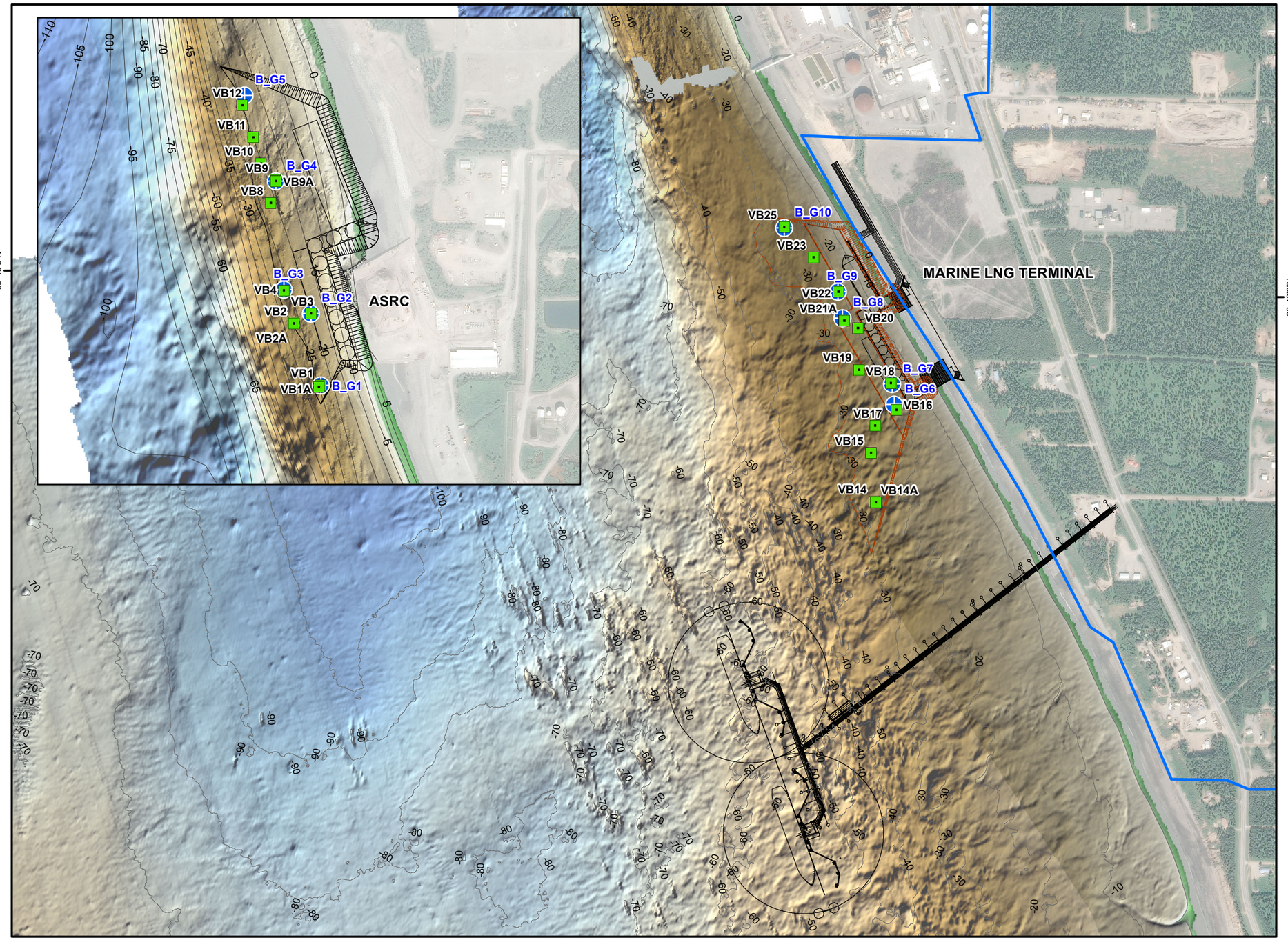
Part 19 of 19 of Appendices for Resource Report No. 13 LNG

J.9 – Bathymetry Map

Document Number:	Description:	Revision:	Appendix:
N/A	Bathymetry Map Marine LNE Terminal and ASRC Dock Area	Rev 0	Public

Alaska LNG™ FUGRO



Legend

- Vibracore (2016)
- Grab Sample (2016)
- Proposed Marine Facilities
- Dredge Area
- Onshore LNG Facilities Study Area

BATHYMETRY (MLLW, Feet)

Source: Multibeam (Fugro, 2014 and 2015)

-150 ft -125 ft -100 ft -75 ft -50 ft -25 ft 0 ft 10 ft

NOTES:

1. As-built coordinates of marine exploration locations were recorded by Fugro WinFrog Positioning System.
2. Proposed Marine Facilities provided by CH2MHILL.
3. Onshore LNG Facilities Study Area boundary provided by AKLNG.
4. Bathymetry hillshade generated from MBES data collected by Fugro (2014 & 2015).
5. Bathymetry contour lines based on data collected by Fugro (2014 & 2015).

N

0 500 1,000 2,000 Feet

Grid Coordinate Systesm: GCS, NAD83 NSRS2007

BATHYMETRY MAP
MARINE LNG
TERMINAL AND
ASRC DOCK AREA
ALASKA LNG PROJECT
NIKISKI, ALASKA

PLATE 1-5

R:\04100\2014 Projects\04.10140334 - Phase 2 Alaska LNG Project\09_GIS\Outputs\01_REPORTS\2016_06_23_MarineGeotechnicalReportForVibracore\Plate-04_Bathymetry_LNG.mxd, 8/30/2016, kimk

APPENDIX 13M – EQUIPMENT INFORMATION

*M.1 – Piping and Valve List**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

*M.2 – Tie-In List**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

M.5 – Manufacturer's Data

Document Number:	Description:	Revision:	Appendix:
N/A	Will be provided in detailed design, if requested	N/A	Public

M.6 – List of Buildings and Structures

Document Number:	Description:	Revision:	Appendix:
USAL-CB-CLBLD-00-000001-000	Buildings Description and List	0	Public

Confidential

Alaska LNG

CB&I CHIYODA CORPORATION

ASRC ENERGY SERVICES
a subsidiary of Arctic Slope Regional Corporation

Buildings Description and List

USAL-CB-CLBLD-00-000001-000

Rev	Date	Revision Description	Originator / Checker	Reviewer / Endorser	Response Code	Approver
0	19-Oct-15	Issued for Use	L.Holubec / S. Graciano			C.Bhattacharjee

Document Control No.	Country	Facility	Originator	Discipline	Type	Sub-Type	Location	Sequence	Identifier
	US	AL	CB	C	L	BLD	00	000001	000

REVISION MODIFICATION LOG

Revision	Section	Description

HOLD LIST

Hold	Comment

TABLE OF CONTENTS

	ITEM NAME	DIMENSIONS: WIDTH (ft)	DIMENSIONS: LENGTH (ft)	DIMENSIONS: HEIGHT (ft)	DIMENSIONS: STORY (no.)	DIMENSIONS: FLOOR AREA (ft^2)	BASIC: No. OCCUPANT (person)	Building Classification: Critical Operations	Building Classification: Occupied	Building Classification: Unoccupied	TYPE: STICK BUILT	TYPE: PRE-FABRICATED	TYPE: PRE-ENGINEERED METAL BLDG	FDN: PILED FOUNDATION	FDN: SPREAD FOUNDATION	FRAME: REINFORCED CONCRETE (RC)	FRAME: STEEL STRUCTURE	FRAME: CONCRETE MASONRY UNIT	WALL: REINFORCED CONCRETE (RC)	WALL: PRECAST REINFORCED CONCRETE WALL	WALL: CONCRETE MASONRY UNIT	WALL: METAL SIDING	WALL: CURTAIN WALL	WALL: WITH INSULATION	ROOF: RC WITH WATER PROOFING	ROOF: RC ON METAL DECK PLATE	ROOF: METAL ROOFING	ROOF: WITH INSULATION
	1) Guardhouse(s) Buildings																											
SEC066101	Main Guard House	16	39	15	1	631	2	No	Yes	No	X				X		X		X			X		X			X	X
SEC066102	Marine Guard House	-	-	-	1	-	1	No	Yes	No		X			X		X					X		X			X	X
SEC066103	Guard House - South	-	-	-	1	-	1	No	Yes	No		X			X		X					X		X			X	X
	2) Consolidated Building																											
OFF062101	a. Main Office Area (W/ Canteen)	192	203	15	2	62,346	30	No	Yes	No	X				X		X		O	O	O	X	O	X		O	X	X
EER065101	b. Emergency Response Area	58	120	14	1	6,896	1	No	Yes	No	X				X		X					X		X		O	X	X
WHSE064101	c. Warehouse Area	203	277	22	1	56,244	10	No	Yes	No			X		X		X					X		X			X	X
CRS064101	d. Chemical Storage Area	52	102	20	1	5,360	0	No	Yes	No			X		X		X					X		X			X	X
MEWS064101	e. Maintenance/ Laboratory Building Area	81	255	42	1	28,150	40	No	Yes	No			X		X		X					X		X			X	X
CCR069101	f. Main Control Area	120	218	18	1	26,135	40	Yes	Yes	No			X		X		X					X		X			X	X
	3) Assembly room for start-up and turnarounds (major gatherings)																											
OFF062102	Assembly/Training Building	91	160	15	1	14,560	30	No	Yes	No	X				X		X		O	O	O	X	O	X		O	X	X
	4) Substation Buildings																											
LER824670	GIS Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER829673	Essential Power Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823170	Main Substation - Train 1	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823270	Main Substation - Train 2	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823370	Main Substation - Train 3	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823570	Gas Treatment Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823672	Utilities Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823770	Offsite Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823870	BOG Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823871	Trestle Substation/ Marine Terminal Building	-	-	-	2	-	2	Yes	Yes	No		X		N/A		Pre -Fabricated Steel Building *2)												
LER822872	Berth 1 Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822873	Berth 2 Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823671	Auxiliary Substation	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822171	Compressor Substation 1 - Train 1	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822172	Compressor Substation 2- Train 1	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822271	Compressor Substation 1 - Train 2	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822272	Compressor Substation 2- Train 2	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822371	Compressor Substation 1- Train 3	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER822372	Compressor Substation 2- Train 3	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
	5) Control Buildings																											
LER823674	PDC UNIT 1	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823675	PDC UNIT 2	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823676	PDC UNIT 3	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
LER823677	PDC UNIT 4	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
	6) Analyzer House Enclosures																											
ANA069101	Analyzer House 1 - Train 1 (Feed Gas)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069102	Analyzer House 2 - Train 1 (No. 1 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069103	Analyzer House 3 - Train 1 (No. 2 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069104	Analyzer House 4 - Train 1 (LNG / FG)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069105	Analyzer House 5 - Train 1 (MR)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069106	Analyzer House 1 - Train 2 (Feed Gas)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069107	Analyzer House 2 - Train 2 (No. 1 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069108	Analyzer House 3 - Train 2 (No. 2 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069109	Analyzer House 4 - Train 2 (LNG / FG)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069110	Analyzer House 5 - Train 2 (MR)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069111	Analyzer House 1 - Train 3 (Feed Gas)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069112	Analyzer House 2 - Train 3 (No. 1 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069113	Analyzer House 3 - Train 3 (No. 2 GT Exhaust Stack CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069114	Analyzer House 4 - Train 3 (LNG / FG)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069115	Analyzer House 5 - Train 3 (MR)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069116	Analyzer House- Inlet Facilites (Dehydration)	-	-	-	1	-	0	Yes	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069117	Analyzer House- Common Process (Fractionation)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069118	Analyzer House 1 - CCPP1 (CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069119	Analyzer House 2 - CCPP2 (CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069120	Analyzer House 3 - CCPP3 (CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
ANA069121	Analyzer House 4 - CCPP4 (CEMS)	-	-	-	1	-	0	No	No	Yes		X			X	Pre -Fabricated Steel Building *2)												
	7) Equipment Shelters																											
ENC296101	Refrigerant Compressor 1 - Train-1	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296102	Refrigerant Compressor 2 - Train-1	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296103	Refrigerant Compressor 1 - Train-2	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296104	Refrigerant Compressor 2 - Train-2	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296105	Refrigerant Compressor 1 - Train-3	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296106	Refrigerant Compressor 2 - Train-3	111	337	75	1	37,407	0	No	No	Yes			X		X		X					X					X	
ENC296301	CCPP Shelter	80	1,100	70	1	88,000	0	No	No	Yes			X		X		X					X					X	
	8) Equipment Enclosures																											
EER069101	Emergency Generator	100	75	30	1	7,500	0	No	No	Yes			X		X		X					X		~~X~~			X	~~X~~
	Refrigerant Compressor Noise Enclosure 1 - Train-1	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Refrigerant Compressor Noise Enclosure 2- Train-1	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Refrigerant Compressor Noise Enclosure 1 - Train-2	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Refrigerant Compressor Noise Enclosure 2 - Train-2	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Refrigerant Compressor Noise Enclosure 1 - Train-3	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Refrigerant Compressor Noise Enclosure 2- Train-3	35	98	15	1	3,381	0	No	No	Yes			X				X					X					X	
	Steam Turbine Generator 1 Enclosure	46	98	15	1	4,508	0	No	No	Yes			X				X					X					X	
	Steam Turbine Generator 2 Enclosure	46	98	15	1	4,508	0	No	No	Yes			X				X					X					X	
	Steam Turbine Generator 3 Enclosure	46	98	15	1	4,508	0	No	No	Yes			X				X					X					X	
	Steam Turbine Generator 4 Enclosure	46	98	15	1	4,508	0	No	No	Yes			X				X					X					X	
	9) VFD Buildings																											
LER823173	Compressor VFD Building- Train 1	-	-	-	1	-	0	Yes	No	Yes		X			X	d Steel Building *2)												
LER823273	Compressor VFD Building- Train 2	-	-	-	1	-	0	Yes	No	Yes		X			X	d Steel Building *2)												
LER823373	Compressor VFD Building- Train 3	-	-	-	1	-	0	Yes	No	Yes		X			X	d Steel Building *2)												
	10) Utilitiy Area Buildings																											
	Steam Condensate Pump House	45	22	15	1	979	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Diesel Condensate Pump House	34	93	15	1	3,162	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Fresh Water Pump House	28	50	15	1	1,400	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Pre-Treatment Pump House	26	67	15	1	1,742	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Demin / RO Pump House	26	50	15	1	1,300	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Potable Water Pump House	26	44	15	1	1,144	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Waste Water Pump House	26	67	15	1	1,742	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Circulation Pump/ Heater Building	26	44	15	1	1,144	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Plant Air Package Building	35	51	15	1	1,785	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Demin Water / Neutralization Building	81	89	50	1	7,209	0	Yes	No	Yes	X				X		X					X		~~X~~			X	~~X~~
	Fire Water Tank Pump House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Pure Nitrogen House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	High Purity Cryogenic Nitrogen Generation House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	High Purity Cryogenic Nitrogen Storage & Vaporizer House	-	-	-	1	-		Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Clarification Package House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	UF Package House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Potable Water Package House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Sodium Hypochlorite Package House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Oily Water Treatment (CPI) House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Oily Water Treatment (DGF) House	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~
	Sanitary Treatment Building	-	-	-	1	-	0	Yes	No	Yes		X					X					X		~~X~~			X	~~X~~

BLAST: BLAST RESISTANT APPLICATION / BUILDING RESPONSE CRITERIA (LOW/HIGH) / BLAST LOAD : PEAK SIDE OVERPRESSURE (psi) / BLAST LOAD * DURATION (ms) / SAFE HAVEN APPLICATION

HVAC – COOLING / DEHUMIDIFYING: CHILLER / CONDENSING UNIT / SINGLE ZONE AIR HANDLING UNITS / SINGLE ZONE AIR HANDLING UNIT(FOR MULTI ZONE) / SINGLE PACKAGED AC / FAN COIL UNIT / SPLIT TYPE AC / WINDOW AC / SPARE UNIT REQUIREMENT; HEATING: DUCT HEATER / UNIT HEATER / BASEBOARD / CONVECTOR / FAN CONVECTOR / HEAT PUMP; EXH: NATURAL VENTILATE / POWER VENTILATOR; AIR INTAKE: SINGLE FAN / DUAL FAN / PRESSURIZATION / SAND TRAP / CHEMICAL FILTER / AIR INTAKE STACK

ELECTRICAL – ELECTRICAL: EQUIPMENT POWER DISTRIBUTION SYSTEM / TRANSFORMER / LIGHTING & RECEPTACLE SYSTEM / EMERGENCY LIGHTING SYSTEM / EARTHING & LIGHTNING PROTECTION; TELECOM.: TELEPHONE /LAN SYSTEM / PAGA SYSTEM / WIRELESS COMMUNICATION SYSTEM / SECURITY SYSTEM(ACCESS CONTROL) / TV OR CATV SYSTEM

PLUMBING – OUTLET: SANITARY FACILITIES / OILY SEWER / CHEMICAL SEWER / SEPTIC TANK / OIL INTERCEPTOR / NEUTRALIZATION FACILITY; INLET: POTABLE WATER LINE / HOT WATER LINE / SAFETY EYE WASHER AND/OR SHOWER; OTHERS: LAB UTILITIES / MAINTENANCE UTILITY / KITCHEN CABINET & SINK IN BREAK ROOM / WATER STORAGE TANK / INSTRUMENT AIR / PERMANENT SANITARY SEWER / HOLDING SANITARY TANK / UTILITIES / GREASE TRAP (FOR KITCHEN SEWER)

FIRE PROTECTION – FIRE FIGHTING: PORTABLE FIRE EXTINGUISHER / WHEEL MOUNTED FIRE EXTINGUISHER(BC) / BA-SET / CLEAN AGENT (FM 200) / KITCHEN HOOD FIRE SUPPRESSION / INDOOR HYDRANT (HOSE REEL) / SPRINKLER SYSTEM; F & G: MCP, SMOKE/HEAT DETECTORS, RED STROBE / FIRE ALARM CONTROL PANEL / VESDA SYSTEM / GAS DETECTOR AT AIR INTAKE

