0.0007	0.0061	0.0194
2003	39.	0.0573	0.0096	0.0035	0.0010	0.0009	0.0007	0.0008
			0.0008	0.0008	0.0007	0.0011	0.0080	0.0294
2004	13.	0.0786	0.0119	0.0048	0.0016	0.0010	0.0009	0.0010
			0.0010	0.0010	0.0010	0.0015	0.0134	0.0396
2005	138.	0.0137	0.0016	0.0008	0.0003	0.0002	0.0002	0.0002
			0.0002	0.0003	0.0003	0.0003	0.0020	0.0072
2006	107.	0.0201	0.0025	0.0014	0.0004	0.0003	0.0004	0.0004
			0.0003	0.0004	0.0003	0.0004	0.0033	0.0100
2007	79.	0.0319	0.0048	0.0019	0.0005	0.0005	0.0005	0.0005
			0.0006	0.0006	0.0004	0.0006	0.0052	0.0157
2008	62.	0.0405	0.0056	0.0025	0.0006	0.0006	0.0005	0.0005
			0.0005	0.0005	0.0006	0.0007	0.0056	0.0222
2009	65.	0.0436	0.0056	0.0024	0.0006	0.0006	0.0006	0.0007
			0.0007	0.0006	0.0006	0.0005	0.0065	0.0242
2010	20.	0.0721	0.0096	0.0044	0.0012	0.0011	0.0010	0.0010
			0.0010	0.0011	0.0010	0.0012	0.0097	0.0396
2011	74.	0.0402	0.0046	0.0024	0.0006	0.0005	0.0005	0.0005
			0.0004	0.0005	0.0005	0.0005	0.0060	0.0231
2012	70.	0.0445	0.0064	0.0025	0.0005	0.0005	0.0005	0.0005
			-0.0005	0.0005	0.0005	0.0005	0.0072	0.0246
2013	35.	0.0645	0.0108	0.0030	0.0009	0.0006	0.0009	0.0008
			0.0009	0.0009	0.0008	0.0010	0.0087	0.0353
2014	3.	0.0922	0.0138	0.0057	0.0010	0.0009	0.0009	0.0009
			0.0011	0.0012	0.0010	0.0018	0.0113	0.0525
2015	53.	0.0498	0.0071	0.0023	0.0005	0.0004	0.0004	0.0003
			0.0003	0.0003	0.0003	0.0004	0.0064	0.0310
2016	17.	0.0732	0.0096	0.0039	0.0006	0.0005	0.0005	0.0005
			0.0005	0.0005	0.0004	0.0006	0.0104	0.0453
2017	60.	0.0451	0.0063	0.0023	0.0007	0.0005	0.0005	0.0005
			0.0004	0.0005	0.0006	0.0006	0.0073	0.0249
2018	27.	0.0689	0.0099	0.0037	0.0009	0.0009	0.0009	0.0007
			0.0007	0.0008	0.0008	0.0009	0.0118	0.0369
2019	63.	0.0446	0.0055	0.0020	0.0004	0.0004	0.0004	0.0003
			0.0004	0.0003	0.0003	0.0004	0.0065	0.0278
2020	39.	0.0616	0.0073	0.0026	0.0006	0.0004	0.0004	0.0004
			0.0004	0.0004	0.0005	0.0006	0.0082	0.0396

GENERAL ELECTRIC COMPANY

OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

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ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

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YR	POOL PEAK (MW)	TOTAL ENERGY (GWH)	LOAD FACTOR	TOTAL COSTS (MIL.$)	YEARLY $/MWH				
					INV.	FUEL	O+M	N.I.	TOTAL
**	******	*******	******	******	*****	*****	*****	*****	******
93	915	4397	54.86	196	11.72	25.16	7.73	0.	44.61
94	935	4492	54.84	203	11.47	26.05	7.59	0.	45.11
95	955	4588	54.84	214	11.90	27.17	7.49	0.	46.55
96	972	4670	54.70	249	18.04	25.10	10.16	0.	53.31
97	989	4751	54.84	257	18.37	26.01	9.72	0.	54.10
98	1005	4833	54.90	263	18.06	26.74	9.54	0.	54.34
99	1023	4915	54.85	268	17.76	27.34	9.46	0.	54.56
0	1040	4996	54.69	278	18.08	28.45	9.18	0.	55.71
1	1065	5117	54.85	286	17.65	29.34	8.98	0.	55.98
2	1090	5238	54.86	302	18.40	30.30	8.89	0.	57.60
3	1114	5359	54.92	311	17.99	31.39	8.71	0.	58.09
4	1140	5481	54.73	322	17.59	32.70	8.53	0.	58.82
5	1165	5602	54.89	356	23.42	29.48	10.73	0.	63.63
6	1200	5771	54.90	367	22.74	30.41	10.46	0.	63.60
7	1234	5939	54.94	398	22.09	34.79	10.20	0.	67.09
8	1269	6107	54.79	411	21.49	35.87	9.99	0.	67.35
9	1305	6276	54.90	436	25.53	32.42	11.51	0.	69.46
10	1339	6444	54.94	450	24.87	33.88	11.13	0.	69.88
11	1373	6610	54.96	467	24.70	34.97	11.00	0.	70.67
12	1408	6780	54.82	493	28.37	32.10	12.30	0.	72.76
13	1444	6955	54.98	506	27.65	33.12	12.05	0.	72.81
14	1481	7135	55.00	520	26.96	34.10	11.80	0.	72.86
15	1519	7318	55.00	539	26.70	35.27	11.66	0.	73.63
16	1558	7507	54.85	555	26.02	36.46	11.42	0.	73.91
17	1598	7701	55.01	575	28.75	33.32	12.65	0.	74.71
18	1639	7899	55.02	591	28.03	34.44	12.39	0.	74.85
19	1681	8103	55.03	613	27.69	35.79	12.21	0.	75.70
20	1724	8312	54.89	632	27.00	37.01	11.98	0.	75.99

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

GENERATION SYSTEM

TYPE	1	2	3	4	5	6	7	8	9	10	SUM
92	0	59	254	166	6	317	143	0	0	0	945

YR	YEARLY	PERCENT						MIX			TOTAL CAPAB.
93	0.1	18.4	20.4	11.8	0.5	38.7	10.2	0.	0.	0.	1408
94	0.1	18.4	20.4	11.8	0.5	38.7	10.2	0.	0.	0.	1408
95	0.1	18.1	22.2	11.1	0.4	38.1	10.0	0.	0.	0.	1430
96	0.1	29.9	20.6	4.2	0.4	35.5	9.3	0.	0.	0.	1536
97	0.1	28.3	26.3	0.	0.4	35.5	9.3	0.	0.	0.	1533
98	0.1	28.8	25.0	0.	0.4	36.2	9.5	0.	0.	0.	1507
99	0.1	28.8	25.1	0.	0.4	36.2	9.5	0.	0.	0.	1506
0	0.1	26.4	29.6	0.	0.0	34.8	9.1	0.	0.	0.	1566
1	0.1	26.4	29.6	0.	0.0	34.8	9.1	0.	0.	0.	1566
2	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
3	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
4	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
5	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
6	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
7	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
8	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
9	0.1	43.1	27.7	0.	0.0	21.5	7.6	0.	0.	0.	1886
10	0.1	42.7	27.9	0.	0.0	21.7	7.6	0.	0.	0.	1873
11	0.1	40.8	31.1	0.	0.0	20.7	7.3	0.	0.	0.	1960
12	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
13	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
14	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
15	0.1	48.3	33.6	0.	0.0	11.0	6.9	0.	0.	0.	2069
16	0.1	48.3	33.6	0.	0.0	11.0	6.9	0.	0.	0.	2069
17	0.1	55.0	27.9	0.	0.0	10.4	6.6	0.	0.	0.	2182
18	0.1	55.0	27.9	0.	0.0	10.4	6.6	0.	0.	0.	2182
19	0.1	52.9	30.7	0.	0.0	10.0	6.3	0.	0.	0.	2269
20	0.1	52.9	30.7	0.	0.0	10.0	6.3	0.	0.	0.	2269

ADD	2	1200	1044	0	0	228	0	0	0	0	2474
RET	0	-59	-602	-166	-6	-317	0	0	0	0	-1150
20	2	1200	696	0	0	228	143	0	0	0	2269

ALL AVAILABLE DATA HAVE BEEN PROCESSED

READY
BED JOB:LJN10206

2020PROJECTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1724. MW
SPINNING RESERVE 228. MW

THERMAL PEAK 1580. MW
MAXIMUM OFF-PEAK EXCESS 250. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0	JULY	1	1395459.	7582.	0.794	39008.	15310.	0.	0.057	0.080	2.691
24	NENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1328199.	7604.	0.756	37343.	15067.	0.	0.057	0.080	2.691
26	COAL STEAM	RAILBT	2	11	200.0	0	MAY	1	1257584.	7582.	0.716	37024.	14812.	0.	0.057	0.080	2.801
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	1155488.	7582.	0.658	34374.	14443.	0.	0.057	0.080	2.801
26	COAL STEAM	RAILBT	2	11	200.0	0	SEPT.	1	1011683.	7604.	0.576	30653.	13924.	0.	0.057	0.080	2.801
30	COM CYCLE CC	RAILBT	6	10	228.0	0		1	971633.	8283.	0.553	30005.	13780.	0.	0.057	0.080	2.801
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	612667.	7089.	0.306	65630.	3010.	0.	0.080	0.070	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	79704.	3378.	0.104	13902.	684.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	48940.	2216.	0.064	8837.	676.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	27448.	1260.	0.036	4993.	670.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	15936.	778.	0.021	2998.	667.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	8547.	430.	0.011	1636.	664.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	3420.	180.	0.004	671.	663.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JUNE	3	2150.	117.	0.003	431.	663.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	555.	30.	0.001	111.	662.	0.	0.080	0.032	9.828
	TIE ENERGY								13.			0.					
	TOTAL THERMAL				2124.0				7919425.			307616.	95694.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-174920.			-0.					
	SYSTEM TOTALS				2267.0				8312005.			307616.	99598.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1200.	7120045.	0.6755	208408.	87335.	41.54
3 NGASGT	696.	186700.	0.0305	33578.	5349.	208.50
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	612667.	0.3059	65630.	3010.	112.03
TIENG		13.		0.		10.00
TOTAL	2124.	7919425.		307616.	95694.	50.93

EXTENSION OF DEISTR7 (LJN1) — REFERENCE FORCAST 8/16/84
NON-SUSITNA CASE — D&M COAL, SHCA GAS, EBASCOAL

YEAR	TOTAL CAPITAL COST (10+6$)	O&M COST (10+6$)	FUEL COST (10+6$)	TOTAL ANNUAL COST (10+6$)	PRESENT WORTH (10+6$)	CUMULATIVE PRESENT WORTH (10+6$)	YEAR	FUEL COST (MILLIONS OF $) NENANA COAL	BELUGA COAL	BELUGA GAS	ANCH. GAS
2020	224.4	99.6	307.6	631.6	631.6	4496.4	2020	76.4	132.1	33.6	65.6
2021	224.4	99.6	312.0	636.0	166.2	4662.6	2021	77.2	134.4	34.0	66.4
2022	224.4	99.6	316.4	640.4	161.7	4824.4	2022	78.0	136.9	34.3	67.1
2023	224.4	99.6	320.9	644.9	157.4	4981.8	2023	78.9	139.4	34.7	67.9
2024	224.4	99.6	325.4	649.4	153.1	5134.9	2024	79.8	141.9	35.1	68.6
2025	224.4	99.6	330.0	654.0	149.0	5283.9	2025	80.6	144.4	35.5	69.4
2026	224.4	99.6	334.7	658.7	145.0	5428.8	2026	81.5	147.1	35.9	70.2
2027	224.4	99.6	339.5	663.5	141.1	5569.9	2027	82.4	149.7	36.3	71.0
2028	224.4	99.6	344.3	668.3	137.3	5707.3	2028	83.3	152.4	36.7	71.8
2029	224.4	99.6	349.2	673.2	133.6	5840.9	2029	84.2	155.2	37.2	72.6
2030	224.4	99.6	354.2	678.2	130.1	5971.0	2030	85.2	158.0	37.6	73.4
2031	224.4	99.6	358.9	682.9	126.6	6097.5	2031	86.1	160.8	37.9	74.1
2032	224.4	99.6	363.7	687.7	123.1	6220.7	2032	87.1	163.7	38.2	74.7
2033	224.4	99.6	368.6	692.6	119.8	6340.5	2033	88.0	166.6	38.6	75.4
2034	224.4	99.6	373.4	697.6	116.6	6457.1	2034	89.0	169.6	38.9	76.0
2035	224.4	99.6	378.4	702.6	113.5	6570.5	2035	90.0	172.6	39.2	76.7
2036	224.4	99.6	383.7	707.7	110.4	6681.0	2036	91.0	175.7	39.6	77.4
2037	224.4	99.6	388.9	712.9	107.5	6788.4	2037	92.0	178.9	39.9	78.1
2038	224.4	99.6	394.1	718.1	104.6	6893.0	2038	93.0	182.1	40.3	78.7
2039	224.4	99.6	399.4	723.4	101.8	6994.8	2039	94.0	185.3	40.6	79.4
2040	224.4	99.6	404.8	728.8	99.1	7094.0	2040	95.1	188.7	41.0	80.1
2041	224.4	99.6	410.2	734.2	96.5	7190.4	2041	96.2	191.9	41.3	80.8
2042	224.4	99.6	415.6	739.6	93.9	7284.3	2042	97.3	195.2	41.7	81.4
2043	224.4	99.6	421.1	745.1	91.4	7375.7	2043	98.4	198.6	42.0	82.1
2044	224.4	99.6	426.7	750.7	89.0	7464.6	2044	99.6	202.1	42.3	82.7
2045	224.4	99.6	432.4	756.4	86.6	7551.2	2045	100.7	205.6	42.7	83.4
2046	224.4	99.6	438.1	762.1	84.3	7635.5	2046	101.9	209.1	43.0	84.1
2047	224.4	99.6	443.9	767.9	82.1	7717.6	2047	103.1	212.8	43.4	84.7
2048	224.4	99.6	449.9	773.9	79.9	7797.5	2048	104.3	216.5	43.7	85.4
2049	224.4	99.6	455.9	779.9	77.8	7875.3	2049	105.5	220.2	44.1	86.1
2050	224.4	99.6	461.9	785.9	75.8	7951.1	2050	106.7	224.0	44.4	86.8
2051	224.4	99.6	468.1	792.1	73.8	8024.9	2051	108.0	227.9	44.8	87.5

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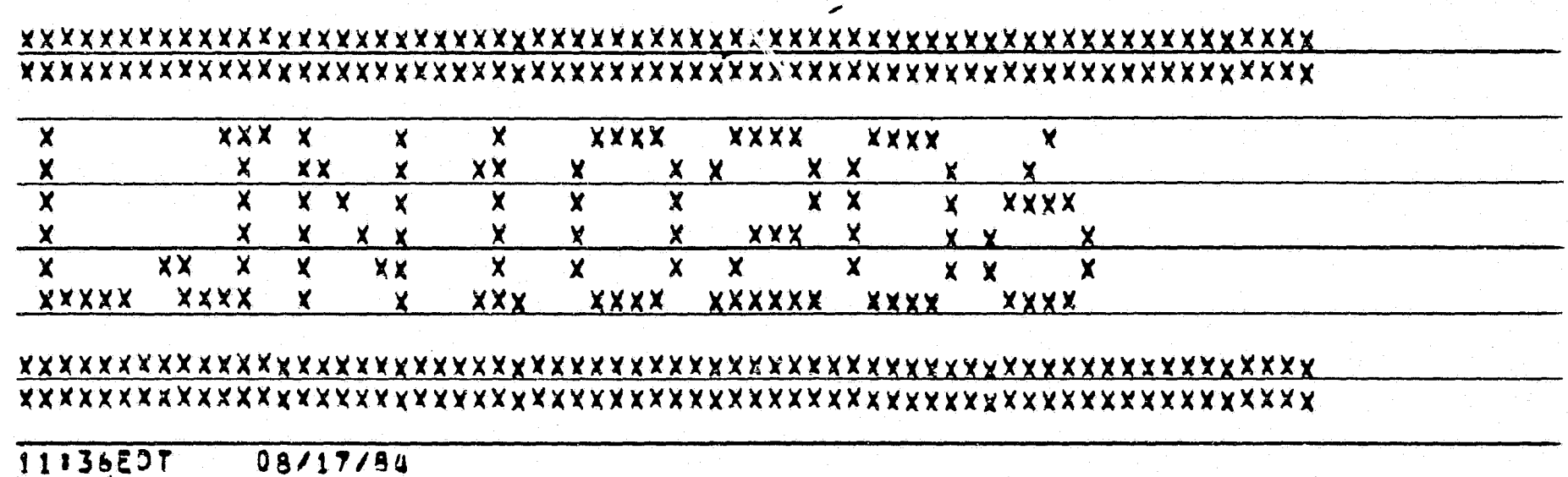

11:36EDT 08/17/84
UNI LAQ43682
PORT: 0102202210903OO

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SNUMB = 4L0N1, ACTIVITY # = 02, REPORT CODE = 06, RECORD COUNT = 006372

08/16/84 2MLJN1 OGP-6

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**                                                                  **
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**                                                                  **
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GENERAL ELECTRIC COMPANY, OGP-6 GENERATION PLANNING PROGRAM V6.20.W
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

