Plant 2 Expansion Project (2X LM6000 PF)
Preliminary Capital Cost Estimate
Revision D
May 2012

120 MW Nominal Output Combined Cycle (Used for $/kW Est)	Budget	Subtotals	Qtr 1, 2011	Qtr 2, 2011	Qtr 3, 2011	Qtr 4, 2011	Qtr 1, 2012	Qtr 2, 2012	Qtr 3, 2012	Qtr 4, 2012	Qtr 1, 2013	Qtr 2, 2013	Qtr 3, 2013	Qtr 4, 2013	Qtr 1, 2014	Qtr 2, 2014	Qtr 3, 2014	Qtr 4, 2014	Qtr 1, 2015	Qtr 2, 2015	Qtr 3, 2015	Qtr 4, 2015
OWNER'S PROJECT MANAGEMENT COSTS		$ 12,986,857	$ 241,035	$ 120,822	$ 228,500	$ 524,000	$ 272,500	$ 545,000	$ 600,000	$ 610,000	$ 685,000	$ 785,000	$ 830,000	$ 735,000	$ 725,000	$ 940,000	$ 960,000	$ 820,000	$ 820,000	$ 890,000	$ 925,000	$ 730,000
ML&P Project Management	$ 2,890,197		$ 12,500	$ 23,197	$ 39,000	$ 70,000	$ 75,500	$ 95,000	$ 125,000	$ 150,000	$ 150,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 200,000	$ 225,000	$ 225,000	$ 250,000	$ 200,000
Owner's Engineering	$ 3,924,400		$ -	$ 89,400	$ 180,000	$ 245,000	$ 150,000	$ 280,000	$ 400,000	$ 375,000	$ 320,000	$ 230,000	$ 230,000	$ 230,000	$ 200,000	$ 185,000	$ 170,000	$ 150,000	$ 125,000	$ 120,000	$ 120,000	$ 125,000
Specialty Consultants	$ 1,091,260		$ 228,535	$ 8,225	$ 9,500	$ 195,000	$ 40,000	$ 125,000	$ 50,000	$ 50,000	$ 50,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000
Owner's Construction Management Team	$ 4,695,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ 330,000	$ 375,000	$ 290,000	$ 310,000	$ 540,000	$ 575,000	$ 430,000	$ 415,000	$ 490,000	$ 500,000	$ 350,000
ML&P Procurement	$ 106,000		$ -	$ -	$ -	$ 9,000	$ 2,000	$ 5,000	$ 5,000	$ 15,000	$ 15,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000
ML&P Legal	$ 280,000		$ -	$ -	$ -	$ 5,000	$ 5,000	$ 40,000	$ 20,000	$ 20,000	$ 15,000	$ 20,000	$ 20,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
OWNER-PROVIDED EQUIPMENT (2xCTG)		$ 53,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,840,000	$ -	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 13,746,667	$ 1,666,667	$ 1,666,667	$ 1,666,667	$ 1,666,667	$ 4,266,667	$ -
LM6000 PF DLE Package	$ 38,400,000		$ -	$ -	$ -	$ -	$ -	$ -	$ 3,840,000	$ -	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 4,896,000	$ 10,080,000	$ -	$ -	$ -	$ -	$ -	$ -
TEWAC Generator	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Enclosure & Ventilation System	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Anti-Icing and Chilling Coils	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Pulse Clean Air Filter	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Remote HMI	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Lube Oil Fin Fan Cooler	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Hydraulic Start System	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Power System Stabilizer	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
GE Technical Assitance (Constr. & Startup)	$ 1,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ -
Shipping (Cost + 10%)	$ 2,000,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000,000	$ -	$ -	$ -	$ -	$ -	$ -
Spare Parts & Maintenance Tools	$ 2,600,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,600,000	$ -
Spare Turbine	$ 8,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,416,667	$ 1,416,667	$ 1,416,667	$ 1,416,667	$ 1,416,667	$ 1,416,667	$ -
OWNER CONSTRUCTION COSTS		$ 2,250,000	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 650,000	$ 750,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 250,000	$ -