	ITEM NAME	HVAC	ELECTRICAL	PLUMBING	FIRE PROTECTION	OTHER SERVICES: LABORATORY FURNITURE & EQUIPMENT	LAB GAS CYLINDER	MEDICAL EQUIPMENT	LIVING FURNITURE	OFFICE FURNITURE	KITCHEN EQUIPMENT	OVERHEAD CRANE	SEISMIC DESIGN CATEGORY	WIND DESIGN REQUIREMENTS	Remarks	Design Considerations
	1) Guardhouse(s) Buildings															
SEC066101	Main Guard House	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase					X			SDC III	ASCE 7-05		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
SEC066102	Marine Guard House	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase					X			-	-	Refer to module number PAB-00-90 in the module list for more information.	Based on 3 train go-by building with modifications made to fit AKLNG building scope.
SEC066103	Guard House - South	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase					X			-	-	Refer to module number PAB-00-91 in the module list for more information.	Based on 3 train go-by building with modifications made to fit AKLNG building scope.
	2) Consolidated Building															
OFF062101	a. Main Office Area (W/ Canteen)	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase					X	X		SDC III	ASCE 7-05		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
EER065101	b. Emergency Response Area	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase			X		X			SDC II	49 CFR 193		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
WHSE064101	c. Warehouse Area	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC III	ASCE 7-05		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
CRS064101	d. Chemical Storage Area	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
MEWS064101	e. Maintenance/ Laboratory Building Area	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase	X	X						SDC III	49 CFR 193		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
CCR069101	f. Main Control Area	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase					X			SDC II	49 CFR 193		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
	3) Assembly room for start-up and turnarounds (major gatherings)															
OFF062102	Assembly/Training Building	To be Developed in EPC Phase	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase			X		X	X		SDC III	ASCE 7-05		Based on 3 train go-by building with modifications made to fit AKLNG building scope.
	4) Substation Buildings															Including HVAC
LER824670	GIS Substation	By Vendor											-	-	Refer to module number PAB-61-90A/ B/ C in the module list for more information.	
LER829673	Essential Power Substation	By Vendor											-	-	Refer to module number PAB-61-91A/ B in the module list for more information.	
LER823170	Main Substation - Train 1	By Vendor											-	-	Refer to module number PAB-10-90A/ B/ C in the module list for more information.	
LER823270	Main Substation - Train 2	By Vendor											-	-	Refer to module number PAB-20-91A/ B/ C in the module list for more information.	
LER823370	Main Substation - Train 3	By Vendor											-	-	Refer to module number PAB-30-90A/ B/ C in the module list for more information.	
LER823570	Gas Treatment Substation	By Vendor											-	-	Refer to module number PAB-50-90A/ B in the module list for more information.	
LER823672	Utilities Substation	By Vendor											-	-	Refer to module number PAB-60-90A/ B/ C in the module list for more information.	
LER823770	Offsite Substation	By Vendor											-	-	Refer to module number PAB-70-90A/ B/ C in the module list for more information.	
LER823870	BOG Substation	By Vendor											-	-	Refer to module number PAB-80-91A/ B/ C in the module list for more information.	
LER823871	Trestle Substation/ Marine Terminal Building	By Vendor											-	-	Refer to module number PAB-80-90 in the module list for more information.	Based on 3 train go-by building with modifications made to fit AKLNG building scope.
LER822872	Berth 1 Substation	By Vendor											-	-	Refer to module number PAB-80-92 in the module list for more information.	
LER822873	Berth 2 Substation	By Vendor											-	-	Refer to module number PAB-80-93 in the module list for more information.	
LER823671	Auxiliary Substation	By Vendor											-	-	Refer to module number PAB-61-92A/ B/ C in the module list for more information.	
LER822171	Compressor Substation 1 - Train 1	By Vendor											-	-	Refer to module number PAB-10-91A/ B in the module list for more information.	
LER822172	Compressor Substation 2- Train 1	By Vendor											-	-	Refer to module number PAB-10-92A/ B in the module list for more information.	
LER822271	Compressor Substation 1 - Train 2	By Vendor											-	-	Refer to module number PAB-20-91A/ B in the module list for more information.	
LER822272	Compressor Substation 2- Train 2	By Vendor											-	-	Refer to module number PAB-20-92A/ B in the module list for more information.	
LER822371	Compressor Substation 1- Train 3	By Vendor											-	-	Refer to module number PAB-30-91A/ B in the module list for more information.	
LER822372	Compressor Substation 2- Train 3	By Vendor											-	-	Refer to module number PAB-30-92A/ B in the module list for more information.	
	5) Control Buildings															
LER823674	PDC UNIT 1	By Vendor											-	-	Refer to module number VAU-61-78A in the module list for more information.	
LER823675	PDC UNIT 2	By Vendor											-	-	Refer to module number VAU-61-78B in the module list for more information.	
LER823676	PDC UNIT 3	By Vendor											-	-	Refer to module number VAU-61-78C in the module list for more information.	
LER823677	PDC UNIT 4	By Vendor											-	-	Refer to module number VAU-61-78D in the module list for more information.	
	6) Analyzer House Enclosures															
ANA069101	Analyzer House 1 - Train 1 (Feed Gas)	By Vendor											-	-	Refer to module number PAB-10-93A in the module list for more information.	
ANA069102	Analyzer House 2 - Train 1 (No. 1 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-10-93B in the module list for more information.	
ANA069103	Analyzer House 3 - Train 1 (No. 2 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-10-93C in the module list for more information.	
ANA069104	Analyzer House 4 - Train 1 (LNG / FG)	By Vendor											-	-	Refer to module number PAB-10-93D in the module list for more information.	
ANA069105	Analyzer House 5 - Train 1 (MR)	By Vendor											-	-	Refer to module number PAB-10-93E in the module list for more information.	
ANA069106	Analyzer House 1 - Train 2 (Feed Gas)	By Vendor											-	-	Refer to module number PAB-20-93A in the module list for more information.	
ANA069107	Analyzer House 2 - Train 2 (No. 1 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-20-93B in the module list for more information.	
ANA069108	Analyzer House 3 - Train 2 (No. 2 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-20-93C in the module list for more information.	
ANA069109	Analyzer House 4 - Train 2 (LNG / FG)	By Vendor											-	-	Refer to module number PAB-20-93D in the module list for more information.	
ANA069110	Analyzer House 5 - Train 2 (MR)	By Vendor											-	-	Refer to module number PAB-20-93E in the module list for more information.	
ANA069111	Analyzer House 1 - Train 3 (Feed Gas)	By Vendor											-	-	Refer to module number PAB-30-93A in the module list for more information.	
ANA069112	Analyzer House 2 - Train 3 (No. 1 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-30-93B in the module list for more information.	
ANA069113	Analyzer House 3 - Train 3 (No. 2 GT Exhaust Stack CEMS)	By Vendor											-	-	Refer to module number PAB-30-93C in the module list for more information.	
ANA069114	Analyzer House 4 - Train 3 (LNG / FG)	By Vendor											-	-	Refer to module number PAB-30-93D in the module list for more information.	
ANA069115	Analyzer House 5 - Train 3 (MR)	By Vendor											-	-	Refer to module number PAB-30-93E in the module list for more information.	
ANA069116	Analyzer House- Inlet Facilites (Dehydration)	By Vendor											-	-	Refer to module number PAB-50-91 in the module list for more information.	
ANA069117	Analyzer House- Common Process (Fractionation)	By Vendor											-	-	Refer to module number PAB-50-92 in the module list for more information.	
ANA069118	Analyzer House 1 - CCPP1 (CEMS)	By Vendor											-	-	Refer to module number VAU-61-77A in the module list for more information.	
ANA069119	Analyzer House 2 - CCPP2 (CEMS)	By Vendor											-	-	Refer to module number VAU-61-77B in the module list for more information.	
ANA069120	Analyzer House 3 - CCPP3 (CEMS)	By Vendor											-	-	Refer to module number VAU-61-77C in the module list for more information.	
ANA069121	Analyzer House 4 - CCPP4 (CEMS)	By Vendor											-	-	Refer to module number VAU-61-77D in the module list for more information.	
	7) Equipment Shelters															
ENC296101	Refrigerant Compressor 1 - Train-1	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296102	Refrigerant Compressor 2 - Train-1	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296103	Refrigerant Compressor 1 - Train-2	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296104	Refrigerant Compressor 2 - Train-2	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296105	Refrigerant Compressor 1 - Train-3	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296106	Refrigerant Compressor 2 - Train-3	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		
ENC296301	CCPP Shelter	Not Requried	To be Developed in EPC phase	To be Developed in EPC Phase	To be Developed In FEED Phase							X	SDC II	49 CFR 193		One shelter for all GTG's and STG's in CCPP.
	8) Equipment Enclosures															
EER069101	Emergency Generator	By Vendor										X	SDC II	49 CFR 193		
	Refrigerant Compressor Noise Enclosure 1 - Train-1	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-10-70	
	Refrigerant Compressor Noise Enclosure 2- Train-1	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-10-71	
	Refrigerant Compressor Noise Enclosure 1 - Train-2	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-20-70	
	Refrigerant Compressor Noise Enclosure 2 - Train-2	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-20-71	
	Refrigerant Compressor Noise Enclosure 1 - Train-3	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-30-70	
	Refrigerant Compressor Noise Enclosure 2- Train-3	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-30-71	
	Steam Turbine Generator 1 Enclosure	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-61-72A	
	Steam Turbine Generator 2 Enclosure	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-61-72B	
	Steam Turbine Generator 3 Enclosure	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-61-72C	
	Steam Turbine Generator 4 Enclosure	Not Requried	To be Developed in EPC phase	Not Required									SDC II	49 CFR 193	This enclosure is part of VAU-61-72D	
	9) VFD Buildings															
LER823173	Compressor VFD Building- Train 1	By Vendor											-	-	Refer to module number PAB-10-94A/ B in the module list for more information.	
LER823273	Compressor VFD Building- Train 2	By Vendor											-	-	Refer to module number PAB-20-94A/ B in the module list for more information.	
LER823373	Compressor VFD Building- Train 3	By Vendor											-	-	Refer to module number PAB-30-94A/ B in the module list for more information.	
	10) Utilitiy Area Buildings															
	Steam Condensate Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Diesel Condensate Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Fresh Water Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Pre-Treatment Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Demin / RO Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Potable Water Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Waste Water Pump House	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Circulation Pump/ Heater Building	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Plant Air Package Building	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Demin Water / Neutralization Building	To be Developed in EPC Phase	To be Developed in EPC phase										SDC II	49 CFR 193		
	Fire Water Tank Pump House	To be Developed in EPC Phase	To be Developed in EPC phase									X	-	-	Pump House is part of VAU-60-79	
	Pure Nitrogen House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-70	
	High Purity Cryogenic Nitrogen Generation House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-71	
	High Purity Cryogenic Nitrogen Storage & Vaporizer House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-72	
	Clarification Package House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-77	
	UF Package House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-78	
	Potable Water Package House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-80	
	Sodium Hypochlorite Package House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-81	
	Oily Water Treatment (CPI) House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-82	
	Oily Water Treatment (DGF) House	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-83	
	Sanitary Treatment Building	To be Developed in EPC Phase	To be Developed in EPC phase										-	-	Pump House is part of VAU-60-84	

ITEM NAME	DIMENSIONS: WIDTH (ft)	LENGTH (ft)	HEIGHT (ft)	STORY (no.)	FLOOR AREA (ft^2)	BASIC: No. OCCUPANT (person)	Building Classification: Critical Operations	Occupied	Unoccupied
11) Field Operations Center Buildings									
Operations Center Building - Train 1	-	-	-	1	-	4	No	Yes	No
Operations Center Building - Train 2	-	-	-	1	-	4	No	Yes	No
Operations Center Building - Train 3	-	-	-	1	-	4	No	Yes	No
Operations Center Building - Power Area	-	-	-	1	-	4	No	Yes	No
Operations Center Building - Uilities Area	-	-	-	1	-	4	No	Yes	No
TOTAL FLOOR AREA OF FIELD FABRICATED BUILDINGS					######				

BUILDING

ITEM NAME	TYPE: STICK BUILT	PRE-FABRICATED	PRE-ENGINEERED METAL BLDG	FDN: PILED FOUNDATION	SPREAD FOUNDATION	FRAME: REINFORCED CONCRETE (RC)	STEEL STRUCTURE	CONCRETE MASONRY UNIT	WALL: REINFORCED CONCRETE (RC)	PRECAST REINFORCED CONCRETE WALL	CONCRETE MASONRY UNIT	METAL SIDING	CURTAIN WALL	WITH INSULATION	ROOF: RC WITH WATER PROOFING	RC ON METAL DECK PLATE	METAL ROOFING	WITH INSULATION	BLAST: BLAST RESISTANT APPLICATION	BUILDING RESPONSE CRITERIA (LOW/HIGH)	BLAST LOAD : PEAK SIDE OVERPRESSURE (psi)	BLAST LOAD * DURATION (ms)	SAFE HAVEN APPLICATION
Operations Center Building - Train 1		X			X		X					X		X			X	X					
Operations Center Building - Train 2		X			X		X					X		X			X	X					
Operations Center Building - Train 3		X			X		X					X		X			X	X					
Operations Center Building - Power Area		X			X		X					X		X			X	X					
Operations Center Building - Uilities Area		X			X		X					X		X			X	X					

HVAC

ITEM NAME	COOLING / DEHUMIDIFYING: CHILLER	CONDENSING UNIT	SINGLE ZONE AIR HANDLING UNITS	SINGLE ZONE AIR HANDLING UNIT(FOR MULTI ZONE)	SINGLE PACKAGED AC	FAN COIL UNIT	SPLIT TYPE AC	WINDOW AC	SPARE UNIT REQUIREMENT	HEATING: DUCT HEATER	UNIT HEATER	BASEBOARD	CONVECTOR	FAN CONVECTOR	HEAT PUMP	EXH: NATURAL VENTILATE	POWER VENTILATOR	AIR INTAKE: SINGLE FAN	DUAL FAN	PRESSURIZATION	SAND TRAP	CHEMICAL FILTER	AIR INTAKE STACK
Operations Center Building - Train 1	To be Developed in EPC Phase																						
Operations Center Building - Train 2	To be Developed in EPC Phase																						
Operations Center Building - Train 3	To be Developed in EPC Phase																						
Operations Center Building - Power Area	To be Developed in EPC Phase																						
Operations Center Building - Uilities Area	To be Developed in EPC Phase																						

ELECTRICAL

ITEM NAME	ELECTRICAL: EQUIPMENT POWER DISTRIBUTION SYSTEM	TRANSFORMER	LIGHTING & RECEPTACLE SYSTEM	EMERGENCY LIGHTING SYSTEM	EARTHING & LIGHTNING PROTECTION	TELECOM.: TELEPHONE /LAN SYSTEM	PAGA SYSTEM	WIRELESS COMMUNICATION SYSTEM	SECURITY SYSTEM(ACCESS CONTROL)	TV OR CATV SYSTEM
Operations Center Building - Train 1	To be Developed in EPC phase									
Operations Center Building - Train 2	To be Developed in EPC phase									
Operations Center Building - Train 3	To be Developed in EPC phase									
Operations Center Building - Power Area	To be Developed in EPC phase									
Operations Center Building - Uilities Area	To be Developed in EPC phase									

PLUMBING

ITEM NAME	OUTLET: SANITARY FACILITIES	OILY SEWER	CHEMICAL SEWER	SEPTIC TANK	OIL INTERCEPTOR	NEUTRALIZATION FACILITY	INLET: POTABLE WATER LINE	HOT WATER LINE	SAFETY EYE WASHER AND/OR SHOWER	OTHERS: LAB UTILITIES	MAINTENANCE UTILITY	KITCHEN CABINET & SINK IN BREAK ROOM	WATER STORAGE TANK	INSTRUMENT AIR	PERMANENT SANITARY SEWER	HOLDING SANITARY TANK	UTILITIES	GREASE TRAP (FOR KITCHEN SEWER)
Operations Center Building - Train 1																		
Operations Center Building - Train 2																		
Operations Center Building - Train 3																		
Operations Center Building - Power Area																		
Operations Center Building - Uilities Area																		

FIRE PROTECTION / OTHER SERVICES

ITEM NAME	FIRE FIGHTING: PORTABLE FIRE EXTINGUISHER	WHEEL MOUNTED FIRE EXTINGUISHER(BC)	BA-SET	CLEAN AGENT (FM 200)	KITCHEN HOOD FIRE SUPPRESSION	INDOOR HYDRANT (HOSE REEL)	SPRINKLER SYSTEM	F & G: MCP, SMOKE/HEAT DETECTORS, RED STROBE	FIRE ALARM CONTROL PANEL	VESDA SYSTEM	GAS DETECTOR AT AIR INTAKE	OTHER SERVICES: LABORATORY FURNITURE & EQUIPMENT	LAB GAS CYLINDER	MEDICAL EQUIPMENT	LIVING FURNITURE	OFFICE FURNITURE	KITCHEN EQUIPMENT	OVERHEAD CRANE
Operations Center Building - Train 1																X		
Operations Center Building - Train 2																X		
Operations Center Building - Train 3																X		
Operations Center Building - Power Area																X		
Operations Center Building - Uilities Area																X		

ITEM NAME	SEISMIC DESIGN CATEGORY	WIND DESIGN REQUIREMENTS	Remarks	Design Considerations
Operations Center Building - Train 1	-	-	Refer to module number PAB-10-95 in the module list for more information.	
Operations Center Building - Train 2	-	-	Refer to module number PAB-20-95 in the module list for more information.	
Operations Center Building - Train 3	-	-	Refer to module number PAB-30-95 in the module list for more information.	
Operations Center Building - Power Area	-	-	Refer to module number PAB-61-93 in the module list for more information.	
Operations Center Building - Uilities Area	-	-	Refer to module number PAB-60-91 in the module list for more information.	