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LISTING OF INPUT DATA

```
 1  $INPUT                                                          02150
 2  PWRATE=1.0350,                                                  02160
 3  PROVER=50,                                                      02170
 4  KOPOVR=1,0,0,1,1,0,1,1,1,1,                                     02180
 5  NYROVR=28*1,                                                    02190
 6  EXCHYD=1,                                                       02200
 7  EXCMAX=0,                                                       02210
 8  IYRAUT(1)=40,30,20,20,20,30,50,50,50,                           02220
 9  IVCSUB(1)=10*1,                                                 02230
10  PCTRIM=6*0,                                                     02240
11  SPRES=-1.0,                                                     02250
12  SRCRDT=1.0,.01,1.0,                                             02260
13  MIX=1,                                                          02270
14  MATOR=0,                                                        02280
15  NLPW=10,                                                        02290
16  EXMXPU=1.00,                                                    02300
17  EXDMWH=0.0001,                                                  02310
18  RANDOM=-1,                                                      02320
19  KEYENV=-1,                                                      02330
20  KOPT=1,0,0,1,1,0,1,1,1,1,                                       02340
21  FAIL=0,                                                         02350
22  KCYCLE=1,1,3,3,3,3,                                             02360
23  NUMZON=6,,                                                      02370
24  KZONE=4,8,8,4,12,12,                                            02380
25  KEYCMT=-1,                                                      02390
26  KORDER=1,3,2,                                                   02400
27  NKODE(8)=0,                                                     02410
28  IMATYP=6,3,1,1,1,2,                                             02420
29  SHKFOR=2.0,1.5,1.0,1.0,1.0,1.0,1.25,                            02430
30  SHKPOR=2.0,1.5,1.0,1.0,1.0,1.0,1.25,                            02440
31  KEYPRC=-1,                                                      02450
32  YRINMX=0.1,                                                     02460
33  HRINMX=1.0,                                                     02470
34  KLOLP(1)=0.,                                                    02480
35  KLOLP(2)=0.,                                                    02490
36  KLOLP(4)=1,                                                     02500
37  PELENG=54000,49000,37000,40000,46000,33000,                     02510
38        36000,34000,37000,38000,34000,38000,                      02520
39  KODE(7)=0,                                                      02530
40  KOSTPC=1,                                                       02540
41  TFSP=0,                                                         02550
42  TYCST=0,                                                        02560
43  NKODE(1)=1,                                                     02570
44  NKODE(4)=0,                                                     02580
45  NKODE(5)=1,                                                     02590
46  KWHERE=0,                                                       02600
47  NFIRST=0,                                                       02610
48  MNTPKM=1,                                                       02620
49  MPRINT=12*0,                                                    02630
50  KODE3=28*0,                                                     02640
51  KODE2=28*-1,                                                    02650
52  KPRENV=3*1,0,                                                   02660
53  EEPRNT=5,0,                                                     02670
54  KPCUMT=1,                                                       02680
55  KPSUM2=1,                                                       02690
56  KPSUM4=1,                                                       02700
57  KODE(6)=1,                                                      02710
58  M3D=7,                                                          02720
59  LSPARE=1,                                                       02730
60  KEYSUM=0,                                                       02740
61  M4D=88                                                          02750
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ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
1	1979	AMLPD UNITCC	6	7	6	1	44. 139. 139.	532. 1182.	0.060	0.070	11.750	0.540	3.340	1	0.
2	1982	AMLPD UNIT#8	3	7	3	1	18. 90. 90.	428. 1125.	0.080	0.032	7.610	0.280	3.340	1	0.
3	1973	BELUGA GT#3	3	10	3	1	11. 53. 53.	201. 530.	0.080	0.032	7.610	0.280	3.020	5	0.
4	1975	BELUGA GT#5	3	10	3	1	12. 58. 58.	220. 580.	0.080	0.032	7.610	0.280	3.020	5	0.
5	1982	BELUGA CC#8	6	10	6	1	57. 178. 178.	681. 1513.	0.080	0.070	11.750	0.540	3.020	5	0.
6	1978	BERNICEI GT#3	3	7	3	1	5. 26. 26.	235. 618.	0.080	0.032	7.610	0.280	3.340	1	0.
7	1982	BERNICEI GT#4	3	7	3	1	5. 26. 26.	120. 317.	0.080	0.032	7.610	0.280	3.340	1	0.
8	1967	HEALY ST#1	2	2	2	1	13. 25. 25.	181. 330.	0.057	0.080	51.362	3.610	2.030	2	0.
9	1976	NOPOLE CT#	4	4	4	1	13. 65. 65.	346. 910.	0.080	0.032	7.610	0.280	6.380	3	0.
10	1977	NOPOLE CT#2	4	4	4	1	13. 65. 65.	346. 910.	0.080	0.032	7.610	0.280	6.380	3	0.
11	1975	Z UNIT #3CT	4	4	4	1	1. 4. 4.	19. 49.	0.080	0.032	7.610	0.280	6.380	3	0.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, EBASCOAL 2MLJN1

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID.	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
12	1975	Z UNIT #4CT	4	4	4	1	1. 4. 4.	19. 49.	0.080	0.032	7.610	0.280	6.380	3	0.
13	1970	CHENA #5ST	2	2	2	1	11. 21. 21.	154. 280.	0.057	0.080	51.362	3.610	2.030	2	0.
14	1976	CHENA #6CT	4	4	4	1	6. 29. 29.	164. 432.	0.080	0.032	7.610	0.280	6.380	3	0.
15	1979	HOMERKEN IC	5	6	5	1	0. 1. 1.	5. 14.	0.050	0.010	0.550	5.380	7.040	3	0.
16	1980	UNIV AK #1ST	2	2	2	1	1. 2. 2.	10. 18.	0.057	0.080	51.364	3.610	2.030	2	0.
17	1980	UNIV AK #2ST	2	2	2	1	1. 2. 2.	10. 18.	0.057	0.080	51.364	3.610	2.030	2	0.
18	1980	UNIV AK #3ST	2	2	2	1	5. 10. 10.	66. 120.	0.057	0.080	51.362	3.610	2.030	2	0.
19	1980	UNIV AK #1IC	5	6	5	1	1. 3. 3.	11. 29.	0.050	0.010	0.550	5.380	7.040	3	0.
20	1980	UNIV AK #2IC	5	6	5	1	1 3.	11. 29.	0.050	0.010	0.550	5.380	7.040	3	0.
21	1993	FIRST TRANS	1	5	1	1	0. 0. 1.	0. 0.	0.010	1.000	6825.000	0.110	0.	3	220000.
22	2005	SECOND TRANS	1	5	1	1	0. 0.	0. 0.	0.010	1.000	6825.000	0.110	0.	3	117000.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL BRMM, SCHAGAS, ERASCOAL 2MLJN1

PRESENT AND FUTURE SYSTEM CHARACTERISTICS

UNIT ID	INST. YEAR	STATION NAME	UNIT TYPE	FUEL TYPE	PLANT ID	REGN. ID	MW RATING (MIN.) (MAX.-PC) (MAX.-R)	INPUT (MEGA BTU/HR) (MIN.) (MAX.)	MATURE FORCED OUTAGE RATE	MATURE PLANNED OUTAGE RATE	1982 O+M COSTS FIXED $/KW/YR	1982 O+M COSTS VARIABLE $/MW/HR	1982 FUEL COST $/MBTU	FUEL COST INFLAT. PATTERN	1982 PLANT COST $/KW
23	1993	VENANA COAL1	2	2	2	1	100. 200. 200.	1133. 2060.	0.057	0.080	51.360	3.610	2.030	2	2607.
24	1996	VENANA COAL2	2	2	2	1	100. 200. 200.	1133. 2060.	0.057	0.080	51.360	3.610	2.030	2	2607.
25	0	NUCLEAR	1	7	1	1	750. 1500. 1500.	8663. 15750.	0.010	0.100	4.550	0.110	3.340	1	800.
26	0	COAL STEAM	2	11	2	1	100. 200. 200.	1133. 2060.	0.057	0.080	51.360	3.610	2.030	4	2552.
27	0	NGAS TURBINE	3	7	3	1	17. 87. 87.	366. 962.	0.080	0.032	7.610	0.280	3.340	1	479.
28	0	OIL GAS TURB	4	10	4	1	17. 87. 87.	366. 962.	0.080	0.032	7.610	0.280	3.020	5	479.
29	0	DIESEL IC	5	6	5	1	2. 10. 10.	44. 115.	0.050	0.010	0.550	5.380	7.040	3	869.
30	0	COM CYCLE CC	6	10	6	1	73. 228. 228.	852. 1892.	0.080	0.070	11.750	0.540	3.020	5	616.
31	0	PUMP STORAGE	8	0	100	25	0. 0. 333.	0. 0.	0.	0.	0.	0.	0.	0	0.
32	0	ENG STOR	2	9	0	100	25	0. 0. 250.	0. 0.	0.	0.	0.	0.	0.	0	0.
33	0	ENG STOR	3	10	0	100	25	0. 0. 50.	0. 0.	0.	0.	0.	0.	0.	0	0.

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ALASKA RAILBELT 08/16/84 10.316
DEISTR7, V8D GAS/COAL, COAL B8MW, SCHAGAS, ERASCOAL 2MLJN1

UNIT SIZE GUIDE LINES = 1 BASE LOAD UNITS PER 1 YEARS OF LOAD GROWTH

LIST OF UNIT SELECTIONS AND OUTAGE RATE MULTIPLIERS

	SHAKEDOWN YEARS DURATION	MULTIPLIER F.O.R.	MULTIPLIER P.O.R.	UNIT ID	RATING MW	EARLIEST SERVICE YEAR
NUCLEAR	6	2.000	2.000	25	1500.	2050
COAL STEAM	3	1.500	1.500	26	200.	1982
NGAS TURBINE	1	1.000	1.000	27	87.	1982
DTL GAS TURB	1	1.000	1.000	28	87.	1982
DIESEL IC	1	1.000	1.000	29	10.	2050
COM CYCLE CC	2	1.250	1.250	30	228.	1982

ENERGY STORAGE SELECTIONS

	UNIT ID	GENERATOR MW	PUMP MW	STORAGE MWH
PUMP STORAGE	31	333.	333.	3330.
ENG STOR 2	32	250.	250.	2500.
ENG STOR 3	33	50.	50.	500.

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ALASKA RAILBELT 08/16/84 10.316
DEIST87, NSD GAS/COAL, COAL BBMM, SCHAGAS, EBASCOAL 2MLJN1

1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE

TARGET RISK INDEX = 0.100 DAYS/YEAR

EMERGENCY ENERGY COST 10.00 DOLLARS PER MWH
EMERGENCY ENERGY COST INFLATION FACTOR = 1.000

	WEEKDAY				WEEKEND	
COMMITTMENT ZONES	1	2	3	4	5	6
NUMBER OF HOURS	4	8	8	4	12	12

MINIMUM UP TIME POLICY
1 = NO SHUTDOWN
2 = SHUTDOWN ON WEEKEND ONLY
3 = SHUTDOWN ANYTIME

NUCLEAR	1
COAL STEAM	1
NGAS TURBINE	3
DTL GAS TURB	3
DIESEL IC	3
COM CYCLE CC	3

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ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGTCOMCYC

1993 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 915. MW THERMAL PEAK 770. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 80. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	HENAVA COAL1	RAILRT	2	2	200.0	0	JUNE	1	1382337.	7353.	0.789	29383.	15262.	0.	0.080	0.120	2.051
18	UNIV AK #3ST	RAILRT	2	2	10.0	0	JAN. OCT.	1	8457.	1381.	0.097	2[illegible].	544.	0.	0.057	0.080	2.051
16	UNIV AK #1ST	RAILRT	2	2	1.5	0		1	6720.	8261.	0.511	179.	101.	0.	0.057	0.080	2.051
17	UNIV AK #2ST	RAILRT	2	2	1.5	0		1	6707.	8261.	0.510	179.	101.	0.	0.057	0.080	2.051
8	HEALY ST#1	RAILRT	2	2	25.0	0	APRIL	1	95334.	7582.	0.435	2835.	1628.	0.	0.057	0.080	2.051
13	CHENA #5ST	RAILRT	2	2	21.0	0		1	87079.	8261.	0.473	2614.	1393.	0.	0.057	0.080	2.051
30	COM CYCLE CC	RAILRT	6	10	228.0	0	JULY	3	1182422.	7214.	0.592	33081.	3318.	0.	0.100	0.088	3.136
5	BELUGA CC#8	RAILRT	6	10	178.0	0	MAY	3	603704.	7260.	0.387	19603.	2418.	0.	0.080	0.070	3.136
1	AMLPO UNITCC	RAILRT	6	7	139.0	0		3	329103.	6797.	0.270	13172.	1811.	0.	0.080	0.070	3.468
4	BELUGA GT#5	RAILRT	3	10	58.0	0		3	63298.	5133.	0.125	3639.	459.	0.	0.080	0.032	3.136
27	NGAS TURBINE	RAILRT	3	7	87.0	0	AUG.	3	54951.	3104.	0.072	3964.	677.	0.	0.080	0.032	3.468
7	BERNICE GT#4	RAILRT	3	7	26.4	0		3	4977.	929.	0.022	390.	202.	0.	0.080	0.032	3.468
2	AMLPO UNIT#8	RAILRT	3	7	90.0	0		3	12452.	688.	0.016	1022.	688.	0.	0.080	0.032	3.468
6	BERNICE GT#3	RAILRT	3	7	26.4	0		3	821.	155.	0.004	126.	201.	0.	0.080	0.032	3.468
19	UNIV AK #1IC	RAILRT	5	6	2.8	0		3	95.	81.	0.002	7.	2.	0.	0.050	0.010	7.322
20	UNIV AK #2IC	RAILRT	5	6	2.8	0		3	43.	77.	0.002	6.	2.	0.	0.050	0.010	7.322
9	NORPOLE CT#1	RAILRT	4	4	65.0	0		2	926.	71.	0.002	163.	495.	0.	0.080	0.032	6.635
10	NORPOLE CT#2	RAILRT	4	4	65.0	0	SEPT.	3	231.	18.	0.000	41.	495.	0.	0.080	0.032	6.635
11	2 UNIT #3CT	RAILRT	4	4	3.5	0		3	3.	4.	0.000	0.	27.	0.	0.080	0.032	6.635
12	2 UNIT #4CT	RAILRT	4	4	3.5	0		3	3.	4.	0.000	0.	27.	0.	0.080	0.032	6.635
14	CHENA #6CT	RAILRT	4	4	28.8	0		3	19.	3.	0.000	4.	219.	0.	0.080	0.032	6.635
15	HOMERKEN IC	RAILRT	5	6	0.9	0		3	0.	1.	0.000	0.	0.	0.	0.050	0.010	7.322
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1264.0				3839630.			110632.	30071.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-10175.			-0.					
	SYSTEM TOTALS				1407.0				4396955.			110632.	33974.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	259.	1586634.	0.6993	35412.	19030.	34.31
3 NGASGT	280.	136498.	0.0541	9142.	2228.	83.30
4 OIL GT	166.	1181.	0.0008	208.	1262.	1244.93
5 DIESEL	6.	87.	0.0016	13.	4.	191.41
6 COMCYC	545.	2115229.	0.4431	65856.	7546.	34.70
TIENG		0.		0.		10.00
TOTAL	1264.	3839630.		110632.	30071.	35.64

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1993 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1136137.	TON
4	OIL#2G	231013.	GAL
6	OIL#2C	12795.	GAL
7	NGASIA	5358.	MCF
10	NGASUA	17869.	MCF

(23.2

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FORM 4311-3

ALASKA RAILBELT 08/16/84 10.51M
DEISTR7, NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL 2MLJN1

MANUAL

1990 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 935. MW THERMAL PEAK 790. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 80. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP MONTHS	UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0 JUNE		1	1386839.	7353.	0.792	29787.	15278.	0.	0.086	0.120	2.071
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 JAN. OCT.		1	11688.	1381.	0.133	296.	556.	0.	0.057	0.080	2.071
16	UNIV AK #1ST	RAILBT	2	2	1.5	0		1	8850.	8261.	0.673	229.	109.	0.	0.057	0.080	2.071
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	8843.	8261.	0.673	229.	109.	0.	0.057	0.080	2.071
8	HEALY ST#1	RAILBT	2	2	25.0	0 APRIL		1	103621.	7582.	0.473	3068.	1658.	0.	0.057	0.080	2.071
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	87889.	8261.	0.478	2661.	1396.	0.	0.057	0.080	2.071
30	COM CYCLE CC	RAILBT	6	10	228.0	0 JULY		3	1206923.	7214.	0.604	34891.	3331.	0.	0.100	0.088	3.257
5	BELUGA CCM5	RAILBT	6	10	178.0	0 MAY		3	627596.	7254.	0.402	20887.	2030.	0.	0.080	0.070	3.257
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	342389.	7044.	0.281	14208.	1818.	0.	0.080	0.070	3.601
4	BELUGA GT#5	RAILBT	3	10	58.0	0		3	64530.	5280.	0.127	3873.	459.	0.	0.080	0.032	3.257
27	NGAS TURBINE	RAILBT	3	7	87.0	0 AUG.		3	61483.	3453.	0.081	4590.	679.	0.	0.080	0.032	3.601
7	BERNICE GT#4	RAILBT	3	7	26.4	0		3	7036.	1308.	0.030	571.	203.	0.	0.080	0.032	3.601
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	14991.	827.	0.019	1277.	689.	0.	0.080	0.032	3.601
6	BERNICE GT#3	RAILBT	3	7	26.4	0		3	1036.	195.	0.004	165.	201.	0.	0.080	0.032	3.601
19	UNIV AK #1TC	RAILBT	5	6	2.8	0		3	78.	140.	0.003	12.	2.	0.	0.050	0.010	7.614
20	UNIV AK #2TC	RAILBT	5	6	2.8	0		3	57.	103.	0.002	9.	2.	0.	0.050	0.010	7.614
9	NORPOLE CT#1	RAILBT	4	4	65.0	0		3	1143.	88.	0.002	209.	495.	0.	0.080	0.032	6.901
10	NORPOLE CT#2	RAILBT	4	4	65.0	0 SEPT.		3	288.	22.	0.001	53.	495.	0.	0.080	0.032	6.901
11	Z UNIT #3CT	RAILBT	4	4	3.5	0		3	3.	5.	0.000	1.	27.	0.	0.080	0.032	6.901
12	Z UNIT #4CT	RAILBT	4	4	3.5	0		3	3.	5.	0.000	1.	27.	0.	0.080	0.032	6.901
14	CHENA #6CT	RAILBT	4	4	28.8	0		3	22.	4.	0.000	4.	219.	0.	0.080	0.032	6.901
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	1.	3.	0.000	0.	0.	0.	0.050	0.010	7.614
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1264.0				3935310.			116999.	30184.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-10710.			-0.					
	SYSTEM TOTALS				1407.0				4492100.			116999.	34088.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	259.	1607729.	0.7080	36249.	1910.	24.43
3 NGASGT	288.	109076.	0.0591	1047.	2232.	65.25
4 OIL GT	166.	1460.	0.0010	268.	1242.	1048.01
5 DIESEL	6.	135.	0.0024	20.	4.	182.62
6 COMCYC	545.	2176909.	0.4560	69985.	7579.	35.63
TIENG		0.		0.		10.00
TOTAL	1264.	3935310.		116999.	30184.	37.40

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE
COMPUTED P.O.R.=A 1 INDICATES
SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1994 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1151325.	TON
4	OIL#2G	285353.	GAL
6	OIL#2C	19773.	GAL
7	NGAS1A	5750.	MCF
10	NGAS4A	18223.	MCF

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

1995 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 955. MW THERMAL PEAK 810. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 80. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	HENANA COAL1	RAILBT	2	2	200.0	0	JUNE	1	1389414.	7353.	0.793	30119.	15288.	0.	0.086	0.120	2.092
18	JNIV AK #3ST	RAILBT	2	2	10.0	0	JAN. OCT.	1	13125.	1381.	0.150	331.	561.	0.	0.057	0.080	2.092
16	JNIV AK #1ST	RAILBT	2	2	1.5	0		1	11184.	8261.	0.851	284.	117.	0.	0.057	0.080	2.092
17	JNIV AK #2ST	RAILBT	2	2	1.5	0		1	11207.	8261.	0.853	284.	118.	0.	0.057	0.080	2.092
8	HEALY ST#1	RAILBT	2	2	25.0	0	APRIL	1	103556.	7582.	0.473	3098.	1658.	0.	0.057	0.080	2.092
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	92286.	7261.	0.502	2798.	1412.	0.	0.057	0.080	2.092
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	1245487.	7375.	0.624	37306.	3352.	0.	0.080	0.070	3.382
5	BELUGA CC#8	RAILBT	6	10	178.0	0	MAY	3	650373.	7253.	0.417	22220.	2443.	0.	0.080	0.070	3.382
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	345670.	7135.	0.284	14915.	1820.	0.	0.080	0.070	3.740
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	98090.	5365.	0.129	7488.	690.	0.	0.080	0.032	3.740
27	NGAS TURBINE	RAILBT	3	7	87.0	0	AUG.	3	51694.	2917.	0.068	4019.	677.	0.	0.080	0.032	3.740
7	BERVICE GT#4	RAILBT	3	7	26.4	0		3	4750.	886.	0.021	401.	202.	0.	0.080	0.032	3.740
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	11652.	643.	0.015	1031.	688.	0.	0.080	0.032	3.740
6	BERVICE GT#3	RAILBT	3	7	26.4	0	APRIL	3	844.	159.	0.004	140.	201.	0.	0.080	0.032	3.740
19	JNIV AK #1IC	RAILBT	5	6	2.8	0		3	38.	68.	0.002	6.	2.	0.	0.050	0.010	7.919
20	JNIV AK #2IC	RAILBT	5	6	2.8	0		3	37.	68.	0.002	6.	2.	0.	0.050	0.010	7.919
9	NORDLE GT#1	RAILBT	4	4	65.0	0		3	879.	67.	0.002	168.	495.	0.	0.080	0.032	7.177
10	NORDLE GT#2	RAILBT	4	4	65.0	0	REPT.	3	198.	15.	0.000	37.	495.	0.	0.080	0.032	7.177
14	CHENA #6CT	RAILBT	4	4	28.8	0		3	22.	4.	0.000	4.	219.	0.	0.080	0.032	7.177
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	3.	0.000	0.	0.	0.	0.050	0.010	7.919
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1286.0				4030505.			124656.	30438.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-10095.			-0.					
	SYSTEM TOTALS				1429.0				4587910.			124656.	34342.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	259.	1620773.	0.7144	36914.	19153.	34.59
3 NGASGT	317.	167030.	0.0602	13079.	2458.	93.02
4 OIL GT	159.	1097.	0.0008	209.	1209.	1292.81
5 DIESEL	6.	76.	0.0013	12.	1.	209.83
6 COMCYC	545.	2241530.	0.4695	74441.	7611.	36.61
TIENG		0.		0.		10.00
TOTAL	1286.	4030505.		124656.	30431.	38.48

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL 88MM, SCHUGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1995 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1160672.	TON
4	OIL#2G	214603.	GAL
6	OIL#2C	11066.	GAL
7	NGASIA	7448.	MCF
10	NGASUA	17511.	MCF

ALASKA RAILBELT 08/16/84 10.316
DEISTR7. VSD GAS/COAL. COAL BHMM. SCHAGAS. ERASCOAL 2MLJN1

MANUAL

1996 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 972. MW THERMAL PEAK 830. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CU. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0 MAY		1	1384502.	7582.	0.788	30428.	15270.	0.	0.057	0.080	2.114
24	NENANA COAL2	RAILBT	2	2	200.0	0 JUNE		1	1147306.	7375.	0.653	25690.	14414.	0.	0.086	0.120	2.114
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 FEB.	OCT.	1	17547.	2082.	0.200	453.	577.	0.	0.057	0.080	2.114
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 APRIL		1	8434.	7604.	0.640	221.	107.	0.	0.057	0.080	2.114
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 APRIL		1	8449.	7604.	0.641	222.	108.	0.	0.057	0.080	2.114
8	HEALY ST#1	RAILBT	2	2	25.0	0 APRIL		1	95711.	7604.	0.436	2934.	1630.	0.	0.057	0.080	2.114
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	87330.	8283.	0.473	2702.	1394.	0.	0.057	0.080	2.114
30	COM CYCLE CC	RAILBT	6	10	228.0	0 JULY		3	795106.	7335.	0.397	28071.	3108.	0.	0.080	0.070	3.515
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.		3	408592.	6688.	0.261	18663.	2312.	0.	0.080	0.070	3.515
1	AMLPD JNITCC	RAILBT	6	7	139.0	0		3	182873.	4079.	0.150	8461.	1732.	0.	0.080	0.070	3.883
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	12910.	733.	0.017	1046.	666.	0.	0.080	0.032	3.883
27	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.		3	3258.	186.	0.004	265.	663.	0.	0.080	0.032	3.883
7	BERNICE GT#4	RAILBT	3	7	26.4	0		3	205.	39.	0.001	18.	201.	0.	0.080	0.032	3.883
2	AMLPD JNIT#8	RAILBT	3	7	90.0	0		3	536.	31.	0.001	51.	685.	0.	0.080	0.032	3.883
6	BERNICE GT#3	RAILBT	3	7	26.4	0 APRIL		3	7.	1.	0.000	1.	201.	0.	0.080	0.032	3.883
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	1.	1.	0.000	0.	2.	0.	0.050	0.010	8.236
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	1.	1.	0.000	0.	2.	0.	0.050	0.010	8.236
10	NOPOLE CT#2	RAILBT	4	4	65.0	0		3	17.	1.	0.000	3.	495.	0.	0.080	0.032	7.464
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	0.	0.000	0.	0.	0.	0.050	0.010	8.236
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				1392.2				4152805.			117230.	43566.	0.			
	CONV. HYDRO				143.0				467500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-50205.			-0.					
	SYSTEM TOTALS				1535.2				4670100.			117230.	47469.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	459.	2749279.	0.6819	62651.	33499.	34.97
3 NGASGT	317.	1693b.	0.0061	1381.	2416.	224.20
4 OIL GT	65.	17.	0.0000	3.	495.	29707.58
5 DIESEL	6.	1.	0.0000	0.	4.	2542.25
6 COMCYC	545.	1386571.	0.2896	53194.	7153.	43.52
TIEND		-0.		-0.		10.00
TOTAL	1392.	4152805.		117230.	43566.	38.72

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1996 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1950109.	TON
4	OIL#2G	3276.	GAL
6	OIL#2C	219.	GAL
7	NGAS1A	2522.	MCF
10	NGAS4A	12672.	MCF

FORM 1411-3

PRINTED IN U.S.A.

ALASKA RAILBELT 08/16/94 10.316
DEISTR7: VSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

1997 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 984. MW THERMAL PEAK 845. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 115. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	VENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1380461.	7559.	0.791	30765.	15277.	0.	0.057	0.080	2.135
24	VENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1170382.	7353.	0.668	26398.	14497.	0.	0.086	0.120	2.135
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	FEB. OCT.	1	17640.	2082.	0.201	460.	577.	0.	0.057	0.080	2.135
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	APRIL	1	8614.	7582.	0.656	228.	108.	0.	0.057	0.080	2.135
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	APRIL	1	8609.	7582.	0.655	228.	108.	0.	0.057	0.080	2.135
13	CHENA #5ST	RAILBT	2	2	21.0	0		1	87583.	8261.	0.476	2735.	1395.	0.	0.057	0.080	2.135
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	847144.	7375.	0.424	30478.	3136.	0.	0.080	0.070	3.648
5	BELUGA CC#8	RAILBT	6	10	178.0	0	AUG.	3	430383.	6855.	0.276	18026.	2324.	0.	0.080	0.070	3.648
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	235463.	5224.	0.193	11286.	1760.	0.	0.080	0.070	4.032
27	VGAS TURBINE	RAILBT	3	7	87.0	0		3	25706.	1456.	0.034	2159.	669.	0.	0.080	0.032	4.032
27	VGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	7180.	409.	0.009	605.	604.	0.	0.080	0.032	4.032
27	VGAS TURBINE	RAILBT	3	7	87.0	0		3	1922.	110.	0.003	162.	603.	0.	0.080	0.032	4.032
7	SERVICE GT#4	RAILBT	3	7	26.4	0	APRIL	3	69.	13.	0.000	6.	201.	0.	0.080	0.032	4.032
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	154.	9.	0.000	15.	685.	0.	0.080	0.032	4.032
6	SERVICE GT#3	RAILBT	3	7	26.4	0	APRIL	3	7.	1.	0.000	1.	201.	0.	0.080	0.032	4.032
19	UNIV AK #1TC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.565
20	UNIV AK #2TC	RAILBT	5	6	2.8	0		3	0.	0.	0.000	0.	2.	0.	0.050	0.010	8.565
15	HOMERKEN IC	RAILBT	5	6	0.9	0		3	0.	0.	0.000	0.	0.	0.	0.050	0.010	8.565
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1389.2				4227315.			123553.	42270.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-43850.			-0.					
	SYSTEM TOTALS				1532.2				4750965.			123553.	46173.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR%	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	434.	2679288.	0.7047	60813.	31963.	34.63
3 NGASGT	404.	35036.	0.0099	2849.	3083.	173.17
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	6.	0.	0.0000	0.	4.	9004.18
6 COMCYC	545.	1512990.	0.3169	59790.	7221.	44.29
TIENS		0.		0.		0.
TOTAL	1389.	4227315.		123553.	42270.	39.23

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEIST87, VSD GAS/COAL, COAL BRMM, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1997 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1873917.	TON
6	OIL#2C	62.	GAL
7	NGAS1A	3513.	MCF
10	NGAS4A	13231.	MCF

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ALASKA RAILBELT 08/16/84 10.314
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL BMLJN1

OPTIMUM
1998 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1005. MW THERMAL PEAK 860. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 120. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PERM. MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	6 MAY	1	1392932.	7559.	0.795	31206.	15100.	0.	0.057	0.060	2.157
24	NENANA COAL2	RAILBT	2	2	200.0	6 JUNE	1	1185872.	7353.	0.677	26975.	14983.	0.	0.086	0.120	2.157
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 FEB. OCT.	1	17808.	2082.	0.203	469.	578.	0.	0.057	0.080	2.157
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 APRIL	1	8730.	7582.	0.664	233.	109.	0.	0.057	0.080	2.157
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 APRIL	1	8726.	7582.	0.664	233.	109.	0.	0.057	0.080	2.157
13	CHENA #5ST	RAILBT	2	2	21.0	0	1	93126.	8261.	0.506	2906.	1415.	0.	0.057	0.080	2.157
30	COM CYCLE CC	RAILBT	6	10	228.0	8 JULY	3	876684.	7375.	0.439	32402.	3152.	0.	0.080	0.070	3.786
5	BELUGA CC#8	RAILBT	6	10	178.0	8 AUG.	3	433466.	6876.	0.278	16824.	2326.	0.	0.080	0.070	3.786
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	249045.	5497.	0.205	12368.	1768.	0.	0.080	0.070	4.187
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	29000.	1635.	0.038	2523.	670.	0.	0.080	0.032	4.187
27	NGAS TURBINE	RAILBT	3	7	87.0	8 SEPT.	3	9398.	535.	0.012	822.	665.	0.	0.080	0.032	4.187
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	2805.	161.	0.004	246.	663.	0.	0.080	0.032	4.187
7	BERNICE GT#4	RAILBT	3	7	26.4	0 APRIL	3	170.	32.	0.001	16.	201.	0.	0.080	0.032	4.187
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0	3	220.	12.	0.000	22.	685.	0.	0.080	0.032	4.187
19	UNIV AK #1IC	RAILBT	5	6	2.8	0	3	1.	1.	0.000	0.	2.	0.	0.050	0.010	8.908
20	UNIV AK #2IC	RAILBT	5	6	2.8	0	3	1.	1.	0.000	0.	2.	0.	0.050	0.010	8.908
15	HOMERKEN IC	RAILBT	5	6	0.9	0	3	0.	1.	0.000	0.	0.	0.	0.050	0.010	8.908
	TIE ENERGY							0.			0.					
	TOTAL: THERMAL				1362.8			4307945.			129246.	42196.	0.			
	CONV. HYDRO				143.0			567500.				3904.				
	PUMP STORAGE1				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-42545.			-0.					
	SYSTEM TOTALS				1505.8			4832900.			129246.	46100.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE1	0.	0.	0.	0.	0.	0.
2 COAL	434.	2707194.	0.7121	62022.	32083.	14.75
3 NGASGT	377.	41594.	0.0126	3629.	2884.	156.58