Gravel Removal & Prelim Grading	$ 1,250,000		$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 500,000	$ 500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Project Parking Area Grading	$ 500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000	$ 250,000	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Guard Shack Project	$ 500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 250,000	$ -
EPC CONTRACTOR SOFT COSTS		$ 18,841,400	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,100,820	$ 2,069,570	$ 2,211,640	$ 2,279,140	$ 2,279,140	$ 2,279,140	$ 2,346,640	$ 959,140	$ 959,140	$ 891,640	$ 749,570	$ 715,820
EPC Contractor Project Management	$ 6,750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,750	$ 540,000	$ 540,000	$ 607,500	$ 607,500	$ 607,500	$ 675,000	$ 675,000	$ 675,000	$ 607,500	$ 607,500	$ 573,750
Design Engineering	$ 9,250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 925,000	$ 1,387,500	$ 1,387,500	$ 1,387,500	$ 1,387,500	$ 1,387,500	$ 1,387,500	$ -	$ -	$ -	$ -	$ -
EPC Contractor Bonds	$ 1,420,700		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 71,035	$ 71,035	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 71,035	$ 71,035
EPC Contractor Insurance	$ 1,420,700		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 71,035	$ 71,035	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 142,070	$ 71,035	$ 71,035
EPC CONTRACTOR PROVIDED EQUIPMENT		$ 63,800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,760,000	$ 10,208,000	$ 10,208,000	$ 10,208,000	$ 8,690,000	$ 8,690,000	$ 3,036,000	$ -	$ -	$ -	$ -
OTSG (x2)	$ 16,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,300,000	$ 2,640,000	$ 2,640,000	$ 2,640,000	$ 2,640,000	$ 2,640,000	$ -	$ -	$ -	$ -	$ -
SCR and CO Catalysts	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Ammonia Injection Skid	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Ammonia Injection Grid and Manifold	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Flow Distribution grid	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Inlet Expansion Joint and Transition Duct	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Stack	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
CEMS (x2)	$ 350,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 70,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ 56,000	$ -	$ -	$ -	$ -	$ -
Shelter	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Sampling lines	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Monitoring System	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
PLC	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
DAHS	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Steam Turbine	$ 9,000,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,800,000	$ 1,440,000	$ 1,440,000	$ 1,440,000	$ 1,440,000	$ 1,440,000	$ -	$ -	$ -	$ -	$ -
Lube Oil System	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
Gland Steam Condensor	Included		Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
NG Fuel System		$ 4,850,000																				
Fuel Gas Metering	$ 125,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 20,000	$ 20,000	$ 20,000	$ 15,000	$ 15,000	$ 10,000	$ -	$ -	$ -	$ -
Final Gas Filter Skid	$ 225,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,000	$ 36,000	$ 36,000	$ 36,000	$ 27,000	$ 27,000	$ 18,000	$ -	$ -	$ -	$ -
Screw Gas Compressor Skids (3 X 100%)	$ 4,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 900,000	$ 720,000	$ 720,000	$ 720,000	$ 540,000	$ 540,000	$ 360,000	$ -	$ -	$ -	$ -
Cooling Water System		$ 4,400,000																				