NOTE:
1) Categories are based on BOD Section 3.3.3.
2) Building Details shall be determined by Vendor
3) IBC OCCUPANCY CLASS shall be verified in EPC phase
4) DIMENSIONS will be updated based on Vender's information during EPC phase for Pre-Fabricated buildings

APPENDIX 13N – ELECTRICAL DESIGN INFORMATION

N.1 - Electrical Load List

Document Number:	Description:	Revision:	Appendix:
USAL-CB-ELLSC-00-000001-000	Electrical Load List and Summary	Rev 1	Public

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Alaska LNG™

CBI CHIYODA CORPORATION

ASRC ENERGY SERVICES
a subsidiary of Arctic Slope Regional Corporation

ELECTRICAL LOAD LIST AND SUMMARY

USAL-CB-ELLSC-00-000001-000

Rev	Date	Revision Description	Originator / Checker	Reviewer / Endorser	Response Code	Approver
0	23-Oct-15	Issued for FEED	I. Hideshima / M. Inokuchi			S. Kulkarni
0A	28-Apr-16	Issued for Review	K. Tashima / T. Konda	G. Ghaddar	2	R. Kaida
1	26-May-16	Issued for FEED	K. Tashima / T. Konda			R. Kaida

Document Control No.	Country	Facility	Originator	Discipline	Type	Sub-Type	Location	Sequence	Identifier
	US	AL	CB	E	L	LSC	00	000001	000

REVISION MODIFICATION LOG

Revision	Section	Description
0	General	Load List is updated as per Equipment List (Rev. F).
0	General	Client comments for Load List and Summary (Rev. C) are reflected.
0A	General	Load List is updated as per H110 Optimization
		(SGT 750 2x2x1 Power Plant, HEA, LER in Main Pipe Rack)
1	General	Client comments for Load List and Summary (Rev. 0A) are reflected.
1	Load List (Master)	Estimated auxiliary loads for H-110 are reflected.

HOLD LIST

Hold	Comment

TABLE OF CONTENTS

1. PURPOSE AND SCOPE

1.1 PURPOSE

Electrical Load List and Summary are prepared for the AKLNG Pre-FEED project to assist in developing overall power distribution system design and validate the individual equipment ratings in the newly design substations. The Load List is a key document necessary to:

• Determine power supply requirements
• Select Voltage levels for power distribution
• Determine required voltage and current ratings of individual transformers, switchgears and motor control centers
• Provide input to the system calculations
• Calculate cable sizes to individual pieces of equipment

This document is a preliminary version which will be further developed during the Front End Engineering Design (FEED) and Engineering Procurement and Construction (EPC) phases of this project.

1.2 SCOPE

This document includes the following contents as below;

• Electrical Load List
Electrical Load List for the AKLNG Pre-FEED Project includes all electrical loads on the project. The loads are assigned to the Switchgear, MCC or switchboards/panels. Bus arrangements and ratings are shown on the Overall One Line Diagram for each Substation. Load List is a living document and shall be updated regularly to incorporate additions, deletions and changes to the Mechanical and Electrical Equipment Lists.

• Electrical Load Summary
Electrical Load Summary shows the total required electrical power during normal operation.

• Electrical Essential Load Summary
Electrical Essential Load Summary shows the total required electrical power to be generated by Essential Diesel Generator during total loss of normal power (Black out) and Black start. The detail is described in USAL-CB-ERPOW-00-000002-000 Electric Power Supply Study Report (Rev. 0).

• Electrical Load Profile
Electrical Load Profile shows the seasonal variation of electrical load consumptions.

2. GENERAL

2.1 SWITCHGEAR/MCC BUS ARRANGEMENT

Switchgear and MCC configuration is shown on Electrical One Line Diagram.

2.2 DEFINITOIN OF CONSUMED LOAD

The consumed load of each switchgear is summarized in the Appendix-1 (Electrical Load List). Categories of consumed loads in the Appendix-1 (Electrical Load List) are defined as follows;

• Continuous:
All loads that be required to run continuously for normal operation, including lighting, miscellaneous and small power supplies.

• Intermittent:
The loads required to run intermittently such as intermediate pumping, storage, loading etc.

• Standby:
All spares of electrically driven units requiring stand-by motors / turbine / diesel engine driven ones.

2.3 COINCIDENCE FACTOR

Coincidence factor is a ratio, expressed as a percentage, or the simultaneous maximum demand or a group of electrical equipment within a specified period to the sum of their individual maximum demand within the same period. Coincidence factors for “Continuous” load, “Intermittent” load and “Spare” load are shown as below;

• For Continuous load: C.F. 100%
• For Intermittent load: C.F. 25%
• For Standby load: C.F. 0%

2.4 ELECTRICAL POWER CONSUMPTION

The electrical power consumption on load summary is calculated with the Appendix-1 (Electrical Load List). The consumption is determined from the absorbed shaft power (i.e. BHP) during the normal process operating point divided by the motor efficiency. All loads, efficiencies and power factors used in this study are taken from Perfomance Data for NEMA Motors ANSS-61000-0706, Rev.0.

3. DEFINITIONS

The following definitions apply to the information and abbreviations in this documents.

Parameter	Unit	Definition
WBS	-	Work Breakdown Structure
Continuous	-	Continuous loads
Intermittent	-	Intermittent loads
Standby	-	Spare or stand-by loads
Output	HP kW kVA	The full load rating of the motor or other equipment driving the load at the specified condition
Load Factor	-	Load factor =Applied output/Rating output
Rated Load	HP kW	Rating Output
Brake Load	kW	BHP=Rating Output ×Load Factor
PF	-	The load power factor at the operating point
Efficiency	-	The load efficiency at the operating point
Active Power	kW	The electrical absorbed active power for the loads
Reactive Power	kvar	The electrical absorbed reactive power for the loads
Apparent Power	kVA	$=\sqrt{(\text{Active Power})^2+(\text{Reactive Power})^2}$
Total Active Power	kW	The summary of active power per electrical bus
Total Reactive Power	kvar	The summary of reactive power per electrical bus
Total Apparent	kVA	$=\sqrt{(\text{Total kW})^2+(\text{Total kVAr})^2}$

4. RESULT

4.1 Electrical Load Summary

This calculation is based on Appendix-1 (Electrical Load List). The Table 1 shows Electrical Load Summary during normal operation per areas. The total calculated maximum load demand for normal operation is **103.8** MW (without including future load growth and contingency).

Table 1: Electrical Load Summary during normal operation

Area	Continuous		Intermittent		Standby		Total		
	Active Power (kW)	Reactive Power (kvar)	Active Power (kW)	Reactive Power (kvar)	Active Power (kW)	Reactive Power (kvar)	Active Power (kW)	Reactive Power (kvar)	Apparent Power (kVA)
Train 1	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Train 2	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Train 3	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Inlet Gas Treating	2,325	1,298	11,028	5,355	-	-	5,082	2,637	5,725
Non-Hydrocarbon Utility	4,138	2,043	3,511	1,817	2,553	1,380	5,015	2,497	5,603
Admin	3,551	1,720	-	-	-	-	3,551	1,720	3,945
Power Generation	6,137	2,972	46	32	46	32	6,148	2,980	6,833
Condensate & Diesel Storage	2,629	1,465	480	246	1,187	741	2,749	1,527	3,145
Common Process & Utility	35,414	18,906	202	122	347	211	35,465	18,937	40,204
LNG Storage Tank	4,724	2,828	75	43	750	447	4,743	2,839	5,528
Offshore Trestle	1,687	822	150	85	173	101	1,725	843	1,920
Total (no allowance)	92,989	50,386	36,972	18,876	7,959	4,655	102,232	55,105	116,138
Total (w/ Electrical Losses)	-	-	-	-	-	-	103,766	55,932	117,880

NOTE:
1: Future load growth, contingency and spinning reserve will be considered for generator sizing. Refer to USAL-CB-ERPOW-00-000002-000 LIQUEFACION ELECTRICAL POWER SUPPLY STUDY REPORT.
2: The electric system losses have been assumed as 1.5% for all other electric loads. Actual losses will be calculated during FEED phase.
3. Electrical load for pipline metering skid is not included.

Essential Power System loads comprise of Uninterruptable Power Supply System (UPS) loads, Black Start Loads, Black Start support loads and other Essential Loads required during total blackout. The Table 2 shows Electrical Load Summary during emergency operation. The required kW for H110 base in Table 2 was recalculated based on USAL-CB-ERPOW-00-000002-000 Electrical Power Supply Study Report (Rev. 0). The estimated maximum load demand for essential power requirements is **8.5** MW. HEA can supply 8.8 MW for Pre-FEED basis and has capability to supply essential power demand (8.5 MW)

Table 2: Electrical Essential Load Summary

Description	Required kW
UPS and DC Systems Loads	2,656
Black Start Load	1,262
Essential Loads to Support Black Start	2,880
Other Essential Loads	4,986
Total Essential Loads	11,784
Total Essential Loads + 15% Contingency	13,552
Maximum Load with 0.7 Demand Factor & 0.9 Diversity Factor	8,538
HEA Supply	**8,800**

NOTE:
1: Future load growth, contingency and spinning reserve will be considered for generator sizing. Refer to USAL-CB-ERPOW-00-000002-000 LIQUEFACION ELECTRICAL POWER SUPPLY STUDY REPORT.

4.3 Electrical Load Profile

4.3.1 General

All data contained in Section 4.3 are roughly calculated based on the available preliminary information from APCI (three temperature data) and Pre-FEED deliverables in the Pre-FEED phase.

4.3.2 Seasonal Variation for Electrical Load Consumption

Table 3 shows Seasonal variations in Electrical Loads based on monthly ambient temperatures.
In winter season, however the electrical load is slightly increased by 3.0 MW for the electrical heat trace system in the entire plant. The maximum required electrical power in consideration of seasonal variation of average monthly ambient temperature is **103.8 MW** without including future load growth and contingency.

Month		January	February	March	April	May	June	July	August	September	October	November	December
Unit		MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW
Loading	Electrical Load Summary	102.2	102.2	102.2	99.2	99.2	99.2	99.2	99.2	99.2	102.2	102.2	102.2
	Total (w/ Electrical Losses)	103.8	103.8	103.8	100.7	100.7	100.7	100.7	100.7	100.7	103.8	103.8	103.8
Holding	Electrical Load Summary	82.1	82.1	82.1	79.1	79.1	79.1	79.1	79.1	79.1	82.1	82.1	82.1
	Total (w/ Electrical Losses)	83.3	83.3	83.3	80.3	80.3	80.3	80.3	80.3	80.3	83.3	83.3	83.3

Table 3: Seasonal variation for Electrical Load Summary

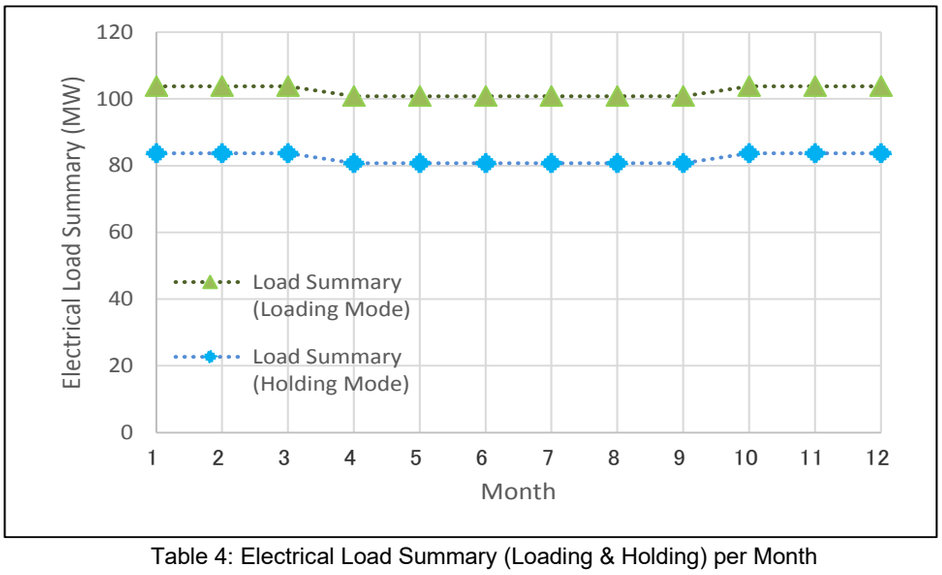

Table 4: Electrical Load Summary (Loading & Holding) per Month

NOTE:
1: Future load growth, contingency and spinning reserve will be considered for generator sizing. Refer to USAL-CB-ERPOW-00-000002-000 LIQUEFACION ELECTRICAL POWER SUPPLY STUDY REPORT.
2: The electric system losses have been assumed as 1.5% for all other electric loads. Actual losses will be calculated during FEED phase.

5. REFERENCES

ID Number	Reference Title
USAL-CB-ERPOW-00-000002-000	Electrical Power Supply Study Report
USAL-CB-MLMEL-00-000001-001	Master Equipment List
USAL-CB-EDSLD-00-000001-000	Overall Electrical One Line Diagram
USAL-CB-EDSLD-10-000001-000	One Line Diagram Train 1 Substation
USAL-CB-EDSLD-20-000001-000	One Line Diagram Train 2 Substation
USAL-CB-EDSLD-30-000001-000	One Line Diagram Train 3 Substation
USAL-CB-EDSLD-50-000001-000	One Line Diagram Gas Treatment Substation
USAL-CB-EDSLD-60-000002-000	One Line Diagram Utilities Substation
USAL-CB-EDSLD-60-000003-000	One Line Diagram GIS Substation
USAL-CB-EDSLD-80-000001-000	One Line Diagram Berth #1 Substation
USAL-CB-EDSLD-80-000002-000	One Line Diagram Berth #2 Substation
USAL-CB-EDSLD-80-000003-000	One Line Diagram BOG Substation
USAL-CB-EDSLD-80-000004-000	One Line Diagram Jetty Substation
USAL-CB-PRDEC-00-000005-000	APCI Scope of Work (Rev. 2)
USAKL-PT-BBFDB-40-0001	Multidiscipline Design Basis (Rev. 1)