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	6.	2.	0.0000	0.	4.	2035.65
6 COMCYC	585.	1599155.	0.3288	63595.	7246.	48.44
TIENG		0.		0.		10.00
TOTAL:	1363.	4307945.		129246.	42196.	39.80

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.=A 1 INDICATES SCHEDULED MAINTENANCE.

PRINTED IN U.S.A.

ALASKA RAILBELT 08/16/84 10.316
DEIST97, VSD GAS/COAL, COAL BRMM, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1998 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1891968.	TON
6	OIL#2C	296.	GAL
7	NGAS1A	3801.	MCF
10	NGAS4A	13455.	MCF

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSU GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

1999 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1023. MW THERMAL PEAK 880. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 120. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1395546.	7559.	0.797	31579.	15310.	0.	0.057	0.080	2.179
24	NENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1221250.	7582.	0.697	28066.	14681.	0.	0.057	0.080	2.179
18	UNIV AK #3ST	RAILBT	2	2	10.0	0		1	61167.	8261.	0.698	1659.	734.	0.	0.057	0.080	2.179
16	UNIV AK #1ST	RAILBT	2	2	1.5	0		1	9222.	8261.	0.702	249.	110.	0.	0.057	0.080	2.179
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	9211.	8261.	0.701	249.	110.	0.	0.057	0.080	2.179
13	CHEVA #5ST	RAILBT	2	2	21.0	0		1	122561.	8261.	0.666	3704.	1521.	0.	0.057	0.080	2.179
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	854023.	7375.	0.428	33052.	3140.	0.	0.080	0.070	3.934
5	BELUGA CC#8	RAILBT	6	10	178.0	0	AUG.	3	427619.	6844.	0.274	19354.	2322.	0.	0.080	0.070	3.934
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	254508.	5615.	0.209	13123.	1771.	0.	0.080	0.070	4.348
27	NGAS TJRBINE	RAILBT	3	7	87.0	0		3	25820.	1444.	0.034	2322.	669.	0.	0.080	0.032	4.348
27	NGAS TJRBINE	RAILBT	3	7	87.0	0	SEPT.	3	8226.	465.	0.011	745.	664.	0.	0.080	0.032	4.348
27	NGAS TJRBINE	RAILBT	3	7	87.0	0		3	2341.	134.	0.003	213.	663.	0.	0.080	0.032	4.348
7	BERVICE ST#4	RAILBT	3	7	26.4	0	APRIL	3	166.	31.	0.001	16.	291.	0.	0.080	0.032	4.348
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	411.	23.	0.001	42.	685.	0.	0.080	0.032	4.348
19	UNIV AK #1IC	RAILBT	5	6	2.8	0		3	2.	5.	0.000	0.	2.	0.	0.050	0.010	9.264
20	UNIV AK #2IC	RAILBT	5	6	2.8	0		3	1.	1.	0.000	0.	2.	0.	0.050	0.010	9.264
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1361.9				4392075.			134367.	42585.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-44565.			-0.					
	SYSTEM TOTALS				1504.9				4915010.			134367.	46489.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE!	0.	0.	0.	0.	0.	0.
	2 COAL.	434.	2818957.	0.7415	65499.	32467.	34.75
	3 NGASGT	377.	36965.	0.0112	3338.	2882.	168.28
	4 OIL GT	0.	0.	0.	0.	0.	0.
	5 DIESEL	6.	1.	0.0001	1.	1.	1110.55
	6 COMCYC	545.	1536150.	0.3218	65529.	7233.	47.37
	TIENO		0.		0.		10.00
	TOTAL	1362.	4392075.		134367.	42585.	40.29

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

1999 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1977999.	TON
6	OIL*PC	479.	GAL
7	NGAS1A	3767.	MCF
10	NGAS4A	13255.	MCF

ALASKA RAILBELT 08/16/84 10.316
DEISTRY, NSD GAS/COAL, COAL BSMM, SCHAGAB, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

2000 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1040. MW THERMAL PEAK 895. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 130. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE STRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FORST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	HENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1404383.	7582.	0.799	32083.	15142.	0.	0.057	0.080	2.200
24	HENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1247780.	7604.	0.710	28698.	14776.	0.	0.057	0.080	2.200
18	UNIV AK #3ST	RAILBT	2	2	10.0	0		1	63869.	8283.	0.727	1736.	744.	0.	0.057	0.080	2.200
16	UNIV AK #1ST	RAILBT	2	2	1.5	0		1	9565.	8283.	0.726	260.	112.	0.	0.057	0.080	2.200
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	9565.	8283.	0.726	260.	112.	0.	0.057	0.080	2.200
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	929681.	7397.	0.464	36432.	31A1.	0.	0.080	0.070	4.086
5	BELUGA CC#8	RAILBT	6	10	178.0	0	AUG.	3	4587A1.	6946.	0.293	21094.	8339.	0.	0.080	0.070	4.086
1	AMLPD UNITCC	RAILBT	6	7	139.5	0		3	282642.	6160.	0.231	15056.	1786.	0.	0.080	0.070	4.515
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	47184.	2632.	0.062	4398.	675.	0.	0.080	0.032	4.515
27	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	15795.	890.	0.021	1481.	666.	0.	0.080	0.032	4.515
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	3833.	218.	0.005	361.	663.	0.	0.080	0.032	4.515
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	834.	48.	0.001	79.	662.	0.	0.080	0.032	4.515
7	BERNICE GT#4	RAILBT	3	7	26.3	0		3	30.	6.	0.000	3.	201.	0.	0.080	0.032	4.515
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0		3	94.	5.	0.000	10.	685.	0.	0.080	0.032	4.515
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1422.8				4874005.			142153.	41945.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-45380.			-0.					
	SYSTEM TOTALS				1565.8				4996125.			142153.	45849.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	413.	2735172.	0.7539	63237.	31086.	34.49
3 NGASGT	464.	67769.	0.0166	6333.	3553.	145.87
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1671063.	0.3491	72583.	7306.	47.81
TIENG		0.		0.		10.00
TOTAL	1422.	4874005.		142153.	41945.	41.15

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.D.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

PRINTED IN U.S.A.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2000 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1890762.	TON
7	NGAS1A	4714.	MCF
10	NGAS4A	14010.	MCF

ALASKA RAILBELT 08/16/84 10.31.0
DEISTR7, V8D GAS/COAL, COAL B8MM, SCHAGAS, ERASCOAL SMLJN1

OPTIMUM
2001 YEARLY
PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1065. MW THERMAL PEAK 920. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 125. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0 MAY	1	1407351.	7559.	0.803	32454.	15353.	0.	0.057	0.080	2.222
24	NENANA COAL2	RAILBT	2	2	200.0	0 JUNE	1	1265346.	7582.	0.722	29539.	14840.	0.	0.057	0.080	2.222
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	1	65190.	8261.	0.744	1705.	749.	0.	0.057	0.080	2.222
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	1	9694.	8261.	0.738	266.	112.	0.	0.057	0.080	2.222
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	1	9694.	8261.	0.738	266.	112.	0.	0.057	0.080	2.222
30	COM CYCLE CC	RAILBT	6	10	228.0	0 JULY	3	974814.	7375.	0.488	39078.	3205.	0.	0.080	0.070	4.243
5	BELUGA CC#6	RAILBT	6	10	178.0	0 AUG.	3	675966.	6976.	0.305	22445.	2349.	0.	0.080	0.070	4.243
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	296986.	6427.	0.244	16379.	1794.	0.	0.080	0.070	4.688
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	51161.	2830.	0.067	4929.	676.	0.	0.080	0.032	4.688
27	NGAS TURBINE	RAILBT	3	7	87.0	0 SEPT.	3	20781.	1169.	0.027	2022.	668.	0.	0.080	0.032	4.688
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	7644.	434.	0.010	748.	664.	0.	0.080	0.032	4.688
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL	3	2028.	116.	0.003	199.	663.	0.	0.080	0.032	4.688
7	BERNICE GT#4	RAILBT	3	7	26.4	0	3	135.	25.	0.001	14.	201.	0.	0.080	0.032	4.688
2	AMLPD UNIT#8	RAILBT	3	7	90.0	0	3	183.	10.	0.000	20.	685.	0.	0.080	0.032	4.688
	TIE ENERGY							0.			0.					
	TOTAL: THERMAL				1422.4			4586675.			150144.	42070.	0.			
	CONV. HYDRO				143.0			567500.				3604.				
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-37240.			-0.					
	SYSTEM TOTALS				1565.4			1116935.			150144.	45674.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR.	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKR	0.	0.	0.	0.	0.	0.
2 COAL	413.	2757276.	0.7621	64310.	31165.	34.63
3 NGASGT	464.	81932.	0.0201	7933.	3557.	140.23
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1747467.	0.3660	77902.	7347.	48.78
TIENG		0.		0.		10.00
TOTAL	1422.	4586675.		150144.	42070.	41.91

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

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GENERAL ELECTRIC COMPANY, FUSED GENERATION PLANNING PROGRAM OGP-6 V6.20.W PAGE 23

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL RBMM, SCHAGAS, EBASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2001 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1903765.	TON
7	NGAS1A	5160.	MCF
10	NGAS4A	14428.	MCF

FORM 1411-3

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GENERAL ELECTRIC COMPANY, EJSED GENERATION PLANNING PROGRAM OGP-6 V6.20.H

ALASKA RAILBELT 04/16/84 10.31b
DEISTR7, VSD GAS/COAL, COAL BBMM, SCNAGAS, EBASCOAL EMLJN1

OPTIMUM

NGASBT

2002 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1090. MW THERMAL PEAK 945. MW
SPINNING RESERVE 238. MW MAXIMUM OFF-PEAK EXCESS 120. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRN.	MAINTENANCE MONTHS UP	MIN. RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVY. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0 MAY		1	1414424.	7559.	0.807	32926.	15178.	0.	0.057	0.080	2.245
24	NENANA COAL2	RAILBT	2	2	200.0	0 JUNE		1	1282553.	7582.	0.732	30193.	14902.	0.	0.057	0.080	2.245
18	UNIV AK #3BT	RAILBT	2	2	10.0	0		1	66012.	8261.	0.754	1823.	752.	0.	0.057	0.080	2.245
16	UNIV AK #1BT	RAILBT	2	2	1.5	0		1	9897.	8261.	0.753	273.	113.	0.	0.057	0.080	2.245
17	UNIV AK #2BT	RAILBT	2	2	1.5	0		1	9897.	8261.	0.753	273.	113.	0.	0.057	0.080	2.245
30	COM CYCLE1 CC	RAILBT	6	10	228.0	0 JULY		3	1011159.	7375.	0.506	41667.	3225.	0.	0.080	0.070	4.406
5	BELUGA CC#8	RAILBT	6	10	178.0	0 AUG.		3	496740.	6973.	0.319	23935.	2360.	0.	0.080	0.070	4.406
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	311293.	6631.	0.256	17712.	1801.	0.	0.080	0.070	4.868
27	NGAS TURBINE1	RAILBT	3	7	87.0	0		3	62769.	3413.	0.002	6217.	680.	0.	0.080	0.032	4.868
27	NGAS TURBINE1	RAILBT	3	7	87.0	0 SEPT.		3	25284.	1402.	0.033	2533.	669.	0.	0.080	0.032	4.868
27	NGAS TURBINE1	RAILBT	3	7	87.0	0		3	8614.	484.	0.011	870.	664.	0.	0.080	0.032	4.868
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL		3	2446.	139.	0.003	246.	663.	0.	0.080	0.032	4.868
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	574.	33.	0.001	59.	662.	0.	0.080	0.032	4.868
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	109.	6.	0.000	11.	662.	0.	0.080	0.032	4.868
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1480.0				4701770.			158739.	42644.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-31185.			-0.					
	SYSTEM TOTALS				1623.0				5238085.			158739.	46548.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	413.	2782783.	0.7692	85486.	31258.	34.77
3 NGASBT	522.	99795.	0.0218	9937.	4000.	139.66
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1819192.	0.3810	83314.	7386.	49.86
TIENG		0.		0.		10.00
TOTAL	1480.	4701770.		158739.	42644.	42.83

*** MANUAL MAINTENANCE PATTERNS ***

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED: PATTERNS OVERRIDE THE
COMPUTED P.O.R.-A 1 INDICATES
SCHEDULED MAINTENANCE.

FORM 141-3
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ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2002 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1919444.	TON
7	NGAS1A	5651.	MCF
10	NGAS4A	14814.	MCF

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2002 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1919444.	TON
7	NGAS1A	5651.	MCF
10	NGAS4A	14814.	MCF

ALASKA RAILBELT 08/16/84 10.316
DISTR7, VSD GAS/COAL, COAL BBMW, SCHAGAS, ERASCOAL ZMLJN1

OPTIMUM
2003 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1114. MW THERMAL PEAK 970. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 115. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRTN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1417651.	7559.	0.809	33324.	15390.	0.	0.057	0.080	2.267
24	NENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1297527.	7562.	0.741	30510.	14956.	0.	0.057	0.080	2.267
18	UNIV AK #3ST	RAILBT	2	2	10.0	0		1	66972.	8261.	0.765	1865.	755.	0.	0.057	0.080	2.267
16	UNIV AK #1ST	RAILBT	2	2	1.5	0		1	10001.	8261.	0.761	279.	113.	0.	0.057	0.080	2.267
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	10027.	8261.	0.763	279.	113.	0.	0.057	0.080	2.267
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	1047989.	7375.	0.525	44402.	3245.	0.	0.080	0.070	4.576
5	BELUGA CC#8	RAILBT	6	10	178.0	0	AUG.	3	523870.	7044.	0.336	25804.	2374.	0.	0.080	0.070	4.576
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	322979.	6772.	0.265	18959.	1808.	0.	0.080	0.070	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	77044.	4143.	0.101	7873.	684.	0.	0.080	0.032	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	29920.	1641.	0.039	3093.	670.	0.	0.080	0.032	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	10728.	599.	0.014	1121.	665.	0.	0.080	0.032	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	3405.	193.	0.004	359.	663.	0.	0.080	0.032	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	644.	37.	0.001	68.	662.	0.	0.080	0.032	5.055
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	124.	7.	0.000	13.	662.	0.	0.080	0.032	5.055
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1480.0				4818880.			168247.	82761.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-27250.			-0.					
	SYSTEM TOTALS				1623.0				5359130.			168247.	86665.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
	2 COAL	413.	2802177.	0.7745	66555.	31328.	34.93
	3 NGASGT	922.	121865.	0.0267	12527.	4007.	135.67
	4 OIL GT	0.	0.	0.	0.	0.	0.
	5 DIESEL	0.	0.	0.	0.	0.	0.
	6 COMCYC	645.	1894838.	0.3069	89165.	7427.	50.98
	TIENG		0.		0.		10.00
	TOTAL	1480.	4818880.		168247.	82761.	43.79

* * * *MANUAL MAINTENANCE PATTERNS* * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

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ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2003 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1931392.	TON
7	NGAS1A	6197.	MCF
10	NGAS4A	15266.	MCF

FORM 1411-3
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ALASKA RAILBELT 08/16/84 10.316
DEISTR7, N3D GAS/COAL, COAL BBMM, SCHAGAS, ERABCOAL 2MLJN1

OPTIMUM

2004 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1140. MW
SPINNING RESERVE 228. MW

THERMAL PEAK 895. MW
MAXIMUM OFF-PEAK EXCESS 115. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	MAY	1	1423498.	7582.	0.810	33791.	15411.	0.	0.057	0.080	2.290
24	NENANA COAL2	RAILBT	2	2	200.0	JUNE	1	1307722.	7604.	0.744	31345.	14093.	0.	0.057	0.080	2.290
18	UNIV AK #3BT	RAILBT	2	2	10.0		1	67748.	8283.	0.771	1903.	758.	0.	0.057	0.080	2.290
16	UNIV AK #1BT	RAILBT	2	2	1.5		1	10146.	8283.	0.770	285.	114.	0.	0.057	0.080	2.290
17	UNIV AK #2BT	RAILBT	2	2	1.5		1	10145.	8283.	0.770	285.	114.	0.	0.057	0.080	2.290
30	COM CYCLE CC	RAILBT	6	10	228.0	JULY	3	1088640.	7397.	0.544	47446.	3267.	0.	0.080	0.070	4.752
5	BELUGA CC#8	RAILBT	6	10	178.0	AUG.	3	545205.	7068.	0.349	27528.	2386.	0.	0.080	0.070	4.752
1	AMLPD UNITCC	RAILBT	6	7	139.0		3	334929.	6938.	0.274	20315.	1814.	0.	0.080	0.070	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0		3	87799.	4697.	0.115	9289.	687.	0.	0.080	0.032	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0	SEPT.	3	41263.	2270.	0.054	4436.	674.	0.	0.080	0.032	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0		3	16909.	948.	0.022	1838.	667.	0.	0.080	0.032	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0	APRIL	3	5269.	298.	0.007	576.	664.	0.	0.080	0.032	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0		3	1626.	93.	0.002	179.	663.	0.	0.080	0.032	5.250
27	NGAS TURBINE	RAILBT	3	7	87.0		3	217.	12.	0.000	24.	662.	0.	0.080	0.032	5.250
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				1480.0			4941065.			179240.	42871.	0.			
	CONV. HYDRO				143.0			567500.				3004.				
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-27545.			-0.					
	SYSTEM TOTALS				1623.0			5481020.			179240.	45875.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	413.	2819208.	0.7771	67609.	31389.	35.12
3 NGASGT	522.	153083.	0.0334	16342.	4015.	132.98
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1968774.	0.4113	95289.	7467.	52.19
TIENO		0.		0.		10.00
TOTAL	1480.	4941065.		179240.	42871.	44.93

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

FORM 1111-3

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ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2004 YEARLY

TYPE TO	TYPE	FUEL CONSUMPTION	
2	COALH1	1942520.	TON
7	NGAS1A	6948.	MCF
10	NGAS4A	15699.	MCF

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL BBMM, BCHAGAS, EBABCOAL 24LJN1

OPTIMUM

COAL

2005 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1165. MW THERMAL PEAK 1020. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 130. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL1 STEAM	RAILBT	2	11	200.0	0	AUG.	1	1357404.	7331.	0.775	32394.	15172.	0.	0.086	0.120	2.299
23	NENANA COAL1	RAILBT	2	2	200.0	0	JUNE	1	1276983.	7582.	0.729	30989.	14882.	0.	0.057	0.080	2.313
24	NENANA COAL2	RAILBT	2	2	200.0	0	MAY	1	1106174.	7359.	0.631	27316.	14265.	0.	0.057	0.080	2.313
18	UNIV AK #3ST	RAILBT	2	2	10.0	0	MARCH OCT.	1	20694.	2716.	0.236	591.	588.	0.	0.057	0.080	2.313
16	UNIV AK #1ST	RAILBT	2	2	1.5	0	JUNE JULY	1	7160.	6880.	0.545	207.	103.	0.	0.057	0.080	2.313
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	8037.	8261.	0.612	233.	106.	0.	0.057	0.080	2.313
30	COM CYCLE1 CC	RAILBT	6	10	228.0	0	JULY	3	711638.	7194.	0.356	36421.	3063.	0.	0.080	0.070	4.935
5	BELUGA CC#8	RAILBT	6	10	178.0	0	SEPT.	3	403904.	6560.	0.259	23071.	2310.	0.	0.080	0.070	4.935
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	165985.	3645.	0.136	10708.	1723.	0.	0.080	0.070	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	18874.	1049.	0.025	2120.	667.	0.	0.080	0.032	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	6670.	375.	0.009	754.	664.	0.	0.080	0.032	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2370.	135.	0.003	270.	663.	0.	0.080	0.032	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	571.	33.	0.001	65.	662.	0.	0.080	0.032	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	112.	6.	0.000	13.	662.	0.	0.080	0.032	5.451
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	18.	1.	0.000	2.	662.	0.	0.080	0.032	5.481
	TIE ENERGY								-0.			-0.					
	TOTAL THERMAL				1680.0				5086645.			165157.	56193.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-52155.			-0.					
	SYSTEM TOTALS				1823.0				5601990.			165157.	60097.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	613.	3776413.	0.7033	91733.	45117.	36.24
3	NGASGT	522.	28615.	0.0063	3223.	3980.	251.75
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	1.	0.	0.
6	COMCYC	545.	1281616.	0.2684	70201.	7096.	60.31
	TIENG		-0.		-0.		10.00
	TOTAL	1680.	5086645.		165157.	56193.	43.52

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

FORM 411-3

PRINTED IN U.S.A.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, N8D GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2005 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1688021.	TON
9	NGAS1A	2543.	MCF
10	NGAS4A	11995.	MCF
11	COAL B	939550.	TON

14538

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, BCHAGAS, ERASCOAL 2MLJN1

MANUAL

2006 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1200. MW THERMAL PEAK 1055. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 125. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MIN. MONTHS UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL STEAM	RAILBT	2	11	200.0	0 AUG.	1	1363918.	7331.	0.778	32817.	1519.	0.	0.080	0.120	2.319
23	NENANA COAL1	RAILBT	2	2	200.0	0 JUNE	1	1289567.	7582.	0.736	31572.	14927.	0.	0.057	0.080	2.336
24	NENANA COAL2	RAILBT	2	2	200.0	0 MAY	1	1140684.	7559.	0.651	28337.	14390.	0.	0.057	0.080	2.336
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 MARCH OCT.	1	21873.	2716.	0.250	628.	593.	0.	0.057	0.080	2.336
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 JUNE JULY	1	7412.	6880.	0.564	216.	104.	0.	0.057	0.080	2.336
17	UNIV AK #2ST	RAILBT	2	2	1.5	0	1	6339.	6261.	0.635	245.	107.	0.	0.057	0.080	2.336
30	COM CYCLE CC	RAILBT	6	10	228.0	0 JULY	3	760757.	7199.	0.381	39523.	3090.	0.	0.080	0.070	5.125
5	BELUGA CC#8	RAILBT	6	10	178.0	0 SEPT.	3	412854.	6561.	0.265	24272.	2314.	0.	0.080	0.070	5.125
1	AMLPD UNITCC	RAILBT	6	7	139.0	0	3	202913.	4421.	0.167	13549.	1743.	0.	0.080	0.070	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	24909.	1362.	0.033	2877.	669.	0.	0.080	0.032	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL	3	9156.	510.	0.012	1069.	665.	0.	0.080	0.032	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	2647.	149.	0.003	311.	663.	0.	0.080	0.032	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL	3	620.	35.	0.001	73.	662.	0.	0.080	0.032	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	125.	7.	0.000	15.	662.	0.	0.080	0.032	5.660
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	20.	1.	0.000	2.	662.	0.	0.080	0.032	5.660
	TIE ENERGY							0.			0.					
	TOTAL THERMAL				1680.0			5245795.			175506.	56446.	0.			
	CONV. HYDRO				143.0			567500.				3904.				
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-42240.			-0.					
	SYSTEM TOTALS				1823.0			5771055.			175506.	60350.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	613.	3831793.	0.7136	93815.	45316.	36.31
3 NGASGT	522.	37477.	0.0082	4347.	3983.	222.28
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1376525.	0.2885	77344.	7147.	61.38
TIENG		0.		0.		10.00
TOTAL	1680.	5245795.		175506.	56446.	44.22

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1.	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

FORM 1411-3

PRINTED IN U.S.A.

ALASKA RAILBELT 08/16/84 10.316
DEISTRT, VSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2006 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1718001.	TON
7	NGAS1A	3146.	MCF
10	NGAS4A	12386.	MCF
11	COAL B	943576.	TON

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, USD GAS/COAL, COAL RAMP, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

2007 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1234. MW THERMAL PEAK 1090. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RATLRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RATLRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL STEAM	RATLRT	2	11	200.0	0 AUG.		1	1368544.	7331.	0.781	33204.	15212.	0.	0.086	0.120	2.339
23	VENANA COAL1	RATLRT	2	2	200.0	0 JUNE		1	1300424.	7582.	0.742	32125.	14967.	0.	0.057	0.080	2.359
24	VENANA COAL2	RATLRT	2	2	200.0	0 MAY		1	1171655.	7559.	0.669	29298.	14502.	0.	0.057	0.080	2.359
18	UNIV AK #3ST	RATLRT	2	2	10.0	0 MARCH OCT.		1	22516.	2716.	0.257	651.	595.	0.	0.057	0.080	2.359
16	UNIV AK #1ST	RATLRT	2	2	1.5	0 JUNE JULY		1	7842.	6880.	0.597	229.	105.	0.	0.057	0.080	2.359
17	UNIV AK #2ST	RATLRT	2	2	1.5	0		1	8669.	8261.	0.660	256.	108.	0.	0.057	0.080	2.359
30	COM CYCLE CC	RATLRT	6	10	228.0	0 JULY		3	814502.	7255.	0.408	53411.	3119.	0.	0.080	0.070	6.600
5	BELUGA CC#8	RATLRT	6	10	178.0	0 SEPT.		3	427452.	6585.	0.274	31966.	2322.	0.	0.080	0.070	6.600
1	AMLPD UNITCC	RATLRT	6	7	139.0	0		3	241623.	5202.	0.198	18718.	1764.	0.	0.080	0.070	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0		3	31115.	1674.	0.041	4151.	671.	0.	0.080	0.032	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0 APRIL		3	12192.	667.	0.016	1642.	665.	0.	0.080	0.032	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0		3	4596.	257.	0.006	627.	663.	0.	0.080	0.032	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0 APRIL		3	1932.	110.	0.003	266.	663.	0.	0.080	0.032	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0		3	514.	29.	0.001	71.	662.	0.	0.080	0.032	6.600
27	NGAS TURBINE	RATLRT	3	7	87.0	0		3	115.	7.	0.000	16.	662.	0.	0.080	0.032	6.600
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1680.0				5413670.			206631.	56681.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-42120.			-0.					
	SYSTEM TOTALS				1823.0				5939050.			206631.	60585.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	613.	3879629.	0.7225	95762.	45489.	36.41
3 NGASGT	522.	50464.	0.0110	6773.	3987.	213.22
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1483576.	0.3107	104096.	7205.	75.02
TIENG		0.		0.		10.00
TOTAL	1680.	5413670.		206631.	56681.	48.64

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88M4, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2007 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1744494.	TON
7	NGAS1A	3843.	MCF
10	NGAS4A	12872.	MCF
11	COAL B	946435.	TON

ALASKA RAILBELT 08/16/84 10.516
DEISTR7, VSD GAS/COAL, COAL BRMM, SCHGAS, ERASCOAL 24LJN1

OPTIMUM
2008 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1269. MW THERMAL PEAK 1125. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 135. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FULL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	1411271.	7582.	0.803	34551.	15367.	0.	0.057	0.080	2.359
23	NENANA COAL1	RAILBT	2	2	200.0	0	JUNE	1	1312208.	7604.	0.747	32718.	15009.	0.	0.057	0.080	2.383
24	NENANA COAL2	RAILBT	2	2	200.0	0	MAY	1	1186183.	7582.	0.675	29923.	14554.	0.	0.057	0.080	2.383
18	UNIV AK #3ST	RAILBT	2	2	10.0	0		1	61264.	8283.	0.697	1813.	735.	0.	0.057	0.080	2.383
16	UNIV AK #1ST	RAILBT	2	2	1.5	0		1	9191.	8283.	0.698	272.	110.	0.	0.057	0.080	2.383
17	UNIV AK #2ST	RAILBT	2	2	1.5	0		1	9186.	8283.	0.697	272.	110.	0.	0.057	0.080	2.383
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	838595.	7269.	0.419	56541.	3132.	0.	0.080	0.070	6.846
5	BELUGA CC#8	RAILBT	6	10	178.0	0	SEPT.	3	434059.	6598.	0.278	33492.	2326.	0.	0.080	0.070	6.846
1	AMLPD UNITCC	RAILBT	6	7	139.0	0		3	252802.	5439.	0.207	20308.	1770.	0.	0.080	0.070	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	37720.	2019.	0.049	5206.	673.	0.	0.080	0.032	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	17509.	960.	0.023	2451.	667.	0.	0.080	0.032	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	7623.	426.	0.010	1079.	664.	0.	0.080	0.032	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	2447.	139.	0.003	349.	663.	0.	0.080	0.032	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	621.	35.	0.001	89.	662.	0.	0.080	0.032	6.846
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	127.	7.	0.000	18.	662.	0.	0.080	0.032	6.846
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				1680.0				5580805.			219082.	57104.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 1				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-41360.			-0.					
	SYSTEM TOTALS				1823.0				6106945.			219082.	61007.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL1	613.	3989303.	0.7409	99550.	45885.	36.46
3 NGASGT	522.	66045.	0.0144	9192.	399[illegible].	199.60
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	545.	1525456.	0.3186	110341.	7228.	77.07
TIENG		0.				10.00
TOTAL	1680.	5580805.		219082.	57104.	49.49

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.=A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2008 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1794590.	TON