STG Deaerating Surface Condenser	$ 1,250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,000	$ 200,000	$ 200,000	$ 200,000	$ 150,000	$ 150,000	$ 100,000	$ -	$ -	$ -	$ -
Cooling Tower	$ 2,750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 550,000	$ 440,000	$ 440,000	$ 440,000	$ 330,000	$ 330,000	$ 220,000	$ -	$ -	$ -	$ -
Specialty Valves	$ 250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 50,000	$ 40,000	$ 40,000	$ 40,000	$ 30,000	$ 30,000	$ 20,000	$ -	$ -	$ -	$ -
Circ Water Pumps (3 X 100%)	$ 150,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ 24,000	$ 24,000	$ 24,000	$ 18,000	$ 18,000	$ 12,000	$ -	$ -	$ -	$ -
Chilled/Heated Water System		$ 192,000																				
Chilled/Heated Water Heat Exchangers (2 X 100%)	$ 80,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,000	$ 12,800	$ 12,800	$ 12,800	$ 9,600	$ 9,600	$ 6,400	$ -	$ -	$ -	$ -
Chilled/Heated Water Pumps (3 X 100%)	$ 20,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,000	$ 3,200	$ 3,200	$ 3,200	$ 2,400	$ 2,400	$ 1,600	$ -	$ -	$ -	$ -
Chilled/Heated Water Expansion Tanks	$ 2,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 400	$ 320	$ 320	$ 320	$ 240	$ 240	$ 160	$ -	$ -	$ -	$ -
Electric Anti-icing Skids	$ 90,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,000	$ 14,400	$ 14,400	$ 14,400	$ 10,800	$ 10,800	$ 7,200	$ -	$ -	$ -	$ -
Steam System		$ 530,000																				
Boiler Feedwater Pumps (3 X 100%)	$ 225,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,000	$ 36,000	$ 36,000	$ 36,000	$ 27,000	$ 27,000	$ 18,000	$ -	$ -	$ -	$ -
Specialty Valves	$ 125,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 20,000	$ 20,000	$ 20,000	$ 15,000	$ 15,000	$ 10,000	$ -	$ -	$ -	$ -
Condensate Pumps (3 X 100%)	$ 30,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,000	$ 4,800	$ 4,800	$ 4,800	$ 3,600	$ 3,600	$ 2,400	$ -	$ -	$ -	$ -
Water Lab Equipment	$ 150,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,000	$ 24,000	$ 24,000	$ 24,000	$ 18,000	$ 18,000	$ 12,000	$ -	$ -	$ -	$ -
Water Supply System		$ 2,189,500																				
Raw Water Forwarding Pumps (2 X 100%)	$ 6,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,200	$ 960	$ 960	$ 960	$ 720	$ 720	$ 480	$ -	$ -	$ -	$ -
Water Treatment System	$ 2,000,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 400,000	$ 320,000	$ 320,000	$ 320,000	$ 240,000	$ 240,000	$ 160,000	$ -	$ -	$ -	$ -
DI Water Tank (30K Gal)	$ 90,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,000	$ 14,400	$ 14,400	$ 14,400	$ 10,800	$ 10,800	$ 7,200	$ -	$ -	$ -	$ -
DI Water Pumps	$ 10,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000	$ 1,600	$ 1,600	$ 1,600	$ 1,200	$ 1,200	$ 800	$ -	$ -	$ -	$ -
Chemical Storage Tanks	$ 20,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,000	$ 3,200	$ 3,200	$ 3,200	$ 2,400	$ 2,400	$ 1,600	$ -	$ -	$ -	$ -
Chemical Injection Skids	$ 9,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,800	$ 1,440	$ 1,440	$ 1,440	$ 1,080	$ 1,080	$ 720	$ -	$ -	$ -	$ -
Misc. Sump Pumps	$ 7,500		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,500	$ 1,200	$ 1,200	$ 1,200	$ 900	$ 900	$ 600	$ -	$ -	$ -	$ -
Misc. Forwarding Pumps	$ 10,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,000	$ 1,600	$ 1,600	$ 1,600	$ 1,200	$ 1,200	$ 800	$ -	$ -	$ -	$ -
Eyewash/Safety Showers	$ 7,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,400	$ 1,120	$ 1,120	$ 1,120	$ 840	$ 840	$ 560	$ -	$ -	$ -	$ -

Date: 11/30/17 Exh # H-32
Regulatory Commission of Alaska
U-16-094 By: U-17-008
Northern Lights Realtime & Reporting, Inc.