6. APPENDIX

APPENDIX-1: Electrical Load List
APPENDIX-2: Load Summary for each switchgear

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210
CLIENT: Alaska LNG
LOCATION: Nikiski, Alaska
Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666121O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 5	HEM666122R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823107	SWG822107	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666131F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666132U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161P	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161Q	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666161R	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 6	HEM666162R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823108	SWG822108	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666171F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666172U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144A	Propane Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144B	Propane Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144C	Propane Desuperheater Motor (Bay-1)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144D	Propane Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144E	Propane Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144F	Propane Desuperheater Motor (Bay-2)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144G	Propane Desuperheater Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144H	Propane Desuperheater Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144I	Propane Desuperheater Motor (Bay-3)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144J	Propane Desuperheater Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144K	Propane Desuperheater Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 1	HEM666144L	Propane Desuperheater Motor (Bay-4)	AFC	LER823103	SWG822103	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184A	Propane Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184B	Propane Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184C	Propane Desuperheater Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184D	Propane Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184E	Propane Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184F	Propane Desuperheater Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184G	Propane Desuperheater Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184H	Propane Desuperheater Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184I	Propane Desuperheater Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184J	Propane Desuperheater Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184K	Propane Desuperheater Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666184L	Propane Desuperheater Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191A	Propane Condenser Motor (Bay-1)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191B	Propane Condenser Motor (Bay-1)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191C	Propane Condenser Motor (Bay-1)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191D	Propane Condenser Motor (Bay-2)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191E	Propane Condenser Motor (Bay-2)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191F	Propane Condenser Motor (Bay-2)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191G	Propane Condenser Motor (Bay-3)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191H	Propane Condenser Motor (Bay-3)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191I	Propane Condenser Motor (Bay-3)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191J	Propane Condenser Motor (Bay-4)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191K	Propane Condenser Motor (Bay-4)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191L	Propane Condenser Motor (Bay-4)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191M	Propane Condenser Motor (Bay-5)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191N	Propane Condenser Motor (Bay-5)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191O	Propane Condenser Motor (Bay-5)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191P	Propane Condenser Motor (Bay-6)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191Q	Propane Condenser Motor (Bay-6)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191R	Propane Condenser Motor (Bay-6)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191S	Propane Condenser Motor (Bay-7)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191T	Propane Condenser Motor (Bay-7)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191U	Propane Condenser Motor (Bay-7)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191V	Propane Condenser Motor (Bay-8)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191W	Propane Condenser Motor (Bay-8)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191X	Propane Condenser Motor (Bay-8)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191Y	Propane Condenser Motor (Bay-9)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191Z	Propane Condenser Motor (Bay-9)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AA	Propane Condenser Motor (Bay-9)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AB	Propane Condenser Motor (Bay-10)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AC	Propane Condenser Motor (Bay-10)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AD	Propane Condenser Motor (Bay-10)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AE	Propane Condenser Motor (Bay-11)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AF	Propane Condenser Motor (Bay-11)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AG	Propane Condenser Motor (Bay-11)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AH	Propane Condenser Motor (Bay-12)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AI	Propane Condenser Motor (Bay-12)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AJ	Propane Condenser Motor (Bay-12)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AK	Propane Condenser Motor (Bay-13)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AL	Propane Condenser Motor (Bay-13)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AM	Propane Condenser Motor (Bay-13)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AN	Propane Condenser Motor (Bay-14)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AO	Propane Condenser Motor (Bay-14)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AP	Propane Condenser Motor (Bay-14)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AQ	Propane Condenser Motor (Bay-15)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AR	Propane Condenser Motor (Bay-15)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AS	Propane Condenser Motor (Bay-15)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AT	Propane Condenser Motor (Bay-16)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AU	Propane Condenser Motor (Bay-16)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AV	Propane Condenser Motor (Bay-16)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AW	Propane Condenser Motor (Bay-17)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AX	Propane Condenser Motor (Bay-17)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AY	Propane Condenser Motor (Bay-17)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191AZ	Propane Condenser Motor (Bay-18)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BA	Propane Condenser Motor (Bay-18)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BB	Propane Condenser Motor (Bay-18)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BC	Propane Condenser Motor (Bay-19)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BD	Propane Condenser Motor (Bay-19)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BE	Propane Condenser Motor (Bay-19)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BF	Propane Condenser Motor (Bay-20)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BG	Propane Condenser Motor (Bay-20)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BH	Propane Condenser Motor (Bay-20)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 3	HEM666191BI	Propane Condenser Motor (Bay-21)	AFC	LER823105	SWG822105	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BJ	Propane Condenser Motor (Bay-21)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BK	Propane Condenser Motor (Bay-21)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BL	Propane Condenser Motor (Bay-22)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BM	Propane Condenser Motor (Bay-22)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BN	Propane Condenser Motor (Bay-22)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BO	Propane Condenser Motor (Bay-23)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BP	Propane Condenser Motor (Bay-23)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BQ	Propane Condenser Motor (Bay-23)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BR	Propane Condenser Motor (Bay-24)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BS	Propane Condenser Motor (Bay-24)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BT	Propane Condenser Motor (Bay-24)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BU	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BV	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BW	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BX	Propane Condenser Motor (Bay-26)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BY	Propane Condenser Motor (Bay-26)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191BZ	Propane Condenser Motor (Bay-26)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CA	Propane Condenser Motor (Bay-27)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CB	Propane Condenser Motor (Bay-27)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CC	Propane Condenser Motor (Bay-27)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CD	Propane Condenser Motor (Bay-28)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CE	Propane Condenser Motor (Bay-28)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CF	Propane Condenser Motor (Bay-28)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CG	Propane Condenser Motor (Bay-29)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CH	Propane Condenser Motor (Bay-29)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CI	Propane Condenser Motor (Bay-29)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CJ	Propane Condenser Motor (Bay-30)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CK	Propane Condenser Motor (Bay-30)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CL	Propane Condenser Motor (Bay-30)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CM	Propane Condenser Motor (Bay-31)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CN	Propane Condenser Motor (Bay-31)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CO	Propane Condenser Motor (Bay-31)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CP	Propane Condenser Motor (Bay-32)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CQ	Propane Condenser Motor (Bay-32)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CR	Propane Condenser Motor (Bay-32)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CS	Propane Condenser Motor (Bay-33)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CT	Propane Condenser Motor (Bay-33)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CU	Propane Condenser Motor (Bay-33)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CV	Propane Condenser Motor (Bay-34)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CW	Propane Condenser Motor (Bay-34)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CX	Propane Condenser Motor (Bay-34)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CY	Propane Condenser Motor (Bay-35)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191CZ	Propane Condenser Motor (Bay-35)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DA	Propane Condenser Motor (Bay-35)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DB	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DC	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DD	Propane Condenser Motor (Bay-36)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DE	Propane Condenser Motor (Bay-37)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DF	Propane Condenser Motor (Bay-37)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DG	Propane Condenser Motor (Bay-37)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DH	Propane Condenser Motor (Bay-38)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DI	Propane Condenser Motor (Bay-38)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DJ	Propane Condenser Motor (Bay-38)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DK	Propane Condenser Motor (Bay-39)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DL	Propane Condenser Motor (Bay-39)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DM	Propane Condenser Motor (Bay-39)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DN	Propane Condenser Motor (Bay-40)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DO	Propane Condenser Motor (Bay-40)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DP	Propane Condenser Motor (Bay-40)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DQ	Propane Condenser Motor (Bay-41)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DR	Propane Condenser Motor (Bay-41)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 4	HEM666191DS	Propane Condenser Motor (Bay-41)	AFC	LER823106	SWG822106	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193A	Propane Subcooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193B	Propane Subcooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193C	Propane Subcooler Motor (Bay-1)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193D	Propane Subcooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193E	Propane Subcooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193F	Propane Subcooler Motor (Bay-2)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193G	Propane Subcooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193H	Propane Subcooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193I	Propane Subcooler Motor (Bay-3)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193J	Propane Subcooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193K	Propane Subcooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193L	Propane Subcooler Motor (Bay-4)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193M	Propane Subcooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193N	Propane Subcooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193O	Propane Subcooler Motor (Bay-5)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193P	Propane Subcooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193Q	Propane Subcooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193R	Propane Subcooler Motor (Bay-6)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193S	Propane Subcooler Motor (Bay-7)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193T	Propane Subcooler Motor (Bay-7)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193U	Propane Subcooler Motor (Bay-7)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193V	Propane Subcooler Motor (Bay-8)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193W	Propane Subcooler Motor (Bay-8)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1-LER in Main Pipe Rack 2	HEM666193X	Propane Subcooler Motor (Bay-8)	AFC	LER823104	SWG822104	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM666195	Propane Transfer Pump Motor	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM695106A	Scrub Column Reflux Pump Motor	Pump	LER823100	SWG822100	480	3	Continuous	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM695106B	Scrub Column Reflux Pump Motor	Pump	LER823100	SWG822100	480	3	Standby	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	HEM6955110A	Scrub Column Cooler Motor	Pump	LER823100	SWG822100	480	3	Continuous	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	HEM6955110B	Scrub Column Cooler Motor	Pump	LER823100	SWG822100	480	3	Standby	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 1	Train 1	NAP699113	Defrost Gas Heater	Heater	LER823100	SWG823100	4160	3	Intermittent	5,100	-	786.5	786.5	4845.0	5100.0	0.95	0.950	0.900	Based on Equipment List (Rev. 0A)
Rev. 0A	Train 1	NAP695105	Scrub Column Reboiler Heater	Heater	LER823100	SWG823100	4160	3	Continuous	1,055	-	162.7	162.7	1002.3	1055.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	UPS826170A	UPS for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	UPS826170B	Telecom UPS for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	BC826170A	DC UPS for instrument system for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	BC826170A	DC UPS for electrical system for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	DP863170A	Normal DP for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	80	-	106.9	106.9	80.0	80.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	DP869170B	Essential DP for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	AHU438170	HVAC for Train1 S/S	Winterization/HVAC	LER823100	SWG822100	480	3	Continuous	150	-	200.5	200.5	150.0	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	ANAL714170	Analyzer House 1 - Train1 (Main Ref.)	Others	LER823100	SWG822100	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	ANAL714171	Analyzer House 2 - Train1 (For CEMS)	Others	LER823100	SWG822100	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	LTP863170A	Area Lighting for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	LTP863170B	Area Lighting for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	LTP863170C	Area Lighting for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	ELP829170	Essential Area Lighting for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	REC839170	Receptacle for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 1	WR839170A	Welding Outlet for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	WR839170B	Welding Outlet for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	WR839170C	Welding Outlet for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	WR839170D	Welding Outlet for Train 1 S/S	Others	LER823100	SWG822100	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	CPR267170	Cathodic Protection for Train1 S/S	Others	LER823100	SWG822100	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 1	ETP861170	Heat Trace for Train1 S/S	Winterization/HVAC	LER823100	SWG822100	480	3	Continuous	200	-	267.3	267.3	200.0	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 1	Train 1	PEM997111	PCSW Collection Sump 1 Pump	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 1	PEM997112	PCSW Collection Sump 1 Pump	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 1	PEM997121	PCSW Collection Sump 2 Pump	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 1	PEM997122	PCSW Collection Sump 2 Pump	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Cranking Motor Space Heater	Heater	LER823101	SWG822101	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823101	SWG822101	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823101	SWG822101	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823101	SWG822101	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823101	SWG822101	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1	TBA	Cranking Motor	Pump	LER823100	SWG823100	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Emergency Lube Oil Pump Motor	Pump	LER823101	SWG822101	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Main Lube Oil Pump Motor	Pump	LER823101	SWG822101	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	HVAC for Train1 Main Ref Co+F836	Pump	LER823101	SWG822101	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823101	SWG822101	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823101	SWG822101	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823101	SWG822101	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823101	SWG822101	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823101	SWG822101	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823101	SWG822101	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	HP Turbine Turning Gear Motor	Pump	LER823101	SWG822101	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823101	SWG822101	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823101	SWG822101	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823101	SWG822101	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823101	SWG822101	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Water Washing Pump Motor	Pump	LER823101	SWG822101	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823101	SWG822101	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823101	SWG822101	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823101	SWG822101	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823101	SWG822101	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Turbine Control Panel	Others	LER823101	SWG822101	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823101	SWG822101	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823101	SWG822101	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823101	SWG822101	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823101	SWG822101	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823101	SWG822101	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823101	SWG822101	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Battery Charger	Others	LER823101	SWG822101	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Water Mistfire Protection Panel	Others	LER823101	SWG822101	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Local Control Panel	Others	LER823101	SWG822101	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Remote Control Panel	Others	LER823101	SWG822101	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823101	SWG822101	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823101	SWG822101	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor1	TBA	HVAC for Train1 Main Ref Compressor S/S1	Winterization/HVAC	LER823101	SWG822101	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Cranking Motor Space Heater	Heater	LER823102	SWG822102	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823102	SWG822102	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210
CLIENT: Alaska LNG
LOCATION: Nikiski, Alaska
Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823102	SWG822102	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823102	SWG822102	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823102	SWG822102	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1	TBA	Cranking Motor	Pump	LER823100	SWG823100	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Emergency Lube Oil Pump Motor	Pump	LER823102	SWG822102	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823102	SWG822102	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823102	SWG822102	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823102	SWG822102	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823102	SWG822102	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823102	SWG822102	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823102	SWG822102	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823102	SWG822102	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823102	SWG822102	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	HP Turbine Turning Gear Motor	Pump	LER823102	SWG822102	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823102	SWG822102	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823102	SWG822102	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823102	SWG822102	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823102	SWG822102	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Water Washing Pump Motor	Pump	LER823102	SWG822102	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823102	SWG822102	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823102	SWG822102	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823102	SWG822102	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823102	SWG822102	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Turbine Control Panel	Others	LER823102	SWG822102	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823102	SWG822102	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823102	SWG822102	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823102	SWG822102	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823102	SWG822102	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823102	SWG822102	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823102	SWG822102	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Battery Charger	Others	LER823102	SWG822102	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Water Mistfire Protection Panel	Others	LER823102	SWG822102	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Local Control Panel	Others	LER823102	SWG822102	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Remote Control Panel	Others	LER823102	SWG822102	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823102	SWG822102	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823102	SWG822102	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 1 - Main Ref Compressor2	TBA	HVAC for Train1 Main Ref Compressor S/S2	Winterization/HVAC	LER823102	SWG822102	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 0A	Train 1	PEM998121A	Liquefaction Train Impoundment Sump Pump	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM998121B	Liquefaction Train Impoundment Sump Pump	Pump	LER823100	SWG822100	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM991111A	Oil Sump Pumps	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM991111B	Oil Sump Pumps	Pump	LER823100	SWG822100	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM998112	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM998122	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823100	SWG822100	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM998113	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823100	SWG822100	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 1	PEM998123	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823100	SWG822100	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 1	Train 1-LER in Main Pipe Rack 1	UPS826103A	UPS for Train 1 LER in Main Pipe Rack 1	Others	LER823103	SWG822103	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 1	UPS826103B	Telecom UPS for Train 1 LER in Main Pipe Rack 1	Others	LER823103	SWG822103	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 1	BC826103	DC UPS for Train 1 LER in Main Pipe Rack 1	Others	LER823103	SWG822103	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 1	LTP863103	Lighting Panel for Train 1 LER in Main Pipe Rack 1	Others	LER823103	SWG822103	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 1	DP863103	Distribution Panel for Train 1 LER in Main Pipe Rack 1	Others	LER823103	SWG822103	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 1	AHU438103	HVAC for Train 1 LER in Main Pipe Rack 1	Winterization/HVAC	LER823103	SWG822103	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 2	UPS826104A	UPS for Train 1 LER in Main Pipe Rack 2	Others	LER823104	SWG822104	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 2	UPS826104B	Telecom UPS for Train 1 LER in Main Pipe Rack 2	Others	LER823104	SWG822104	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 2	BC826104	DC UPS for Train 1 LER in Main Pipe Rack 2	Others	LER823104	SWG822104	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 1-LER in Main Pipe Rack 2	LTP863104	Lighting Panel for Train 1 LER in Main Pipe Rack 2	Others	LER823104	SWG822104	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 2	DP863104	Distribution Panel for Train 1 LER in Main Pipe Rack 2	Others	LER823104	SWG822104	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 2	AHU438104	HVAC for Train 1 LER in Main Pipe Rack 2	Winterization/HVAC	LER823104	SWG822104	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	UPS826105A	UPS for Train 1 LER in Main Pipe Rack 3	Others	LER823105	SWG822105	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	UPS826105B	Telecom UPS for Train 1 LER in Main Pipe Rack 3	Others	LER823105	SWG822105	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	BC826105	DC UPS for Train 1 LER in Main Pipe Rack 3	Others	LER823105	SWG822105	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	LTP863105	Lighting Panel for Train 1 LER in Main Pipe Rack 3	Others	LER823105	SWG822105	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	DP863105	Distribution Panel for Train 1 LER in Main Pipe Rack 3	Others	LER823105	SWG822105	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 3	AHU438105	HVAC for Train 1 LER in Main Pipe Rack 3	Winterization/HVAC	LER823105	SWG822105	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	UPS826106A	UPS for Train 1 LER in Main Pipe Rack 4	Others	LER823106	SWG822106	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	UPS826106B	Telecom UPS for Train 1 LER in Main Pipe Rack 4	Others	LER823106	SWG822106	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	BC826106	DC UPS for Train 1 LER in Main Pipe Rack 4	Others	LER823106	SWG822106	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	LTP863106	Lighting Panel for Train 1 LER in Main Pipe Rack 4	Others	LER823106	SWG822106	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	DP863106	Distribution Panel for Train 1 LER in Main Pipe Rack 4	Others	LER823106	SWG822106	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 4	AHU438106	HVAC for Train 1 LER in Main Pipe Rack 4	Winterization/HVAC	LER823106	SWG822106	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	UPS826107A	UPS for Train 1 LER in Main Pipe Rack 5	Others	LER823107	SWG822107	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	UPS826107B	Telecom UPS for Train 1 LER in Main Pipe Rack 5	Others	LER823107	SWG822107	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	BC826107	DC UPS for Train 1 LER in Main Pipe Rack 5	Others	LER823107	SWG822107	