7	NGAS1A	4288.	MCF
10	NGAS4A	13087.	MCF
11	COAL B	976288.	TON

1215

ALASKA RAILBELT 08/16/84 10.31.0
DISTR7, VSD GAS/COAL, COAL 88MW, SCHUGAS, ERASCOAL 2MLJN1

OPTIMUM

COAL

2009 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1305. MW THERMAL PEAK 1160. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 160. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL STEAM	RAILBT	2	11	200.0	0 SEPT.		1	1393474.	7582.	0.795	34460.	15302.	0.	0.057	0.080	2.380
26	COAL STEAM	RAILBT	2	11	200.0	0 JUNE		1	1242792.	7353.	0.709	31023.	14758.	0.	0.086	0.120	2.380
23	NENANA COAL1	RAILBT	2	2	200.0	0 MAY		1	1135136.	7559.	0.648	29073.	14370.	0.	0.057	0.080	2.407
24	NENANA COAL2	RAILBT	2	2	200.0	0 AUG.		1	984324.	7559.	0.562	25708.	13875.	0.	0.057	0.080	2.407
18	UNIV AK #3ST	RAILBT	2	2	10.0	0 MARCH SEPT.		1	23060.	3417.	0.263	698.	597.	0.	0.057	0.080	2.407
16	UNIV AK #1ST	RAILBT	2	2	1.5	0 MAY JULY		1	5820.	6179.	0.445	176.	95.	0.	0.057	0.080	2.407
17	UNIV AK #2ST	RAILBT	2	2	1.5	0 JUNE		1	6686.	7582.	0.524	212.	102.	0.	0.057	0.080	2.407
30	COM CYCLE CC	RAILBT	6	10	224.0	0 JULY		3	591241.	5655.	0.296	45279.	2998.	0.	0.080	0.070	7.100
5	BELUGA CC#8	RAILBT	6	10	178.0	0		3	348615.	5842.	0.224	29015.	2280.	0.	0.080	0.070	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	31422.	1663.	0.041	4469.	671.	0.	0.080	0.032	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL		3	13756.	749.	0.018	1988.	666.	0.	0.080	0.032	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	6036.	336.	0.008	883.	664.	0.	0.080	0.032	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL		3	2427.	137.	0.003	359.	663.	0.	0.080	0.032	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	620.	35.	0.001	92.	662.	0.	0.080	0.032	7.100
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	127.	7.	0.000	19.	662.	0.	0.080	0.032	7.100
	TIE ENERGY								0.				0.				
	TOTAL THERMAL				1741.0				5785775.			203456.	68319.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-77260.			-0.					
	SYSTEM TOTALS				1884.0				6276015.			203456.	72223.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	813.	4791491.	0.6728	121352.	59053.	37.65
3	NGASGT	522.	54387.	0.0119	7810.	4988.	216.92
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	406.	939897.	0.2643	74294.	5278.	84.66
	TIENG		0.		0.		10.00
	TOTAL	1741.	5785775.		203456.	68319.	46.97

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT
DEISTR7, VSC GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL

08/16/84 10.316
2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2009 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1527223.	TON
7	NGAS1A	1095.	MCF
10	NGAS4A	10412.	MCF
11	COAL B	1834310.	TON

11521

ALASKA RAILBELT 08/16/84 10.31.0
DEISTRT, NSD GAS/COAL, COAL BOMM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

2010 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1339. MW THERMAL PEAK 1195. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 150. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRIV.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.020	1.000	0.
26	COAL STEAM	RAILBT	2	11	200	0	SEPT.	1	1392308.	7582.	0.795	34948.	15298.	0.	0.057	0.080	2.415
26	COAL STEAM	RAILBT	2	11	200	0	JUNE	1	1258942.	7353.	0.719	31847.	14817.	0.	0.086	0.120	2.415
23	VENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1164721.	7559.	0.665	30036.	14477.	0.	0.057	0.080	2.431
24	VENANA COAL2	RAILBT	2	2	200.0	0	AUG.	1	998741.	7559.	0.570	26295.	13877.	0.	0.057	0.080	2.431
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	655908.	6718.	0.328	49977.	3033.	0.	0.080	0.070	7.313
5	BELUGA CC#5	RAILBT	6	10	178.0	0		3	376888.	6071.	0.242	31792.	2295.	0.	0.080	0.070	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	51491.	2560.	0.068	7281.	676.	0.	0.080	0.032	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	25240.	1295.	0.033	3652.	669.	0.	0.080	0.032	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	10138.	527.	0.013	1470.	665.	0.	0.080	0.032	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	4663.	255.	0.006	697.	663.	0.	0.080	0.032	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	1930.	106.	0.003	289.	663.	0.	0.080	0.032	7.313
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	443.	24.	0.001	66.	662.	0.	0.080	0.032	7.313
	TIE ENERGY								8.			0.					
	TOTAL THERMAL				1728.0				5941440.			218330.	67796.	0.			
	CONV. HYDRO				143.0				567300.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-65050.			-0.					
	SYSTEM TOTALS				1871.0				6443690.			218330.	71700.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	800.	4814711.	0.6870	123128.	58469.	37.72
3 NGASGT	522.	93926.	0.0205	13435.	3999.	185.61
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	406.	1032795.	0.2904	81769.	5328.	84.33
TIENG		8.		0.		10.00
TOTAL	1728.	5941440.		218330.	67796.	48.16

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2010 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1524318.	TON
7	NGAS1A	1828.	MCF
10	NGAS4A	11125.	MCF
11	COAL B	1843570.	TON

12953

ALASKA RAILBELT 08/16/84 10.316
DEISTAT, USD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

2011 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1373. MW THERMAL PEAK 1230. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 165. MW

UNIT TO	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PRTY.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
25	COAL STEAM	RAILBT	2	11	200.0	0	SEPT.	1	1402210.	7582.	0.800	35694.	15334.	0.	0.057	0.080	2.451
26	COAL STEAM	RAILBT	2	11	200.0	0	JUNE	1	1267090.	7353.	0.723	32507.	14846.	0.	0.086	0.120	2.451
23	VENANA COAL1	RAILBT	2	2	200.0	0	MAY	1	1195675.	7559.	0.682	31047.	14588.	0.	0.057	0.080	2.456
24	VENANA COAL2	RAILBT	2	2	200.0	0	AUG.	1	1034070.	7559.	0.590	27367.	14005.	0.	0.057	0.080	2.456
30	COM CYCLE CC	RAILBT	6	10	228.0	0	JULY	3	680530.	6717.	0.341	52718.	3046.	0.	0.080	0.070	7.533
5	BELUGA CC#8	RAILBT	6	10	178.0	0		3	405896.	6399.	0.260	34901.	2311.	0.	0.080	0.070	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	59857.	2890.	0.079	8578.	679.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	28544.	1421.	0.037	4161.	670.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	16264.	861.	0.021	2454.	667.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	7914.	409.	0.010	1152.	664.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2282.	124.	0.003	350.	663.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	630.	35.	0.001	97.	662.	0.	0.080	0.032	7.533
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	251.	14.	0.000	39.	662.	0.	0.080	0.032	7.533
	TIE ENERGY								3.			0.					
	TOTAL THERMAL				1815.0				6100815.			231125.	68798.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 1				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-58360.			-0.					
	SYSTEM TOTALS				1958.0				6609955.			231125.	72701.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR%	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	800.	4899045.	0.6991	126615.	58774.	37.84
3 NGASGT	604.	115341.	0.0216	16831.	4667.	186.38
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	406.	1086427.	0.3055	87679.	5357.	85.64
TIENG		3.		0.		10.00
TOTAL	1815.	6100815.		231125.	68798.	49.16

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2011 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1564742.	TON
7	NGAS1A	2223.	MCF
10	NGAS4A	11582.	MCF
11	COAL B	1854725.	TON

ALASKA RAILBELT 08/16/84 10.31.9
DEISTR7, VSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

COAL

2012 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1408. MW THERMAL PEAK 1265. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 210. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	VENANA COAL1	RAILBT	2	2	200.0	0	JULY	1	1378268.	7582.	0.785	35574.	15248.	0.	0.057	0.080	2.481
24	VENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1297656.	7604.	0.739	33732.	14957.	0.	0.057	0.080	2.481
25	COAL STEAM	RAILBT	2	11	200.0	0	MAY	1	1155384.	7582.	0.658	30533.	14043.	0.	0.057	0.080	2.488
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	994002.	7582.	0.566	26811.	13860.	0.	0.057	0.080	2.488
26	COAL STEAM	RAILBT	2	11	200.0	0	SEPT.	1	848031.	7375.	0.483	23338.	13333.	0.	0.086	0.120	2.488
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	580116.	7092.	0.290	50123.	2992.	0.	0.080	0.070	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	60821.	2897.	0.080	8911.	679.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	28803.	1419.	0.039	4298.	670.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	16339.	854.	0.021	2520.	667.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	7410.	396.	0.010	1158.	664.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2567.	139.	0.003	404.	663.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	902.	50.	0.001	144.	662.	0.	0.080	0.032	7.759
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	370.	21.	0.000	60.	662.	0.	0.080	0.032	7.759
	TIE ENERGY								4.			0.					
	TOTAL THERMAL				1837.0				6370675.			217606.	79500.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-158155.			-0.					
	SYSTEM TOTALS				1980.0				6780020.			217606.	83404.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
	1 NUKE	0.	0.	0.	0.	0.	0.
12	2 COAL	1000.	5673342.	0.6459	149988.	71841.	39.10
11	3 NGASGT	609.	117213.	0.0219	17495.	4667.	189.08
10	4 OIL GT	0.	0.	0.	0.	0.	0.
9	5 DIESEL	0.	0.	0.	0.	0.	0.
8	6 COMCYC	228.	580116.	0.2897	50123.	2992.	91.56
7	TIENG		4.		0.		10.00
6							
5	TOTAL	1837.	6370675.		217606.	79500.	46.64
4							
3							

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2012 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1837773.	TON
7	NGAS1A	2244.	MCF
10	NGAS4A	6428.	MCF
11	COAL B	2161926.	TON

FORM 1111-1

6672

ALASKA RAILBELT 08/16/80 10.316
DEISTRT, V80 SAS/COAL, COAL RBMM, SCHAGAR, ERASCOAL 24LJN1

OPTIMUM

NGASGT

2019 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1444. MW THERMAL PEAK 1300. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 200. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	[illegible]ANA COAL1	RAILRT	2	2	200.0	0	JULY	1	1362171.	7559.	0.789	36016.	15262.	0.	0.057	0.080	2.506
24	[illegible]ANA COAL2	RAILRT	2	2	200.0	0	JUNE	1	1306323.	7582.	0.746	34265.	14988.	0.	0.057	0.080	2.506
26	COAL STEAM	RAILRT	2	11	200.0	0	MAY	1	1188110.	7559.	0.678	31743.	14561.	0.	0.057	0.080	2.525
26	COAL STEAM	RAILRT	2	11	200.0	0	AUG.	1	1028782.	7559.	0.587	28013.	13986.	0.	0.057	0.080	2.525
26	COAL STEAM	RAILRT	2	11	200.0	0	SEPT.	1	864343.	7353.	0.493	24057.	13392.	0.	0.086	0.120	2.525
30	COM CYCLE CC	RAILRT	6	10	228.0	0		1	600496.	7144.	0.301	52870.	3003.	0.	0.080	0.070	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	70176.	3338.	0.092	10581.	682.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0	APRIL	3	44091.	2192.	0.058	6813.	674.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	22521.	1159.	0.030	3548.	668.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0	JULY	3	9025.	468.	0.012	1428.	665.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	3812.	206.	0.005	617.	663.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	1744.	97.	0.002	287.	663.	0.	0.080	0.032	7.991
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	468.	26.	0.001	77.	662.	0.	0.080	0.032	7.991
	TIE ENERGY								7.			0.					
	TOTAL THERMAL				1837.0				6522070.			230314.	79869.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-134605.			-0.					
	SYSTEM TOTALS				1980.0				6954965.			230314.	83773.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1000.	5769729.	0.6586	154093.	72189.	39.22
3 NGASGT	609.	151838.	0.0285	23351.	4677.	184.59
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	600496.	0.3007	52870.	3003.	93.04
TIENG		7.		0.		10.00
TOTAL	1837.	6522070.		230314.	79869.	47.56

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2013 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1844825.	TON
7	NGAS1A	2908.	MCF
10	NGAS4A	6583.	MCF
11	COAL B	2212802.	TON

9491

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL BRMM, JCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

2014 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1481. MW THERMAL PEAK 1340. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 190. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILRT	2	2	200.0	0	JULY	1	1389075.	7559.	0.793	36545.	15287.	0.	0.057	0.080	2.532
24	NENANA COAL2	RAILRT	2	2	200.0	0	JUNE	1	1315107.	7582.	0.751	34820.	15020.	0.	0.057	0.080	2.532
25	COAL STEAM	RAILRT	2	11	200.0	0	MAY	1	1215387.	7559.	0.694	32864.	14660.	0.	0.057	0.080	2.563
26	COAL STEAM	RAILRT	2	11	200.0	0	AUG.	1	1064931.	7559.	0.608	29290.	14116.	0.	0.057	0.080	2.563
26	COAL STEAM	RAILRT	2	11	200.0	0	SEPT.	1	894212.	7353.	0.510	25125.	13500.	0.	0.086	0.120	2.563
30	COM CYCLE CC	RAILRT	6	10	228.0	0		3	618029.	7167.	0.309	55493.	3013.	0.	0.080	0.070	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	85579.	3850.	0.112	12899.	686.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0	APRIL	3	52642.	2535.	0.069	8231.	677.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	25748.	1268.	0.034	4076.	669.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0	JULY	3	13553.	706.	0.018	2214.	666.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	7518.	409.	0.010	1259.	664.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	2368.	128.	0.003	396.	663.	0.	0.080	0.032	8.231
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	627.	34.	0.001	105.	662.	0.	0.080	0.032	8.231
	TIE ENERGY								14.			0.					
	TOTAL THERMAL				1837.0				6684790.			243316.	80282.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-117280.			-0.					
	SYSTEM TOTALS				1980.0				7135010.			243316.	84186.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	1000.	5878712.	0.6711	158644.	72582.	39.33
3	NGASGT	609.	188036.	0.0352	29180.	4697.	180.11
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	228.	618029.	0.3094	55493.	3013.	94.66
TIENG			14.		0.		10.00
TOTAL		1837.	6684790.		243316.	80282.	48.41

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL 85MM, SCHAGAS, ERASCOAL 08/16/84 10.316
2MLJN1

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2014 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1854393.	TON
7	NGAS1A	3527.	MCF
10	NGAS4A	6708.	MCF
11	COAL B	2270456.	TON

10235

ALASKA RAILBELT 08/16/84 10.216
DEISTRT, NSD GAS/COAL, COAL 8844, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

2015 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1519. MW THERMAL PEAK 1375. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 220. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	PRV.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	VENANA COAL1	RAILBT	2	2	200.0	0	JULY	1	1392400.	7559.	0.795	36996.	15299.	0.	0.057	0.080	2.558
24	VENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1318825.	7582.	0.753	35203.	15033.	0.	0.057	0.080	2.558
26	COAL1 STEAM	RAILBT	2	11	200.0	0	MAY	1	1215720.	7559.	0.694	33362.	14661.	0.	0.057	0.080	2.601
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	1082536.	7559.	0.618	30151.	14180.	0.	0.057	0.080	2.601
26	COAL STEAM	RAILBT	2	11	200.0	0		1	1000304.	8261.	0.571	28544.	13883.	0.	0.057	0.080	2.601
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	639658.	7163.	0.320	58376.	3024.	0.	0.080	0.070	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	98962.	4442.	0.130	15345.	690.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	57015.	2721.	0.075	9137.	678.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	33270.	1624.	0.044	5399.	671.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	19271.	1001.	0.025	3238.	667.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	8197.	428.	0.011	1381.	664.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	3335.	180.	0.004	573.	663.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	1580.	88.	0.002	277.	663.	0.	0.080	0.032	8.478
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	483.	27.	0.000	85.	662.	0.	0.080	0.032	8.478
	TIE ENERGY								5.			0.					
	TOTAL THERMAL				1924.0				6871560.			258127.	81438.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-120925.			-0.					
	SYSTEM TOTALS				2067.0				7318135.			258127.	85342.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	1000.	6009784.	0.6860	164316.	73055.	39.50
3	NGASGT	696.	222113.	0.0364	35434.	5359.	183.66
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	228.	639658.	0.3203	58376.	3024.	95.99
	TIENG		5.		0.		10.00
	TOTAL	1924.	6871560.		258127.	81438.	49.42

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2015 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1858688.	TON
7	NGAS1A	4159.	MCF
10	NGAS4A	6851.	MCF
11	COAL B	2359579.	TON

11010

ALASKA RAILBELT 08/16/84 10.316
DEIST87, NSD GAS/COAL, COAL 88MW, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

2016 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1558. MW THERMAL PEAK 1415. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 215. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MAINTENANCE MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.040	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	HENANA COAL1	RAILBT	2	2	200.0	0	JULY	1	1400839.	7582.	0.797	37587.	19329.	0.	0.057	0.080	2.584
24	HENANA COAL2	RAILBT	2	2	200.0	0	JUN2		1329250.	7604.	0.757	35684.	19071.	0.	0.057	0.080	2.584
26	COAL1 STEAM	RAILBT	2	11	200.0	0	MAY	1	1244903.	7582.	0.709	34586.	14766.	0.	0.057	0.080	2.640
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	1116157.	7582.	0.635	31436.	14301.	0.	0.057	0.080	2.640
26	COAL STEAM	RAILBT	2	11	200.0	0		1	1025950.	8283.	0.584	29610.	13976.	0.	0.057	0.080	2.640
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	671618.	7184.	0.335	62066.	3042.	0.	0.080	0.070	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	107686.	4733.	0.141	17007.	692.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0	SEPT.	3	68338.	3103.	0.089	10981.	681.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	43477.	2107.	0.057	7237.	674.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0	APRIL	3	23458.	1179.	0.031	3984.	669.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	10391.	535.	0.014	2790.	665.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	5943.	324.	0.008	1057.	664.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	2301.	127.	0.003	412.	663.	0.	0.080	0.032	8.732
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	564.	31.	0.001	101.	662.	0.	0.080	0.032	8.732
	TIE ENERGY								9.			0.					
	TOTAL THERMAL				1924.0				7050920.			273740.	81855.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-111410.			-0.					
	SYSTEM TOTALS				2067.0				7507010.			273740.	85758.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1000.	6117139.	0.6964	169103.	73443.	39.65
3 NGASGT	696.	262154.	0.0429	42569.	5370.	182.89
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	671618.	0.3353	62066.	3042.	96.94
TIENG		9.		0.		10.00
TOTAL	1924.	7050920.		273740.	81855.	50.43

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	0	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.+A | INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2016 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1870806.	TON
7	NGAS1A	4851.	MCF
10	NGAS4A	7073.	MCF
11	COAL B	2415199.	TON

114.24

FORM 141-3

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, USD GAS/COAL, COAL 88MW, NCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

COAL

2017 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1598. MW THERMAL PEAK 1455. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 200. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE MONTH	MONTHS UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1	1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	HENANA COAL1	RAILBT	2	2	200.0	0 JULY	1	1381561.	7559.	0.789	37491.	15259.	0.	0.057	0.080	2.610
24	HENANA COAL2	RAILBT	2	2	200.0	0 JUNE	1	1309019.	7582.	0.747	35548.	14998.	0.	0.057	0.080	2.610
26	COAL STEAM	RAILBT	2	11	200.0	0 MAY	1	1210737.	7559.	0.691	34241.	14643.	0.	0.057	0.080	2.679
26	COAL STEAM	RAILBT	2	11	200.0	0 AUG.	1	1059663.	7559.	0.605	30489.	14097.	0.	0.057	0.080	2.679
26	COAL STEAM	RAILBT	2	11	200.0	0 SEPT.	1	936116.	7582.	0.534	27433.	13651.	0.	0.057	0.080	2.679
26	COAL STEAM	RAILBT	2	11	200.0	0 APRIL	1	819222.	7353.	0.468	24403.	13229.	0.	0.086	0.120	2.679
30	COM CYCLE CC	RAILBT	6	10	228.0	0	3	493224.	6134.	0.247	49741.	2945.	0.	0.080	0.070	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	49040.	2327.	0.064	8312.	676.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JULY	3	26254.	1284.	0.034	4524.	669.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	12414.	632.	0.016	2187.	666.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JUNE	3	7410.	395.	0.010	1337.	664.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	2292.	121.	0.003	413.	663.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	1009.	55.	0.001	186.	662.	0.	0.080	0.032	8.994
27	NGAS TURBINE	RAILBT	3	7	87.0	0	3	438.	24.	0.001	81.	662.	0.	0.080	0.032	8.994
	TIE ENERGY							6.			0.					
	TOTAL THERMAL				2037.0			7308405.			256585.	93485.	0.			
	CONV. HYDRO				143.0			587500.				3904.				
	PUMP STORAGE				0.			0.			0.	0.				
	ENG STOR 2				0.			0.			0.	0.				
	ENG STOR 3				0.			0.			0.	0.				
	OFF-PEAK EXCESS							-174870.			-0.					
	SYSTEM TOTALS				2180.0			7701035.			256585.	97389.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1200.	6716319.	0.6389	189805.	85878.	41.05
3 NGASGT	609.	98856.	0.0185	17040.	4662.	219.53
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	493224.	0.2469	49741.	2945.	106.82
TIEVG		6.		0.		10.00
TOTAL	2037.	7308405.		256585.	93485.	47.90

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2017 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1846098.	TON
7	NGAS1A	1885.	MCF
10	NGAS4A	5503.	MCF
11	COAL B	2900627.	TON

1338

ALASKA RAILBELT 08/16/84 10.316
DEISTRT, NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM
2018 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1639. MW THERMAL PEAK 1495. MW
SPINNING RESERVE 228. MW
MAXIMUM OFF-PEAK EXCESS 100. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		-1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	NENANA COAL1	RAILBT	2	2	200.0	0 JULY		1	1386506.	7559.	0.791	37994.	15277.	0.	0.057	0.080	2.637
24	NENANA COAL2	RAILBT	2	2	200.0	0 JUNE		1	1316368.	7582.	0.751	36292.	15024.	0.	0.057	0.080	2.637
26	COAL STEAM	RAILBT	2	11	200.0	0 MAY		1	1232467.	7559.	0.703	35299.	14721.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILBT	2	11	200.0	0 AUG.		1	1093951.	7559.	0.624	31807.	14221.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILBT	2	11	200.0	0 SEPT.		1	969624.	7582.	0.553	28686.	13772.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILBT	2	11	200.0	0 APRIL		1	834964.	7353.	0.477	25164.	13288.	0.	0.080	0.120	2.719
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	533464.	6434.	0.267	54740.	2967.	0.	0.080	0.070	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	60494.	2840.	0.079	10500.	679.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JULY		3	31754.	1489.	0.042	5508.	671.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	18200.	909.	0.024	3268.	667.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JUNE		3	8860.	438.	0.011	1551.	664.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	3864.	206.	0.005	720.	663.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2107.	116.	0.003	399.	663.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	520.	28.	0.001	98.	662.	0.	0.080	0.032	9.264
	TIE ENERGY								12.			0.					
	TOTAL THERMAL				2037.0				7492855.			272027.	93939.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-161360.			-0.					
	SYSTEM TOTALS				2180.0				7898995.			272027.	97843.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1200.	6933879.	0.6501	195243.	86302.	41.20
3 NGASGT	609.	125500.	0.0235	22044.	4670.	212.86
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	533464.	0.2671	54740.	2967.	108.17
TIENG		12.		0.		10.00
TOTAL	2037.	7492855.		272027.	93939.	48.84

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MW, SCHAGAB, ERASCOAL 2MLJN1

OPTIMUM

2018 YEARLY

PRODUCTION COST SUMMARY
COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1639. MW THERMAL PEAK 1495. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 190. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS UP	MIN. ON RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILRT	1	5	0.0	1		-1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILRT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	VENANA COAL1	RAILRT	2	2	200.0	0	JULY	1	1386506.	7559.	0.791	37994.	15277.	0.	0.057	0.080	2.637
24	VENANA COAL2	RAILRT	2	2	200.0	0	JUNE	1	1316368.	7582.	0.751	36292.	15024.	0.	0.057	0.080	2.637
26	COAL STEAM	RAILRT	2	11	200.0	0	MAY	1	1232467.	7559.	0.703	35299.	14721.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILRT	2	11	200.0	0	AUG.	1	1093951.	7559.	0.624	31807.	14221.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILRT	2	11	200.0	0	SEPT.	1	969624.	7582.	0.553	28686.	13772.	0.	0.057	0.080	2.719
26	COAL STEAM	RAILRT	2	11	200.0	0	APRIL	1	834964.	7353.	0.477	25104.	13288.	0.	0.086	0.120	2.719
30	COM CYCLE CC	RAILRT	6	10	228.0	0		3	533464.	6434.	0.267	54740.	2967.	0.	0.080	0.070	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	60494.	2840.	0.079	10500.	679.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0	JULY	3	31754.	1489.	0.042	5508.	671.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	18200.	909.	0.024	3268.	667.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0	JUNE	3	8860.	434.	0.011	1551.	664.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	3864.	206.	0.005	720.	663.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	2107.	116.	0.003	399.	663.	0.	0.080	0.032	9.264
27	NGAS TURBINE	RAILRT	3	7	87.0	0		3	520.	28.	0.001	98.	662.	0.	0.080	0.032	9.264
	TIE ENERGY								12.			0.					
	TOTAL THERMAL				2037.0				7492855.			272027.	93939.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-161360.			-0.					
	SYSTEM TOTALS				2180.0				7898995.			272027.	97843.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL	1200.	6933879.	0.6501	195243.	86302.	41.20
3 NGASGT	609.	125500.	0.0235	22044.	4670.	212.86
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	533464.	0.2671	54740.	2967.	108.17
TIENG		12.		0.		10.00
TOTAL	2037.	7492855.		272027.	93939.	48.84

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2018 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1853595.	TON
7	NGAS1A	2368.	MCF
10	NGAS4A	5879.	MCF
11	COAL B	2965682.	TON

8247

ALASKA RAILBELT 08/16/84 10.316
DETSTR7, VSD GAS/COAL, COAL 88MW, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

2019 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1681. MW THERMAL PEAK 1540. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 250. MW