(907) 337-2221

Print Date: 11/27/2017
MLP17052
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Plant 2 Expansion Project (2X LM6000 PF)
Preliminary Capital Cost Estimate
Revision D
May 2012

120 MW Nominal Output Combined Cycle (Used for $/kW Est.	Budget	Subtotals	Qtr 1, 2011	Qtr 2, 2011	Qtr 3, 2011	Qtr 4, 2011	Qtr 1, 2012	Qtr 2, 2012	Qtr 3, 2012	Qtr 4, 2012	Qtr 1, 2013	Qtr 2, 2013	Qtr 3, 2013	Qtr 4, 2013	Qtr 1, 2014	Qtr 2, 2014	Qtr 3, 2014	Qtr 4, 2014	Qtr 1, 2015	Qtr 2, 2015	Qtr 3, 2015	Qtr 4, 2015
Tepid Water Skid	$ 30,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,000	$ 4,800	$ 4,800	$ 4,800	$ 3,600	$ 3,600	$ 2,400	$ -	$ -	$ -	$ -
Ammonia System		$ 68,000																				
Ammonia Storage Tank (2x12000 Gal)	$ 65,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,000	$ 10,400	$ 10,400	$ 10,400	$ 7,800	$ 7,800	$ 5,200	$ -	$ -	$ -	$ -
Ammonia Forwarding Pumps (3 X 100%)	$ 3,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 600	$ 480	$ 480	$ 480	$ 360	$ 360	$ 240	$ -	$ -	$ -	$ -
Plant Drains		$ 15,500																				
Water Wash Drain Tanks (1000 Gal)	$ 4,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800	$ 640	$ 640	$ 640	$ 480	$ 480	$ 320	$ -	$ -	$ -	$ -
Oil/Water Separator	$ 9,500		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,900	$ 1,520	$ 1,520	$ 1,520	$ 1,140	$ 1,140	$ 760	$ -	$ -	$ -	$ -
Oily Water Storage Tanks (1000 Gal)	$ 2,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 400	$ 320	$ 320	$ 320	$ 240	$ 240	$ 160	$ -	$ -	$ -	$ -
Blackstart Diesel Generator	$ 1,350,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 270,000	$ 216,000	$ 216,000	$ 216,000	$ 162,000	$ 162,000	$ 108,000	$ -	$ -	$ -	$ -
Air Compressor Skids (2 X 100%)	$ 240,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 48,000	$ 38,400	$ 38,400	$ 38,400	$ 28,800	$ 28,800	$ 19,200	$ -	$ -	$ -	$ -
Overhead Bridge Crane	$ 450,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ 72,000	$ 72,000	$ 72,000	$ 54,000	$ 54,000	$ 36,000	$ -	$ -	$ -	$ -
Building Ventilation Fans	$ 130,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,000	$ 20,800	$ 20,800	$ 20,800	$ 15,600	$ 15,600	$ 10,400	$ -	$ -	$ -	$ -
Plant Electrical Systems		$ 11,935,000																				
39/52/65 MVA, 13.8 kV/115 kV GSU Xfmrs (2x)	$ 3,000,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 600,000	$ 480,000	$ 480,000	$ 480,000	$ 360,000	$ 360,000	$ 240,000	$ -	$ -	$ -	$ -
24/32/40 MVA, 13.8 kV/115 kV GSU Xfmrs (1x)	$ 1,000,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ 160,000	$ 160,000	$ 160,000	$ 120,000	$ 120,000	$ 80,000	$ -	$ -	$ -	$ -
15 kV Non-Seg Bus Duct (3x)	$ 600,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 120,000	$ 96,000	$ 96,000	$ 96,000	$ 72,000	$ 72,000	$ 48,000	$ -	$ -	$ -	$ -
15 kV Switchgear (3x)	$ 750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000	$ 120,000	$ 120,000	$ 120,000	$ 90,000	$ 90,000	$ 60,000	$ -	$ -	$ -	$ -
7000 kVA, 4160 V/13.8 kV Aux Xfmr (2x)	$ 650,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 130,000	$ 104,000	$ 104,000	$ 104,000	$ 78,000	$ 78,000	$ 52,000	$ -	$ -	$ -	$ -
4160V Switchgear	$ 650,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 130,000	$ 104,000	$ 104,000	$ 104,000	$ 78,000	$ 78,000	$ 52,000	$ -	$ -	$ -	$ -
2500 kVA, 480 V Aux Xfmr (2x)	$ 125,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 20,000	$ 20,000	$ 20,000	$ 15,000	$ 15,000	$ 10,000	$ -	$ -	$ -	$ -
480 V Critical Load MCC (2x)	$ 175,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,000	$ 28,000	$ 28,000	$ 28,000	$ 21,000	$ 21,000	$ 14,000	$ -	$ -	$ -	$ -