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	LTP863107	Lighting Panel for Train 1 LER in Main Pipe Rack 5	Others	LER823107	SWG822107	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	DP863107	Distribution Panel for Train 1 LER in Main Pipe Rack 5	Others	LER823107	SWG822107	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 5	AHU438107	HVAC for Train 1 LER in Main Pipe Rack 5	Winterization/HVAC	LER823107	SWG822107	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	UPS826108A	UPS for Train 1 LER in Main Pipe Rack 6	Others	LER823108	SWG822108	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	UPS826108B	Telecom UPS for Train 1 LER in Main Pipe Rack 6	Others	LER823108	SWG822108	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	BC826108	DC UPS for Train 1 LER in Main Pipe Rack 6	Others	LER823108	SWG822108	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	LTP863108	Lighting Panel for Train 1 LER in Main Pipe Rack 6	Others	LER823108	SWG822108	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	DP863108	Distribution Panel for Train 1 LER in Main Pipe Rack 6	Others	LER823108	SWG822108	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 1-LER in Main Pipe Rack 6	AHU438108	HVAC for Train 1 LER in Main Pipe Rack 6	Winterization/HVAC	LER823108	SWG822108	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 5	HEM666222R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823207	SWG822207	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666232U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262P	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262Q	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262R	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 6	HEM666262R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823208	SWG822208	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666272U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244A	Propane Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244B	Propane Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244C	Propane Desuperheater Motor (Bay-1)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244D	Propane Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244E	Propane Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244F	Propane Desuperheater Motor (Bay-2)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244G	Propane Desuperheater Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244H	Propane Desuperheater Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244I	Propane Desuperheater Motor (Bay-3)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244J	Propane Desuperheater Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244K	Propane Desuperheater Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 1	HEM666244L	Propane Desuperheater Motor (Bay-4)	AFC	LER823203	SWG822203	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284A	Propane Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284B	Propane Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284C	Propane Desuperheater Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284D	Propane Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284E	Propane Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284F	Propane Desuperheater Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284G	Propane Desuperheater Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284H	Propane Desuperheater Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284I	Propane Desuperheater Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284J	Propane Desuperheater Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284K	Propane Desuperheater Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666284L	Propane Desuperheater Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292A	Propane Condenser Motor (Bay-1)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292B	Propane Condenser Motor (Bay-1)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292C	Propane Condenser Motor (Bay-1)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292D	Propane Condenser Motor (Bay-2)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292E	Propane Condenser Motor (Bay-2)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292F	Propane Condenser Motor (Bay-2)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292G	Propane Condenser Motor (Bay-3)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292H	Propane Condenser Motor (Bay-3)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292I	Propane Condenser Motor (Bay-3)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292J	Propane Condenser Motor (Bay-4)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292K	Propane Condenser Motor (Bay-4)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292L	Propane Condenser Motor (Bay-4)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292M	Propane Condenser Motor (Bay-5)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292N	Propane Condenser Motor (Bay-5)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292O	Propane Condenser Motor (Bay-5)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292P	Propane Condenser Motor (Bay-6)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292Q	Propane Condenser Motor (Bay-6)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292R	Propane Condenser Motor (Bay-6)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292S	Propane Condenser Motor (Bay-7)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292T	Propane Condenser Motor (Bay-7)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292U	Propane Condenser Motor (Bay-7)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292V	Propane Condenser Motor (Bay-8)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292W	Propane Condenser Motor (Bay-8)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292X	Propane Condenser Motor (Bay-8)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292Y	Propane Condenser Motor (Bay-9)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292Z	Propane Condenser Motor (Bay-9)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AA	Propane Condenser Motor (Bay-9)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AB	Propane Condenser Motor (Bay-10)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AC	Propane Condenser Motor (Bay-10)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AD	Propane Condenser Motor (Bay-10)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AE	Propane Condenser Motor (Bay-11)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AF	Propane Condenser Motor (Bay-11)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AG	Propane Condenser Motor (Bay-11)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AH	Propane Condenser Motor (Bay-12)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AI	Propane Condenser Motor (Bay-12)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AJ	Propane Condenser Motor (Bay-12)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AK	Propane Condenser Motor (Bay-13)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AL	Propane Condenser Motor (Bay-13)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AM	Propane Condenser Motor (Bay-13)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AN	Propane Condenser Motor (Bay-14)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AO	Propane Condenser Motor (Bay-14)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AP	Propane Condenser Motor (Bay-14)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AQ	Propane Condenser Motor (Bay-15)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AR	Propane Condenser Motor (Bay-15)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AS	Propane Condenser Motor (Bay-15)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AT	Propane Condenser Motor (Bay-16)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AU	Propane Condenser Motor (Bay-16)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AV	Propane Condenser Motor (Bay-16)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AW	Propane Condenser Motor (Bay-17)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AX	Propane Condenser Motor (Bay-17)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AY	Propane Condenser Motor (Bay-17)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292AZ	Propane Condenser Motor (Bay-18)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BA	Propane Condenser Motor (Bay-18)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BB	Propane Condenser Motor (Bay-18)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BC	Propane Condenser Motor (Bay-19)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BD	Propane Condenser Motor (Bay-19)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BE	Propane Condenser Motor (Bay-19)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BF	Propane Condenser Motor (Bay-20)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BG	Propane Condenser Motor (Bay-20)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BH	Propane Condenser Motor (Bay-20)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 3	HEM666292BI	Propane Condenser Motor (Bay-21)	AFC	LER823205	SWG822205	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BJ	Propane Condenser Motor (Bay-21)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BK	Propane Condenser Motor (Bay-21)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BL	Propane Condenser Motor (Bay-22)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BM	Propane Condenser Motor (Bay-22)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BN	Propane Condenser Motor (Bay-22)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BO	Propane Condenser Motor (Bay-23)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BP	Propane Condenser Motor (Bay-23)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BQ	Propane Condenser Motor (Bay-23)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BR	Propane Condenser Motor (Bay-24)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BS	Propane Condenser Motor (Bay-24)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BT	Propane Condenser Motor (Bay-24)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BU	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BV	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BW	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BX	Propane Condenser Motor (Bay-26)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BY	Propane Condenser Motor (Bay-26)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292BZ	Propane Condenser Motor (Bay-26)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CA	Propane Condenser Motor (Bay-27)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CB	Propane Condenser Motor (Bay-27)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CC	Propane Condenser Motor (Bay-27)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CD	Propane Condenser Motor (Bay-28)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CE	Propane Condenser Motor (Bay-28)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CF	Propane Condenser Motor (Bay-28)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CG	Propane Condenser Motor (Bay-29)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CH	Propane Condenser Motor (Bay-29)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CI	Propane Condenser Motor (Bay-29)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CJ	Propane Condenser Motor (Bay-30)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CK	Propane Condenser Motor (Bay-30)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CL	Propane Condenser Motor (Bay-30)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CM	Propane Condenser Motor (Bay-31)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CN	Propane Condenser Motor (Bay-31)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CO	Propane Condenser Motor (Bay-31)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CP	Propane Condenser Motor (Bay-32)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CQ	Propane Condenser Motor (Bay-32)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CR	Propane Condenser Motor (Bay-32)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CS	Propane Condenser Motor (Bay-33)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CT	Propane Condenser Motor (Bay-33)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CU	Propane Condenser Motor (Bay-33)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CV	Propane Condenser Motor (Bay-34)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CW	Propane Condenser Motor (Bay-34)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CX	Propane Condenser Motor (Bay-34)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CY	Propane Condenser Motor (Bay-35)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292CZ	Propane Condenser Motor (Bay-35)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DA	Propane Condenser Motor (Bay-35)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DB	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DC	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DD	Propane Condenser Motor (Bay-36)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DE	Propane Condenser Motor (Bay-37)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DF	Propane Condenser Motor (Bay-37)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DG	Propane Condenser Motor (Bay-37)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DH	Propane Condenser Motor (Bay-38)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DI	Propane Condenser Motor (Bay-38)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DJ	Propane Condenser Motor (Bay-38)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DK	Propane Condenser Motor (Bay-39)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DL	Propane Condenser Motor (Bay-39)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DM	Propane Condenser Motor (Bay-39)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DN	Propane Condenser Motor (Bay-40)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DO	Propane Condenser Motor (Bay-40)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DP	Propane Condenser Motor (Bay-40)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DQ	Propane Condenser Motor (Bay-41)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DR	Propane Condenser Motor (Bay-41)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 4	HEM666292DS	Propane Condenser Motor (Bay-41)	AFC	LER823206	SWG822206	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293A	Propane Subcooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293B	Propane Subcooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293C	Propane Subcooler Motor (Bay-1)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293D	Propane Subcooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293E	Propane Subcooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293F	Propane Subcooler Motor (Bay-2)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293G	Propane Subcooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293H	Propane Subcooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293I	Propane Subcooler Motor (Bay-3)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293J	Propane Subcooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293K	Propane Subcooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293L	Propane Subcooler Motor (Bay-4)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293M	Propane Subcooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293N	Propane Subcooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293O	Propane Subcooler Motor (Bay-5)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293P	Propane Subcooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293Q	Propane Subcooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293R	Propane Subcooler Motor (Bay-6)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293S	Propane Subcooler Motor (Bay-7)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293T	Propane Subcooler Motor (Bay-7)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293U	Propane Subcooler Motor (Bay-7)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293V	Propane Subcooler Motor (Bay-8)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293W	Propane Subcooler Motor (Bay-8)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2-LER in Main Pipe Rack 2	HEM666293X	Propane Subcooler Motor (Bay-8)	AFC	LER823204	SWG822204	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM666295	Propane Transfer Pump Motor	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM695206A	Scrub Column Reflux Pump Motor	Pump	LER823200	SWG822200	480	3	Continuous	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM695206B	Scrub Column Reflux Pump Motor	Pump	LER823200	SWG822200	480	3	Standby	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	HEM6955220A	Scrub Column Cooler Motor	Pump	LER823200	SWG822200	480	3	Continuous	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	HEM6955220B	Scrub Column Cooler Motor	Pump	LER823200	SWG822200	480	3	Standby	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	NAP695205	Scrub Column Reboiler Heater	Heater	LER823200	SWG823200	4160	3	Continuous	1,055	-	162.7	162.7	1002.3	1055.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	UPS826270A	UPS for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	UPS826270B	Telecom UPS for Train 2 main S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	BC826270A	DC UPS for instrument system for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	BC826270A	DC UPS for electrical system for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	DP863270A	Normal DP for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	80	-	106.9	106.9	80.0	80.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	DP869270B	Essential DP for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	AHU438270	HVAC for Train 2 S/S	Winterization/HVAC	LER823200	SWG822200	480	3	Continuous	150	-	200.5	200.5	150.0	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	ANAL724270	Analyzer House 1 - Train 2 (Main Ref.)	Others	LER823200	SWG822200	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	ANAL724272	Analyzer House 2 - Train 2 (For CEMS)	Others	LER823200	SWG822200	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	LTP863270A	Area Lighting for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	LTP863270B	Area Lighting for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	LTP863270C	Area Lighting for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	ELP829270	Essential Area Lighting for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	REC839270	Receptacle for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	WR839270A	Welding Outlet for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	WR839270B	Welding Outlet for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	WR839270C	Welding Outlet for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	WR839270D	Welding Outlet for Train 2 main S/S	Others	LER823200	SWG822200	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	CPR267270	Cathodic Protection for Train2 S/S	Others	LER823200	SWG822200	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 2	ETP862270	Heat Trace for Train2 S/S	Winterization/HVAC	LER823200	SWG822200	480	3	Continuous	200	-	267.3	267.3	200.0	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 1	Train 2	PEM997211	PCSW Collection Sump 1 Pump	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 2	PEM997212	PCSW Collection Sump 1 Pump	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 2	PEM997221	PCSW Collection Sump 2 Pump	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 2	PEM997222	PCSW Collection Sump 2 Pump	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Cranking Motor Space Heater	Heater	LER823201	SWG822201	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823201	SWG822201	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823201	SWG822201	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823201	SWG822201	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823201	SWG822201	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2	TBA	Cranking Motor	Pump	LER823200	SWG823200	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Emergency Lube Oil Pump Motor	Pump	LER823201	SWG822201	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Main Lube Oil Pump Motor	Pump	LER823201	SWG822201	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Main Lube Oil Pump Motor	Pump	LER823201	SWG822201	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823201	SWG822201	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823201	SWG822201	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823201	SWG822201	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823201	SWG822201	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823201	SWG822201	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823201	SWG822201	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	HP Turbine Turning Gear Motor	Pump	LER823201	SWG822201	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823201	SWG822201	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823201	SWG822201	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823201	SWG822201	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823201	SWG822201	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Water Washing Pump Motor	Pump	LER823201	SWG822201	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823201	SWG822201	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823201	SWG822201	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823201	SWG822201	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823201	SWG822201	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Turbine Control Panel	Others	LER823201	SWG822201	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210
CLIENT: Alaska LNG
LOCATION: Nikiski, Alaska
Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823201	SWG822201	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823201	SWG822201	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823201	SWG822201	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823201	SWG822201	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823201	SWG822201	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823201	SWG822201	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Battery Charger	Others	LER823201	SWG822201	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Water Mistfire Protection Panel	Others	LER823201	SWG822201	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Local Control Panel	Others	LER823201	SWG822201	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Remote Control Panel	Others	LER823201	SWG822201	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823201	SWG822201	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823201	SWG822201	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor1	TBA	HVAC for Train1 Main Ref Compressor S/S1	Winterization/HVAC	LER823201	SWG822201	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Cranking Motor Space Heater	Heater	LER823202	SWG822202	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823202	SWG822202	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823202	SWG822202	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823202	SWG822202	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823202	SWG822202	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2	TBA	Cranking Motor	Pump	LER823200	SWG823200	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Emergency Lube Oil Pump Motor	Pump	LER823202	SWG822202	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823202	SWG822202	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823202	SWG822202	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823202	SWG822202	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823202	SWG822202	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823202	SWG822202	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823202	SWG822202	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823202	SWG822202	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823202	SWG822202	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	HP Turbine Turning Gear Motor	Pump	LER823202	SWG822202	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823202	SWG822202	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823202	SWG822202	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823202	SWG822202	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823202	SWG822202	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Water Washing Pump Motor	Pump	LER823202	SWG822202	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823202	SWG822202	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823202	SWG822202	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823202	SWG822202	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823202	SWG822202	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Turbine Control Panel	Others	LER823202	SWG822202	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823202	SWG822202	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823202	SWG822202	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823202	SWG822202	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823202	SWG822202	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823202	SWG822202	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823202	SWG822202	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Battery Charger	Others	LER823202	SWG822202	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Water Mistfire Protection Panel	Others	LER823202	SWG822202	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Local Control Panel	Others	LER823202	SWG822202	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Remote Control Panel	Others	LER823202	SWG822202	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823202	SWG822202	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823202	SWG822202	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 2 - Main Ref Compressor2	TBA	HVAC for Train1 Main Ref Compressor S/S2	Winterization/HVAC	LER823202	SWG822202	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 0A	Train 2	PEM99822A	Liquefaction Train Impoundment Sump Pump	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM99822B	Liquefaction Train Impoundment Sump Pump	Pump	LER823200	SWG822200	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM99222A	Oil Sump Pumps	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM99222B	Oil Sump Pumps	Pump	LER823200	SWG822200	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM998222	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM998222	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823200	SWG822200	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM998223	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823200	SWG822200	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 2	PEM998223	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823200	SWG822200	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 1	Train 2	NAP699223	Defrost Gas Heater	Heater	LER823200	SWG823200	4160	3	Intermittent	5,100	-	786.5	786.5	4845.0	5100.0	0.95	0.950	0.900	Based on Equipment List (Rev. 0A)