UNIT ID	STATION NAME	CO. IDENT.	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN.	MONTHS	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INVT. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	VENANA COAL1	RAILBT	2	2	200.0	0	JULY	1	1392018.	7559.	0.795	38517.	15297.	0.	0.057	0.080	2.664
24	VENANA COAL2	RAILBT	2	2	200.0	0	JUNE	1	1322458.	7582.	0.755	36618.	15046.	0.	0.057	0.080	2.664
26	COAL STEAM	RAILBT	2	11	200.0	0	MAY	1	1250698.	7559.	0.714	36291.	14787.	0.	0.057	0.080	2.760
26	COAL STEAM	RAILBT	2	11	200.0	0	AUG.	1	1141981.	7559.	0.652	33910.	14395.	0.	0.057	0.080	2.760
26	COAL STEAM	RAILBT	2	11	200.0	0	SEPT.	1	989133.	7582.	0.565	29613.	13843.	0.	0.057	0.080	2.760
26	COAL STEAM	RAILBT	2	11	200.0	0	APRIL	1	856515.	7353.	0.489	26090.	13364.	0.	0.086	0.120	2.760
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	587068.	6874.	0.294	6133.	2996.	0.	0.080	0.070	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	68971.	3034.	0.090	11909.	681.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JULY	3	41754.	1949.	0.055	7441.	674.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	24787.	1206.	0.033	4520.	669.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0	JUNE	3	11406.	575.	0.015	2121.	665.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	6058.	319.	0.008	1154.	664.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	2530.	135.	0.003	486.	663.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0	MAY	3	660.	35.	0.001	127.	662.	0.	0.080	0.032	9.542
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	491.	28.	0.001	97.	662.	0.	0.080	0.032	9.542
	TIE ENERGY								0.			0.					
	TOTAL THERMAL				2124.0				7696535.			290026.	95068.	0.			
	CONV. HYDRO				143.0				567500.				3904.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 1				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-160930.			-0.					
	SYSTEM TOTALS				2267.0				8103105.			290026.	98972.	0.			

TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1 NUKE	0.	0.	0.	0.	0.	0.
2 COAL1	1200.	6952803.	0.6614	200835.	86732.	41.36
3 NGASGT	696.	156658.	0.0257	2785.	5340.	211.89
4 OIL GT	0.	0.	0.	0.	0.	0.
5 DIESEL	0.	0.	0.	0.	0.	0.
6 COMCYC	228.	587068.	0.2939	61338.	2996.	109.58
TIENG		0.		0.		10.00
TOTAL	2124.	7696535.		290026.	95068.	50.03

* * * *MANUAL MAINTENANCE PATTERNS* * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE
COMPUTED P.O.R.-A 1 INDICATES
SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2019 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1860671.	TON
7	NGAS1A	2904.	MCF
10	NGAS4A	6396.	MCF
11	COAL B	3032007.	TON

Q300

FORM 471

ALASKA RAILBELT 08/16/84 10.31o
DEISTR7, NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL 2MLJN1

OPTIMUM

NGASGT

2020 YEARLY

PRODUCTION COST SUMMARY

COSTS IN THOUSANDS OF DOLLARS

TERRITORY PEAK 1724. MW THERMAL PEAK 1580. MW
SPINNING RESERVE 228. MW MAXIMUM OFF-PEAK EXCESS 250. MW

UNIT ID	STATION NAME	CO. IDENT	UNIT TYPE	FUEL TYPE	RATING MW	MAINTENANCE PTRN	MONTHS UP	MIN. UP RULE	ENERGY OUTPUT MWH	HRS. ON LINE	CAPACITY FACTOR	FUEL COST	OPER.+ MAINT. COSTS	FUEL INV. COSTS	FORCED OUTAGE RATE	PLANNED OUTAGE RATE	FUEL PRICE $/MBTU
21	FIRST TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
22	SECOND TRANS	RAILBT	1	5	0.0	1		1	0.	0.	0.	0.	0.	0.	0.010	1.000	0.
23	VENANA COAL1	RAILBT	2	2	200.0	0 JULY		1	1395459.	7582.	0.794	39008.	15310.	0.	0.057	0.080	2.691
24	VENANA COAL2	RAILBT	2	2	200.0	0 JUNE		1	1328199.	7604.	0.756	37343.	15067.	0.	0.057	0.080	2.691
26	COAL STEAM	RAILBT	2	11	200.0	0 MAY		1	1257584.	7582.	0.716	37024.	14812.	0.	0.057	0.080	2.801
26	COAL STEAM	RAILBT	2	11	200.0	0 AUG.		1	1155488.	7582.	0.658	34374.	14443.	0.	0.057	0.080	2.801
26	COAL STEAM	RAILBT	2	11	200.0	0 SEPT.		1	1011683.	7604.	0.576	30653.	13924.	0.	0.057	0.080	2.801
26	COAL STEAM	RAILBT	2	11	200.0	0		1	971633.	8283.	0.553	30005.	13780.	0.	0.057	0.080	2.801
30	COM CYCLE CC	RAILBT	6	10	228.0	0		3	612667.	7089.	0.306	65630.	3010.	0.	0.080	0.070	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	79704.	3378.	0.104	13902.	684.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0 APRIL		3	48940.	2216.	0.064	8837.	676.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	27448.	1260.	0.036	4993.	670.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JULY		3	15936.	778.	0.021	2998.	667.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	8547.	430.	0.011	1636.	664.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	3420.	180.	0.004	671.	663.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0 JUNE		3	2150.	117.	0.003	431.	663.	0.	0.080	0.032	9.828
27	NGAS TURBINE	RAILBT	3	7	87.0	0		3	555.	30.	0.001	111.	662.	0.	0.080	0.032	9.828
	TIE ENERGY								13.			0.					
	TOTAL THERMAL				2124.0				7919425.			307616.	95694.	0.			
	CONV. HYDRO				143.0				567500.				3004.				
	PUMP STORAGE				0.				0.			0.	0.				
	ENG STOR 2				0.				0.			0.	0.				
	ENG STOR 3				0.				0.			0.	0.				
	OFF-PEAK EXCESS								-174920.			-0.					
	SYSTEM TOTALS				2267.0				8312005.			307616.	99598.	0.			

	TYPE	RATING MW	ENERGY OUTPUT MWH	CAPACITY FACTOR,	FUEL COST THOUSAND $	O + M THOUSAND $	THERMAL $/MWH
1	NUKE	0.	0.	0.	0.	0.	0.
2	COAL	1200.	7120045.	0.6755	208408.	87335.	41.54
3	NGASGT	696.	186700.	0.0305	33578.	5349.	208.50
4	OIL GT	0.	0.	0.	0.	0.	0.
5	DIESEL	0.	0.	0.	0.	0.	0.
6	COMCYC	228.	612667.	0.3059	65630.	3010.	112.03
	TIENG		13.		0.		10.00
	TOTAL	2124.	7919425.		307616.	95694.	50.93

* * * MANUAL MAINTENANCE PATTERNS * * *

PTRN	J	F	M	A	M	J	J	A	S	O	N	D
1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE WHEN USED, PATTERNS OVERRIDE THE COMPUTED P.O.R.-A 1 INDICATES SCHEDULED MAINTENANCE.

ENVIRONMENTAL REPORT

******** FUEL SUMMARY ********

2020 YEARLY

TYPE ID	TYPE	FUEL CONSUMPTION	
2	COALH1	1866884.	TON
7	NGAS1A	3399.	MCF
10	NGAS4A	6644.	MCF
11	COAL B	3143403.	TON

12043

ALASKA RAILBELT 08/16/84 10.316
DEISTRT, NSD GAS/COAL, COAL HRMM, SCHAGAR, ERASCOAL ZMLJN1

UNIT SIZE GUIDE = INSTALL 1 BASE LOAD UNITS IN 1 YEARS

FUEL + O+M COSTS LEVELIZED OVER 10 YEARS

1982 PRESENT WORTH AT 3.500 PERCENT INTEREST RATE

		# UNITS ADDED OR RETIRED #					PEAK	TOTAL CAPAB.,MW		*** 0.10 DAYS/YEAR ***			*** 1.0 HOURS/YEAR ***				
		UNIT	RATING	UNIT			LOAD	YEAR	TIME	EXCESS		CAPABIL.	EXCESS		CAPABIL.	PERCENT	MW
YEAR	RUN	ID	MW	TYPE	MONTH	CO.	MW	END	OF PK.	LOAD=MW	DAYS/YEAR	LOAD=MW	LOAD=MW	HOURS/YEAR	LOAD=MW	RESERVE	SLOPE
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	26	200.	2	0	1	915.	1293.	1293.	-44.	0.219401	871.	0.	0.	0.	41.3	50.
1993	3	26	200.	2	0	1	915.	1493.	1493.	79.	0.026446	994.	0.	0.	0.	63.2	57.
1993	ALTERNATIVE	1	MW ADDED=	601.	COSTS,INVEST=		98.6	FUEL=	104.4	O+M=	56.5	INVTRY=	0.	TOTAL=	259.5		
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	27	87.	3	0	1	915.	1180.	1180.	-98.	0.566926	817.	0.	0.	0.	29.0	45.
1993	3	27	87.	3	0	1	915.	1267.	1267.	-24.	0.156854	891.	0.	0.	0.	38.5	43.
1993	4	27	87.	3	0	1	915.	1354.	1354.	50.	0.039971	965.	0.	0.	0.	48.0	46.
1993	ALTERNATIVE	2	MW ADDED=	462.	COSTS,INVEST=		49.6	FUEL=	133.8	O+M=	33.0	INVTRY=	0.	TOTAL=	216.4		
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	27	87.	3	0	1											
1993	2	27	87.	3	0	1											
1993	2	27	87.	3	0	1											
1993	2	27	87.	3	0	1	915.	1441.	1441.	123.	0.009437	1038.	0.	0.	0.	57.5	47.
1993	ALTERNATIVE	3	MW ADDED=	549.	COSTS,INVEST=		52.7	FUEL=	134.1	O+M=	33.6	INVTRY=	0.	TOTAL=	220.4		
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	30	228.	6	0	1	915.	1321.	1321.	-48.	0.221773	867.	0.	0.	0.	44.4	50.
1993	3	30	228.	6	0	1	915.	1549.	1549.	79.	0.028095	994.	0.	0.	0.	69.3	57.
1993	ALTERNATIVE	4	MW ADDED=	657.	COSTS,INVEST=		56.5	FUEL=	123.8	O+M=	35.9	INVTRY=	0.	TOTAL=	216.2		
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	30	228.	6	0	1	915.	1321.	1321.	-48.	0.221773	867.	0.	0.	0.	44.4	50.
1993	3	27	87.	3	0	1	915.	1408.	1408.	25.	0.068360	940.	0.	0.	0.	53.9	52.
1993	ALTERNATIVE	5	MW ADDED=	516.	COSTS,INVEST=		51.5	FUEL=	126.5	O+M=	34.0	INVTRY=	0.	TOTAL=	212.1		
1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	27	87.	3	0	1	915.	1180.	1180.	-98.	0.566926	817.	0.	0.	0.	29.0	45.
1993	3	26	200.	2	0	1	915.	1380.	1380.	20.	0.063433	941.	0.	0.	0.	50.8	52.

1993 ALTERNATIVE 6 MW ADDED= 486. COSTS,INVEST= 72.6 FUEL= 114.9 O+M= 45.2 INVTRY= 0. TOTAL= 232.7

1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	30	228.	6	0	1	915.	1321.	1321.	-48.	0.221773	867.	0.	0.	0.	44.4	50.
1993	3	25	200.	2	0	1	915.	1521.	1521.	79.	0.027384	944.	0.	0.	0.	66.2	57.

1993 ALTERNATIVE 7 MW ADDED= 629. COSTS,INVEST= 77.5 FUEL= 113.7 O+M= 46.6 INVTRY= 0. TOTAL= 237.8

1993	1	3	-53.	3	0	1											
1993	1	21	1.	1	1	1											
1993	1	23	200.	2	1	1	915.	1093.	1093.	-169.	1.787763	746.	0.	0.	0.	19.5	43.
1993	2	30	228.	6	0	1											
1993	2	27	97.	3	0	1	915.	1408.	1408.	25.	0.068360	940.	0.	0.	0.	53.9	52.

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1993 ALTERNATIVE 5 MW ADDED= 516. COSTS,INVEST= 51.5 FUEL= 110.6 O+M= 34.0 INVTRY= 0. TOTAL= 196.1

CUMULATIVE P.W. INVEST= 35.3 FUEL= 75.8 O+M= 23.3 INVTRY= 0.

1993 OPTIMUM = ALTERNATIVE 5 TOTAL COST IN MILLION DOLLARS = 196.1 CUMULATIVE COST = 196.1
PRESENT WORTH TOTAL = 134.4 CUMULATIVE P.W. = 134.4

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1994	1	0	0.	0	0	0	93%.	1408.	1408.	9.	0.086261	944.	0.	0.	0.	50.6	52.

1994 COMMITTED MW ADDED= 0. COSTS,INVEST= 51.5 FUEL= 117.0 O+M= 34.1 INVTRY= 0. TOTAL= 202.6

CUMULATIVE P.W. INVEST= 69.4 FUEL= 153.2 O+M= 45.8 INVTRY= 0.

1994 OPTIMUM = MANUAL TOTAL CORT IN MILLION DOLLARS = 202.6 CUMULATIVE COST = 398.8
PRESENT WORTH TOTAL = 134.1 CUMULATIVE P.W. = 268.4

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1995	1	12	-4.	4	0	1											
1995	1	11	-4.	4	0	1											
1995	1	4	-58.	3	0	1											
1995	1	0	0.	0	0	0	955.	1343.	1343.	-51.	0.226573	904.	0.	0.	0.	40.6	53.
1995	2	26	200.	2	0	1	955.	1543.	1543.	74.	0.028192	1038.	0.	0.	0.	61.6	60.

1995 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 80.6 FUEL= 126.0 O+M= 47.3 INVTRY= 0. TOTAL= 253.8

1995	1	12	-4.	4	0	1											
1995	1	11	-4.	4	0	1											
1995	1	4	-58.	3	0	1											
1995	1	0	0.	0	0	0	955.	1343.	1343.	-51.	0.226573	904.	0.	0.	0.	40.6	53.
1995	2	27	87.	3	0	1	955.	1430.	1430.	24.	0.068173	979.	0.	0.	0.	49.7	53.

1995 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 54.6 FUEL= 142.2 O+M= 34.7 INVTRY= 0. TOTAL= 231.4

1995	1	12	-4.	4	0	1											
1995	1	11	-4.	4	0	1											
1995	1	4	-58.	3	0	1											
1995	1	0	0.	0	0	0	955.	1343.	1343.	-51.	0.226573	904.	0.	0.	0.	40.6	53.
1995	2	27	87.	3	0	1											
1995	2	27	87.	3	0	1	955.	1517.	1517.	97.	0.018764	1052.	0.	0.	0.	58.8	54.

1995 ALTERNATIVE 3 MW ADDED= 174. COSTS,INVEST= 57.6 FUEL= 142.7 O+M= 35.3 INVTRY= 0. TOTAL= 235.6

1995	1	12	-4.	4	0	1											
1995	1	11	-4.	4	0	1											
1995	1	4	-58.	3	0	1											
1995	1	0	0.	0	0	0	955.	1343.	1343.	-51.	0.226573	904.	0.	0.	0.	40.6	53.
1995	2	30	228.	6	0	1	955.	1571.	1571.	81.	0.029041	1036.	0.	0.	0.	64.5	60.

1995 ALTERNATIVE 4 MW ADDED= 228. COSTS,INVEST= 59.5 FUEL= 137.8 O+M= 36.6 INVTRY= 0. TOTAL= 234.0

1995	1	12	-4.	4	0	1													
1995	1	11	-4.	4	0	1													
1995	1	4	-58.	3	0	1													
1995	1	0	0.	0	0	0	955.	1343.	1343.	-51.	0.220573	904.	0.	0.	0.	40.6	53.		
1995	2	27	87.	3	0	1	955.	1430.	1430.	24.	0.028173	979.	0.	0.	0.	49.7	53.		

1995 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 54.6 FUEL= 124.7 O+M= 34.3 INVTRY= 0. TOTAL= 213.6

CUMULATIVE P.W. INVEST= 104.3 FUEL= 232.9 O+M= 67.8 INVTRY= 0.

1995 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 213.6 CUMULATIVE COST = 612.4
PRESENT WORTH TOTAL = 136.6 CUMULATIVE P.W. = 405.0

1996	1	14	-29.	4	0	1													
1996	1	9	-65.	4	0	1													
1996	1	2%	200.	2	1	1	972.	1536.	1536.	74.	0.030108	1046.	0.	0.	0.	58.0	56.		
1996	COMMITTED		MW ADDED=	200.	COSTS,INVEST=	84.2	FUEL=	117.2	O+M=	47.5	INVTRY=	0.	TOTAL=	248.9					

CUMULATIVE P.W. INVEST= 156.4 FUEL= 305.3 O+M= 97.1 INVTRY= 0.

1996 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 248.9 CUMULATIVE COST = 861.3
PRESENT WORTH TOTAL = 153.8 CUMULATIVE P.W. = 558.8

1997	1	10	-65.	4	0	1													
1997	1	8	-25.	2	0	1													
1997	1	0	0.	0	0	0	989.	1446.	1446.	-19.	0.132001	970.	0.	0.	0.	46.2	56.		
1997	2	26	200.	2	0	1	989.	1646.	1646.	113.	0.017864	1102.	0.	0.	0.	66.5	69.		

1997 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 113.3 FUEL= 127.3 O+M= 57.9 INVTRY= 0. TOTAL= 298.4

1997	1	10	-65.	4	0	1													
1997	1	8	-25.	2	0	1													
1997	1	0	0.	0	0	0	989.	1446.	1446.	-19.	0.132001	970.	0.	0.	0.	46.2	56.		
1997	2	27	87.	3	0	1	989.	1533.	1533.	53.	0.042821	1042.	0.	0.	0.	56.0	60.		

1997 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 87.3 FUEL= 123.6 O+M= 46.2 INVTRY= 0. TOTAL= 257.0

CUMULATIVE P.W. INVEST= 208.5 FUEL= 379.1 O+M= 124.7 INVTRY= 0.

1997 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 257.0 CUMULATIVE COST = 1118.3
PRESENT WORTH TOTAL = 153.4 CUMULATIVE P.W. = 712.2

1998	1	6	-26.	3	0	1													
1998	1	0	0.	0	0	0	1005.	1507.	1507.	17.	0.077138	1022.	0.	0.	0.	49.9	57.		
1998	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	87.3	FUEL=	147.1	O+M=	46.1	INVTRY=	0.	TOTAL=	280.5					

1998	1	6	-26.	3	0	1													
1998	1	0	0.	0	0	0	1005.	1507.	1507.	17.	0.077138	1022.	0.	0.	0.	49.9	57.		
1998	2	26	200.	2	0	1	1005.	1707.	1707.	153.	0.010031	1158.	0.	0.	0.	69.8	65.		

1998 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 116.3 FUEL= 133.2 O+M= 58.5 INVTRY= 0. TOTAL= 308.0

1998	1	6	-26.	3	0	1													
1998	1	0	0.	0	0	0	1005.	1507.	1507.	17.	0.077138	1022.	0.	0.	0.	49.9	57.		
1998	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	87.3	FUEL=	147.1	O+M=	46.1	INVTRY=	0.	TOTAL=	280.5					

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1998  1   6  -26.   3   0   1
1998  1   0   0.    0   0   0  100$.  1507.  1507.   17.  0.077138  1022.   0.    0.        0.   49.9    57.
1998  2  27  87.    3   0   1  100$.  1594.  1594.   91.  0.023454  1096.   0.    0.        0.   58.6    61.

1998  ALTERNATIVE  4  MW ADDED=   87.  COSTS.INVEST=    90.3  FUEL=   146.4  O+M=   46.8  INVTRY=    0.  TOTAL=    283.5

1998  1   6  -26.   3   0   1
1998  1   0   0.    0   0   0  100$.  1507.  1507.   17.  0.077138  1022.   0.    0.        0.   49.9    57.
1998  COMMITTED        MW ADDED=    0.  COSTS.INVEST=    87.3  FUEL=   147.1  O+M=   46.1  INVTRY=    0.  TOTAL=    280.5

1998  1   6  -26.   3   0   1
1998  1   0   0.    0   0   0  100$.  1507.  1507.   17.  0.077138  1022.   0.    0.        0.   49.9    57.
1998  2  30  228.   6   0   1  100$.  1735.  1735.  154.  0.010136  1159.   0.    0.        0.   72.6    66.

1998  ALTERNATIVE  6  MW ADDED=  228.  COSTS.INVEST=    95.3  FUEL=   148.6  O+M=   48.4  INVTRY=    0.  TOTAL=    292.3

1998  1   6  -26.   3   0   1
1998  1   0   0.    0   0   0  100$.  1507.  1507.   17.  0.077138  1022.   0.    0.        0.   49.9    57.
1998  1   6  -26.   3   0   1
1998  1   0   0.    0   0   0  100$.  1507.  1507.   17.  0.077138  1022.   0.    0.        0.   49.9    57.

1998  ALTERNATIVE  1  MW ADDED=    0.  COSTS.INVEST=    87.3  FUEL=   129.2  O+M=   46.1  INVTRY=    0.  TOTAL=    262.6

                   CUMULATIVE P.W.      INVEST=   258.8  FUEL=   453.6  O+M=  151.3  INVTRY=    0.

1998  OPTIMUM = ALTERNATIVE  1     TOTAL COST IN MILLION DOLLARS =     262.6   CUMULATIVE COST =    1381.0
                                   PRESENT WORTH TOTAL          =     151.5   CUMULATIVE P.W. =     863.7

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  COMMITTED        MW ADDED=    0.  COSTS.INVEST=    87.3  FUEL=   153.7  O+M=   46.4  INVTRY=    0.  TOTAL=    287.4

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  2  26  200.   2   0   1  1023.  1706.  1706.  154.  0.009705  1177.   0.    0.        0.   66.8    66.

1999  ALTERNATIVE  2  MW ADDED=  200.  COSTS.INVEST=   116.3  FUEL=   140.0  O+M=   58.9  INVTRY=    0.  TOTAL=    315.1

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  COMMITTED        MW ADDED=    0.  COSTS.INVEST=    87.3  FUEL=   153.7  O+M=   46.4  INVTRY=    0.  TOTAL=    287.4

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  2  27  87.    3   0   1  1023.  1593.  1593.   93.  0.022650  1116.   0.    0.        0.   55.7    56.

1999  ALTERNATIVE  4  MW ADDED=   87.  COSTS.INVEST=    90.3  FUEL=   153.8  O+M=   47.1  INVTRY=    0.  TOTAL=    291.2

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  COMMITTED        MW ADDED=    0.  COSTS.INVEST=    87.3  FUEL=   153.7  O+M=   46.4  INVTRY=    0.  TOTAL=    287.4

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  2  30  228.   6   0   1  1023.  1734.  1734.  155.  0.009819  1178.   0.    0.        0.   69.5    70.

1999  ALTERNATIVE  6  MW ADDED=  228.  COSTS.INVEST=    95.3  FUEL=   155.4  O+M=   48.8  INVTRY=    0.  TOTAL=    299.5

1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
1999  1  15  -1.   5   0   1
1999  1   0   0.    0   0   0  1023.  1506.  1506.   21.  0.077353  1044.   0.    0.        0.   47.2    60.
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1999 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 87.3 FUEL= 134.4 O+M= 46.5 INVTRY= 0. TOTAL= 268.1

CUMULATIVE P.W. INVEST= 307.4 FUEL= 528.5 O+M= 177.2 INVTRY= 0.

1999 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 268.1 CUMULATIVE COST = 1649.1
PRESENT WORTH TOTAL = 149.4 CUMULATIVE P.W. = 1013.1

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2000	1	20	-3.	5	0	1										
2000	1	19	-3.	5	0	1										
2000	1	13	-21.	2	0	1										
2000	1	0	0.	0	0	0	1040.	1479.	1479.	-18.	0.126408	1022.	0.	0.	0.	42.3	61.
2000	2	26	200.	2	0	1	1040.	1679.	1679.	115.	0.016884	1155.	0.	0.	0.	61.5	68.

2000 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 116.3 FUEL= 148.2 O+M= 57.7 INVTRY= 0. TOTAL= 322.3

2000	1	20	-3.	5	0	1										
2000	1	19	-3.	5	0	1										
2000	1	13	-21.	2	0	1										
2000	1	0	0.	0	0	0	1040.	1479.	1479.	-18.	0.126408	1022.	0.	0.	0.	42.3	61.
2000	2	27	87.	3	0	1	1040.	1566.	1566.	56.	0.041775	1096.	0.	0.	0.	50.6	56.

2000 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 90.3 FUEL= 166.6 O+M= 45.7 INVTRY= 0. TOTAL= 302.7

2000	1	20	-3.	5	0	1										
2000	1	19	-3.	5	0	1										
2000	1	13	-21.	2	0	1										
2000	1	0	0.	0	0	0	1040.	1479.	1479.	-18.	0.126408	1022.	0.	0.	0.	42.3	61.
2000	2	30	228.	6	0	1	1040.	1707.	1707.	117.	0.017848	1157.	0.	0.	0.	64.2	69.

2000 ALTERNATIVE 3 MW ADDED= 228. COSTS,INVEST= 95.3 FUEL= 166.1 O+M= 47.6 INVTRY= 0. TOTAL= 309.0

2000	1	20	-3.	5	0	1										
2000	1	19	-3.	5	0	1										
2000	1	13	-21.	2	0	1										
2000	1	0	0.	0	0	0	1040.	1479.	1479.	-18.	0.126408	1022.	0.	0.	0.	42.3	61.
2000	2	27	87.	3	0	1	1040.	1566.	1566.	56.	0.041775	1096.	0.	0.	0.	50.6	56.

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2000 ALTERNATIVE 2 MW ADDED= 87. COSTS,INVEST= 90.3 FUEL= 142.2 O+M= 45.8 INVTRY= 0. TOTAL= 278.3

CUMULATIVE P.W. INVEST= 356.1 FUEL= 605.0 O+M= 201.8 INVTRY= 0.

2000 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 278.3 CUMULATIVE COST = 1927.4
PRESENT WORTH TOTAL = 149.8 CUMULATIVE P.W. = 1162.9

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2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	COMMITTED			MW ADDED=	0.		COSTS,INVEST=	90.3	FUEL=	177.9	O+M=	45.9	INVTRY=	0.	TOTAL=	314.1	
2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	2	26	200.	2	0	1	1065.	1766.	1766.	170.	0.007769	1235.	0.	0.	0.	65.9	65.

2001 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 119.4 FUEL= 155.5 O+M= 58.7 INVTRY= 0. TOTAL= 333.6

2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	COMMITTED			MW ADDED=	0.		COSTS,INVEST=	90.3	FUEL=	177.9	O+M=	45.9	INVTRY=	0.	TOTAL=	314.1	
2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	2	27	87.	3	0	1	1065.	1653.	1653.	108.	0.018386	1173.	0.	0.	0.	55.2	61.

2001 ALTERNATIVE 4 MW ADDED= 87. COSTS,INVEST= 93.4 FUEL= 177.8 O+M= 46.5 INVTRY= 0. TOTAL= 317.8

2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	COMMITTED			MW ADDED=	0.		COSTS,INVEST=	90.3	FUEL=	177.9	O+M=	45.9	INVTRY=	0.	TOTAL=	314.1	

2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	2	30	228.	6	0	1	1065.	1794.	1794.	173.	0.007757	1238.	0.	0.	0.	68.5	69.

2001 ALTERNATIVE 6 MW ADDED= 228. COSTS,INVEST= 98.3 FUEL= 177.9 O+M= 48.4 INVTRY= 0. TOTAL= 324.6

2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.
2001	1	0	0.	0	0	0	1065.	1566.	1566.	35.	0.061234	1100.	0.	0.	0.	47.1	56.

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2001 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 90.3 FUEL= 150.1 O+M= 46.0 INVTRY= 0. TOTAL= 286.4

CUMULATIVE P.W. INVEST= 403.0 FUEL= 683.1 O+M= 225.8 INVTRY= 0.

2001 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 286.4 CUMULATIVE COST = 2213.9
PRESENT WORTH TOTAL = 149.0 CUMULATIVE P.W. = 1311.9

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2002	1	7	-26.	3	0	1											
2002	1	2	-90.	3	0	1											
2002	1	0	0.	0	0	0	1090.	1450.	1450.	-86.	0.349089	1004.	0.	0.	0.	33.0	61.
2002	2	26	200.	2	0	1	1090.	1650.	1650.	46.	0.048645	1136.	0.	0.	0.	51.4	64.

2002 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 119.4 FUEL= 169.7 O+M= 58.0 INVTRY= 0. TOTAL= 348.0

2002	1	7	-26.	3	0	1											
2002	1	2	-90.	3	0	1											
2002	1	0	0.	0	0	0	1090.	1450.	1450.	-86.	0.349089	1004.	0.	0.	0.	33.0	61.
2002	2	27	87.	3	0	1	1090.	1537.	1537.	-13.	0.117713	1077.	0.	0.	0.	41.0	57.
2002	3	27	87.	3	0	1	1090.	1624.	1624.	61.	0.038643	1151.	0.	0.	0.	49.0	62.

2002 ALTERNATIVE 2 MW ADDED= 174. COSTS,INVEST= 96.4 FUEL= 190.8 O+M= 46.5 INVTRY= 0. TOTAL= 333.7

2002	1	7	-26.	3	0	1											
2002	1	2	-90.	3	0	1											
2002	1	0	0.	0	0	0	1090.	1450.	1450.	-86.	0.349089	1004.	0.	0.	0.	33.0	61.
2002	2	27	87.	3	0	1											
2002	2	27	87.	3	0	1											
2002	2	27	87.	3	0	1	1090.	1711.	1711.	132.	0.011055	1222.	0.	0.	0.	57.0	61.

2002 ALTERNATIVE 3 MW ADDED= 261. COSTS,INVEST= 99.4 FUEL= 191.5 O+M= 47.1 INVTRY= 0. TOTAL= 338.1

2002	1	7	-26.	3	0	1											
2002	1	2	-90.	3	0	1											
2002	1	0	0.	0	0	0	1090.	1450.	1450.	-86.	0.349089	1004.	0.	0.	0.	33.0	61.
2002	2	30	228.	6	0	1	1090.	1678.	1678.	51.	0.048322	1141.	0.	0.	0.	53.9	64.

2002 ALTERNATIVE 4 MW ADDED= 228. COSTS,INVEST= 98.3 FUEL= 190.3 O+M= 47.7 INVTRY= 0. TOTAL= 336.3

2002	1	7	-26.	3	0	1											
2002	1	2	-90.	3	0	1											
2002	1	0	0.	0	0	0	1090.	1450.	1450.	-86.	0.349089	1004.	0.	0.	0.	33.0	61.
2002	2	27	87.	3	0	1	1090.	1537.	1537.	-13.	0.117713	1077.	0.	0.	0.	41.0	57.
2002	3	27	87.	3	0	1	1090.	1624.	1624.	61.	0.038643	1151.	0.	0.	0.	49.0	62.

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2002 ALTERNATIVE 2 MW ADDED= 174. COSTS,INVEST= 96.4 FUEL= 158.7 O+M= 46.5 INVTRY= 0. TOTAL= 301.7

CUMULATIVE P.W. INVEST= 451.5 FUEL= 762.9 O+M= 249.2 INVTRY= 0.

2002 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 301.7 CUMULATIVE COST = 2515.6
PRESENT WORTH TOTAL = 151.6 CUMULATIVE P.W. = 1463.5

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2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	206.1	O+M=	46.6	INVTRY=	0.	TOTAL=	349.1			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	2	26	200.	2	0	1	1114.	1824.	1824.	178.	0.007127	1292.	0.	0.		0.	63.7	65.
2003	ALTERNATIVE	2	MW ADDED=	200.	COSTS.INVEST=		125.4	FUEL=	176.2	O+M=	59.6	INVTRY=	0.	TOTAL=	361.2			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	206.1	O+M=	46.6	INVTRY=	0.	TOTAL=	349.1			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	2	27	87.	3	0	1	1114.	1711.	1711.	113.	0.018241	1227.	0.	0.		0.	53.6	61.
2003	ALTERNATIVE	4	MW ADDED=	87.	COSTS.INVEST=		99.4	FUEL=	206.1	O+M=	47.3	INVTRY=	0.	TOTAL=	352.8			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	206.1	O+M=	46.6	INVTRY=	0.	TOTAL=	349.1			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	2	30	228.	6	0	1	1114.	1852.	1852.	180.	0.007280	1294.	0.	0.		0.	66.2	65.
2003	ALTERNATIVE	6	MW ADDED=	228.	COSTS.INVEST=		104.4	FUEL=	203.5	O+M=	49.1	INVTRY=	0.	TOTAL=	357.1			
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
2003	1	0	0.	0	0	0	1114.	1624.	1624.	39.	0.057344	1153.	0.	0.		0.	45.8	62.
**********																		
2003	ALTERNATIVE	1	MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	168.2	O+M=	46.7	INVTRY=	0.	TOTAL=	311.3			
			CUMULATIVE P.W.		INVEST=		498.3	FUEL=	844.6	O+M=	271.8	INVTRY=	0.					
2003	OPTIMUM = ALTERNATIVE	1	TOTAL COST IN MILLION DOLLARS =				311.3	CUMULATIVE COST =		2826.9								
			PRESENT WORTH TOTAL				151.2	CUMULATIVE P.W. =		1614.7								
**********																		
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	222.6	O+M=	46.7	INVTRY=	0.	TOTAL=	365.7			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	2	26	200.	2	0	1	1140.	1824.	1824.	159.	0.009942	1296.	0.	0.		0.	60.0	65.
2004	ALTERNATIVE	2	MW ADDED=	200.	COSTS.INVEST=		125.4	FUEL=	186.3	O+M=	59.8	INVTRY=	0.	TOTAL=	371.6			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	222.6	O+M=	46.7	INVTRY=	0.	TOTAL=	365.7			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	2	27	87.	3	0	1	1140.	1711.	1711.	91.	0.024971	1231.	0.	0.		0.	50.1	61.
2004	ALTERNATIVE	4	MW ADDED=	87.	COSTS.INVEST=		99.4	FUEL=	222.4	O+M=	47.4	INVTRY=	0.	TOTAL=	369.2			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	COMMITTED		MW ADDED=	0.	COSTS.INVEST=		96.4	FUEL=	222.6	O+M=	46.7	INVTRY=	0.	TOTAL=	365.7			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	2	30	228.	6	0	1	1140.	1852.	1852.	159.	0.010039	1296.	0.	0.		0.	62.5	65.
2004	ALTERNATIVE	6	MW ADDED=	228.	COSTS.INVEST=		104.4	FUEL=	217.8	O+M=	49.3	INVTRY=	0.	TOTAL=	371.8			
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
2004	1	0	0.	0	0	0	1140.	1624.	1624.	13.	0.078644	1153.	0.	0.		0.	42.5	62.
**********																		

2004 ALTERNATIVE 1 MW ADDED= 0. COSTS,INVEST= 96.4 FUEL= 179.2 O+M= 46.8 INVTRY= 0. TOTAL= 322.4

CUMULATIVE P.W. INVEST= 543.5 FUEL= 928.7 O+M= 293.8 INVTRY= 0.

2004 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 322.4 CUMULATIVE COST = 3149.3
PRESENT WORTH TOTAL = 151.3 CUMULATIVE P.W. = 1766.0

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2005	1	22	1.	1	1	1	1165.	1625.	1625.	-4.	0.105360	1161.	0.	0.	0.	39.5	62.
2005	2	26	200.	2	0	1	1165.	1825.	1825.	138.	0.013681	1303.	0.	0.	0.	56.7	65.

2005 ALTERNATIVE 1 MW ADDED= 201. COSTS,INVEST= 131.2 FUEL= 197.2 O+M= 60.0 INVTRY= 0. TOTAL= 388.5

2005	1	22	1.	1	1	1	1165.	1625.	1625.	-4.	0.105360	1161.	0.	0.	0.	39.5	62.
2005	2	27	87.	3	0	1	1165.	1712.	1712.	73.	0.033753	1238.	0.	0.	0.	47.0	61.

2005 ALTERNATIVE 2 MW ADDED= 88. COSTS,INVEST= 105.2 FUEL= 237.7 O+M= 47.5 INVTRY= 0. TOTAL= 390.4

2005	1	22	1.	1	1	1	1165.	1625.	1625.	-4.	0.105360	1161.	0.	0.	0.	39.5	62.
2005	2	27	87.	3	0	1	1165.	1799.	1799.	147.	0.010232	1312.	0.	0.	0.	54.4	62.

2005 ALTERNATIVE 3 MW ADDED= 175. COSTS,INVEST= 108.2 FUEL= 238.0 O+M= 48.1 INVTRY= 0. TOTAL= 394.4

2005	1	22	1.	1	1	1	1165.	1625.	1625.	-4.	0.105360	1161.	0.	0.	0.	39.5	62.
2005	2	30	228.	6	0	1	1165.	1853.	1853.	138.	0.013681	1303.	0.	0.	0.	59.1	65.