480 V Plant MCCs (2x)	$ 850,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 170,000	$ 136,000	$ 136,000	$ 136,000	$ 102,000	$ 102,000	$ 68,000	$ -	$ -	$ -	$ -
125 VDC Battery System	$ 175,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,000	$ 28,000	$ 28,000	$ 28,000	$ 21,000	$ 21,000	$ 14,000	$ -	$ -	$ -	$ -
Misc. Panelboards	$ 15,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,000	$ 2,400	$ 2,400	$ 2,400	$ 1,800	$ 1,800	$ 1,200	$ -	$ -	$ -	$ -
DCS System	$ 3,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 700,000	$ 560,000	$ 560,000	$ 560,000	$ 420,000	$ 420,000	$ 280,000	$ -	$ -	$ -	$ -
Communication & Security System	$ 350,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 70,000	$ 56,000	$ 56,000	$ 56,000	$ 42,000	$ 42,000	$ 28,000	$ -	$ -	$ -	$ -
Secondary Service Feed Switchgear (4160V)	$ 95,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 19,000	$ 15,200	$ 15,200	$ 15,200	$ 11,400	$ 11,400	$ 7,600	$ -	$ -	$ -	$ -
Substation		$ 11,600,000																				
115 kV GIS Breakers/Switchgear	$ 8,400,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,680,000	$ 1,344,000	$ 1,344,000	$ 1,344,000	$ 1,008,000	$ 1,008,000	$ 672,000	$ -	$ -	$ -	$ -
Relay & Control Equipment	$ 400,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 80,000	$ 64,000	$ 64,000	$ 64,000	$ 48,000	$ 48,000	$ 32,000	$ -	$ -	$ -	$ -
115kV Insulated Cable & Connections	$ 1,300,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 260,000	$ 208,000	$ 208,000	$ 208,000	$ 156,000	$ 156,000	$ 104,000	$ -	$ -	$ -	$ -
GIS Building	$ 1,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,000	$ 240,000	$ 240,000	$ 240,000	$ 180,000	$ 180,000	$ 120,000	$ -	$ -	$ -	$ -
EPC CONTRACTOR CONSTRUCTION		$ 73,375,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 240,000	$ 1,290,000	$ 1,965,000	$ 5,060,000	$ 6,632,500	$ 14,615,000	$ 14,045,000	$ 13,382,500	$ 11,170,000	$ 4,975,000	$ -
Construction																						
Site Clearing & Soil Removal	$ 500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 150,000	$ 175,000	$ 175,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retaining Walls	$ 250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 125,000	$ 125,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Civil Grading & Prep	$ 1,800,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 900,000	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Temporary Construction Facilities	$ 300,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,000	$ 90,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ -
Underground Utilities	$ 1,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 750,000	$ 750,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Foundations	$ 3,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 350,000	$ 700,000	$ 1,400,000	$ 1,050,000	$ -	$ -	$ -	$ -
Buildings (incl. construction)			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -											
CTG Building	$ 2,750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 550,000	$ 825,000	$ 1,100,000	$ 275,000	$ -	$ -	$ -	$ -
Admin/Electrical Building	$ 6,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,300,000	$ 1,950,000	$ 2,600,000	$ 650,000	$ -	$ -	$ -	$ -
Maintenance/Water Treatment Bldg	$ 2,250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 450,000	$ 675,000	$ 900,000	$ 225,000	$ -	$ -	$ -	$ -
STG Building	$ 3,750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 750,000	$ 1,125,000	$ 1,500,000	$ 375,000	$ -	$ -	$ -	$ -