Rev. 1	Train 2-LER in Main Pipe Rack 1	UPS826203A	UPS for Train 2 LER in Main Pipe Rack 1	Others	LER823203	SWG822203	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 1	UPS826203B	Telecom UPS for Train 2 LER in Main Pipe Rack 1	Others	LER823203	SWG822203	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 1	BC826203	DC UPS for Train 2 LER in Main Pipe Rack 1	Others	LER823203	SWG822203	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 1	LTP863203	Lighting Panel for Train 2 LER in Main Pipe Rack 1	Others	LER823203	SWG822203	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 1	DP863203	Distribution Panel for Train 2 LER in Main Pipe Rack 1	Others	LER823203	SWG822203	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 1	AHU438203	HVAC for Train 2 LER in Main Pipe Rack 1	Winterization/HVAC	LER823203	SWG822203	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	UPS826204A	UPS for Train 2 LER in Main Pipe Rack 2	Others	LER823204	SWG822204	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	UPS826204B	Telecom UPS for Train 2 LER in Main Pipe Rack 2	Others	LER823204	SWG822204	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	BC826204	DC UPS for Train 2 LER in Main Pipe Rack 2	Others	LER823204	SWG822204	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	LTP863204	Lighting Panel for Train 2 LER in Main Pipe Rack 2	Others	LER823204	SWG822204	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	DP863204	Distribution Panel for Train 2 LER in Main Pipe Rack 2	Others	LER823204	SWG822204	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 2	AHU438204	HVAC for Train 2 LER in Main Pipe Rack 2	Winterization/HVAC	LER823204	SWG822204	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	UPS826205A	UPS for Train 2 LER in Main Pipe Rack 3	Others	LER823205	SWG822205	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	UPS826205B	Telecom UPS for Train 2 LER in Main Pipe Rack 3	Others	LER823205	SWG822205	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	BC826205	DC UPS for Train 2 LER in Main Pipe Rack 3	Others	LER823205	SWG822205	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	LTP863205	Lighting Panel for Train 2 LER in Main Pipe Rack 3	Others	LER823205	SWG822205	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	DP863205	Distribution Panel for Train 2 LER in Main Pipe Rack 3	Others	LER823205	SWG822205	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 3	AHU438205	HVAC for Train 2 LER in Main Pipe Rack 3	Winterization/HVAC	LER823205	SWG822205	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	UPS826206A	UPS for Train 2 LER in Main Pipe Rack 4	Others	LER823206	SWG822206	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	UPS826206B	Telecom UPS for Train 2 LER in Main Pipe Rack 4	Others	LER823206	SWG822206	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	BC826206	DC UPS for Train 2 LER in Main Pipe Rack 4	Others	LER823206	SWG822206	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	LTP863206	Lighting Panel for Train 2 LER in Main Pipe Rack 4	Others	LER823206	SWG822206	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	DP863206	Distribution Panel for Train 2 LER in Main Pipe Rack 4	Others	LER823206	SWG822206	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 4	AHU438206	HVAC for Train 2 LER in Main Pipe Rack 4	Winterization/HVAC	LER823206	SWG822206	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	UPS826207A	UPS for Train 2 LER in Main Pipe Rack 5	Others	LER823207	SWG822207	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	UPS826207B	Telecom UPS for Train 2 LER in Main Pipe Rack 5	Others	LER823207	SWG822207	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	BC826207	DC UPS for Train 2 LER in Main Pipe Rack 5	Others	LER823207	SWG822207	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	LTP863207	Lighting Panel for Train 2 LER in Main Pipe Rack 5	Others	LER823207	SWG822207	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	DP863207	Distribution Panel for Train 2 LER in Main Pipe Rack 5	Others	LER823207	SWG822207	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 5	AHU438207	HVAC for Train 2 LER in Main Pipe Rack 5	Winterization/HVAC	LER823207	SWG822207	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	UPS826208A	UPS for Train 2 LER in Main Pipe Rack 6	Others	LER823208	SWG822208	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	UPS826208B	Telecom UPS for Train 2 LER in Main Pipe Rack 6	Others	LER823208	SWG822208	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	BC826208	DC UPS for Train 2 LER in Main Pipe Rack 6	Others	LER823208	SWG822208	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	LTP863208	Lighting Panel for Train 2 LER in Main Pipe Rack 6	Others	LER823208	SWG822208	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	DP863208	Distribution Panel for Train 2 LER in Main Pipe Rack 6	Others	LER823208	SWG822208	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 2-LER in Main Pipe Rack 6	AHU438208	HVAC for Train 2 LER in Main Pipe Rack 6	Winterization/HVAC	LER823208	SWG822208	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666323O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 5	HEM666322R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823307	SWG822307	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666333F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666332U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363A	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363B	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363C	LP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363D	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363E	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363F	LP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363G	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363H	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363I	LP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363J	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363K	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363L	LP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363M	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363N	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363O	LP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363P	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363Q	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666363R	LP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362A	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362B	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362C	MP MR Compressor Intercooler Motor (Bay-1)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362D	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362E	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362F	MP MR Compressor Intercooler Motor (Bay-2)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362G	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362H	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362I	MP MR Compressor Intercooler Motor (Bay-3)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362J	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362K	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362L	MP MR Compressor Intercooler Motor (Bay-4)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362M	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362N	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362O	MP MR Compressor Intercooler Motor (Bay-5)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362P	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362Q	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 6	HEM666362R	MP MR Compressor Intercooler Motor (Bay-6)	AFC	LER823308	SWG822308	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373A	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373B	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373C	HP MR Compressor Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373D	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373E	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666373F	HP MR Compressor Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372A	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372B	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372C	HP MR Compressor Aftercooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372D	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372E	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372F	HP MR Compressor Aftercooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372G	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372H	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372I	HP MR Compressor Aftercooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372G	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372K	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372L	HP MR Compressor Aftercooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372M	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372N	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372O	HP MR Compressor Aftercooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372P	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372Q	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372R	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372S	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372T	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666372U	HP MR Compressor Aftercooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344A	Propane Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344B	Propane Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344C	Propane Desuperheater Motor (Bay-1)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344D	Propane Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344E	Propane Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344F	Propane Desuperheater Motor (Bay-2)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344G	Propane Desuperheater Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344H	Propane Desuperheater Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344I	Propane Desuperheater Motor (Bay-3)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344J	Propane Desuperheater Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344K	Propane Desuperheater Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 1	HEM666344L	Propane Desuperheater Motor (Bay-4)	AFC	LER823303	SWG822303	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384A	Propane Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384B	Propane Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384C	Propane Desuperheater Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384D	Propane Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384E	Propane Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384F	Propane Desuperheater Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384G	Propane Desuperheater Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384H	Propane Desuperheater Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384I	Propane Desuperheater Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384J	Propane Desuperheater Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384K	Propane Desuperheater Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666384L	Propane Desuperheater Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393A	Propane Condenser Motor (Bay-1)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393B	Propane Condenser Motor (Bay-1)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393C	Propane Condenser Motor (Bay-1)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393D	Propane Condenser Motor (Bay-2)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393E	Propane Condenser Motor (Bay-2)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393F	Propane Condenser Motor (Bay-2)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393G	Propane Condenser Motor (Bay-3)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393H	Propane Condenser Motor (Bay-3)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393I	Propane Condenser Motor (Bay-3)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393J	Propane Condenser Motor (Bay-4)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393K	Propane Condenser Motor (Bay-4)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393L	Propane Condenser Motor (Bay-4)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393M	Propane Condenser Motor (Bay-5)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393N	Propane Condenser Motor (Bay-5)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393O	Propane Condenser Motor (Bay-5)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393P	Propane Condenser Motor (Bay-6)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393Q	Propane Condenser Motor (Bay-6)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393R	Propane Condenser Motor (Bay-6)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393S	Propane Condenser Motor (Bay-7)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393T	Propane Condenser Motor (Bay-7)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393U	Propane Condenser Motor (Bay-7)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393V	Propane Condenser Motor (Bay-8)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393W	Propane Condenser Motor (Bay-8)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393X	Propane Condenser Motor (Bay-8)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393Y	Propane Condenser Motor (Bay-9)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393Z	Propane Condenser Motor (Bay-9)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AA	Propane Condenser Motor (Bay-9)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AB	Propane Condenser Motor (Bay-10)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AC	Propane Condenser Motor (Bay-10)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AD	Propane Condenser Motor (Bay-10)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AE	Propane Condenser Motor (Bay-11)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AF	Propane Condenser Motor (Bay-11)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AG	Propane Condenser Motor (Bay-11)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AH	Propane Condenser Motor (Bay-12)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AI	Propane Condenser Motor (Bay-12)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AJ	Propane Condenser Motor (Bay-12)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AK	Propane Condenser Motor (Bay-13)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AL	Propane Condenser Motor (Bay-13)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AM	Propane Condenser Motor (Bay-13)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AN	Propane Condenser Motor (Bay-14)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AO	Propane Condenser Motor (Bay-14)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AP	Propane Condenser Motor (Bay-14)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AQ	Propane Condenser Motor (Bay-15)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AR	Propane Condenser Motor (Bay-15)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AS	Propane Condenser Motor (Bay-15)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AT	Propane Condenser Motor (Bay-16)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AU	Propane Condenser Motor (Bay-16)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AV	Propane Condenser Motor (Bay-16)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AW	Propane Condenser Motor (Bay-17)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AX	Propane Condenser Motor (Bay-17)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AY	Propane Condenser Motor (Bay-17)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393AZ	Propane Condenser Motor (Bay-18)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BA	Propane Condenser Motor (Bay-18)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BB	Propane Condenser Motor (Bay-18)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BC	Propane Condenser Motor (Bay-19)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BD	Propane Condenser Motor (Bay-19)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BE	Propane Condenser Motor (Bay-19)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BF	Propane Condenser Motor (Bay-20)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BG	Propane Condenser Motor (Bay-20)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BH	Propane Condenser Motor (Bay-20)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 3	HEM666393BI	Propane Condenser Motor (Bay-21)	AFC	LER823305	SWG822305	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BJ	Propane Condenser Motor (Bay-21)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BK	Propane Condenser Motor (Bay-21)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BL	Propane Condenser Motor (Bay-22)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BM	Propane Condenser Motor (Bay-22)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BN	Propane Condenser Motor (Bay-22)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BO	Propane Condenser Motor (Bay-23)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BP	Propane Condenser Motor (Bay-23)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BQ	Propane Condenser Motor (Bay-23)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BR	Propane Condenser Motor (Bay-24)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BS	Propane Condenser Motor (Bay-24)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BT	Propane Condenser Motor (Bay-24)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BU	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BV	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BW	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BX	Propane Condenser Motor (Bay-26)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BY	Propane Condenser Motor (Bay-26)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393BZ	Propane Condenser Motor (Bay-26)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CA	Propane Condenser Motor (Bay-27)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CB	Propane Condenser Motor (Bay-27)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CC	Propane Condenser Motor (Bay-27)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CD	Propane Condenser Motor (Bay-28)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CE	Propane Condenser Motor (Bay-28)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CF	Propane Condenser Motor (Bay-28)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CG	Propane Condenser Motor (Bay-29)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CH	Propane Condenser Motor (Bay-29)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CI	Propane Condenser Motor (Bay-29)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CJ	Propane Condenser Motor (Bay-30)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CK	Propane Condenser Motor (Bay-30)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CL	Propane Condenser Motor (Bay-30)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CM	Propane Condenser Motor (Bay-31)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CN	Propane Condenser Motor (Bay-31)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CO	Propane Condenser Motor (Bay-31)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CP	Propane Condenser Motor (Bay-32)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CQ	Propane Condenser Motor (Bay-32)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CR	Propane Condenser Motor (Bay-32)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CS	Propane Condenser Motor (Bay-33)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CT	Propane Condenser Motor (Bay-33)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CU	Propane Condenser Motor (Bay-33)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CV	Propane Condenser Motor (Bay-34)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CW	Propane Condenser Motor (Bay-34)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CX	Propane Condenser Motor (Bay-34)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CY	Propane Condenser Motor (Bay-35)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393CZ	Propane Condenser Motor (Bay-35)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DA	Propane Condenser Motor (Bay-35)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DB	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DC	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DD	Propane Condenser Motor (Bay-36)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DE	Propane Condenser Motor (Bay-37)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DF	Propane Condenser Motor (Bay-37)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DG	Propane Condenser Motor (Bay-37)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DH	Propane Condenser Motor (Bay-38)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DI	Propane Condenser Motor (Bay-38)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DJ	Propane Condenser Motor (Bay-38)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DK	Propane Condenser Motor (Bay-39)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DL	Propane Condenser Motor (Bay-39)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DM	Propane Condenser Motor (Bay-39)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DN	Propane Condenser Motor (Bay-40)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DO	Propane Condenser Motor (Bay-40)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DP	Propane Condenser Motor (Bay-40)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DQ	Propane Condenser Motor (Bay-41)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DR	Propane Condenser Motor (Bay-41)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 4	HEM666393DS	Propane Condenser Motor (Bay-41)	AFC	LER823306	SWG822306	480	3	Continuous	-	40	45.1	52.0	24.8	29.8	0.83	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393A	Propane Subcooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393B	Propane Subcooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393C	Propane Subcooler Motor (Bay-1)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393D	Propane Subcooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393E	Propane Subcooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393F	Propane Subcooler Motor (Bay-2)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393G	Propane Subcooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393H	Propane Subcooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393I	Propane Subcooler Motor (Bay-3)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393J	Propane Subcooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393K	Propane Subcooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393L	Propane Subcooler Motor (Bay-4)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393M	Propane Subcooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393N	Propane Subcooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393O	Propane Subcooler Motor (Bay-5)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393P	Propane Subcooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393Q	Propane Subcooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393R	Propane Subcooler Motor (Bay-6)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393S	Propane Subcooler Motor (Bay-7)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393T	Propane Subcooler Motor (Bay-7)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393U	Propane Subcooler Motor (Bay-7)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393V	Propane Subcooler Motor (Bay-8)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393W	Propane Subcooler Motor (Bay-8)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3-LER in Main Pipe Rack 2	HEM666393X	Propane Subcooler Motor (Bay-8)	AFC	LER823304	SWG822304	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM666395	Propane Transfer Pump Motor	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM695306A	Scrub Column Reflux Pump Motor	Pump	LER823300	SWG822300	480	3	Continuous	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM695306B	Scrub Column Reflux Pump Motor	Pump	LER823300	SWG822300	480	3	Standby	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	HEM6955330A	Scrub Column Cooler Motor	Pump	LER823300	SWG822300	480	3	Continuous	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	HEM6955330B	Scrub Column Cooler Motor	Pump	LER823300	SWG822300	480	3	Standby	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	NAP695305	Scrub Column Reboiler Heater	Heater	LER823300	SWG823300	4160	3	Continuous	1,055	-	162.7	162.7	1002.3	1055.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	UPS826370A	UPS for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	UPS826370B	Telecom UPS for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	BC826370A	DC UPS for instrument system for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	BC826370A	DC UPS for electrical system for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	DP863370A	Normal DP for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	80	-	106.9	106.9	80.0	80.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	DP869370B	Essential DP for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	AHU438370	HVAC for Train3 S/S	Winterization/HVAC	LER823300	SWG822300	480	3	Continuous	150	-	200.5	200.5	150.0	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	ANAL734370	Analyzer House 1 - Train 3 (Main Ref.)	Others	LER823300	SWG822300	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	ANAL734373	Analyzer House 2 - Train 3 (For CEMS)	Others	LER823300	SWG822300	480	3	Continuous	75	-	100.2	100.2	75.0	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	LTP863370A	Area Lighting for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	LTP863370B	Area Lighting for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	LTP863370C	Area Lighting for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	ELP829370	Essential Area Lighting for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	REC839370	Receptacle for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	WR839370A	Welding Outlet for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	WR839370B	Welding Outlet for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	WR839370C	Welding Outlet for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	WR839370D	Welding Outlet for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	30	-	40.1	40.1	30.0	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	CPR267370	Cathodic Protection for Train3 S/S	Others	LER823300	SWG822300	480	3	Continuous	50	-	66.8	66.8	50.0	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Train 3	ETP863370	Heat Trace for Train3 S/S	Winterization/HVAC	LER823300	SWG822300	480	3	Continuous	200	-	267.3	267.3	200.0	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 1	Train 3	PEM997311	PCSW Collection Sump 1 Pump	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 3	PEM997312	PCSW Collection Sump 1 Pump	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 3	PEM997321	PCSW Collection Sump 2 Pump	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 3	PEM997322	PCSW Collection Sump 2 Pump	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. 0A)
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Cranking Motor Space Heater	Heater	LER823301	SWG822301	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823301	SWG822301	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Tank Immersion Heater	Heater	LER823301	SWG822301	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823301	SWG822301	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823301	SWG822301	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3	TBA	Cranking Motor	Pump	LER823300	SWG823300	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Emergency Lube Oil Pump Motor	Pump	LER823301	SWG822301	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Main Lube Oil Pump Motor	Pump	LER823301	SWG822301	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Main Lube Oil Pump Motor	Pump	LER823301	SWG822301	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823301	SWG822301	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823301	SWG822301	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210
CLIENT: Alaska LNG
LOCATION: Nikiski, Alaska
Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823301	SWG822301	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823301	SWG822301	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823301	SWG822301	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823301	SWG822301	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	HP Turbine Turning Gear Motor	Pump	LER823301	SWG822301	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823301	SWG822301	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823301	SWG822301	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823301	SWG822301	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823301	SWG822301	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Water Washing Pump Motor	Pump	LER823301	SWG822301	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823301	SWG822301	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823301	SWG822301	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Lube Oil Cooler Fan Motor	AFC	LER823301	SWG822301	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823301	SWG822301	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Turbine Control Panel	Others	LER823301	SWG822301	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823301	SWG822301	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823301	SWG822301	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823301	SWG822301	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823301	SWG822301	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823301	SWG822301	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823301	SWG822301	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Battery Charger	Others	LER823301	SWG822301	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Water Mistfire Protection Panel	Others	LER823301	SWG822301	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Local Control Panel	Others	LER823301	SWG822301	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Remote Control Panel	Others	LER823301	SWG822301	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823301	SWG822301	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	Calorie Meter	Others	LER823301	SWG822301	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor1	TBA	HVAC for Train1 Main Ref Compressor S/S1	Winterization/HVAC	LER823301	SWG822301	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Cranking Motor Space Heater	Heater	LER823302	SWG822302	480	3	Continuous	0.3	-	0.4	0.4	0.3	0.3	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823302	SWG822302	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Tank Immersion Heater	Heater	LER823302	SWG822302	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823302	SWG822302	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Space Heater for Ventilation Inlet Air	Heater	LER823302	SWG822302	480	3	Standby	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3	TBA	Cranking Motor	Pump	LER823300	SWG823300	4160	3	Intermittent	-	1,250	157.7	157.7	720.0	750	0.96	0.959	0.856	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Emergency Lube Oil Pump Motor	Pump	LER823302	SWG822302	480	3	Intermittent	-	25	27.7	34.0	14.3	15	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823302	SWG822302	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Main Lube Oil Pump Motor	Pump	LER823302	SWG822302	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823302	SWG822302	480	3	Continuous	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Mist Separator Fan Motor	AFC	LER823302	SWG822302	480	3	Standby	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823302	SWG822302	480	3	Continuous	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Exhaust Plenum Cooling Blower Motor	Pump	LER823302	SWG822302	480	3	Standby	-	150	163.4	180.0	104.5	110	0.95	0.958	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823302	SWG822302	480	3	Continuous	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	No.3 Bearing Area Cooling Blower Motor	Pump	LER823302	SWG822302	480	3	Standby	-	50	55.7	65.0	28.5	30	0.95	0.936	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	HP Turbine Turning Gear Motor	Pump	LER823302	SWG822302	480	3	Intermittent	-	20	23.9	27.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823302	SWG822302	480	3	Continuous	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Turbine Compartment Ventilation Fan Motor	AFC	LER823302	SWG822302	480	3	Standby	-	125	137.3	156.0	71.3	75	0.95	0.950	0.860	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823302	SWG822302	480	3	Continuous	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210