2005 ALTERNATIVE 4 MW ADDED= 229. COSTS,INVEST= 110.2 FUEL= 232.6 O+M= 49.4 INVTRY= 0. TOTAL= 392.2

2005	1	22	1.	1	1	1	1165.	1625.	1625.	-4.	0.105360	1161.	0.	0.	0.	39.5	62.
2005	2	26	200.	2	0	1	1165.	1825.	1825.	138.	0.013681	1303.	0.	0.	0.	56.7	65.

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2005 ALTERNATIVE 1 MW ADDED= 201. COSTS,INVEST= 131.2 FUEL= 165.2 O+M= 60.1 INVTRY= 0. TOTAL= 356.5

CUMULATIVE P.W. INVEST= 603.0 FUEL= 1003.5 O+M= 321.0 INVTRY= 0.

2005 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 356.5 CUMULATIVE COST = 3505.7
PRESENT WORTH TOTAL = 161.6 CUMULATIVE P.W. = 1927.5

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2006	1	0	0.	0	0	0	1200.	1825.	1825.	107.	0.020071	1307.	0.	0.	0.	52.1	65.
2006	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		131.2	FUEL=	175.5	O+M=	60.4	INVTRY=	0.	TOTAL=		367.1	

CUMULATIVE P.W. INVEST= 660.5 FUEL= 1080.4 O+M= 347.4 INVTRY= 0.

2006 OPTIMUM = MANUAL TOTAL COST IN MILLION DOLLARS = 367.1 CUMULATIVE COST = 3872.8
PRESENT WORTH TOTAL = 160.8 CUMULATIVE P.W. = 2088.3

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2007	1	0	0.	0	0	0	1234.	1825.	1825.	79.	0.031883	1313.	0.	0.	0.	47.9	65.
2007	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		131.2	FUEL=	231.8	O+M=	60.4	INVTRY=	0.	TOTAL=		423.4	
2007	1	0	0.	0	0	0	1234.	1825.	1825.	79.	0.031883	1313.	0.	0.	0.	47.9	65.
2007	2	26	200.	2	0	1	1234.	2025.	2025.	210.	0.004208	1450.	0.	0.	0.	64.1	69.

2007 ALTERNATIVE 2 MW ADDED= 200. COSTS,INVEST= 160.3 FUEL= 196.5 O+M= 73.0 INVTRY= 0. TOTAL= 429.7

2007	1	0	0.	0	0	0	1234.	1825.	1825.	79.	0.031883	1313.	0.	0.	0.	47.9	65.
2007	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		131.2	FUEL=	231.8	O+M=	60.4	INVTRY=	0.	TOTAL=		423.4	
2007	1	0	0.	0	0	0	1234.	1825.	1825.	79.	0.031883	1313.	0.	0.	0.	47.9	65.
2007	2	27	87.	3	0	1	1234.	1912.	1912.	156.	0.010406	1390.	0.	0.	0.	54.9	68.

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2007  ALTERNATIVE  4  MW ADDED=   87.  COSTS,INVEST=   134.2  FUEL=   231.8  O+M=   61.1  INVTRY=    0.  TOTAL=   427.1

2007  1    0    0.    0    0    0   1234.  1825.  1825.   79.  0.031883  1313.    0.    0.        0.   47.9    65.
2007  COMMITTED        MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   231.8  O+M=   60.4  INVTRY=    0.  TOTAL=   423.4

2007  1    0    0.    0    0    0   1234.  1825.  1825.   79.  0.031883  1313.    0.    0.        0.   47.9    65.
2007  2   30  228.    6    0    1   1234.  2053.  2053.  222.  0.004275  1456.    0.    0.        0.   66.4    70.

2007  ALTERNATIVE  6  MW ADDED=  228.  COSTS,INVEST=   139.2  FUEL=   230.8  O+M=   63.1  INVTRY=    0.  TOTAL=   433.2

2007  1    0    0.    0    0    0   1234.  1825.  1825.   79.  0.031883  1313.    0.    0.        0.   47.9    65.
2007  1    0    0.    0    0    0   1234.  1825.  1825.   79.  0.031883  1313.    0.    0.        0.   47.9    65.

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2007  ALTERNATIVE  1  MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   206.6  O+M=   60.6  INVTRY=    0.  TOTAL=   398.4

                     CUMULATIVE P.W.      INVEST=   716.0  FUEL=  1167.8  O+M=   373.1  INVTRY=    0.

2007  OPTIMUM = ALTERNATIVE  1      TOTAL COST IN MILLION DOLLARS =    398.4  CUMULATIVE COST =   4271.2
                                    PRESENT WORTH TOTAL           =    168.6  CUMULATIVE P.W. =   2256.9

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2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  COMMITTED        MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   244.6  O+M=   60.9  INVTRY=    0.  TOTAL=   436.7

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  2   26  200.    2    0    1   1269.  2025.  2025.  204.  0.005308  1473.    0.    0.        0.   59.6    69.

2008  ALTERNATIVE  2  MW ADDED=  200.  COSTS,INVEST=   160.3  FUEL=   207.7  O+M=   73.4  INVTRY=    0.  TOTAL=   441.4

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  COMMITTED        MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   244.6  O+M=   60.9  INVTRY=    0.  TOTAL=   436.7

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  2   27   87.    3    0    1   1269.  1912.  1912.  138.  0.013144  1407.    0.    0.        0.   50.7    65.

2008  ALTERNATIVE  4  MW ADDED=   87.  COSTS,INVEST=   134.2  FUEL=   244.6  O+M=   61.6  INVTRY=    0.  TOTAL=   440.4

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  COMMITTED        MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   244.6  O+M=   60.9  INVTRY=    0.  TOTAL=   436.7

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  2   30  228.    6    0    1   1269.  2053.  2053.  206.  0.005895  1475.    0.    0.        0.   61.8    70.

2008  ALTERNATIVE  6  MW ADDED=  228.  COSTS,INVEST=   139.2  FUEL=   245.7  O+M=   63.5  INVTRY=    0.  TOTAL=   448.3

2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.
2008  1    0    0.    0    0    0   1269.  1825.  1825.   62.  0.040498  1331.    0.    0.        0.   43.8    69.

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2008  ALTERNATIVE  1  MW ADDED=    0.  COSTS,INVEST=   131.2  FUEL=   219.1  O+M=   61.0  INVTRY=    0.  TOTAL=   411.3

                     CUMULATIVE P.W.      INVEST=   769.6  FUEL=  1257.4  O+M=   398.0  INVTRY=    0.

2008  OPTIMUM = ALTERNATIVE  1      TOTAL COST IN MILLION DOLLARS =    411.3  CUMULATIVE COST =   4682.5
                                    PRESENT WORTH TOTAL           =    168.2  CUMULATIVE P.W. =   2425.1

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2009  1    1 -139.    6    0    1
2009  1    0    0.    0    0    0   1305.  1686.  1686.  -44.  0.293701  1221.    0.    0.        0.   29.2    66.
2009  2   26  200.    2    0    1   1305.  1886.  1886.   65.  0.043583  1370.    0.    0.        0.   44.5    62.

2009  ALTERNATIVE  1  MW ADDED=  200.  COSTS,INVEST=   160.3  FUEL=   220.6  O+M=   72.2  INVTRY=    0.  TOTAL=   453.1
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2009	1	1	-139.	6	0	1													
2009	1	0	0.	0	0	0	1305.	1686.	1686.	-84.	0.293701	1221.	0.	0.		0.	29.2		66.
2009	2	27	87.	3	0	1													
2009	2	27	87.	3	0	1													
2009	2	27	87.	3	0	1	1305.	1947.	1947.	148.	0.011827	1453.	0.	0.		0.	49.2		65.
2009	ALTERNATIVE	4	MW ADDED=	261.	COSTS.INVEST=	140.3	FUEL=	265.7	O+M=	61.5	INVTRY=	0.	TOTAL=	467.5					
2009	1	1	-139.	6	0	1													
2009	1	0	0.	0	0	0	1305.	1686.	1686.	-84.	0.293701	1221.	0.	0.		0.	29.2		66.
2009	2	30	228.	6	0	1	1305.	1914.	1914.	64.	0.042828	1369.	0.	0.		0.	46.7		68.
2009	ALTERNATIVE	5	MW ADDED=	228.	COSTS.INVEST=	139.2	FUEL=	263.2	O+M=	62.0	INVTRY=	0.	TOTAL=	464.4					
2009	1	1	-139.	6	0	1													
2009	1	0	0.	0	0	0	1305.	1686.	1686.	-84.	0.293701	1221.	0.	0.		0.	29.2		66.
2009	2	30	228.	6	0	1													
2009	2	30	228.	6	0	1	1305.	2142.	2142.	212.	0.005825	1517.	0.	0.		0.	64.1		77.
2009	ALTERNATIVE	6	MW ADDED=	456.	COSTS.INVEST=	147.2	FUEL=	264.5	O+M=	64.5	INVTRY=	0.	TOTAL=	476.2					
2009	1	1	-139.	6	0	1													
2009	1	0	0.	0	0	0	1305.	1686.	1686.	-84.	0.293701	1221.	0.	0.		0.	29.2		66.
2009	2	26	200.	2	0	1	1305.	1886.	1886.	65.	0.043583	1370.	0.	0.		0.	44.5		62.
**********																			
2009	ALTERNATIVE	1	MW ADDED=	200.	COSTS.INVEST=	160.3	FUEL=	203.5	O+M=	72.2	INVTRY=	0.	TOTAL=	435.9					
	CUMULATIVE P.W.			INVEST=	832.9	FUEL=	1337.8	O+M=	426.5	INVTRY=	0.								
2009	OPTIMUM = ALTERNATIVE	1	TOTAL COST IN MILLION DOLLARS =		435.9	CUMULATIVE COST =		5118.5											
	PRESENT WORTH TOTAL		=		172.2	CUMULATIVE P.W. =		2597.3											
**********																			
2010	1	18	-10.	2	0	1													
2010	1	17	-2.	2	0	1													
2010	1	16	-2.	2	0	1													
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.		0.	39.9		62.
2010	COMMITTED		MW ADDED=	0.	COSTS.INVEST=	160.3	FUEL=	236.8	O+M=	71.8	INVTRY=	0.	TOTAL=	468.8					
2010	1	18	-10.	2	0	1													
2010	1	17	-2.	2	0	1													
2010	1	16	-2.	2	0	1													
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.		0.	39.9		62.
2010	2	26	200.	2	0	1	1339.	2073.	2073.	164.	0.910433	1503.	0.	0.		0.	54.8		72.
2010	ALTERNATIVE	2	MW ADDED=	200.	COSTS.INVEST=	189.3	FUEL=	215.2	O+M=	83.5	INVTRY=	0.	TOTAL=	488.0					
2010	1	18	-10.	2	0	1													
2010	1	17	-2.	2	0	1													
2010	1	16	-2.	2	0	1													
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.		0.	39.9		62.
2010	COMMITTED		MW ADDED=	0.	COSTS.INVEST=	160.3	FUEL=	236.8	O+M=	71.8	INVTRY=	0.	TOTAL=	468.8					
2010	1	18	-10.	2	0	1													
2010	1	17	-2.	2	0	1													
2010	1	16	-2.	2	0	1													
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.		0.	39.9		62.
2010	2	27	87.	3	0	1	1339.	1960.	1960.	100.	0.024835	1439.	0.	0.		0.	46.4		62.
2010	ALTERNATIVE	4	MW ADDED=	87.	COSTS.INVEST=	163.3	FUEL=	236.8	O+M=	72.5	INVTRY=	0.	TOTAL=	472.5					
2010	1	18	-10.	2	0	1													
2010	1	17	-2.	2	0	1													
2010	1	16	-2.	2	0	1													
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.		0.	39.9		62.
2010	COMMITTED		MW ADDED=	0.	COSTS.INVEST=	160.3	FUEL=	236.8	O+M=	71.8	INVTRY=	0.	TOTAL=	468.8					

2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.	0.	39.9	62.	
2010	2	30	228.	6	0	1	1339.	2101.	2101.	167.	0.010465	1506.	0.	0.	0.	56.9	72.	

2010 ALTERNATIVE 6 MW ADDED= 228. COSTS:INVEST= 168.2 FUEL= 241.5 O+M= 74.1 INVTRY= 0. TOTAL= 483.8

2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.	0.	39.9	62.	
2010	1	18	-10.	2	0	1												
2010	1	17	-2.	2	0	1												
2010	1	16	-2.	2	0	1												
2010	1	0	0.	0	0	0	1339.	1873.	1873.	20.	0.072108	1359.	0.	0.	0.	39.9	62.	

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2010 ALTERNATIVE 1 MW ADDED= 0. COSTS:INVEST= 160.3 FUEL= 218.3 O+M= 71.7 INVTRY= 0. TOTAL= 450.3

CUMULATIVE P.W. INVEST= 894.1 FUEL= 1421.1 O+M= 453.9 INVTRY= 0.

2010 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 450.3 CUMULATIVE COST = 5568.7
PRESENT WORTH TOTAL = 171.9 CUMULATIVE P.W. = 2769.1

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2011	1	0	0.	0	0	0	1373.	1873.	1873.	-4.	0.108411	1369.	0.	0.	0.	36.4	62.	
2011	2	26	200.	2	0	1	1373.	2073.	2073.	134.	0.016174	1507.	0.	0.	0.	51.0	72.	

2011 ALTERNATIVE 1 MW ADDED= 200. COSTS:INVEST= 189.3 FUEL= 225.6 O+M= 83.9 INVTRY= 0. TOTAL= 498.8

2011	1	0	0.	0	0	0	1373.	1873.	1873.	-4.	0.108411	1369.	0.	0.	0.	36.4	62.	
2011	2	27	87.	3	0	1	1373.	1960.	1960.	74.	0.040219	1447.	0.	0.	0.	42.8	62.	

2011 ALTERNATIVE 2 MW ADDED= 87. COSTS:INVEST= 163.3 FUEL= 251.2 O+M= 72.8 INVTRY= 0. TOTAL= 487.2

2011	1	0	0.	0	0	0	1373.	1873.	1873.	-4.	0.108411	1369.	0.	0.	0.	36.4	62.	
2011	2	27	87.	3	0	1												
2011	2	27	87.	3	0	1	1373.	2047.	2047.	146.	0.014789	1519.	0.	0.	0.	49.1	69.	

2011 ALTERNATIVE 3 MW ADDED= 174. COSTS:INVEST= 166.3 FUEL= 251.2 O+M= 73.5 INVTRY= 0. TOTAL= 490.9

2011	1	0	0.	0	0	0	1373.	1873.	1873.	-4.	0.108411	1369.	0.	0.	0.	36.4	62.	
2011	2	30	228.	6	0	1	1373.	2101.	2101.	141.	0.015115	1514.	0.	0.	0.	53.0	72.	

2011 ALTERNATIVE 4 MW ADDED= 228. COSTS:INVEST= 168.2 FUEL= 254.7 O+M= 74.4 INVTRY= 0. TOTAL= 497.3

2011	1	0	0.	0	0	0	1373.	1873.	1873.	-4.	0.108411	1369.	0.	0.	0.	36.4	62.	
2011	2	27	87.	3	0	1	1373.	1960.	1960.	74.	0.040219	1447.	0.	0.	0.	42.8	62.	

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2011 ALTERNATIVE 2 MW ADDED= 87. COSTS:INVEST= 163.3 FUEL= 231.1 O+M= 72.7 INVTRY= 0. TOTAL= 467.1

CUMULATIVE P.W. INVEST= 954.3 FUEL= 1506.3 O+M= 480.7 INVTRY= 0.

2011 OPTIMUM = ALTERNATIVE 2 TOTAL COST IN MILLION DOLLARS = 467.1 CUMULATIVE COST = 6035.9
PRESENT WORTH TOTAL = 172.2 CUMULATIVE P.W. = 2941.4

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2012	1	5	-178.	6	0	1												
2012	1	0	0.	0	0	0	1408.	1782.	1782.	-81.	0.301432	1327.	0.	0.	0.	26.6	69.	
2012	2	26	200.	2	0	1	1408.	1982.	1982.	70.	0.044522	1478.	0.	0.	0.	40.8	62.	

2012 ALTERNATIVE 1 MW ADDED= 200. COSTS:INVEST= 192.3 FUEL= 234.4 O+M= 83.3 INVTRY= 0. TOTAL= 510.0

2012	1	5	-178.	6	0	1												
2012	1	0	0.	0	0	0	1408.	1782.	1782.	-81.	0.301432	1327.	0.	0.		0.	26.6	69.
2012	2	27	87.	3	0	1												
2012	2	27	87.	3	0	1	1408.	2043.	2043.	148.	0.012803	1556.	0.	0.		0.	45.1	62.

2012 ALTERNATIVE 4 MW ADDED= 261. COSTS,INVEST= 172.4 FUEL= 276.0 O+M= 73.3 INVTRY= 0. TOTAL= 521.7

2012	1	5	-178.	6	0	1												
2012	1	0	0.	0	0	0	1408.	1782.	1782.	-81.	0.301432	1327.	0.	0.		0.	26.6	69.
2012	2	30	228.	6	0	1	1408.	2010.	2010.	74.	0.041257	1482.	0.	0.		0.	42.8	62.

2012 ALTERNATIVE 5 MW ADDED= 228. COSTS,INVEST= 171.3 FUEL= 268.8 O+M= 73.7 INVTRY= 0. TOTAL= 513.8

2012	1	5	-178.	6	0	1												
2012	1	0	0.	0	0	0	1408.	1782.	1782.	-81.	0.301432	1327.	0.	0.		0.	26.6	69.
2012	2	30	228.	6	0	1												
2012	2	30	228.	6	0	1	1408.	2238.	2238.	217.	0.005948	1625.	0.	0.		0.	58.9	79.

2012 ALTERNATIVE 6 MW ADDED= 456. COSTS,INVEST= 179.3 FUEL= 272.9 O+M= 76.1 INVTRY= 0. TOTAL= 528.3

2012	1	5	-178.	6	0	1												
2012	1	0	0.	0	0	0	1408.	1782.	1782.	-81.	0.301432	1327.	0.	0.		0.	26.6	69.
2012	2	26	200.	2	0	1	1408.	1982.	1982.	70.	0.044522	1478.	0.	0.		0.	40.8	62.

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2012 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 192.3 FUEL= 217.6 O+M= 83.4 INVTRY= 0. TOTAL= 493.3

CUMULATIVE P.W. INVEST= 1022.8 FUEL= 1563.9 O+M= 510.4 INVTRY= 0.

2012 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 493.3 CUMULATIVE COST = 6520.2
PRESENT WORTH TOTAL = 175.8 CUMULATIVE P.W. = 3117.1

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2013	1	27	-87.	3	0	1												
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.
2013	2	26	200.	2	0	1	1444.	2095.	2095.	96.	0.027142	1540.	0.	0.		0.	45.1	77.

2013 ALTERNATIVE 1 MW ADDED= 200. COSTS,INVEST= 218.3 FUEL= 224.3 O+M= 94.5 INVTRY= 0. TOTAL= 537.2

2013	1	27	-87.	3	0	1												
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.
2013	2	26	200.	2	0	1												
2013	2	26	200.	2	0	1	1444.	2295.	2295.	245.	0.003831	1689.	0.	0.		0.	58.9	70.

2013 ALTERNATIVE 2 MW ADDED= 400. COSTS,INVEST= 247.4 FUEL= 202.7 O+M= 106.2 INVTRY= 0. TOTAL= 556.3

2013	1	27	-87.	3	0	1												
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.
2013	2	27	87.	3	0	1	1444.	1982.	1982.	35.	0.064474	1479.	0.	0.		0.	37.3	62.

2013 ALTERNATIVE 3 MW ADDED= 87. COSTS,INVEST= 192.3 FUEL= 250.4 O+M= 83.7 INVTRY= 0. TOTAL= 526.5

2013	1	27	-87.	3	0	1												
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.
2013	2	27	87.	3	0	1												
2013	2	27	87.	3	0	1	1444.	2069.	2069.	110.	0.023034	1554.	0.	0.		0.	43.3	62.

2013 ALTERNATIVE 4 MW ADDED= 174. COSTS,INVEST= 195.4 FUEL= 250.4 O+M= 84.4 INVTRY= 0. TOTAL= 530.2

2013	1	27	-87.	3	0	1												
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.
2013	2	30	228.	6	0	1	1444.	2123.	2123.	104.	0.026074	1548.	0.	0.		0.	47.0	77.

2013 ALTERNATIVE 5 MW ADDED= 228. COSTS,INVEST= 197.3 FUEL= 252.7 O+M= 85.3 INVTRY= 0. TOTAL= 535.2

2013	1	27	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.	
2013	2	30	228.	6	0	1													
2013	2	30	228.	6	0	1	1444.	2351.	2351.	265.	0.003603	1709.	0.	0.		0.	62.8	70.	

2013 ALTERNATIVE 6 MW ADDED= 456. COSTS:INVEST= 205.3 FUEL= 252.1 O+M= 88.0 INVTRY= 0. TOTAL= 545.3

2013	1	27	-87.	3	0	1													
2013	1	0	0.	0	0	0	1444.	1895.	1895.	-43.	0.175568	1401.	0.	0.		0.	31.2	62.	
2013	2	27	87.	3	0	1	1444.	1982.	1982.	35.	0.064474	1479.	0.	0.		0.	37.3	62.	

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2013 ALTERNATIVE 3 MW ADDED= 87. COSTS:INVEST= 192.3 FUEL= 230.3 O+M= 83.8 INVTRY= 0. TOTAL= 506.4

CUMULATIVE P.W. INVEST= 1089.0 FUEL= 1663.1 O+M= 539.3 INVTRY= 0.

2013 OPTIMUM = ALTERNATIVE 3 TOTAL COST IN MILLION DOLLARS = 506.4 CUMULATIVE COST = 7035.6
PRESENT WORTH TOTAL = 174.3 CUMULATIVE P.W. = 3291.4

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2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	COMMITTED		MW ADDED=	0.	COSTS:INVEST=		192.3	FUEL=	262.6	O+M=	84.2	INVTRY=	0.	TOTAL=		539.1			
2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	2	26	200.	2	0	1	1481.	2182.	2182.	145.	0.014041	1626.	0.	0.		0.	47.3	77.	

2014 ALTERNATIVE 2 MW ADDED= 200. COSTS:INVEST= 221.4 FUEL= 235.4 O+M= 95.7 INVTRY= 0. TOTAL= 552.4

2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	COMMITTED		MW ADDED=	0.	COSTS:INVEST=		192.3	FUEL=	262.6	O+M=	84.2	INVTRY=	0.	TOTAL=		539.1			
2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	2	27	87.	3	0	1	1481.	2069.	2069.	73.	0.034657	1554.	0.	0.		0.	39.7	62.	

2014 ALTERNATIVE 4 MW ADDED= 87. COSTS:INVEST= 195.4 FUEL= 262.6 O+M= 84.9 INVTRY= 0. TOTAL= 542.8

2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	COMMITTED		MW ADDED=	0.	COSTS:INVEST=		192.3	FUEL=	262.6	O+M=	84.2	INVTRY=	0.	TOTAL=		539.1			
2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	2	30	228.	6	0	1	1481.	2210.	2210.	147.	0.014007	1628.	0.	0.		0.	49.2	77.	

2014 ALTERNATIVE 6 MW ADDED= 228. COSTS:INVEST= 200.3 FUEL= 266.3 O+M= 86.4 INVTRY= 0. TOTAL= 553.0

2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	
2014	1	0	0.	0	0	0	1481.	1982.	1982.	3.	0.092213	1484.	0.	0.		0.	33.8	62.	

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2014 ALTERNATIVE 1 MW ADDED= 0. COSTS:INVEST= 192.3 FUEL= 243.3 O+M= 84.2 INVTRY= 0. TOTAL= 519.8

CUMULATIVE P.W. INVEST= 1153.0 FUEL= 1744.1 O+M= 567.3 INVTRY= 0.

2014 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 519.8 CUMULATIVE COST = 7555.5
PRESENT WORTH TOTAL = 172.9 CUMULATIVE P.W. = 3464.3

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2015	1	27	-87.	3	0	1													
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.	
2015	2	26	200.	2	0	1	1519.	2095.	2095.	52.	0.056290	1571.	0.	0.		0.	37.9	69.	

2015 ALTERNATIVE 1 MW ADDED= 200. COSTS:INVEST= 218.3 FUEL= 247.8 O+M= 95.6 INVTRY= 0. TOTAL= 561.7

2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	26	200.	2	0	1												
2015	2	26	200.	2	0	1	1519.	2295.	2295.	197.	0.008394	1716.	0.	0.		0.	51.1	70.
2015	ALTERNATIVE	2	MW ADDED=	400.	COSTS,INVEST=		247.4	FUEL=	223.5	O+M=	107.2	INVTRY=	0.	TOTAL=		578.1		
2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	27	87.	3	0	1	1519.	1982.	1982.	-24.	0.136870	1495.	0.	0.		0.	30.5	62.
2015	3	27	87.	3	0	1	1519.	2069.	2069.	53.	0.049803	1572.	0.	0.		0.	36.2	62.
2015	ALTERNATIVE	3	MW ADDED=	174.	COSTS,INVEST=		195.4	FUEL=	276.6	O+M=	89.4	INVTRY=	0.	TOTAL=		557.4		
2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	27	87.	3	0	1												
2015	2	27	87.	3	0	1												
2015	2	27	87.	3	0	1	1519.	2156.	2156.	131.	0.017037	1650.	0.	0.		0.	41.9	62.
2015	ALTERNATIVE	4	MW ADDED=	261.	COSTS,INVEST=		198.4	FUEL=	276.6	O+M=	86.1	INVTRY=	0.	TOTAL=		561.1		
2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	30	228.	6	0	1	1519.	2123.	2123.	58.	0.052744	1577.	0.	0.		0.	39.8	77.
2015	ALTERNATIVE	5	MW ADDED=	228.	COSTS,INVEST=		197.3	FUEL=	277.5	O+M=	86.3	INVTRY=	0.	TOTAL=		561.1		
2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	30	228.	6	0	1												
2015	2	30	228.	6	0	1	1519.	2351.	2351.	210.	0.007741	1729.	0.	0.		0.	54.8	79.
2015	ALTERNATIVE	6	MW ADDED=	456.	COSTS,INVEST=		205.3	FUEL=	280.6	O+M=	88.9	INVTRY=	0.	TOTAL=		574.8		
2015	1	27	-87.	3	0	1												
2015	1	0	0.	0	0	0	1519.	1895.	1895.	-99.	0.342966	1420.	0.	0.		0.	24.8	70.
2015	2	27	87.	3	0	1	1519.	1982.	1982.	-24.	0.136870	1495.	0.	0.		0.	30.5	62.
2015	3	27	87.	3	0	1	1519.	2069.	2069.	53.	0.049803	1572.	0.	0.		0.	36.2	62.
**********																		
2015	ALTERNATIVE	3	MW ADDED=	174.	COSTS,INVEST=		195.4	FUEL=	258.1	O+M=	85.3	INVTRY=	0.	TOTAL=		538.8		
			CUMULATIVE P.W.		INVEST=		1215.8	FUEL=	1827.0	O+M=	594.7	INVTRY=	0.					
2015	OPTIMUM = ALTERNATIVE	3			TOTAL COST IN MILLION DOLLARS =				538.8		CUMULATIVE COST =					8094.3		
					PRESENT WORTH TOTAL				=	173.2	CUMULATIVE P.W. =					5637.5		
**********																		
2016	1	0	0.	0	0	0	1559.	2069.	2069.	17.	0.073236	1575.	0.	0.		0.	32.8	62.
2016	COMMITTED		MW ADDED=	0.	COSTS,INVEST=		195.4	FUEL=	296.3	O+M=	85.8	INVTRY=	0.	TOTAL=		577.5		
2016	1	0	0.	0	0	0	1558.	2069.	2069.	17.	0.073236	1575.	0.	0.		0.	32.8	62.
2016	2	30	228.	6	0	1	1558.	2297.	2297.	173.	0.010918	1731.	0.	0.		0.	47.4	77.
2016	ALTERNATIVE	6	MW ADDED=	228.	COSTS,INVEST=		203.4	FUEL=	298.2	O+M=	88.0	INVTRY=	0.	TOTAL=		589.5		
2016	1	0	0.	0	0	0	1558.	2069.	2069.	17.	0.073236	1575.	0.	0.		0.	32.8	62.
2016	1	0	0.	0	0	0	1558.	2069.	2069.	17.	0.073236	1575.	0.	0.		0.	32.8	62.
**********																		
2016	ALTERNATIVE	1	MW ADDED=	0.	COSTS,INVEST=		195.4	FUEL=	273.7	O+M=	85.8	INVTRY=	0.	TOTAL=		554.9		
			CUMULATIVE P.W.		INVEST=		1276.4	FUEL=	1912.0	O+M=	621.3	INVTRY=	0.					

2016 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 554.9 CUMULATIVE COST = 6649.2
PRESENT WORTH TOTAL = 172.3 CUMULATIVE P.W. = 3809.8

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2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	26	200.	2	0	1	1598.	2182.	2182.	60.	0.045095	1658.	0.	0.	0.	36.5	77.
2017	ALTERNATIVE	1	MW ADDED=	200.	COSTS,INVEST=	221.4	FUEL=	275.0	O+M=	97.2	INVTRY=	0.	TOTAL=	593.6			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	26	200.	2	0	1											
2017	2	26	200.	2	0	1	1598.	2382.	2382.	204.	0.006712	1802.	0.	0.	0.	49.1	70.
2017	ALTERNATIVE	2	MW ADDED=	400.	COSTS,INVEST=	250.4	FUEL=	252.0	O+M=	108.8	INVTRY=	0.	TOTAL=	611.2			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	27	87.	3	0	1	1598.	2069.	2069.	-13.	0.113945	1585.	0.	0.	0.	29.5	62.
2017	3	27	87.	3	0	1	1598.	2156.	2156.	64.	0.043803	1662.	0.	0.	0.	34.9	62.
2017	ALTERNATIVE	3	MW ADDED=	174.	COSTS,INVEST=	198.4	FUEL=	314.3	O+M=	86.9	INVTRY=	0.	TOTAL=	599.7			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	27	87.	3	0	1											
2017	2	27	87.	3	0	1											
2017	2	27	87.	3	0	1	1598.	2243.	2243.	142.	0.015403	1740.	0.	0.	0.	40.4	77.
2017	ALTERNATIVE	4	MW ADDED=	261.	COSTS,INVEST=	201.4	FUEL=	314.3	O+M=	87.6	INVTRY=	0.	TOTAL=	603.4			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	30	228.	6	0	1	1598.	2210.	2210.	69.	0.041819	1667.	0.	0.	0.	38.3	70.
2017	ALTERNATIVE	5	MW ADDED=	228.	COSTS,INVEST=	200.3	FUEL=	314.2	O+M=	87.8	INVTRY=	0.	TOTAL=	602.3			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	30	228.	6	0	1											
2017	2	30	228.	6	0	1	1598.	2438.	2438.	225.	0.006029	1823.	0.	0.	0.	52.6	70.
2017	ALTERNATIVE	6	MW ADDED=	456.	COSTS,INVEST=	208.3	FUEL=	315.3	O+M=	90.4	INVTRY=	0.	TOTAL=	614.0			
2017	1	27	-87.	3	0	1											
2017	1	0	0.	0	0	0	1598.	1982.	1982.	-87.	0.281108	1511.	0.	0.	0.	24.0	62.
2017	2	26	200.	2	0	1	1598.	2182.	2182.	60.	0.045095	1658.	0.	0.	0.	36.5	77.

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2017	ALTERNATIVE	1	MW ADDED=	200.	COSTS,INVEST=	221.4	FUEL=	256.6	O+M=	97.4	INVTRY=	0.	TOTAL=	575.3			
			CUMULATIVE P.W.		INVEST=	1342.9	FUEL=	1989.0	O+M=	650.5	INVTRY=	0.					
2017	OPTIMUM = ALTERNATIVE	1			TOTAL COST IN MILLION DOLLARS =			575.3		CUMULATIVE COST =			4224.5				
					PRESENT WORTH TOTAL =			172.6		CUMULATIVE P.W. =			3982.4				

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2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	COMMITTED		MW ADDED=	0.	COSTS,INVEST=	221.4	FUEL=	290.6	O+M=	97.8	INVTRY=	0.	TOTAL=	609.7			
2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	2	26	200.	2	0	1	1639.	2382.	2382.	174.	0.010369	1813.	0.	0.	0.	45.3	70.

2018 ALTERNATIVE 2 MW ADDED= 200. COSTS:INVEST= 250.4 FUEL= 268.2 O+M= 109.2 INVTRY= 0. TOTAL= 627.9

2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	COMMITTED		MW ADDED=	0.	COSTS:INVEST=		221.4	FUEL=	290.6	O+M=	97.8	INVTRY=	0.	TOTAL=	609.7		
2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	2	27	87.	3	0	1	1639.	2269.	2269.	102.	0.027961	1741.	0.	0.	0.	38.4	77.

2018 ALTERNATIVE 4 MW ADDED= 87. COSTS:INVEST= 224.4 FUEL= 290.6 O+M= 98.4 INVTRY= 0. TOTAL= 613.4

2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	COMMITTED		MW ADDED=	0.	COSTS:INVEST=		221.4	FUEL=	290.6	O+M=	97.8	INVTRY=	0.	TOTAL=	609.7		
2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	2	30	228.	6	0	1	1639.	2410.	2410.	179.	0.010374	1818.	0.	0.	0.	47.0	70.

2018 ALTERNATIVE 6 MW ADDED= 228. COSTS:INVEST= 229.4 FUEL= 298.9 O+M= 100.0 INVTRY= 0. TOTAL= 626.3

2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.
2018	1	0	0.	0	0	0	1639.	2182.	2182.	27.	0.068893	1666.	0.	0.	0.	33.1	77.

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2018 ALTERNATIVE 1 MW ADDED= 0. COSTS:INVEST= 221.4 FUEL= 272.0 O+M= 97.8 INVTRY= 0. TOTAL= 591.2

CUMULATIVE P.W. INVEST= 1407.0 FUEL= 2067.8 O+M= 678.9 INVTRY= 0.

2018 OPTIMUM = ALTERNATIVE 1 TOTAL COST IN MILLION DOLLARS = 591.2 CUMULATIVE COST = 9815.8
PRESENT WORTH TOTAL = 171.4 CUMULATIVE P.W. = 4153.7

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2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	26	200.	2	0	1	1681.	2382.	2382.	135.	0.017917	1814.	0.	0.	0.	41.7	70.

2019 ALTERNATIVE 1 MW ADDED= 200. COSTS:INVEST= 250.4 FUEL= 285.9 O+M= 109.7 INVTRY= 0. TOTAL= 646.0

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	26	200.	2	0	1											
2019	2	26	200.	2	0	1	1681.	2582.	2582.	285.	0.002790	1966.	0.	0.	0.	53.6	85.

2019 ALTERNATIVE 2 MW ADDED= 400. COSTS:INVEST= 279.5 FUEL= 261.5 O+M= 121.3 INVTRY= 0. TOTAL= 662.2

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	27	87.	3	0	1	1681.	2269.	2269.	63.	0.044614	1744.	0.	0.	0.	35.0	77.

2019 ALTERNATIVE 3 MW ADDED= 87. COSTS:INVEST= 224.4 FUEL= 310.2 O+M= 98.9 INVTRY= 0. TOTAL= 633.6

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	27	87.	3	0	1											
2019	2	27	87.	3	0	1	1681.	2356.	2356.	136.	0.017589	1817.	0.	0.	0.	40.2	77.

2019 ALTERNATIVE 4 MW ADDED= 174. COSTS:INVEST= 227.4 FUEL= 310.2 O+M= 99.6 INVTRY= 0. TOTAL= 637.3

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	30	228.	6	0	1	1681.	2410.	2410.	142.	0.016605	1823.	0.	0.	0.	43.4	70.

2019 ALTERNATIVE 5 MW ADDED= 228. COSTS:INVEST= 229.4 FUEL= 315.1 O+M= 100.5 INVTRY= 0. TOTAL= 644.9

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	30	228.	6	0	1											
2019	2	30	228.	6	0	1	1681.	2638.	2638.	302.	0.002434	1983.	0.	0.	0.	56.9	77.

2019 ALTERNATIVE 6 MW ADDED= 456. COSTS:INVEST= 237.4 FUEL= 316.0 O+M= 103.2 INVTRY= 0. TOTAL= 656.5

2019	1	0	0.	0	0	0	1681.	2182.	2182.	-13.	0.110969	1668.	0.	0.	0.	29.8	77.
2019	2	27	87.	3	0	1	1681.	2269.	2269.	63.	0.044614	1744.	0.	0.	0.	35.0	77.

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ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL R8MM, SCHAGAS, EBASCOAL 08/16/84 10.316
2MLJN1

ORIGINAL SYSTEM

COMPANY	TOTAL CAP.	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	945.	0.	59.	254.	166.	6.	317.	143.	0.	0.	0.
POOL	945.	0.	59.	254.	166.	6.	317.	143.	0.	0.	0.

TYPE	TYPE ID
NUKE	1
COAL	2
NGASGT	3
OIL GT	4
DIESEL	5
COMCYC	6
HYDRO	7
PSH	8
ES-2	9
ES-3	10

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1993

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	53.	3	0	1.	1	1														
	0.	0	0	200.	2	1														
	0.	0	0	228.	6	0														