OTSG Building (2x)	$ 4,250,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 850,000	$ 1,275,000	$ 1,700,000	$ 425,000	$ -	$ -	$ -	$ -
NH3 Shed	$ 125,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,000	$ 37,500	$ 50,000	$ 12,500	$ -	$ -	$ -	$ -
Blackstart Generator Building	$ 100,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,000	$ 30,000	$ 40,000	$ 10,000	$ -	$ -	$ -	$ -
Mechanical Construction	$ 14,750,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,950,000	$ 4,425,000	$ 4,425,000	$ 2,212,500	$ 737,500	$ -
Electrical Construction	$ 23,600,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,360,000	$ 4,720,000	$ 7,080,000	$ 7,080,000	$ 2,360,000	$ -
Instrumentation & Control	$ 7,450,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,862,500	$ 1,862,500	$ 1,862,500	$ 1,862,500	$ -
EPC COMMISSIONING COSTS		$ 4,895,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 979,000	$ 1,958,000	$ 1,958,000
Commissioning & Startup																						
OTSG Technical Assistance	$ 85,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,000	$ 34,000	$ 34,000
STG Technical Assistance	$ 550,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 110,000	$ 220,000	$ 220,000
Gas Compressor Technical Assistance	$ 60,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,000	$ 24,000	$ 24,000
ML&P Operator Assistance	$ 400,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 80,000	$ 160,000	$ 160,000
Startup Contractor Labor	$ 600,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 120,000	$ 240,000	$ 240,000
Initial Source Testing	$ 100,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,000	$ 40,000	$ 40,000
Expendables & Fuel	$ 300,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,000	$ 120,000	$ 120,000
Steam Blows & Performance Testing	$ 300,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,000	$ 120,000	$ 120,000
Spare Parts	$ 2,500,000		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500,000	$ 1,000,000	$ 1,000,000
Project Capital Cost Subtotal		$ 229,148,257	$ 241,035	$ 120,822	$ 228,500	$ 524,000	$ 272,500	$ 795,000	$ 5,090,000	$ 1,360,000	$ 6,781,820	$ 20,750,570	$ 19,435,640	$ 20,083,140	$ 23,168,140	$ 32,288,307	$ 28,278,307	$ 20,526,807	$ 16,828,307	$ 15,847,307	$ 13,124,237	$ 3,403,820
Construction Contingency (15%)		$ 24,474,210	$ -	$ -	$ -	$ -	$ -	$ 37,500	$ 97,500	$ 112,500	$ 180,123	$ 2,260,436	$ 2,056,446	$ 2,167,821	$ 2,632,071	$ 2,640,246	$ 3,847,746	$ 2,706,021	$ 2,151,246	$ 1,993,596	$ 1,189,886	$ 401,073
PROJECT CAPITAL COST TOTAL		$ 253,622,467	$ 241,035	$ 120,822	$ 228,500	$ 524,000	$ 272,500	$ 832,500	$ 5,187,500	$ 1,472,500	$ 6,961,943	$ 23,011,006	$ 21,492,086	$ 22,250,961	$ 25,800,211	$ 34,928,553	$ 32,126,053	$ 23,232,828	$ 18,979,553	$ 17,840,903	$ 14,314,122	$ 3,804,893
Project Cost per kW		$ 2,113.52																				
A&G Costs			$1,219	$1,208	$2,285	$5,240	$2,725	$8,325	$51,875	$14,725	$69,619	$230,110	$214,921	$222,510	$258,002	$349,286	$321,261	$232,328	$189,796	$178,409	$143,141	$38,049
AFUDC Costs			$13,572	$5,756	$8,631	$14,017	$26,240	$33,022	$52,682	$171,746	$209,070	$371,973	$903,233	$1,411,929	$1,949,315	$2,579,442	$3,431,174	$4,238,386	$4,861,674	$5,402,336	$5,402,336	$6,376,100
Cumulative Total			$ 255,826	$ 383,612	$ 623,028	$ 1,166,285	$ 1,467,749	$ 2,341,597	$ 7,633,654	$ 9,292,625	$ 16,333,257	$ 40,146,346	$ 62,756,586	$ 86,641,986	$ 114,649,513	$ 152,506,794	$ 188,385,281	$ 216,088,823	$ 240,119,846	$ 263,541,494	$ 283,401,093	$ 293,620,135