CLIENT: Alaska LNG
LOCATION: Nikiski, Alaska
Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Main Hydraulic Supply Pump Motor	Pump	LER823302	SWG822302	480	3	Standby	-	25	27.7	34.0	17.6	18.5	0.95	0.930	0.870	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Water Washing Pump Motor	Pump	LER823302	SWG822302	480	3	Intermittent	-	15	17.9	21.0	10.5	11	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823302	SWG822302	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823302	SWG822302	480	3	Continuous	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Lube Oil Cooler Fan Motor	AFC	LER823302	SWG822302	480	3	Standby	-	15	17.9	21.0	9.5	10	0.95	0.917	0.820	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Torque Converter Torque Adjusting Servo Motor	Pump	LER823302	SWG822302	480	3	Intermittent	-	0.5	0.7	1.1	0.3	0.3	0.95	0.825	0.760	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Turbine Control Panel	Others	LER823302	SWG822302	480	3	Continuous	4	-	5.3	5.3	4.0	4.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Normal Distribution Panel for Train1 H-110 Auxiliary	Others	LER823302	SWG822302	480	3	Continuous	5	-	6.7	6.7	5.0	5.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Essential Distribution Panel for Train1 H-110 Auxiliary	Others	LER823302	SWG822302	480	3	Continuous	0.5	-	0.7	0.7	0.5	0.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823302	SWG822302	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment1	Winterization/HVAC	LER823302	SWG822302	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823302	SWG822302	480	3	Continuous	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Air Conditioner for Control Compartment2	Winterization/HVAC	LER823302	SWG822302	480	3	Standby	3.5	-	4.7	4.7	3.5	3.5	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Battery Charger	Others	LER823302	SWG822302	480	3	Continuous	7	-	9.4	9.4	7.0	7.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Water Mistfire Protection Panel	Others	LER823302	SWG822302	480	3	Continuous	0.7	-	0.9	0.9	0.7	0.7	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Local Control Panel	Others	LER823302	SWG822302	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Remote Control Panel	Others	LER823302	SWG822302	480	3	Continuous	1	-	1.3	1.3	1.0	1.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823302	SWG822302	480	3	Continuous	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	Calorie Meter	Others	LER823302	SWG822302	480	3	Standby	0.2	-	0.3	0.3	0.2	0.2	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 1	Train 3 - Main Ref Compressor2	TBA	HVAC for Train1 Main Ref Compressor S/S2	Winterization/HVAC	LER823302	SWG822302	480	3	Continuous	100	-	133.6	133.6	100.0	100.0	1.00	0.950	0.900	Based on Auxiliary Power List for H-110 Gas Turbine. This load will be supplied by Vendor
Rev. 0A	Train 3	PEM998323A	Liquefaction Train Impoundment Sump Pump	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM998323B	Liquefaction Train Impoundment Sump Pump	Pump	LER823300	SWG822300	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM993333A	Oil Sump Pumps	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM993333B	Oil Sump Pumps	Pump	LER823300	SWG822300	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM998332	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM998322	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823300	SWG822300	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM998333	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823300	SWG822300	480	3	Intermittent	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Train 3	PEM998323	Liquefaction Compressor Impoundment Sump Pumps	Pump	LER823300	SWG822300	480	3	Standby	-	75	84.1	96.0	50.0	56.0	0.89	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 1	Train 3	NAP699333	Defrost Gas Heater	Heater	LER823300	SWG823300	4160	3	Intermittent	5,100	-	786.5	786.5	4845.0	5100.0	0.95	0.950	0.900	Based on Equipment List (Rev. 0A)
Rev. 1	Train 3-LER in Main Pipe Rack 1	UPS826303A	UPS for Train 3 LER in Main Pipe Rack 1	Others	LER823303	SWG822303	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 1	UPS826303B	Telecom UPS for Train 3 LER in Main Pipe Rack 1	Others	LER823303	SWG822303	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 1	BC826303	DC UPS for Train 3 LER in Main Pipe Rack 1	Others	LER823303	SWG822303	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 1	LTP863303	Lighting Panel for Train 3 LER in Main Pipe Rack 1	Others	LER823303	SWG822303	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 1	DP863303	Distribution Panel for Train 3 LER in Main Pipe Rack 1	Others	LER823303	SWG822303	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 1	AHU438303	HVAC for Train 3 LER in Main Pipe Rack 1	Winterization/HVAC	LER823303	SWG822303	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	UPS826304A	UPS for Train 3 LER in Main Pipe Rack 2	Others	LER823304	SWG822304	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	UPS826304B	Telecom UPS for Train 3 LER in Main Pipe Rack 2	Others	LER823304	SWG822304	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	BC826304	DC UPS for Train 3 LER in Main Pipe Rack 2	Others	LER823304	SWG822304	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	LTP863304	Lighting Panel for Train 3 LER in Main Pipe Rack 2	Others	LER823304	SWG822304	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	DP863304	Distribution Panel for Train 3 LER in Main Pipe Rack 2	Others	LER823304	SWG822304	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 2	AHU438304	HVAC for Train 3 LER in Main Pipe Rack 2	Winterization/HVAC	LER823304	SWG822304	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	UPS826305A	UPS for Train 3 LER in Main Pipe Rack 3	Others	LER823305	SWG822305	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	UPS826305B	Telecom UPS for Train 3 LER in Main Pipe Rack 3	Others	LER823305	SWG822305	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	BC826305	DC UPS for Train 3 LER in Main Pipe Rack 3	Others	LER823305	SWG822305	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	LTP863305	Lighting Panel for Train 3 LER in Main Pipe Rack 3	Others	LER823305	SWG822305	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	DP863305	Distribution Panel for Train 3 LER in Main Pipe Rack 3	Others	LER823305	SWG822305	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 3	AHU438305	HVAC for Train 3 LER in Main Pipe Rack 3	Winterization/HVAC	LER823305	SWG822305	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	UPS826306A	UPS for Train 3 LER in Main Pipe Rack 4	Others	LER823306	SWG822306	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	UPS826306B	Telecom UPS for Train 3 LER in Main Pipe Rack 4	Others	LER823306	SWG822306	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	BC826306	DC UPS for Train 3 LER in Main Pipe Rack 4	Others	LER823306	SWG822306	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	LTP863306	Lighting Panel for Train 3 LER in Main Pipe Rack 4	Others	LER823306	SWG822306	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	DP863306	Distribution Panel for Train 3 LER in Main Pipe Rack 4	Others	LER823306	SWG822306	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 4	AHU438306	HVAC for Train 3 LER in Main Pipe Rack 4	Winterization/HVAC	LER823306	SWG822306	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	UPS826307A	UPS for Train 3 LER in Main Pipe Rack 5	Others	LER823307	SWG822307	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	UPS826307B	Telecom UPS for Train 3 LER in Main Pipe Rack 5	Others	LER823307	SWG822307	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	BC826307	DC UPS for Train 3 LER in Main Pipe Rack 5	Others	LER823307	SWG822307	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	LTP863307	Lighting Panel for Train 3 LER in Main Pipe Rack 5	Others	LER823307	SWG822307	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	DP863307	Distribution Panel for Train 3 LER in Main Pipe Rack 5	Others	LER823307	SWG822307	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 5	AHU438307	HVAC for Train 3 LER in Main Pipe Rack 5	Winterization/HVAC	LER823307	SWG822307	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	UPS826308A	UPS for Train 3 LER in Main Pipe Rack 6	Others	LER823308	SWG822308	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	UPS826308B	Telecom UPS for Train 3 LER in Main Pipe Rack 6	Others	LER823308	SWG822308	480	3	Continuous	10	-	13.4	13.4	10	10.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	BC826308	DC UPS for Train 3 LER in Main Pipe Rack 6	Others	LER823308	SWG822308	480	3	Continuous	20	-	26.7	26.7	20	20.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	LTP863308	Lighting Panel for Train 3 LER in Main Pipe Rack 6	Others	LER823308	SWG822308	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	DP863308	Distribution Panel for Train 3 LER in Main Pipe Rack 6	Others	LER823308	SWG822308	480	3	Continuous	65	-	86.9	86.9	65	65.0	1.00	0.950	0.900	
Rev. 1	Train 3-LER in Main Pipe Rack 6	AHU438308	HVAC for Train 3 LER in Main Pipe Rack 6	Winterization/HVAC	LER823308	SWG822308	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	
Rev. 0A	Common Process & Utility	PEM631505A	Deethanizer Reflux Pump Motor	Pump	LER823870	SWG822870A	480	3	Continuous	-	30	33.7	40.0	17.9	22.4	0.80	0.930	0.860	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Common Process & Utility	PEM631505B	Deethanizer Reflux Pump Motor	Pump	LER823870	SWG822870A	480	3	Standby	-	30	33.7	40.0	17.9	22.4	0.80	0.930	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508A	Depropanizer Condenser Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508B	Depropanizer Condenser Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508C	Depropanizer Condenser Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508D	Depropanizer Condenser Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508E	Depropanizer Condenser Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508F	Depropanizer Condenser Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508G	Depropanizer Condenser Motor (Bay-4)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508H	Depropanizer Condenser Motor (Bay-4)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508I	Depropanizer Condenser Motor (Bay-5)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631508J	Depropanizer Condenser Motor (Bay-5)	AFC	LER823870	SWG822870A	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631510A	Depropanizer Reflux Pump Motor	Pump	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	6.9	11.2	0.62	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631510B	Depropanizer Reflux Pump Motor	Pump	LER823870	SWG822870B	480	3	Standby	-	15	17.9	21.0	6.9	11.2	0.62	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631511A	Propane Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	28.3	37.3	0.76	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631511B	Propane Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Standby	-	50	55.7	65.0	28.3	37.3	0.76	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631514A	Debutanizer Condenser Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631514B	Debutanizer Condenser Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631514C	Debutanizer Condenser Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631514D	Debutanizer Condenser Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631516A	Debutanizer Reflux Pump Motor	Pump	LER823870	SWG822870B	480	3	Continuous	-	15	17.9	21.0	5.9	11.2	0.53	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631516B	Debutanizer Reflux Pump Motor	Pump	LER823870	SWG822870B	480	3	Standby	-	15	17.9	21.0	5.9	11.2	0.53	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631517A	Butane Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Continuous	-	40	45.1	52.0	20.3	29.8	0.68	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631517B	Butane Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Standby	-	40	45.1	52.0	20.3	29.8	0.68	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	NAP966502	Start Up Fuel Gas Heater	Heater	LER823570	SWG823570	4160	3	Intermittent	2,300	-	354.7	354.7	2185.0	2300.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631518A	Debutanizer Condensate Product Cooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM631518B	Debutanizer Condensate Product Cooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Intermittent	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631521A	LPG Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Continuous	-	40	45.1	52.0	22.4	29.8	0.75	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM631521B	LPG Reinjection Pump Motor	Pump	LER823870	SWG822870B	480	3	Standby	-	40	45.1	52.0	22.4	29.8	0.75	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	HEM661509A	Regeneration Gas Cooler Motor (Bay-1)	AFC	LER823570	SWG822570A	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	HEM661509B	Regeneration Gas Cooler Motor (Bay-1)	AFC	LER823570	SWG822570A	480	3	Continuous	-	25	27.7	34.0	17.7	18.7	0.95	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	NAP661513	Regeneration Gas Heater	Heater	LER823570	SWG823570	4160	3	Intermittent	4,300	-	663.1	663.1	4085.0	4300.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	NAP661514	Regeneration Gas Heater	Heater	LER823570	SWG823570	4160	3	Intermittent	4,300	-	663.1	663.1	4085.0	4300.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 1	Inlet Gas Treating	PEM997511	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	50	55.7	65.0	30	37.3	0.80	0.936	0.860	Based on Equipment List (Rev. 0A)
Rev. 1	Inlet Gas Treating	PEM997513	PCSW Collection Sump 3 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	50	55.7	65.0	30	37.3	0.80	0.936	0.860	Based on Equipment List (Rev. 0A)
Rev. 1	Inlet Gas Treating	PEM997521	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	50	55.7	65.0	30	37.3	0.80	0.936	0.860	Based on Equipment List (Rev. 0A)
Rev. 1	Inlet Gas Treating	PEM997523	PCSW Collection Sump 3 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	50	55.7	65.0	30	37.3	0.80	0.936	0.860	Based on Equipment List (Rev. 0A)
Rev. 0A	Non-Hydrocarbon Utility	UPS826570A	UPS System (Telecom & Others) for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	UPS826570B	Telecom UPS system (Dedicated Telecom) for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	BC826570A	DC UPS for instrument system for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	BC826570B	DC UPS for electrical system for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	DP863570A	Normal DP for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	240	-	320.8	320.8	240	240.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863570B	Normal DP for Guard House - Marine Guard	Others	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	DP869570A	Essential DP for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	240	-	320.8	320.8	240	240.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP869570B	Essential DP for Guard House - Marine Guard	Others	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	AHU438570	HVAC for Gas Treatment S/S	Winterization/HVAC	LER823570	SWG822570A	480	3	Continuous	150	-	200.5	200.5	150	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438571	HVAC for Guard House - Marine Guard	Winterization/HVAC	LER823570	SWG823570	4160	3	Continuous	26	-	4.1	4.1	26.3	26.3	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	ANAL714570	Analyzer House 5 - Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	LTP863570A	Area Lighting for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	100	-	133.6	133.6	100	100.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	LTP863570B	Area Lighting for Gas Treatment S/S	Others	LER823570	SWG822570A	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	ELP869570	Essential Area Lighting for Gas Treatment S/S	Others	LER823570	SWG822570B	480	3	Continuous	100	-	133.6	133.6	100	100.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	REC839570	Receptacle for Gas Treatment S/S	Others	LER823570	SWG822570B	480	3	Continuous	100	-	133.6	133.6	100	100.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	WR839570A	Welding Outlet for Gas Treatment S/S	Others	LER823570	SWG822570B	480	3	Continuous	90	-	120.3	120.3	90	90.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	WR839570B	Welding Outlet for Gas Treatment S/S	Others	LER823570	SWG822570B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	CPR267570	Cathodic Protection for Gas Treatment S/S	Others	LER823570	SWG822570B	480	3	Continuous	100	-	133.6	133.6	100	100.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	ETP861570A	Heat Trace for Gas Treatment S/S	Winterization/HVAC	LER823570	SWG822570B	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	CAR966505	BOG Recycle Compressor	Compressor	LER823570	SWG823570	4160	3	Continuous	-	2,650	325.6	430.1	1937.4	1976.9	0.98	0.964	0.874	Based on Equipment List (Rev. F)
Rev. 0A	Inlet Gas Treating	CAR966505_Aux	Aux for BOG Recycle Compressor	Others	LER823570	SWG822570A	480	3	Continuous	50	-	66.8	66.8	47.5	50.0	0.95	0.950	0.900	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506A	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506B	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506C	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506D	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506E	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Inlet Gas Treating	HEM966506F	BOG Recycle Compressor After Cooler	Pump	LER823570	SWG822570A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Estimated by Electrical
Rev. 0A	Common Process & Utility	PEM998512	Fractionation Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Intermittent	-	150	163.4	180.0	87.3	111.9	0.78	0.958	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998522	Fractionation Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Standby	-	150	163.4	180.0	87.3	111.9	0.78	0.958	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976601	Well Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	60	67.7	77.0	34.9	44.8	0.78	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976602	Well Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	60	67.7	77.0	34.9	44.8	0.78	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976641	Well Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	60	67.7	77.0	34.9	44.8	0.78	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976642	Well Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	60	67.7	77.0	34.9	44.8	0.78	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	ETP861570B	Heat Trace for Gas Treatment S/S	Winterization/HVAC	LER823570	SWG822570B	480	3	Continuous	200	-	267.3	267.3	200.0	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	ETP861570C	Heat Trace for Gas Treatment S/S	Winterization/HVAC	LER823570	SWG822570B	480	3	Continuous	200	-	267.3	267.3	200.0	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	PEM976607A	Fresh Water Tank Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	25	27.7	34.0	13.4	18.7	0.72	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976607B	Fresh Water Tank Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	25	27.7	34.0	13.4	18.7	0.72	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP976603	Fresh Water Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Continuous	900	-	138.8	138.8	855.0	900.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP976604	Fresh Water Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Standby	900	-	138.8	138.8	855.0	900.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM911702A	Diesel Transfer Pump Motor	Pump	LER823672	SWG822672A	480	3	Continuous	-	5	6.3	7.6	3.0	3.7	0.81	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM911702B	Diesel Transfer Pump Motor	Pump	LER823672	SWG822672A	480	3	Standby	-	5	6.3	7.6	3.0	3.7	0.81	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	V956603A	Instrument Air Dryer Package	Package	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	V956603C	Instrument Air Dryer Package	Package	LER823870	SWG822870A	480	3	Standby	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Condensate & Diesel Storage	V961601A	Purge Nitrogen Generation Package	Package	LER823672	SWG822672A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	V961601B	Purge Nitrogen Generation Package	Package	LER823672	SWG822672A	480	3	Standby	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	V961602	High Purity Nitrogen Generation Package	Package	LER823672	SWG822672A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	V961640	High Purity Liquid Nitrogen Storage & Vaporizer Package	Package	LER823672	SWG822672A	480	3	Continuous	-	50	55.7	65.0	35.4	37.3	0.95	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	V955601A	Air Compressor Package	Compressor	LER823672	SWG823672	4160	3	Continuous	-	1,500	190.1	190.0	1063.1	1119.0	0.95	0.962	0.849	Estimated by Rotating
Rev. 0A	Condensate & Diesel Storage	V955601A_Aux	Aux_Air Compressor Package	Compressor	LER823672	SWG822672A	480	3	Continuous	50	-	66.8	66.8	47.5	50.0	0.95	0.950	0.900	Estimated by Rotating
Rev. 0A	Condensate & Diesel Storage	V955601C	Air Compressor Package (Diesel)	Compressor	LER823672	SWG823672	4160	3	Standby	-	1,500	190.1	190.0	1063.1	1119.0	0.95	0.962	0.849	Estimated by Rotating
Rev. 0A	Common Process & Utility	HEM987660	LP Steam Dump Condenser	Pump	LER823870	SWG822870B	480	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Non-Hydrocarbon Utility	PEM976608A	Fire Water Make Up Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	25	27.7	34.0	11.2	18.7	0.60	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976608B	Fire Water Make Up Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	25	27.7	34.0	11.2	18.7	0.60	0.930	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976615A	Clarifier Sludge Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	10	11.9	14.0	5.2	7.5	0.70	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976615B	Clarifier Sludge Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	10	11.9	14.0	5.2	7.5	0.70	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976616A	Reclaimed Water Sump Pump Motor	Pump	LER823570	SWG822570B	480	3	Intermittent	-	5	6.3	7.6	2.2	3.7	0.60	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976616B	Reclaimed Water Sump Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	5	6.3	7.6	2.2	3.7	0.60	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976617A	Clarified Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	30	33.7	40.0	15.7	22.4	0.70	0.930	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976617B	Clarified Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	30	33.7	40.0	15.7	22.4	0.70	0.930	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976627A	Backwash Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976627B	Backwash Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	20	24.5	27.0	14.2	14.9	0.95	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976628A	Filtered Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM976628B	Filtered Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP976635	Clarified Water Clearwell Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Continuous	200	-	30.8	30.8	146.0	200.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP976636	Filtered Water Storage Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Continuous	300	-	46.3	46.3	219.0	300.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977622A	Potable Water Feed Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977622B	Potable Water Feed Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977630A	Potable Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	15	17.9	21.0	7.5	11.2	0.67	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977630B	Potable Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	15	17.9	21.0	7.5	11.2	0.67	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP977622	Potable Water Storage Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Continuous	300	-	46.3	46.3	219.0	300.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM979632A	Demineralization Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Continuous	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM979632B	Demineralization Water Forwarding Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM979634A	Chemical Sump Lift Pump Motor	Pump	LER823570	SWG822570B	480	3	Intermittent	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM979634B	Chemical Sump Lift Pump Motor	Pump	LER823570	SWG822570B	480	3	Standby	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 1	Power Generation	PEM997611	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Power Generation	PEM997612	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Power Generation	PEM997613	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Power Generation	PEM997614	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Non-Hydrocarbon Utility	PEM997621	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Non-Hydrocarbon Utility	PEM997622	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Non-Hydrocarbon Utility	PEM997623	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 1	Non-Hydrocarbon Utility	PEM997624	PCSW Collection Sump 1 Pump	Pump	LER823570	SWG822570A	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. 0A)
Rev. 0A	Non-Hydrocarbon Utility	PEM977602A	RO Permeate Forwarding Pumps	Pump	LER823570	SWG822570B	480	3	Continuous	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977602B	RO Permeate Forwarding Pumps	Pump	LER823570	SWG822570B	480	3	Standby	-	75	84.1	96.0	53.2	56.0	0.95	0.941	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP977605	RO Permeate Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Continuous	300	-	46.3	46.3	219.0	300.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977612A	Sodium Hypochlorite Distribution Pump	Pump	LER823570	SWG822570B	480	3	Continuous	-	5	6.3	7.6	3.5	3.7	0.95	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977612B	Sodium Hypochlorite Distribution Pump	Pump	LER823570	SWG822570B	480	3	Standby	-	5	6.3	7.6	3.5	3.7	0.95	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM977614	Salt Dissolving Tank Pump	Pump	LER823570	SWG822570B	480	3	Continuous	-	5	6.3	7.6	3.5	3.7	0.95	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM987664A	Steam Condensate Tank Pump	Pump	LER823570	SWG822570A	480	3	Continuous	-	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	
Rev. 0A	Non-Hydrocarbon Utility	PEM987664B	Steam Condensate Tank Pump	Pump	LER823570	SWG822570A	480	3	Continuous	-	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	
Rev. 0A	Non-Hydrocarbon Utility	PEM987664C	Steam Condensate Tank Pump	Pump	LER823570	SWG822570A	480	3	Standby	-	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	
Rev. 0A	Non-Hydrocarbon Utility	HEM987661	Steam Condensate Cooler	Pump	LER823570	SWG822570A	480	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Non-Hydrocarbon Utility	HEM987668	LP Steam Condenser	Pump	LER823570	SWG822570A	480	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Non-Hydrocarbon Utility	PEM987669A	LP Condensate Pumps	Pump	LER823570	SWG822570A	480	3	TBC	-	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Non-Hydrocarbon Utility	PEM987669B	LP Condensate Pumps	Pump	LER823570	SWG822570A	480	3	TBC	-	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Non-Hydrocarbon Utility	PEM411601	Firewater Pump	Pump	LER823570	SWG823570	4160	3	Intermittent	-	700	94.0	94.0	404.0	522.2	0.77	0.952	0.810	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM411602	Firewater Pump (Diesel Driven)	Pump	LER823570	SWG823570	4160	3	Standby	-	700	94.0	94.0	404.0	522.2	0.77	0.952	0.810	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM411603A	Firewater Jockey Pump	Pump	LER823570	SWG822570B	480	3	Intermittent	-	15	17.9	21.0	8.2	11.2	0.73	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM411603B	Firewater Jockey Pump	Pump	LER823570	SWG822570B	480	3	Standby	-	15	17.9	21.0	8.2	11.2	0.73	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP412602A	Firewater Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Intermittent	1,185	-	182.7	182.7	865.1	1185.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	BAP412602B	Firewater Tank Heating Coil	Heater	LER823570	SWG823570	4160	3	Standby	1,185	-	182.7	182.7	865.1	1185.0	0.73	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997722A	Equalization Tank Pump Motor	Pump	LER823672	SWG822672A	480	3	Continuous	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997722B	Equalization Tank Pump Motor	Pump	LER823672	SWG822672A	480	3	Standby	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Power Generation	UPS826670	UPS for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	UPS826672	UPS for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	UPS826674	Telecom UPS for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	UPS826676	Telecom UPS for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	BC828670A	DC UPS for instrument system for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	BC828670B	DC UPS for electrical system for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	BC828672A	DC UPS for instrument system for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	BC828672B	DC UPS for electrical system for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	DP863671	Normal DP for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	160	-	213.8	213.8	160	160.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	DP863673	Normal DP for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	80	-	106.9	106.9	80	80.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	DP863405	Essential DP for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	60	-	80.2	80.2	60	60.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	DP863407	Essential DP for Utility S/S	Others	LER823672	SWG822672A	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	AHU438671	HVAC for Main Central S/S	Winterization/HVAC	LER824600	SWG822600	480	3	Continuous	150	-	200.5	200.5	150	150.0	1.00	0.950	0.900	Estimated by Electrical