	0.	0	0	87.	3	0														
							915.	1408.			1.	200.	34.	0.	0.	228.	0.	0.	0.	0.
											1.	259.	288.	166.	6.	545.	143.	0.	0.	0.
POOL1											1.	200.	34.	0.	0.	228.	0.	0.	0.	0.
	53.			516.			915.	1408.			1.	259.	288.	166.	6.	545.	143.	0.	0.	0.
								1408.	53.9											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
3839630.	567500.	4396955.

ENERGY DISPOSITION (MWH)

	*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4396955.	4396955.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 940. MW LOLP AT 915. MW POOL PEAK= 0.068 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 68MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1994

	RETIREMENTS		ADDITIONS		MX	TOTAL	TIME OF PEAK INCLI	PCT	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2)								
CO.	MW	TYPE M	MW	TYPE M	LOAD	CAP.	CRTC	RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					1.	200.	34.	0.	0.	228.	0.	0.	0.	0.
					935.	1408.			1.	259.	288.	166.	6.	545.	143.	0.	0.	0.
POOL									1.	200.	34.	0.	0.	228.	0.	0.	0.	0.
	0.		0.		935.	1408.			1.	259.	288.	166.	6.	545.	143.	0.	0.	0.
						1408.	50.6											

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)					
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
3935310.	567500.	4492100.		0.	0.	0.	4492100.	4492100.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 944. MW LOLP AT 935. MW POOL PEAK= 0.086 DAYS/YEAR

GENERAL ELECTRIC COMPANY, EJSED GENERATION PLANNING PROGRAM OGP-6 V6.20.M

ALASKA RAILBELT 08/15/84 10.31.6
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1995

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS		ADDITIONS		TIME OF PEAK MW	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2)								
CO.	MW	TYPE M	MW	TYPE M	LOAD	CAP.			NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	4.	4 0	87.	3 0														
	4.	4 0	0.	0 0														
	58.	3 0	0.	0 0						1.	200.	63.	-7.	0.	228.	0.	0.	0.
					955.	1430.				1.	259.	317.	159.	6.	545.	143.	0.	0.
POOL										1.	200.	63.	-7.	0.	228.	0.	0.	0.
	55.		87.		955.	1430.				1.	259.	317.	159.	6.	545.	143.	0.	0.
							1430.	49.7										

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
			*** ENERGY STORAGE ***				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4030505.	567500.	4587910.		0.	0.	0.	4587910.	4587910.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 979. MW LOLP AT 955. MW POOL PEAK= 0.068 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1996

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCLI CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
												CUMULATIVE ADDITIONS BY TYPE (LINE 1)								
												TOTAL CAPACITY BY TYPE (LINE 2)								
1	29.	4	0	200.	2	1														
	65.	4	0	0.	0	0						1.	400.	63.	-101.	0.	228.	0.	0.	0.	0.
							972.	1536.				1.	459.	317.	65.	6.	545.	143.	0.	0.	0.
POOL												1.	400.	63.	-101.	0.	228.	0.	0.	0.	0.
	94.			200.			972.	1536.				1.	459.	317.	65.	6.	545.	143.	0.	0.	0.
									1536.	58.0										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4152805.	567500.	4670100.		0.	0.	0.	4670100.	4670100.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1046. MW LOLP AT 972. MW POOL PEAK= 0.030 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL 88MW, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1997

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	PCT NUKE	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	55.	4	0	87.	3	0															
	25.	2	0	0.	0	0						1. 375.	150.	-166.	0.	228.	0.	0.	0.	0.
							989.	1533.				1. 434.	404.	-0.	6.	545.	143.	0.	0.	0.
POOL												1. 375.	150.	-166.	0.	228.	0.	0.	0.	0.
	90.			87.			989.	1533.				1. 434.	404.	-0.	6.	545.	143.	0.	0.	0.
									1533.	55.0										

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
4227315.	567500.	4750965.

ENERGY DISPOSITION (MWH)

*** ENERGY	PUMP	TOT.GEN.	STORAGE *** NET TO LOAD
PSH	0.	0.	0.
ES-2	0.	0.	0.
ES-3	0.	0.	0.
	0.	0.	0.

POOL LOAD 4750965.
TOTAL LOAD 4750965.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1042. MW LOLP AT 989. MW POOL PEAK= 0.043 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.516
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 1998

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCLI CRTC	PCT RES	NUKE	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	26.	3	0	0.	0	0					1.	375.	124.	-166.	0.	228.	0.	0.	0.	0.
							1005.	1507.			1.	434.	377.	-0.	6.	545.	143.	0.	0.	0.
POOL											1.	375.	124.	-166.	0.	228.	0.	0.	0.	0.
	26.			0.			1005.	1507.			1.	434.	377.	-0.	6.	545.	143.	0.	0.	0.
								1507.	49.9											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4307945.	567500.	4832900.		0.	0.	0.	4832900.	4832900.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1022. MW LOLP AT 1005. MW POOL PEAK= 0.077 DAYS/YEAR

ALASKA RAILBELT
DEISTR7, VSD GAS/COAL, COAL NBMM, SCHAGAS, EHASCOAL 08/16/84 10.316
2MLJN1

YEAR 1999

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
										CUMULATIVE ADDITIONS BY TYPE (LINE 1)								
1	1.5	0	0.0							TOTAL CAPACITY BY TYPE (LINE 2)								
					1023.	1506.			1.	375.	124.	-166.	-1.	228.	0.	0.	0.	0.
									1.	434.	377.	-0.	6.	545.	143.	0.	0.	0.
POOL																		
	1.		0.		1023.	1506.			1.	375.	124.	-166.	-1.	228.	0.	0.	0.	0.
							1506.	47.2	1.	434.	377.	-0.	6.	545.	143.	0.	0.	0.

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4392075.	567500.	4915010.		0.	0.	0.	4915010.	4915010.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1044. MW LOLP AT 1023. MW POOL PEAK= 0.077 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2000

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCLI CRTC.	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	3.	5	0	87.	3	0														
	3.	5	0	0.	0	0														
	21.	2	0	0.	0	0					1.	354.	211.	-166.	-6.	228.	0.	0.	0.	0.
							1040.	1566.			1.	413.	464.	-0.	0.	545.	143.	0.	0.	0.
POOL1											1.	354.	211.	-166.	-6.	228.	0.	0.	0.	0.
	27.			87.			1040.	1566.			1.	413.	464.	-0.	0.	545.	143.	0.	0.	0.
								1566.	50.6											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
4474005.	567500.	4996125.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***

	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	4996125.	4996125.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1096. MW LOLP AT 1040. MW POOL PEAK= 0.042 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2001

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					1.	354.	211.	-166.	-6.	228.	0.	0.	0.	0.
					1065.	1566.			1.	413.	464.	-0.	0.	545.	143.	0.	0.	0.
POOL1									1.	354.	211.	-166.	-6.	228.	0.	0.	0.	0.
	0.		0.		1065.	1566.			1.	413.	464.	-0.	0.	545.	143.	0.	0.	0.
						1566.	47.1											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			P8H	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4586675.	567500.	5116935.		0.	0.	0.	5116935.	5116935.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1100. MW LOLP AT 1065. MW POOL PEAK= 0.061 DAYS/YEAR

ALASKA RAILBELT 08/16/84 20.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2002

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
												CUMULATIVE ADDITIONS BY TYPE (LINE 1)								
												TOTAL CAPACITY BY TYPE (LINE 2)								
1	26.	3	0	87.	3	0														
	90.	3	0	87.	3	0					1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
							1090.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL1											1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
	116.			174.			1090.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
								1624.	49.0											

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
			*** ENERGY STORAGE ***				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4701770.	567500.	5238085.		0.	0.	0.	5238085.	5238085.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1151. MW LOLP AT 1090. MW POOL PEAK= 0.039 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL B8MM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2003

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
												CUMULATIVE ADDITIONS BY TYPE (LINE 1)								
												TOTAL CAPACITY BY TYPE (LINE 2)								
1	0.	0	0	0.	0	0					1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
							1114.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL											1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
	0.			0.			1114.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
									1624.	45.8										

ENERGY SOURCE (MWH) ENERGY DISPOSITION (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
4818880.	567500.	5359130.		0.	0.	0.	5359130.	5359130.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1153. MW LOLP AT 1114. MW POOL PEAK= 0.057 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2004

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	0. 0 0					1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
			1140.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL							1.	354.	268.	-166.	-6.	228.	0.	0.	0.	0.
	0.	0.	1140.	1624.			1.	413.	522.	-0.	0.	545.	143.	0.	0.	0.
				1624.	42.5											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
4941065.	567500.	5481020.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD
PSH	0.	0.	0.
ES-2	0.	0.	0.
ES-3	0.	0.	0.
	0.	0.	0.

POOL LOAD 5481020.
TOTAL LOAD 5481020.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1153. MW LOLP AT 1140. MW POOL PEAK= 0.079 DAYS/YEAR

GENERAL ELECTRIC COMPANY, EJSED GENERATION PLANNING PROGRAM OGP-6 V8.20.W

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL B8MM, SCHAGAS, ERASCOAL 08/16/84 10.316
2MLJN1

YEAR 2005

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW TYPE M	ADDITIONS MW TYPE M	TIME OF PEAK MW LOAD	CAP. TOTAL CAP.	INCLL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0. 0 0	1. 1 1														
	0. 0 0	200. 2 0														
			1165.	1825.			2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
							2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL																
	0.	201.	1165.	1825.			2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
				1825.	56.7		2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
5086645.	567500.	5601990.

ENERGY DISPOSITION (MWH)

	*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	5601990.	5601990.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1303. MW LOLP AT 11.5. MW POOL PEAK= 0.014 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2006

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK INCLI CRTC	CAP. PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
					1200.	1825.			2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL1									2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
	0.		0.		1200.	1825.			2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.
							1825.	52.1										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		ENERGY DISPOSITION (MWH) *** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
5245795.	567500.	5771055.		0.	0.	0.	5771055.	5771055.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1307. MW LOLP AT 1200. MW POOL PEAK= 0.020 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2007

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS			ADDITIONS			TIME OF PEAK MW	TOTAL CAP.	CAP. INCL. CRTC:	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
CO.	MW	TYPE	M	MW	TYPE	M	LOAD	CAP.												
1	0.	0	0	0.	0	0				2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.	0.
							1234.	1825.		2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.	0.
POOL1										2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.	0.
	0.			0.			1234.	1825.		2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.	0.
								1825.	47.9											

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
			*** ENERGY STORAGE ***				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT. GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
5413670.	567500.	5939050.		0.	0.	0.	5939050.	5939050.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1313. MW LOLP AT 1234. MW POOL PEAK= 0.032 DAYS/YEAR

GENERAL ELECTRIC COMPANY, EJSED GENERATION PLANNING PROGRAM OGP-6 V6.20.W

ALASKA RAILBELT
DEISTR7, VSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 08/16/84 10.316
2MLJN1

YEAR 2008

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	TIME OF PEAK LOAD	TOTAL CAP.	CAP. INCLI CRTC.	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
					1269.	1825.			2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.
POOL																		
	0.		0.		1269.	1825.			2.	554.	268.	-166.	-6.	228.	0.	0.	0.	0.
							1825.	43.8	2.	613.	522.	-0.	0.	545.	143.	0.	0.	0.

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
5580805.	567500.	6106945.

ENERGY DISPOSITION (MWH)

	*** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	6106945.	6106945.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1331. MW LOLP AT 1269. MW POOL PEAK= 0.040 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2009

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS		ADDITIONS		TIME OF PEAK		CAP. INCLI	PCT	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2)								
CO.	MW	TYPE #	MW	TYPE #	LOAD	CAP.	CRTC	RES	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	139.	6 0	200.	2 0					2.	754.	268.	-166.	-6.	89.	0.	0.	0.	0.
					1305.	1886.			2.	813.	522.	-0.	0.	406.	143.	0.	0.	0.
POOL1									2.	754.	268.	-166.	-6.	89.	0.	0.	0.	0.
	139.		200.		1305.	1886.			2.	813.	522.	-0.	0.	406.	143.	0.	0.	0.
							1886.	44.5										

ENERGY SOURCE (MWH)			ENERGY DISPOSITION (MWH)				
			*** ENERGY STORAGE ***				
THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			FS-2	0.	0.	0.		
			FS-3	0.	0.	0.		
5785775.	567500.	6276015.		0.	0.	0.	6276015.	6276015.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1370. MW LOLP AT 1305. MW POOL PEAK= 0.044 DAYS/YEAR

GENERAL ELECTRIC COMPANY, EUSED GENERATION PLANNING PROGRAM OGP-6 V6.20.W

ALASKA RAILBELT
DEIST87, NSD GAS/COAL, COAL BBMW, SCHAGAS, EBASCOAL 08/16/84 10.316
2MLJM1

YEAR 2010

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) / TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	FS=2	ES=3
1	10.	2	0	0.	0	0														
	2.	2	0	0.	0	0														
	2.	2	0	0.	0	0														
							1339.	1873.				2.	741.	268.	-166.	-6.	89.	0.	0.	0.
												2.	800.	522.	-0.	0.	406.	143.	0.	0.
POOL																				
	13.		0.				1339.	1873.				2.	741.	268.	-166.	-6.	89.	0.	0.	0.
									1873.	39.9		2.	800.	522.	-0.	0.	406.	143.	0.	0.

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
5941440.	567500.	6443890.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
FS=2	0.	0.	0.		
ES=3	0.	0.	0.		
	0.	0.	0.	6443890.	6443890.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1359. MW LOLP AT 1339. MW POOL PEAK= 0.072 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, VSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2011

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS			ADDITIONS			TIME OF PEAK MW	TOTAL CAP.	CAP. INCL CRTC	PCT RES	********** CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) ********** NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
CO.	MW	TYPE	M	MW	TYPE	M	LOAD													
1	0.	0	0	87.	3	0					2.	741.	355.	-166.	-6.	89.	0.	0.	0.	0.
							1373.	1960.			2.	800.	609.	-0.	0.	406.	143.	0.	0.	0.
POOL											2.	741.	355.	-166.	-6.	89.	0.	0.	0.	0.
	0.			87.			1373.	1960.			2.	800.	609.	-0.	0.	406.	143.	0.	0.	0.
								1960.	42.8											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
6100815.	567500.	6609955.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	6609955.	6609955.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1447. MW LOLP AT 1373. MW POOL PEAK= 0.040 DAYS/YEAR

ALASKA RAILBELT 06/16/84 10.516
DEISTR7, NSD GAS/COAL, COAL H8MM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2012

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS			ADDITIONS			TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTG	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
CO.	MW	TYPE	M	MW	TYPE	M														
1	178.	6	0	200.	2	0					2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
							1408.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
POOL:											2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
	178.			200.			1408.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
								1982.	40.8											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
6370675.	567500.	6780020.

ENERGY DISPOSITION (MWH)

	*** ENERGY STORAGE *** PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	6780020.	6780020.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1478. MW LOLP AT 1408. MW POOL PEAK= 0.045 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7. NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2013

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK LOAD	TOTAL CAP.	CAP. INCLI CRTC	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87.	3	0	87.	3	0					2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
							1444.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
POOL1											2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
	87.			87.			1444.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
								1982.	37.3											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
6522070.	567500.	6954965.		0.	0.	0.	6954965.	6954965.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1479. MW LOLP AT 1444. MW POOL PEAK= 0.064 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2014

DECISION COSTS WERE COMPUTED USING 1)

LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
					1481.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
POOL									2.	941.	355.	-166.	-6.	-89.	0.	0.	0.	0.
	0.		0.		1481.	1982.			2.	1000.	609.	-0.	0.	228.	143.	0.	0.	0.
						1982.	33.8											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
6684790.	567500.	7135010.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	7135010.	7135010.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1484. MW LOLP AT 1481. MW POOL PEAK= 0.092 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2015

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

	RETIREMENTS CO.	MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	NUKE	COAL	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES=2	ES=3
	1	87.	3	0	87.	3	0														
		0.	0	0	87.	3	0					2.	941.	442.	-166.	-6.	-89.	0.	0.	0.	0.
								1519.	2069.			2.	1000.	696.	-0.	0.	228.	143.	0.	0.	0.
POOL1												2.	941.	442.	-166.	-6.	-89.	0.	0.	0.	0.
		87.			174.			1519.	2069.			2.	1000.	696.	-0.	0.	228.	143.	0.	0.	0.
									2069.	36.2											

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.		ENERGY DISPOSITION (MWH) *** ENERGY PUMP	TOT.GEN.	STORAGE *** NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES=2	0.	0.	0.		
			ES=3	0.	0.	0.		
6871560.	567500.	7318135.		0.	0.	0.	7318135.	7318135.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1572. MW LOLP AT 1519. MW POOL PEAK= 0.050 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2016

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	MW LOAD	TOTAL CAP.	TIME OF PEAK CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	0.	0 0					2.	941.	442.	-166.	-6.	-89.	0.	0.	0.	0.
					1558.	2069.			2.	1000.	696.	-0.	0.	228.	143.	0.	0.	0.
POOL1									2.	941.	442.	-166.	-6.	-89.	0.	0.	0.	0.
	0.		0.		1558.	2069.			2.	1000.	696.	-0.	0.	228.	143.	0.	0.	0.
						2069.	32.8											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
7050920.	567500.	7507010.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	7507010.	7507010.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1575. MW LOLP AT 1558. MW POOL PEAK= 0.073 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.3:6
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2017

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	M	ADDITIONS MW	TYPE	M	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87.	3	0	200.	2	0					2.	1141.	355.	-166.	-6.	-89.	0.	0.	0.	0.
							1598.	2182.			2.	1200.	609.	-0.	0.	228.	143.	0.	0.	0.
POOL											2.	1141.	355.	-166.	-6.	-89.	0.	0.	0.	0.
	87.			200.			1598.	2182.			2.	1200.	609.	-0.	0.	228.	143.	0.	0.	0.
									2182.	36.5										

ENERGY SOURCE (MWH) THERMAL GEN.	HYDRO GEN.	TOTAL GEN.	ENERGY DISPOSITION (MWH) *** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
			PSH	0.	0.	0.		
			ES-2	0.	0.	0.		
			ES-3	0.	0.	0.		
7308405.	567500.	7701035.		0.	0.	0.	7701035.	7701035.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1658. MW LOLP AT 1598. MW POOL PEAK= 0.045 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR 2019

DECISION COSTS WERE COMPUTED USING 1)
LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE M	ADDITIONS MW	TYPE M	TIME OF PEAK LOAD	TOTAL CAP.	CAP. TYCL CRTC	PCT RES	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	0.	0 0	87.	3 0					2.	1141.	442.	-166.	-6.	-89.	0.	0.	0.	0.
					1681.	2269.			2.	1200.	696.	-0.	0.	228.	143.	0.	0.	0.
POOL									2.	1141.	442.	-166.	-6.	-89.	0.	0.	0.	0.
	0.		87.		1681.	2269.			2.	1200.	696.	-0.	0.	228.	143.	0.	0.	0.
						2269.	35.0											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
7696535.	567500.	8103105.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD
PSH	0.	0.	0.
ES-2	0.	0.	0.
ES-3	0.	0.	0.
	0.	0.	0.

POOL LOAD 8103105. TOTAL LOAD 8103105.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1744. MW LOLP AT 1681. MW POOL PEAK= 0.045 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL BBMM, SCHAGAS, EBASCOAL 2MLJN1

YEAR 2020

DECISION COSTS WERE COMPUTED USING 1) LEVELIZED FUEL AND O+M COSTS (10 YEARS)

CO.	RETIREMENTS MW	TYPE	H	ADDITIONS MW	TYPE	H	TIME OF PEAK MW LOAD	TOTAL CAP.	CAP. INCLL CRTC	PCT RES	PCT NUKE	CUMULATIVE ADDITIONS BY TYPE (LINE 1) TOTAL CAPACITY BY TYPE (LINE 2) COAL	NGASGT	OIL GT	DIESEL	COMCYC	HYDRO	PSH	ES-2	ES-3
1	87.	3	0	87.	3	0					2.	1141.	442.	-166.	-6.	-89.	0.	0.	0.	0.
							1724.	2269.			2.	1200.	696.	-0.	0.	228.	143.	0.	0.	0.
POOL											2.	1141.	442.	-166.	-6.	-89.	0.	0.	0.	0.
	87.			87.			1724.	2269.			2.	1200.	696.	-0.	0.	228.	143.	0.	0.	0.
								2269.	31.6											

ENERGY SOURCE (MWH)

THERMAL GEN.	HYDRO GEN.	TOTAL GEN.
7919425.	567500.	8312005.

ENERGY DISPOSITION (MWH)

*** ENERGY STORAGE ***	PUMP	TOT.GEN.	NET TO LOAD	POOL LOAD	TOTAL LOAD
PSH	0.	0.	0.		
ES-2	0.	0.	0.		
ES-3	0.	0.	0.		
	0.	0.	0.	8312005.	8312005.

LOAD CARRYING CAPACITY AT 0.100 DAYS/YEAR = 1763. MW LOLP AT 1724. MW POOL PEAK= 0.062 DAYS/YEAR

ALASKA RAILBELT 08/16/84 10.316
DEISTR7, V8D GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

YEAR	POOL PEAK (MW)	TOTAL ENERGY (GWH)	LOAD FACTOR	YEARLY COSTS (MILLION $) INVEST.	FUEL	O+M	NUC INV	TOTAL	YEARLY COSTS ($/MWH) INV.	FUEL	O+M	N.I.	TOTAL
1993	915.	4397.0	54.86	51.5	110.6	34.0	0.	196.1	11.7	25.2	7.7	0.	44.6
1994	935.	4492.1	54.84	51.5	117.0	34.1	0.	202.6	11.5	26.0	7.6	0.	45.1
1995	955.	4587.9	54.84	54.6	124.7	34.3	0.	213.6	11.9	27.2	7.5	0.	46.6
1996	972.	4670.1	54.70	84.2	117.2	47.5	0.	248.9	18.0	25.1	10.2	0.	53.3
1997	989.	4751.0	54.84	87.3	123.6	46.2	0.	257.0	18.4	26.0	9.7	0.	54.1
1998	1005.	4832.9	54.90	87.3	129.2	46.1	0.	262.6	18.1	26.7	9.5	0.	54.3
1999	1023.	4915.0	54.85	87.3	134.4	46.5	0.	268.1	17.8	27.3	9.5	0.	54.6
2000	1040.	4996.1	54.69	90.3	142.2	45.8	0.	278.3	18.1	28.5	9.2	0.	55.7
2001	1065.	5116.9	54.85	90.3	150.1	46.0	0.	286.4	17.7	29.3	9.0	0.	56.0
2002	1090.	5238.1	54.86	96.4	158.7	46.5	0.	301.7	18.4	30.3	8.9	0.	57.6
2003	1114.	5359.1	54.92	96.4	168.2	46.7	0.	311.3	18.0	31.4	8.7	0.	58.1
2004	1140.	5481.0	54.73	96.4	179.2	46.8	0.	322.4	17.6	32.7	8.5	0.	58.8
2005	1165.	5602.0	54.89	131.2	165.2	60.2	0.	356.5	23.4	29.5	10.7	0.	63.6
2006	1200.	5771.1	54.90	131.2	175.5	60.4	0.	367.1	22.7	30.4	10.5	0.	63.6
2007	1234.	5939.1	54.94	131.2	206.6	60.6	0.	398.4	22.1	34.8	10.2	0.	67.1
2008	1269.	6106.9	54.79	131.2	219.1	61.0	0.	411.3	21.5	35.9	10.0	0.	67.4
2009	1305.	6276.9	54.90	160.3	203.5	72.2	0.	435.9	25.5	32.4	11.5	0.	69.5
2010	1339.	6443.9	54.94	160.3	218.3	71.7	0.	450.3	24.9	33.9	11.1	0.	69.9
2011	1373.	6610.0	54.96	163.3	231.1	72.7	0.	467.1	24.7	35.0	11.0	0.	70.7
2012	1408.	6780.0	54.82	192.3	217.6	83.4	0.	493.3	28.4	32.1	12.3	0.	72.8
2013	1444.	6955.0	54.98	192.3	230.3	83.8	0.	506.4	27.7	33.1	12.0	0.	72.8
2014	1481.	7135.0	55.00	192.3	243.3	84.2	0.	519.8	27.0	34.1	11.8	0.	72.9
2015	1519.	7318.1	55.00	195.4	258.1	85.3	0.	538.8	26.7	35.3	11.7	0.	73.6
2016	1558.	7507.0	54.85	195.4	273.7	85.8	0.	554.9	26.0	36.5	11.4	0.	73.9
2017	1598.	7701.0	55.01	221.4	256.6	97.4	0.	575.3	28.7	33.3	12.6	0.	74.7
2018	1639.	7899.0	55.02	221.4	272.0	97.8	0.	591.2	28.0	34.4	12.4	0.	74.9
2019	1681.	8103.1	55.03	224.4	290.0	99.0	0.	613.4	27.7	35.8	12.2	0.	75.7
2020	1724.	8312.0	54.89	224.4	307.6	99.6	0.	631.6	27.0	37.0	12.0	0.	76.0

CUMULATIVE PRESENT WORTH (MILLION $)

YEAR	INVEST.	FUEL	O+M	NUC INV	TOTAL
1993	35.3	75.8	23.3	0.	134.4
1994	69.4	153.2	45.8	0.	268.4
1995	104.3	232.9	67.8	0.	405.0
1996	156.4	305.3	97.1	0.	558.8
1997	208.5	379.1	124.7	0.	712.2
1998	258.4	453.6	151.3	0.	863.7
1999	307.4	528.5	177.2	0.	1013.1
2000	356.1	605.0	201.8	0.	1162.9
2001	403.9	683.1	225.8	0.	1311.9
2002	451.5	762.9	249.2	0.	1463.5
2003	498.3	844.6	271.8	0.	1614.7
2004	545.3	928.7	293.8	0.	1766.0
2005	603.0	1003.5	321.0	0.	1927.5
2006	660.5	1080.4	347.4	0.	2088.3
2007	716.0	1167.8	373.1	0.	2256.9
2008	769.6	1257.4	398.0	0.	2425.1
2009	832.9	1337.8	426.5	0.	2597.3
2010	894.1	1421.1	453.9	0.	2769.1
2011	954.3	1506.3	480.7	0.	2941.4
2012	1022.8	1583.9	510.4	0.	3117.1
2013	1082.0	1663.1	539.3	0.	3291.4
2014	1153.0	1744.1	567.3	0.	3464.3
2015	1215.8	1827.0	594.7	0.	3637.5
2016	1276.4	1912.0	621.3	0.	3809.8
2017	1342.9	1989.0	650.5	0.	3982.4
2018	1407.0	2067.8	678.9	0.	4153.7
2019	1469.9	2149.0	706.6	0.	4325.5
2020	1530.6	2232.3	733.5	0.	4496.4

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

GENERATION SYSTEM

	NUKE	COAL	NGASGT	OIL GT	DIESEL	COMCYC	TYPES		
TYPE	1	2	3	4	5	6	7-10		
OPTMZING	0	1993	1993	0	0	1993	***		
PCT TRIM	0	0	0	0	0	0			
1992 MW	0	59	254	166	6	317	143	SUM=	945

YR	YEARLY MW ADDITIONS	TOTAL CAPAB. & TIES
93	1* 200* 1X 87 1X 228	1408
94		1408
95	.X 87	1430
96	200*	1536
97	1X 87	1533
98		1507
99		1506
0	1X 87	1566
1		1566
2	2X 87	1624
3		1624
4		1624
5	1* 1X 200	1825
6		1825

7									1825
8									1825
9			1X 200						1886
10									1873
11				1X 87					1960
12			1X 200						1982
13				1X 87					1982
14									1982
15				2X 87					2069
16									2069
17			1X 200						2182
18									2182
19									
12				1X 87					2269
11									
10									
9	20								
8				1X 87					
7									2269

6	**********	**********	**********	**********	**********	**********	**********	**********	**********
5	**********	**********	**********	**********	**********	**********	**********	**********	**********
4	MW ADD	2	1200	1044	0	0	228	0	SUM= 2474
3	MW RET	0	-59	-602	-166	-6	-317	0	SUM= -1150
	******	*****	******	******	******	******	******	****	**********
	2020	2	1200	696	0	0	228	143	SUM= 2269
	PCT TOT	0.1	52.9	30.7	0.	0.	10.0	6.3	SUM=100 PCT
	**********	**********	**********	**********	**********	**********	**********	**********	**********
	AUTO	0	800	1044	0	0	228	0	SUM= 2072
	PCT TOT	0.	38.6	50.4	0.	0.	11.0	0.	SUM=100 PCT

* COMMITTED MW

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
****

ALASKA RAILBELT
DEISTR7: WSD GAS/COAL, COAL 88MM, SCHAGAS, ZBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84
****

GENERATION SYSTEM

	THERMAL	HYDRO	PSH	ES-2	ES-3	
TYPE	1-6	7	8	9	10	
OPTMZING		***	0	0	0	
PCT TRIM			0	0	0	
1992 MW	802	143	0	0	0	SUMS 945

****

YR	YEARLY MW ADDITIONS	TOTAL CAPAB. +TIES	LOAD MW	LOLP D/Y
**	****** ****** ****** ****** ******	******	*****	*******
93	516	1408	915	0.0684
94		1408	935	0.0863
95	87	1430	955	0.0682
96	200	1536	972	0.0301
97	87	1533	989	0.0428
98		1507	1005	0.0771
99		1506	1023	0.0774
0	87	1566	1040	0.0418
1		1566	1065	0.0612
2	174	1624	1090	0.0386
3		1624	1114	0.0573
4		1624	1140	0.0786
5	201	1825	1165	0.0137
6		1825	1200	0.0201
7		1825	1234	0.0319
8		1825	1269	0.0405
9	200	1886	1305	0.0456
10		1873	1339	0.0721
11	87	1960	1373	0.0402
12	200	1982	1408	0.0445
13	87	1982	1444	0.0645
14				

							1982	1481	0.0922
15									
	174								
							2069	1519	0.0498
16									
							2069	1558	0.0732
17									
	200								
							2182	1598	0.0451
18									
							2182	1639	0.0689
19									
	87								
							2269	1681	0.0446
20									
	87								
							2269	1724	0.0616
**********	**********	**********	**********	**********	**********	**********	**********		
**********	**********	**********	**********	**********	**********	**********	**********		
MW ADD	2474	0	0	0	0	SUM=	2474		
MW RET	-1150	0	0	0	0	SUM=	-1150		
******	******	******	******	******	******	**********			
2020	2126	143	0	0	0	SUM=	2269		
PCT TOT	93.7	6.3	0.	0.	0.	SUM=	100 PCT		
**********	**********	**********	**********	**********	**********	**********	**********		
ADD	2072		0	0	0	SUM=	2072		
PCT TOT	100.0		0.	0.	0.	SUM=	100 PCT		

* COMMITTED MW

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GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
****

ALASKA RAILBELT
DEISTR7, USD GAS/COAL, COAL RBMM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJV1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJV1 DATED 08/16/84
****

YEAR	LOAD	TOTAL CAPABILITY (INCLUDING TIES) YEAR END	TOTAL CAPABILITY (INCLUDING TIES) TIME OF PEAK	PCT. RES.	LOSS OF LOAD PROBABILITY D/Y	LOSS OF LOAD PROBABILITY H/Y	COST IN MILLION $ YEARLY COST	COST IN MILLION $ CUM. PW TOTAL
****	*****	*****	*****	****	******	******	*******	*******
1993	915	1408	1408	53.9	0.068	0.	196.1	134.4
1994	935	1408	1408	50.6	0.086	0.	202.6	268.4
1995	955	1430	1430	49.7	0.068	0.	213.6	405.0
1996	972	1536	1536	58.0	0.030	0.	248.9	558.8
1997	989	1533	1533	55.0	0.043	0.	257.0	712.2
1998	1005	1507	1507	49.9	0.077	0.	262.6	863.7
1999	1023	1506	1506	47.2	0.077	0.	268.1	1013.1
2000	1040	1566	1566	50.6	0.042	0.	278.3	1162.9
2001	1065	1566	1566	47.1	0.061	0.	286.4	1311.9
2002	1090	1624	1624	49.0	0.039	0.	301.7	1463.5
2003	1114	1624	1624	45.8	0.057	0.	311.3	1614.7
2004	1140	1624	1624	42.5	0.079	0.	322.4	1766.0
2005	1165	1825	1825	56.7	0.014	0.	356.5	1927.5
2006	1200	1825	1825	52.1	0.020	0.	367.1	2088.3
2007	1234	1825	1825	47.9	0.032	0.	398.4	2256.9
2008	1269	1825	1825	43.8	0.040	0.	411.3	2425.1
2009	1305	1886	1886	44.5	0.044	0.	435.9	2597.3
2010	1339	1873	1873	39.9	0.072	0.	450.3	2769.1
2011	1373	1960	1960	42.8	0.040	0.	467.1	2941.4
2012	1408	1982	1982	40.8	0.045	0.	493.3	3117.1
2013	1444	1982	1982	37.3	0.064	0.	506.4	3291.4
2014	1481	1982	1982	33.8	0.092	0.	519.8	3464.3
2015	1519	2069	2069	36.2	0.050	0.	538.8	3637.5
2016	1558	2069	2069	32.8	0.073	0.	554.9	3809.8
2017	1598	2182	2182	36.5	0.045	0.	575.3	3982.4
2018	1639	2182	2182	33.1	0.069	0.	591.2	4153.7
2019	1681	2269	2269	35.0	0.045	0.	613.4	4325.5
2020	1724	2269	2269	31.6	0.062	0.	631.6	4496.8

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
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ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL RBMM, SCHAGAS, ERASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84
****

YEAR	EXCESS (MW)	DAYS/YEAR	********** LOSS OF LOAD PROBABILITY ********** JAN, JULY	FEB, AUG,	MARCH SEPT,	APRIL OCT,	MAY NOV,	JUNE DEC,
****	******	********	**********	**********	**********	**********	**********	**********
1983	25.	0.0684	0.0099	0.0050	0.0015	0.0011	0.0010	0.0011
			0.0010	0.0011	0.0011	0.0013	0.0106	0.0336
1984	9.	0.0863	0.0123	0.0061	0.0021	0.0015	0.0014	0.0014
			0.0014	0.0015	0.0014	0.0018	0.0148	0.0405
1985	24.	0.0682	0.0106	0.0051	0.0017	0.0011	0.0012	0.0011
			0.0010	0.0012	0.0010	0.0015	0.0113	0.0314
1986	74.	0.0301	0.0045	0.0021	0.0006	0.0007	0.0007	0.0006
			0.0007	0.0007	0.0007	0.0007	0.0045	0.0136
1987	53.	0.0428	0.0063	0.0027	0.0010	0.0010	0.0009	0.0009
			0.0010	0.0009	0.0009	0.0011	0.0061	0.0200
1988	17.	0.0771	0.0111	0.0051	0.0018	0.0016	0.0015	0.0016
			0.0016	0.0015	0.0015	0.0018	0.0117	0.0363
1989	21.	0.0774	0.0101	0.0051	0.0018	0.0013	0.0011	0.0013
			0.0012	0.0015	0.0013	0.0017	0.0115	0.0394
2000	56.	0.0418	0.0067	0.0029	0.0010	0.0007	0.0008	0.0007
			0.0007	0.0008	0.0007	0.0009	0.0076	0.0184
2001	35.	0.0612	0.0096	0.0038	0.0013	0.0008	0.0009	0.0009
			0.0009	0.0010	0.0008	0.0014	0.0095	0.0302
2002	61.	0.0386	0.0057	0.0026	0.0007	0.0006	0.0006	0.0005
			0.0006	0.0006	0.0006	0.0007	0.0061	0.0194
2003	39.	0.0573	0.0096	0.0035	0.0010	0.0009	0.0007	0.0008
			0.0008	0.0008	0.0007	0.0011	0.0080	0.0294
2004	13.	0.0786	0.0119	0.0048	0.0016	0.0010	0.0009	0.0010
			0.0010	0.0010	0.0010	0.0015	0.0134	0.0396
2005	138.	0.0137	0.0016	0.0008	0.0005	0.0002	0.0002	0.0002
			0.0002	0.0003	0.0005	0.0003	0.0020	0.0072
2006	107.	0.0201	0.0025	0.0014	0.0004	0.0003	0.0004	0.0004
			0.0003	0.0004	0.0003	0.0004	0.0033	0.0100
2007	79.	0.0319	0.0048	0.0019	0.0005	0.0005	0.0005	0.0005
			0.0006	0.0006	0.0004	0.0006	0.0052	0.0157
2008	62.	0.0405	0.0056	0.0025	0.0006	0.0006	0.0005	0.0005
			0.0005	0.0005	0.0006	0.0007	0.0056	0.0222
2009	65.	0.0436	0.0056	0.0024	0.0006	0.0006	0.0006	0.0007
			0.0007	0.0006	0.0006	0.0005	0.0065	0.0242
2010	20.	0.0721	0.0096	0.0044	0.0012	0.0011	0.0010	0.0010
			0.0010	0.0011	0.0010	0.0012	0.0097	0.0396
2011	74.	0.0402	0.0046	0.0024	0.0006	0.0005	0.0005	0.0005
			0.0004	0.0005	0.0005	0.0005	0.0060	0.0231
2012	70.	0.0445	0.0064	0.0025	0.0005	0.0005	0.0005	0.0005
			0.0005	0.0005	0.0005	0.0005	0.0072	0.0246
2013	35.	0.0645	0.0108	0.0030	0.0009	0.0006	0.0009	0.0008
			0.0009	0.0009	0.0008	0.0010	0.0087	0.0353
2014	3.	0.0922	0.0138	0.0057	0.0010	0.0009	0.0009	0.0009
			0.0011	0.0012	0.0010	0.0018	0.0113	0.0525
2015	53.	0.0498	0.0071	0.0023	0.0005	0.0004	0.0004	0.0003
			0.0003	0.0003	0.0003	0.0004	0.0064	0.0310
2016	17.	0.0732	0.0096	0.0039	0.0006	0.0005	0.0005	0.0005
			0.0005	0.0005	0.0004	0.0006	0.0104	0.0453
2017	60.	0.0451	0.0063	0.0023	0.0007	0.0005	0.0005	0.0005
			0.0004	0.0005	0.0006	0.0006	0.0073	0.0249
2018	27.	0.0669	0.0090	0.0037	0.0009	0.0009	0.0009	0.0007
			0.0007	0.0008	0.0008	0.0009	0.0118	0.0369
2019	63.	0.0446	0.0055	0.0020	0.0004	0.0004	0.0004	0.0003
			0.0004	0.0003	0.0003	0.0004	0.0065	0.0278
2020	39.	0.0616	0.0073	0.0026	0.0006	0.0004	0.0004	0.0004
			0.0004	0.0004	0.0005	0.0006	0.0082	0.0396

GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT
****

ALASKA RAILBELT
DEISTR7, [illegible] GAS/COAL, COAL 88MM, SCHAGAR, ERARCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84
****

	POOL PEAK	TOTAL ENERGY	LOAD	TOTAL COSTS	YEARLY $/MWH				
YR	(MW)	(GWH)	FACTOR	(MIL.$)	INV.	FUEL	O+M	N.I.	TOTAL
**	******	*******	******	******	*****	*****	*****	*****	******
93	915	4397	54.86	196	11.72	25.16	7.73	0.	44.61
94	935	4492	54.84	203	11.47	26.05	7.59	0.	45.11
95	955	4588	54.84	214	11.90	27.17	7.49	0.	46.55
96	972	4670	54.70	249	18.04	25.10	10.16	0.	53.31
97	989	4751	54.84	257	18.37	26.01	9.72	0.	54.10
98	1005	4833	54.90	263	18.06	26.74	9.54	0.	54.34
99	1023	4915	54.85	268	17.76	27.34	9.46	0.	54.56
0	1040	4996	54.69	278	18.08	28.45	9.18	0.	55.71
1	1065	5117	54.85	286	17.65	29.34	8.98	0.	55.98
2	1090	5238	54.86	302	18.40	30.30	8.89	0.	57.60
3	1114	5359	54.92	311	17.99	31.39	8.71	0.	58.09
4	1140	5481	54.73	322	17.59	32.70	8.53	0.	58.82
5	1165	5602	54.89	356	23.42	29.48	10.73	0.	63.63
6	1200	5771	54.90	367	22.74	30.41	10.46	0.	63.60
7	1234	5939	54.94	398	22.09	34.79	10.20	0.	67.09
8	1269	6107	54.79	411	21.49	35.87	9.99	0.	67.35
9	1305	6276	54.90	436	25.53	32.42	11.51	0.	69.46
10	1339	6444	54.94	450	24.87	33.88	11.13	0.	69.88
11	1373	6610	54.96	467	24.70	34.97	11.00	0.	70.67
12	1409	6780	54.82	493	28.37	32.10	12.30	0.	72.76
13	1444	6955	54.98	506	27.65	33.12	12.05	0.	72.81
14	1481	7138	55.00	520	26.96	34.10	11.80	0.	72.86
15	1519	7318	55.00	539	26.70	35.27	11.66	0.	73.63
16	1558	7507	54.85	555	26.02	36.46	11.42	0.	73.91
17	1598	7701	55.01	575	28.75	33.32	12.65	0.	74.71
18	1639	7899	55.02	591	28.03	34.44	12.39	0.	74.85
19	1681	8103	55.03	613	27.69	35.79	12.21	0.	75.70
20	1724	8312	54.89	632	27.00	37.01	11.98	0.	75.99

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GENERAL ELECTRIC COMPANY
OGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

ALASKA RAILBELT
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, EBASCOAL
JOB NUMBER 2MLJN1 08/16/84 10.316
BASED ON DATA PREP JOB 1MLJN1 DATED 08/16/84

GENERATION SYSTEM

TYPE:	1	2	3	4	5	6	7	8	9	10	SUM
82	0	59	254	166	6	317	143	0	0	0	945

YR	YEARLY				PERCENT			MIX			TOTAL CAPAB.
93	0.1	18.4	20.4	11.8	0.5	38.7	10.2	0.	0.	0.	1408
94	0.1	18.4	20.4	11.8	0.5	38.7	10.2	0.	0.	0.	1408
95	0.1	18.1	22.2	11.1	0.4	38.1	10.0	0.	0.	0.	1430
96	0.1	29.9	20.6	4.2	0.4	35.5	9.3	0.	0.	0.	1536
97	0.1	28.3	26.3	0.	0.4	35.5	9.3	0.	0.	0.	1533
98	0.1	28.8	25.0	0.	0.4	36.2	9.5	0.	0.	0.	1507
99	0.1	28.8	25.1	0.	0.4	36.2	9.5	0.	0.	0.	1506
0	0.1	26.4	29.6	0.	0.0	34.8	9.1	0.	0.	0.	1566
1	0.1	26.4	29.6	0.	0.0	34.8	9.1	0.	0.	0.	1566
2	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
3	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
4	0.1	25.4	32.1	0.	0.0	33.6	8.8	0.	0.	0.	1624
5	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
6	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
7	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
8	0.1	33.6	28.6	0.	0.0	29.9	7.8	0.	0.	0.	1825
9	0.1	43.1	27.7	0.	0.0	21.5	7.6	0.	0.	0.	1886
10	0.1	42.7	27.9	0.	0.0	21.7	7.6	0.	0.	0.	1873
11	0.1	40.8	31.1	0.	0.0	20.7	7.3	0.	0.	0.	1960
12	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
13	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
14	0.1	50.5	30.7	0.	0.0	11.5	7.2	0.	0.	0.	1982
15	0.1	48.3	33.6	0.	0.0	11.0	6.9	0.	0.	0.	2069
16	0.1	48.3	33.6	0.	0.0	11.0	6.9	0.	0.	0.	2069
17	0.1	55.0	27.9	0.	0.0	10.4	6.6	0.	0.	0.	2182
18	0.1	55.0	27.9	0.	0.0	10.4	6.6	0.	0.	0.	2182
19	0.1	52.9	30.7	0.	0.0	10.0	6.3	0.	0.	0.	2269
20	0.1	52.9	30.7	0.	0.0	10.0	6.3	0.	0.	0.	2269
ADD	2	1200	1044	0	0	228	0	0	0	0	2474
RET	0	-59	-602	-166	-6	-317	0	0	0	0	-1150
20	2	1200	696	0	0	228	143	0	0	0	2269

GENERAL ELECTRIC COMPANY

JGP-6 GENERATION PLANNING PROGRAM V6.20.W - SUMMARY OUTPUT

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ALASKA RAILBELT

DEIST87, NSD GAS/COAL, COAL RAMM, SCHAGAS, ERASCOAL

JOB NUMBER 2MLJV1 08/16/84 10.316

BASED ON DATA PREP JOB 1MLJV1 DATED 08/16/84

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YEAR	RUN	UNIT ID	RATING MW	RETIRED UNIT TYPE	NO.	PEAK LOAD MW	TOTAL CAPABIL MW	* 0.10 DAYS/YR * * 1.0 HOURS/YR * EXCESS LOAD=MW	RISK DAYS/YR	PCT. RES.	TOTAL COST M$
1993		SIZES (MW)		0, 200, 87, 0,	0, 228, 0,	0,	0,	0,			
ALT					MW	INV	FUEL	O+M	NI		TOTAL
5		0 0 1 0 0 1 0 0 0			516.0	52.	126.5	34.0	0.		212.1
4		0 0 0 0 0 2 0 0 0			657.0	56.	123.8	35.9	0.		216.2
2		0 0 3 0 0 0 0 0 0			462.0	50.	133.8	33.0	0.		216.4
3		0 0 4 0 0 0 0 0 0			549.0	53.	134.1	33.6	0.		220.4
6		0 1 1 0 0 0 0 0 0			488.0	73.	114.9	45.2	0.		232.7
7		0 1 0 0 0 1 0 0 0			629.0	78.	113.7	46.6	0.		237.8
1		0 2 0 0 0 0 0 0 0			601.0	99.	104.4	56.5	0.		259.5
			3	-53.0	3	0					
			21	1.0	1	1					
1993	1	23	200.0	2	1	915.	1093.	-169.	1.7878	19.	
								0.	0.		
		30	228.0	6	0						
1993	2	27	87.0	3	0	915.	1408.	25.	0.0684	54.	
								0.	0.		
ALT	5	MW=	516.0	I=	51.5	F=	110.6	O=	34.0	N=	0.	196.1
		I=	51.543	F=	110.632	O=	33.974	NI=	0.		196.149
1993		CUM COST, M$=		196.1	CUM PW TOTAL=		134.4				
1994	1	0	0.	0	0	935.	1408.	9.	0.0863	51.	
								0.	0.		
MANUAL		MW=	0.	I=	51.5	F=	117.0	O=	34.1	N=	0.	202.6
		I=	51.543	F=	116.999	O=	34.088	NI=	0.		202.630
1994		CUM COST, M$=		398.8	CUM PW TOTAL=		268.4				
1995		SIZES (MW)		0, 200, 87, 0,	0, 228, 0,	0,	0,	0,			
ALT					MW	INV	FUEL	O+M	NI		TOTAL
2		0 0 1 0 0 0 0 0 0			87.0	55.	142.2	34.7	0.		231.4
4		0 0 0 0 0 1 0 0 0			228.0	60.	137.8	36.6	0.		234.0
3		0 0 2 0 0 0 0 0 0			174.0	58.	142.7	35.3	0.		235.6
1		0 1 0 0 0 0 0 0 0			200.0	81.	126.0	47.3	0.		253.8
			12	-3.5	4	0					
			11	-3.5	4	0					
			4	-58.0	3	0					
1995	1	0	0.	0	0	955.	1343.	-51.	0.2266	41.	
								0.	0.		
1995	2	27	87.0	3	0	955.	1430.	24.	0.0682	50.	
								0.	0.		
ALT	2	MW=	87.0	I=	54.6	F=	124.7	O=	34.3	N=	0.	213.6
		I=	54.581	F=	124.656	O=	34.342	NI=	0.		213.579
1995		CUM COST, M$=		612.4	CUM PW TOTAL=		405.0				
			14	-28.8	4	0					
			9	-65.0	4	0					
1996	1	24	200.0	2	1	972.	1536.	74.	0.0301	58.	
								0.	0.		
MANUAL		MW=	200.0	I=	84.2	F=	117.2	O=	47.5	N=	0.	248.9
		I=	84.249	F=	117.230	O=	47.469	NI=	0.		248.948
1996		CUM COST, M$=		861.3	CUM PW TOTAL=		558.8				

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1997 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
2	0	0	1	0	0	0	0	0	0	87.0	87.	139.1	46.1	0.	272.5
3	0	0	0	0	0	1	0	0	0	228.0	92.	138.5	47.9	0.	278.6
1	0	1	0	0	0	0	0	0	0	200.0	113.	127.3	57.9	0.	298.4

	10	-65.0	4	0
	8	-25.0	2	0

1997	1	0	0.	0	0	989.	1446.	-19.	0.	0.1320	46.	
								0.	0.			
1997	2	27	87.0	3	0	989.	1533.	53.	0.	0.0428	55.	
								0.	0.			

ALT 2 MW= 87.0 I= 87.3 F= 123.6 O= 46.2 N= 0. 257.0

I= 87.287 F= 123.553 O= 46.173 NI= 0. 257.013

1997 CUM COST, MS= 1118.3 CUM PW TOTAL= 712.2

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1998 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	87.	147.1	46.1	0.	280.5
3	0	0	0	0	0	0	0	0	0	0.	87.	147.1	46.1	0.	280.5
5	0	0	0	0	0	0	0	0	0	0.	87.	147.1	46.1	0.	280.5
4	0	0	1	0	0	0	0	0	0	87.0	90.	146.4	46.8	0.	283.5
6	0	0	0	0	0	1	0	0	0	228.0	95.	148.6	48.4	0.	292.3
2	0	1	0	0	0	0	0	0	0	200.0	116.	133.2	58.5	0.	308.0

	6	-26.4	3	0

1998	1	0	0.	0	0	1005.	1507.	17.	0.	0.0771	50.	
								0.	0.			

ALT 1 MW= 0. I= 87.3 F= 129.2 O= 46.1 N= 0. 262.6

I= 87.287 F= 129.246 O= 46.100 NI= 0. 262.632

1998 CUM COST, MS= 1381.0 CUM PW TOTAL= 863.7

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1999 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	87.	153.7	46.4	0.	287.4
3	0	0	0	0	0	0	0	0	0	0.	87.	153.7	46.4	0.	287.4
5	0	0	0	0	0	0	0	0	0	0.	87.	153.7	46.4	0.	287.4
4	0	0	1	0	0	0	0	0	0	87.0	90.	153.8	47.1	0.	291.2
6	0	0	0	0	0	1	0	0	0	228.0	95.	155.4	48.8	0.	299.5
2	0	1	0	0	0	0	0	0	0	200.0	116.	140.0	58.9	0.	315.1

	15	-0.9	5	0

1999	1	0	0.	0	0	1023.	1506.	21.	0.	0.0774	47.	
								0.	0.			

ALT 1 MW= 0. I= 87.3 F= 134.4 O= 46.5 N= 0. 268.1

I= 87.287 F= 134.367 O= 46.489 NI= 0. 268.143

1999 CUM COST, MS= 1649.1 CUM PW TOTAL= 1013.1

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2000 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
2	0	0	1	0	0	0	0	0	0	87.0	90.	166.6	45.7	0.	302.7
3	0	0	0	0	0	1	0	0	0	228.0	95.	166.1	47.6	0.	309.0
1	0	1	0	0	0	0	0	0	0	200.0	116.	148.2	57.7	0.	322.3

	20	-2.8	5	0
	19	-2.8	5	0
	13	-21.0	2	0

2000	1	0	0.	0	0	1040.	1479.	-18.	0.	0.1264	42.	
								0.	0.			
2000	2	27	87.0	3	0	1040.	1566.	56.	0.	0.0418	51.	
								0.	0.			

ALT 2 MW= 87.0 I= 90.3 F= 142.2 O= 45.8 N= 0. 278.3

I= 90.325 F= 142.153 O= 45.849 NI= 0. 278.326

2000 CUM COST, MS= 1927.4 CUM PW TOTAL= 1[illegible]2.9

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2001	SIZES (MW)									0,	200,	87,	0,	0,	228,	0,	0,	0,	
ALT											MW	INV		FUEL		O+M		NI	TOTAL
1	0	0	0	0	0	0	0	0	0		0.	90.		177.9		45.9		0.	314.1
3	0	0	0	0	0	0	0	0	0		0.	90.		177.9		45.9		0.	314.1
5	0	0	0	0	0	0	0	0	0		0.	90.		177.9		45.9		0.	314.1
4	0	0	1	0	0	0	0	0	0		87.0	93.		177.8		46.5		0.	317.8
6	0	0	0	0	0	1	0	0	0		228.0	98.		177.9		48.4		0.	324.6
2	0	1	0	0	0	0	0	0	0		200.0	119.		155.5		58.7		0.	333.6

2001	1	0	0.	0	0	1065.	1566.	35.	0.0612	47.
								0.	0.	

ALT 1 MW= 0. I= 90.3 F= 150.1 O= 46.0 N= 0. 286.4

I= 90.325 F= 150.144 O= 45.974 NI= 0. 286.443

2001 CUM COST, MS= 2213.9 CUM PW TOTAL= 1311.9

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2002	SIZES (MW)									0,	200,	87,	0,	0,	228,	0,	0,	0,	
ALT											MW	INV		FUEL		O+M		NI	TOTAL
2	0	0	2	0	0	0	0	0	0		174.0	96.		190.8		46.5		0.	333.7
4	0	0	0	0	0	1	0	0	0		228.0	98.		190.3		47.7		0.	336.3
3	0	0	3	0	0	0	0	0	0		261.0	99.		191.5		47.1		0.	338.1
1	0	1	0	0	0	0	0	0	0		200.0	119.		166.7		58.0		0.	344.0

7 =26.4 3 0

2 =90.0 3 0

2002	1	0	0.	0	0	1090.	1450.	-86.	0.3491	33.
								0.	0.	
2002	2	27	87.0	3	0	1090.	1537.	-13.	0.1177	41.
								0.	0.	
2002	3	27	87.0	3	0	1090.	1624.	61.	0.0386	49.
								0.	0.	

ALT 2 MW= 174.0 I= 96.4 F= 158.7 O= 46.5 N= 0. 301.7

I= 96.401 F= 158.739 O= 46.548 NI= 0. 301.688

2002 CUM COST, MS= 2515.6 CUM PW TOTAL= 1463.5

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2003	SIZES (MW)									0,	200,	87,	0,	0,	228,	0,	0,	0,	
ALT											MW	INV		FUEL		O+M		NI	TOTAL
1	0	0	0	0	0	0	0	0	0		0.	96.		206.1		46.6		0.	349.1
3	0	0	0	0	0	0	0	0	0		0.	96.		206.1		46.6		0.	349.1
5	0	0	0	0	0	0	0	0	0		0.	96.		206.1		46.6		0.	349.1
4	0	0	1	0	0	0	0	0	0		87.0	99.		206.1		47.3		0.	352.8
6	0	0	0	0	0	1	0	0	0		228.0	104.		203.5		49.1		0.	357.1
2	0	1	0	0	0	0	0	0	0		200.0	125.		176.2		59.6		0.	361.2

2003	1	0	0.	0	0	1114.	1624.	39.	0.0573	46.
								0.	0.	

ALT 1 MW= 0. I= 96.4 F= 168.2 O= 46.7 N= 0. 311.3

I= 96.401 F= 168.247 O= 46.665 NI= 0. 311.313

2003 CUM COST, MS= 2826.9 CUM PW TOTAL= 1614.7

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2004	SIZES (MW)									0,	200,	87,	0,	0,	228,	0,	0,	0,	
ALT											MW	INV		FUEL		O+M		NI	TOTAL
1	0	0	0	0	0	0	0	0	0		0.	96.		222.6		46.7		0.	365.7
3	0	0	0	0	0	0	0	0	0		0.	96.		222.6		46.7		0.	365.7
5	0	0	0	0	0	0	0	0	0		0.	96.		222.6		46.7		0.	365.7
4	0	0	1	0	0	0	0	0	0		87.0	99.		222.4		47.4		0.	368.2
6	0	0	0	0	0	1	0	0	0		228.0	104.		217.8		49.3		0.	371.5
2	0	1	0	0	0	0	0	0	0		200.0	125.		186.3		59.8		0.	371.6

2004	1	0	0.	0	0	1140.	1624.	13.	0.0786	42.
								0.	0.	

ALT 1 MW= 0. I= 96.4 F= 179.2 O= 46.8 N= 0. 322.4

I= 96.401 F= 179.240 O= 46.775 NI= 0. 322.415

2004 CUM COST, MS= 3149.3 CUM PW TOTAL= 1766.0

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| | | |

2010 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	160.	236.8	71.8	0.	468.8
3	0	0	0	0	0	0	0	0	0	0.	160.	236.8	71.8	0.	468.8
5	0	0	0	0	0	0	0	0	0	0.	160.	236.8	71.8	0.	468.8
4	0	0	1	0	0	0	0	0	0	87.0	163.	236.8	72.5	0.	472.5
6	0	0	0	0	0	1	0	0	0	228.0	168.	241.5	74.1	0.	483.8
2	0	1	0	0	0	0	0	0	0	200.0	189.	215.2	33.5	0.	488.0

18	=10.0	2	0		
17	=1.5	2	0		
16	=1.5	2	0		

2010 1 0. 0. 0. 0 1339. 1873. 20. 0.0721 40. - - -
0. 0.

ALT 1 MW= 0. I= 160.3 F= 218.3 O= 71.7 N= 0. 450.3

I= 160.252 F= 218.330 O= 71.700 NI= 0. 450.282

2010 CUM COST, MS= 5568.7 CUM PW TOTAL= 2769.1

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2011 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
2	0	0	1	0	0	0	0	0	0	87.0	163.	251.2	72.8	0.	487.2
3	0	0	2	0	0	0	0	0	0	174.0	166.	251.2	73.5	0.	490.9
4	0	0	0	0	0	1	0	0	0	228.0	168.	254.7	74.4	0.	497.3
1	0	1	0	0	0	0	0	0	0	200.0	189.	225.6	83.9	0.	498.8

2011 1 0 0. 0 0 1373. 1873. =4. 0.1084 36.
0. 0.

2011 2 27 87.0 3 0 1373. 1960. 74. 0.0402 43.
0. 0.

ALT 2 MW= 87.0 I= 163.3 F= 231.1 O= 72.7 N= 0. 467.1

I= 163.290 F= 231.125 O= 72.701 NI= 0. 467.117

2011 CUM COST, MS= 6035.9 CUM PW TOTAL= 2941.4

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2012 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	1	0	0	0	0	0	0	0	200.0	192.	234.4	83.3	0.	510.0
5	0	0	0	0	0	1	0	0	0	228.0	171.	268.8	73.7	0.	513.8
3	0	0	2	0	0	0	0	0	0	174.0	169.	276.0	72.6	0.	518.0
4	0	0	3	0	0	0	0	0	0	261.0	172.	276.0	73.3	0.	521.7
2	0	2	0	0	0	0	0	0	0	400.0	221.	212.0	94.8	0.	528.2
6	0	0	0	0	0	2	0	0	0	456.0	179.	272.9	76.1	0.	528.3

5	=178.0	6	0		

2012 1 0 0. 0 0 1408. 1782. =81. 0.3014 27.
0. 0.

2012 2 26 200.0 2 0 1408. 1982. 70. 0.0445 41.
0. 0.

ALT 1 MW= 200.0 I= 192.3 F= 217.6 O= 83.4 N= 0. 493.3

I= 192.332 F= 217.606 O= 83.404 NI= 0. 493.343

2012 CUM COST, MS= 6529.2 CUM PW TOTAL= 3117.1

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2013 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	192.	250.4	83.7	0.	526.5
4	0	0	2	0	0	0	0	0	0	174.0	195.	250.4	84.4	0.	530.2
5	0	0	0	0	0	1	0	0	0	228.0	197.	252.7	85.3	0.	535.2
1	0	1	0	0	0	0	0	0	0	200.0	218.	224.3	94.5	0.	537.2
6	0	0	0	0	0	2	0	0	0	456.0	205.	252.1	88.0	0.	545.3
2	0	2	0	0	0	0	0	0	0	400.0	247.	202.7	106.2	0.	556.3

27	=87.0	3	0		

2013 1 0 0. 0 0 1444. 1895. =43. 0.1756 31.
0. 0.

2013 2 27 87.0 3 0 1444. 1982. 35. 0.0645 37.
0. 0.

ALT 3 MW= 87.0 I= 192.3 F= 230.3 O= 83.8 N= 0. 506.4

I= 192.332 F= 230.314 O= 83.773 NI= 0. 506.419

2013 CUM COST, MS= 7035.6 CUM PW TOTAL= 3291.4

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2014 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	192.	262.6	84.2	0.	539.1
3	0	0	0	0	0	0	0	0	0	0.	192.	262.6	84.2	0.	539.1
5	0	0	0	0	0	0	0	0	0	0.	192.	262.6	84.2	0.	539.1
4	0	0	1	0	0	0	0	0	0	87.0	195.	262.6	84.9	0.	542.8
2	0	1	0	0	0	0	0	0	0	200.0	221.	235.4	95.7	0.	552.4
6	0	0	0	0	0	1	0	0	0	228.0	200.	266.3	86.4	0.	553.0

2014 1 0 0. 0 0 1481. 1982. 3. 0.0922 34.
0. 0.

ALT 1 MW= 0. I= 192.3 F= 243.3 O= 84.2 N= 0. 519.8

I= 192.332 F= 243.316 O= 84.186 NI= 0. 519.834

2014 CUM COST, MS= 7555.5 CUM PW TOTAL= 3464.3

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2015 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	2	0	0	0	0	0	0	174.0	195.	276.6	85.4	0.	557.4
4	0	0	3	0	0	0	0	0	0	261.0	198.	276.6	86.1	0.	561.1
5	0	0	0	0	0	1	0	0	0	228.0	197.	277.5	86.3	0.	561.1
1	0	1	0	0	0	0	0	0	0	200.0	218.	247.8	95.6	0.	561.7
6	0	0	0	0	0	2	0	0	0	456.0	205.	280.6	88.9	0.	574.8
2	0	2	0	0	0	0	0	0	0	400.0	207.	223.5	107.2	0.	578.1

27 =87.0 3 0

2015 1 0 0. 0 0 1519. 1895. =99. 0.3430 25.
0. 0.

2015 2 27 87.0 3 0 1519. 1982. =24. 0.1369 30.
0. 0.

2015 3 27 87.0 3 0 1519. 2069. 53. 0.0498 36.
0. 0.

ALT 3 MW= 174.0 I= 195.4 F= 258.1 O= 85.3 N= 0. 538.8

I= 195.370 F= 258.127 O= 85.342 NI= 0. 538.839

2015 CUM COST, MS= 8094.3 CUM PW TOTAL= 3637.5

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2016 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	195.	296.3	85.8	0.	577.5
3	0	0	0	0	0	0	0	0	0	0.	195.	296.3	85.8	0.	577.5
5	0	0	0	0	0	0	0	0	0	0.	195.	296.3	85.8	0.	577.5
4	0	0	1	0	0	0	0	0	0	87.0	198.	296.3	86.5	0.	581.2
2	0	1	0	0	0	0	0	0	0	200.0	224.	261.2	97.4	0.	583.0
6	0	0	0	0	0	1	0	0	0	228.0	203.	298.2	88.0	0.	589.5

2016 1 0 0. 0 0 1558. 2069. 17. 0.0732 33.
0. 0.

ALT 1 MW= 0. I= 195.4 F= 273.7 O= 85.8 N= 0. 554.9

I= 195.370 F= 273.740 O= 85.758 NI= 0. 554.869

2016 CUM COST, MS= 8649.2 CUM PW TOTAL= 3809.3

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2017 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	1	0	0	0	0	0	0	0	200.0	221.	275.0	97.2	0.	593.6
3	0	0	2	0	0	0	0	0	0	174.0	198.	314.3	86.9	0.	599.7
5	0	0	0	0	0	1	0	0	0	228.0	200.	314.2	87.8	0.	602.3
4	0	0	3	0	0	0	0	0	0	261.0	201.	314.3	87.6	0.	603.4
2	0	2	0	0	0	0	0	0	0	400.0	250.	252.0	108.6	0.	611.2
6	0	0	0	0	0	2	0	0	0	456.0	208.	315.3	90.4	0.	614.0

27 =87.0 3 0

2017 1 0 0. 0 0 1598. 1982. =87. 0.2811 24.
0. 0.

2017 2 26 200.0 2 0 1598. 2182. 60. 0.0451 37.
0. 0.

ALT 1 MW= 200.0 I= 221.4 F= 256.6 O= 97.4 N= 0. 575.3

I= 221.374 F= 256.585 O= 97.389 NI= 0. 575.348

2017 CUM COST, MS= 9224.5 CUM PW TOTAL= 3982.4

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2018 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
1	0	0	0	0	0	0	0	0	0	0.	221.	290.6	97.8	0.	609.7
3	0	0	0	0	0	0	0	0	0	0.	221.	290.6	97.8	0.	609.7
5	0	0	0	0	0	0	0	0	0	0.	221.	290.6	97.8	0.	609.7
4	0	0	1	0	0	0	0	0	0	87.0	224.	290.6	98.4	0.	613.4
2	0	1	0	0	0	0	0	0	0	200.0	250.	268.2	109.2	0.	627.9
6	0	0	0	0	0	1	0	0	0	228.0	229.	298.9	100.0	0.	628.3

2018 1 0 0. 0 0 1639. 2182. 27. 0.0689 33.
0. 0.

ALT 1 MW= 0. I= 221.4 F= 272.0 O= 97.8 N= 0. 591.2

I= 221.374 F= 272.027 O= 97.843 NI= 0. 591.244

2018 CUM COST, MS= 9815.8 CUM PW TOTAL= 4153.7

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2019 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	224.	310.2	98.9	0.	633.6
4	0	0	2	0	0	0	0	0	0	174.0	227.	310.2	99.6	0.	637.3
5	0	0	0	0	0	1	0	0	0	228.0	229.	315.1	100.5	0.	644.9
1	0	1	0	0	0	0	0	0	0	200.0	250.	285.9	109.7	0.	646.0
6	0	0	0	0	0	2	0	0	0	456.0	237.	316.0	103.2	0.	656.5
2	0	2	0	0	0	0	0	0	0	400.0	279.	261.5	121.3	0.	662.2

2019 1 0 0. 0 0 1681. 2182. -13. 0.1110 30.
0. 0.

2019 2 27 87.0 3 0 1681. 2269. 63. 0.0446 35.
0. 0.

ALT 3 MW= 87.0 I= 224.4 F= 290.0 O= 99.0 N= 0. 613.4

I= 224.412 F= 290.026 O= 98.972 NI= 0. 613.410

2019 CUM COST, MS= 10429.2 CUM PW TOTAL= 4325.5

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2020 SIZES (MW) 0, 200, 87, 0, 0, 228, 0, 0, 0,

ALT										MW	INV	FUEL	O+M	NI	TOTAL
3	0	0	1	0	0	0	0	0	0	87.0	224.	326.6	99.6	0.	650.6
4	0	0	2	0	0	0	0	0	0	174.0	227.	326.6	100.3	0.	654.3
1	0	1	0	0	0	0	0	0	0	200.0	250.	290.9	110.4	0.	660.7
5	0	0	0	0	0	1	0	0	0	228.0	229.	333.5	101.1	0.	664.0
2	0	2	0	0	0	0	0	0	0	400.0	279.	271.0	122.0	0.	672.5
6	0	0	0	0	0	2	0	0	0	456.0	237.	333.5	103.8	0.	674.7

27 87.0 3 0

2020 1 0 0. 0 0 1724. 2182. -39. 0.1585 27.
0. 0.

2020 2 27 87.0 3 0 1724. 2269. 39. 0.0616 32.
0. 0.

ALT 3 MW= 87.0 I= 224.4 F= 307.6 O= 99.6 N= 0. 631.6

I= 224.412 F= 307.616 O= 99.598 NI= 0. 631.626

2020 CUM COST, MS= 11060.8 CUM PW TOTAL= 4496.4

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CASE TOTALS

TOTAL INVESTMENT AND PRODUCTION COST IN MILLION DOLLARS	11060.8
1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE	4496.4

ALASKA RAILBELT 03/16/84 10.316
DEISTR7, NSD GAS/COAL, COAL 88MM, SCHAGAS, ERASCOAL 2MLJN1

CASE TOTALS

TOTAL INVESTMENT AND PRODUCTION COST IN MILLION DOLLARS = 11060.797

1982 PRESENT WORTH AT 3.50 PERCENT INTEREST RATE = 4496.383

ALASKA RAILBELT 08/16/84 16.316
DEISTR7, NSD GAS/COAL, COAL 88MW, SCHAGAS, ERASCOAL 2MLJN1

SUMMARY OF VIOLATIONS

SPINNING RESERVE DEFICIENCY

TYPE	MONTH	YEAR	LOAD + SR	CAPACITY	DEFICIENCY

***** NO VIOLATIONS *****

EMERGENCY TIE ASSISTANCE

TYPE	MONTH	YEAR	ENERGY, MWHRS	COST, THOUSAND $
COAL STEAM	DEC.	2010	6.	0.06
COAL STEAM	YEARLY	2010	8.	0.08
NGAS TURBINE	DEC.	2013	6.	0.06
NGAS TURBINE	YEARLY	2013	7.	0.07
COAL STEAM	DEC.	2014	11.	0.11
COAL STEAM	YEARLY	2014	14.	0.14
NGAS TURBINE	YEARLY	2015	5.	0.05
COAL STEAM	DEC.	2016	8.	0.08
COAL STEAM	YEARLY	2016	9.	0.09
COAL STEAM	YEARLY	2017	6.	0.06
COAL STEAM	DEC.	2018	10.	0.10
COAL STEAM	YEARLY	2018	12.	0.12
NGAS TURBINE	DEC.	2019	5.	0.05
NGAS TURBINE	YEARLY	2019	6.	0.06
NGAS TURBINE	DEC.	2020	11.	0.11
NGAS TURBINE	YEARLY	2020	13.	0.13