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Appendix-1

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Condensate & Diesel Storage	AHU438673	HVAC for Utility S/S	Winterization/HVAC	LER823672	SWG822672A	480	3	Continuous	150	-	200.5	200.5	150	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	ANAL714670	Analyzer House 7 - Utility	Others	LER823672	SWG822672B	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	LTP863670	Area Lighting for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	LTP863671A	Area Lighting for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	LTP863671B	Area Lighting for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	ELP864671	Essential Area Lighting for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	ELP869672	Essential Area Lighting for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	ELP869673	Essential Area Lighting for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	REC839671	Receptacle for Main Central S/S	Others	LER824600	SWG822600	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	REC839672	Receptacle for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	REC839673	Receptacle for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	WR839670A	Welding Outlet for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	WR839670B	Welding Outlet for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	WR839670C	Welding Outlet for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	CPR267670	Cathodic Protection for Utility S/S	Others	LER823672	SWG822672B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	ETP861670	Heat Trace for Main Central S/S	Winterization/HVAC	LER824600	SWG822600	480	3	Continuous	400	-	534.6	534.6	400	400.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Condensate & Diesel Storage	ETP861672	Heat Trace for Utility S/S	Winterization/HVAC	LER823672	SWG822672B	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Power Generation	LER823677A	GTG1 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823677B	GTG1 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823674A	GTG2 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823674B	GTG2 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823675A	GTG3 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823675B	GTG3 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676A	GTG4 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676B	GTG4 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676B	STG1 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676B	STG1 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676B	STG2 Aux. (Normal)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	600	-	27.9	27.9	600	600.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Power Generation	LER823676B	STG2 Aux. (Essential)	CCPP Aux.	LER824600	SWG824600	13800	3	Continuous	200	-	9.3	9.3	200	200.0	1.00	0.950	0.900	Estimated data.
Rev. 0A	Non-Hydrocarbon Utility	PEM612706A	Wet Flare KO Drum Pump Motor	Pump	LER823570	SWG822570B	480	3	Intermittent	-	10	11.9	14.0	4.5	7.5	0.60	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Non-Hydrocarbon Utility	PEM612706B	Wet Flare KO Drum Pump Motor	Pump	LER823570	SWG822570B	480	3	Intermittent	-	10	11.9	14.0	4.5	7.5	0.60	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM698713	Propane Unloading Pump Motor	Pump	LER823672	SWG822672B	480	3	Continuous	-	5	6.3	7.6	2.0	3.7	0.54	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM698718A	Propane Storage Pump Motor	Pump	LER823672	SWG822672B	480	3	Continuous	-	40	45.1	52.0	23.0	29.8	0.77	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM698718B	Propane Storage Pump Motor	Pump	LER823672	SWG822672B	480	3	Intermittent	-	40	45.1	52.0	23.0	29.8	0.77	0.936	0.850	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	NAP698711	Ethane Vaporizer	Heater	LER823672	SWG823672	4160	3	Intermittent	200	-	30.8	30.8	190.0	200.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	NAP698712	Ethane Vaporizer	Heater	LER823672	SWG823672	4160	3	Intermittent	200	-	30.8	30.8	190.0	200.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM998711	Condensate Truck Loading Area Impoundment Sump Pump	Pump	LER823672	SWG822672B	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM998721	Condensate Truck Loading Area Impoundment Sump Pump	Pump	LER823672	SWG822672B	480	3	Standby	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998722A	Refrigerant Storage Area Impoundment Sump Pump	Pump	LER823870	SWG822870A	480	3	Intermittent	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998722B	Refrigerant Storage Area Impoundment Sump Pump	Pump	LER823870	SWG822870A	480	3	Standby	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM964734A	CPI Slop Oil Pump Motor	Pump	LER823672	SWG822672B	480	3	Continuous	-	5	6.3	7.6	2.2	3.7	0.60	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM964734B	CPI Slop Oil Pump Motor	Pump	LER823672	SWG822672B	480	3	Standby	-	5	6.3	7.6	2.2	3.7	0.60	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997764	Observation Basin Pump Motor	Pump	LER823672	SWG822672A	480	3	Continuous	-	15	17.9	21.0	6.7	11.2	0.60	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997765	Observation Basin Pump Motor	Pump	LER823672	SWG822672A	480	3	Standby	-	15	17.9	21.0	6.7	11.2	0.60	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997769A	Flotation Unit Sludge Pump Motor	Pump	LER823672	SWG822672A	480	3	Continuous	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM997769B	Flotation Unit Sludge Pump Motor	Pump	LER823672	SWG822672A	480	3	Standby	-	2	2.8	3.4	1.4	1.5	0.95	0.840	0.770	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM634705A	Offspec Condensate Pump Motor	Pump	LER823672	SWG822672A	480	3	Intermittent	-	5	6.3	7.6	3.0	3.7	0.81	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM634705B	Offspec Condensate Pump Motor	Pump	LER823672	SWG822672A	480	3	Intermittent	-	5	6.3	7.6	3.0	3.7	0.81	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM964736A	CPI Sludge Pumps	Pump	LER823672	SWG822672A	480	3	Continuous	-	5	6.3	7.6	0.2	3.7	0.06	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM964736B	CPI Sludge Pumps	Pump	LER823672	SWG822672A	480	3	Standby	-	5	6.3	7.6	0.2	3.7	0.06	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM964751	Slop Oil Transfer Pump	Pump	LER823672	SWG822672A	480	3	Intermittent	-	5	6.3	7.6	1.5	3.7	0.40	0.875	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	BEM634707A	Thermal Oxidizer Air Blower	Pump	LER823672	SWG822672A	480	3	Intermittent	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	BEM634707B	Thermal Oxidizer Air Blower	Pump	LER823672	SWG822672A	480	3	Intermittent	-	10	11.9	14.0	7.1	7.5	0.95	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	BEM634709A	Thermal Oxidizer Process Blower	Pump	LER823672	SWG822672A	480	3	Continuous	-	125	137.3	156.0	80	93.3	0.86	0.950	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	BEM634709B	Thermal Oxidizer Process Blower	Pump	LER823672	SWG822672A	480	3	Continuous	-	125	137.3	156.0	80	93.3	0.86	0.950	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998712	Refrigerant Storage Area Impoundment Sump	Pump	LER823870	SWG822870A	480	3	Intermittent	-	20	24.5	27.0	11.6	14.9	0.78	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998722	Refrigerant Storage Area Impoundment Sump	Pump	LER823870	SWG822870A	480	3	Standby	-	20	24.5	27.0	11.6	14.9	0.78	0.917	0.800	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998712	Refrigerant Storage Area Impoundment Sump Pumps	Pump	LER823870	SWG822870A	480	3	Intermittent	-	15	17.9	21.0	8.7	11.2	0.78	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998722	Refrigerant Storage Area Impoundment Sump Pumps	Pump	LER823870	SWG822870A	480	3	Standby	-	15	17.9	21.0	8.7	11.2	0.78	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM998713	OSBL PipeRack Area Impoundment Sump Pumps	Pump	LER823672	SWG822672A	480	3	Intermittent	-	15	17.9	21.0	8.7	11.2	0.78	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM998723	OSBL PipeRack Area Impoundment Sump Pumps	Pump	LER823672	SWG822672A	480	3	Standby	-	15	17.9	21.0	8.7	11.2	0.78	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 1	Admin	PEM973011A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973011B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973012A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973012B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973013A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973013B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973014A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973014B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973015A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973015B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 1	Admin	PEM973016A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973016B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973017A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973017B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973018A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973018B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973019A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973019B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973020A	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 1	Admin	PEM973020B	Sanitary Lift Station Pump Motor	Pump	LER823570	SWG823570	4160	3	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	Process Data Sheet is not available. To be updated later.
Rev. 0A	Admin	DP863001	Normal DP for Main Guard House	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863002	Normal DP for Office Building (w/ Canteen)	Building	LER823570	SWG823570	4160	3	Continuous	200	-	30.8	30.8	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863003	Normal DP for Assembly/Training Building	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863004	Normal DP for Laboratory	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863005	Normal DP for Emergency Response Building	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863006	Normal DP for Warehouse	Building	LER823570	SWG823570	4160	3	Continuous	300	-	46.3	46.3	300	300.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863007	Normal DP for Maintenance shop	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863008	Normal DP for Main Control Building	Building	LER823570	SWG823570	4160	3	Continuous	150	-	23.1	23.1	150	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863009	Essential DP for Main Guard House	Building	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863010	Essential DP for Office Building (w/ Canteen)	Building	LER823570	SWG823570	4160	3	Continuous	70	-	10.8	10.8	70	70.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863011	Essential DP for Assembly/Training Building	Building	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863012	Essential DP for Laboratory	Building	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863013	Essential DP for Emergency Response Building	Building	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863014	Essential DP for Warehouse	Building	LER823570	SWG823570	4160	3	Continuous	100	-	15.4	15.4	100	100.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863015	Essential DP for Maintenance shop	Building	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863016	Essential DP for Main Control Building	Building	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438001	HVAC for Main Guard House	Building	LER823570	SWG823570	4160	3	Continuous	26	-	4.1	4.1	26.3	26.3	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438002	HVAC for Office Building (w/ Canteen)	Building	LER823570	SWG823570	4160	3	Continuous	351	-	54.1	54.1	351	351.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438003	HVAC for Assembly/Training Building	Building	LER823570	SWG823570	4160	3	Continuous	172	-	26.5	26.5	172	172.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438004	HVAC for Laboratory	Building	LER823570	SWG823570	4160	3	Continuous	177	-	27.3	27.3	177	177.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438005	HVAC for Emergency Response Building	Building	LER823570	SWG823570	4160	3	Continuous	96	-	14.8	14.8	96	96.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438006	HVAC for Warehouse	Building	LER823570	SWG823570	4160	3	Continuous	105	-	16.2	16.2	105	105.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438007	HVAC for Maintenance shop	Building	LER823570	SWG823570	4160	3	Continuous	248	-	38.2	38.2	248	248.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438008	HVAC for Main Control Building	Building	LER823570	SWG823570	4160	3	Continuous	672	-	103.6	103.6	672	672.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863770B	Normal DP for Guard House - South	Others	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863770C	Normal DP for Hazardous waste storage	Others	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP863770D	Normal DP for Chemical and refrigerant storage	Others	LER823570	SWG823570	4160	3	Continuous	50	-	7.7	7.7	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP869775	Essential DP for Guard House - South	Others	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP869776	Essential DP for Hazardous waste storage	Others	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	DP869777	Essential DP for Chemical and refrigerant storage	Others	LER823570	SWG823570	4160	3	Continuous	17	-	2.6	2.6	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438770B	HVAC for Guard House - South	Winterization/HVAC	LER823570	SWG823570	4160	3	Continuous	5	-	0.7	0.7	4.5	4.5	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438770C	HVAC for Hazardous waste storage	Winterization/HVAC	LER823570	SWG823570	4160	3	Continuous	0	-	0.0	0.0	0.1	0.1	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Admin	AHU438770D	HVAC for Chemical and refrigerant storage	Winterization/HVAC	LER823570	SWG823570	4160	3	Continuous	22	-	3.4	3.4	22	22.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Non-Hydrocarbon Utility	NAP612709	Scrub Column Bottoms Vaporizer	Heater	LER823570	SWG823570	4160	3	Intermittent	2,100	-	323.8	323.8	1995.0	2100.0	0.95	0.950	0.900	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691811	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691812	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691813	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691814	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691821	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691822	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691823	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Continuous	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM691824	LNG Loading & Circulating Pump Motor	Pump	LER823870	SWG823870	4160	3	Standby	-	900	113.7	113.7	644.5	671.4	0.96	0.955	0.858	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility (BOG Comp)	CEM691841/842	HP/LP BOG Compressor 1	BOG Compressor	LER824600	SWG824600	13800	3	Continuous	-	14,765	546.9	546.7	10464.0	11014.8	0.95	0.964	0.874	Estimated by Rotating
Rev. 0A	Common Process & Utility	CEM691841/842_Aux	Aux. for HP/LP BOG Compressor 1	Others	LER823870	SWG822870A	480	3	Continuous	50	-	66.8	66.8	47.5	50.0	0.95	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	HEM691843A	BOG Compressor 1 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843B	BOG Compressor 1 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843C	BOG Compressor 1 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843D	BOG Compressor 1 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843E	BOG Compressor 1 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843F	BOG Compressor 1 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843G	BOG Compressor 1 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843H	BOG Compressor 1 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843I	BOG Compressor 1 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843J	BOG Compressor 1 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843K	BOG Compressor 1 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843L	BOG Compressor 1 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843M	BOG Compressor 1 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843N	BOG Compressor 1 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691843O	BOG Compressor 1 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility (BOG Comp)	CEM691851/852	HP/LP BOG Compressor 2	BOG Compressor	LER824600	SWG824600	13800	3	Continuous	-	14,765	546.9	546.9	10464.0	11014.8	0.95	0.964	0.874	Estimated by Rotating
Rev. 0A	Common Process & Utility	CEM691851/852_Aux	Aux. for HP/LP BOG Compressor 2	Others	LER823870	SWG822870A	480	3	Continuous	50	-	66.8	66.8	47.5	50.0	0.95	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	HEM691853A	BOG Compressor 2 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853B	BOG Compressor 2 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)

ELECTRICAL LOAD LIST AND SUMMARY

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Common Process & Utility	HEM691853C	BOG Compressor 2 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853D	BOG Compressor 2 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853E	BOG Compressor 2 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853F	BOG Compressor 2 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853G	BOG Compressor 2 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853H	BOG Compressor 2 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853I	BOG Compressor 2 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853J	BOG Compressor 2 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853K	BOG Compressor 2 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853L	BOG Compressor 2 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853M	BOG Compressor 2 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853N	BOG Compressor 2 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691853O	BOG Compressor 2 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870A	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility (BOG Comp)	CEM691861/862	HP/LP BOG Compressor 3	BOG Compressor	LER824600	SWG824600	13800	3	Continuous	-	14,765	546.9	546.9	10464.0	11014.8	0.95	0.964	0.874	Estimated by Rotating
Rev. 0A	Common Process & Utility	CEM691861/862_Aux	Aux. for HP/LP BOG Compressor 3	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	45.0	50.0	0.90	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	HEM691863A	BOG Compressor 3 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863B	BOG Compressor 3 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863C	BOG Compressor 3 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863D	BOG Compressor 3 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863E	BOG Compressor 3 Aftercooler Motor (Bay-1)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863F	BOG Compressor 3 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863G	BOG Compressor 3 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863H	BOG Compressor 3 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863I	BOG Compressor 3 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863J	BOG Compressor 3 Aftercooler Motor (Bay-2)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863K	BOG Compressor 3 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863L	BOG Compressor 3 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863M	BOG Compressor 3 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863N	BOG Compressor 3 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	HEM691863O	BOG Compressor 3 Aftercooler Motor (Bay-3)	AFC	LER823870	SWG822870B	480	3	Continuous	-	50	55.7	65.0	31.7	37.3	0.90	0.936	0.860	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM998813	LNG Storage Tank Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Intermittent	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	LNG Storage Tank	PEM998823	LNG Storage Tank Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Standby	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998814	BOG Compressor Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Intermittent	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	PEM998824	BOG Compressor Area Impoundment Sump Pumps	Pump	LER823870	SWG822870B	480	3	Standby	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	FAY691871	Motor for Loading arm (Berth1)	Pump	LER822872	SWG822872	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM634702A	Condensate Loading Pump Motor	Pump	LER823672	SWG822672A	480	3	Intermittent	-	10	11.9	14.0	4.5	7.5	0.60	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Condensate & Diesel Storage	PEM634702B	Condensate Loading Pump Motor	Pump	LER823672	SWG822672A	480	3	Intermittent	-	10	11.9	14.0	4.5	7.5	0.60	0.895	0.840	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	FAY691872	Motor for Loading arm (Berth1)	Pump	LER822872	SWG822872	480	3	Standby	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	FAY691881	Motor for Loading arm (Berth2)	Pump	LER822873	SWG822873	480	3	Continuous	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	FAY691882	Motor for Loading arm (Berth2)	Pump	LER822873	SWG822873	480	3	Standby	-	15	17.9	21.0	10.6	11.2	0.95	0.917	0.820	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	PEM998811	LNG Loading Berth 1 Impoundment Sump Pumps	Pump	LER822872	SWG822872	480	3	Intermittent	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	PEM998821	LNG Loading Berth 1 Impoundment Sump Pumps	Pump	LER822872	SWG822872	480	3	Standby	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	PEM998812	LNG Loading Berth 2 Impoundment Sump Pumps	Pump	LER822873	SWG822873	480	3	Intermittent	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Offshore Trestle	PEM998822	LNG Loading Berth 2 Impoundment Sump Pumps	Pump	LER822873	SWG822873	480	3	Standby	-	100	109.1	124.0	70.9	74.6	0.95	0.945	0.870	Based on Equipment List (Rev. F)
Rev. 0A	Common Process & Utility	UPS826870	UPS for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826871	UPS for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826872	UPS for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826873	UPS for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	UPS826874	Telecom UPS for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826875	Telecom UPS for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826876	Telecom UPS for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	UPS826877	Telecom UPS for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	BC828870A	DC UPS for instrument system for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	BC828870B	DC UPS for electrical system for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828871A	DC UPS for instrument system for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828871B	DC UPS for electrical system for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828872A	DC UPS for instrument system for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828872B	DC UPS for electrical system for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828873A	DC UPS for instrument system for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	BC828873B	DC UPS for electrical system for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	25	-	33.4	33.4	25	25.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	DP863870	Normal DP for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863871	Normal DP for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863872	Normal DP for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863873	Normal DP for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	DP863874	Essential DP for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	17	-	22.7	22.7	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863875	Essential DP for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	17	-	22.7	22.7	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863876	Essential DP for Berth S/S 1	Others	LER822872	SWG822872	480	3	Continuous	17	-	22.7	22.7	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	DP863877	Essential DP for Berth S/S 2	Others	LER822873	SWG822873	480	3	Continuous	17	-	22.7	22.7	17	17.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	AHU438871	HVAC for Jetty S/S	Winterization/HVAC	LER823871	SWG822871	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	AHU438872	HVAC for Berth S/S 1	Winterization/HVAC	LER822872	SWG822872	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	AHU438873	HVAC for Berth S/S 2	Winterization/HVAC	LER822873	SWG822873	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	AHU438870	HVAC for BOG S/S	Winterization/HVAC	LER823870	SWG822870B	480	3	Continuous	150	-	200.5	200.5	150	150.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	ANAL714870	Analyzer House 6 - Jetty	Others	LER823871	SWG822871	480	3	Continuous	75	-	100.2	100.2	75	75.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	LTP863870	Area Lighting for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	LTP863871	Area Lighting for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	ELP864870	Emergency Area Lighting for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	ELP864871	Emergency Area Lighting for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	REC839870	Receptacle for Jetty S/S	Others	LER823871	SWG822871	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	REC839871	Receptacle for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	ETP861870	Heat Trace for BOG S/S	Winterization/HVAC	LER823870	SWG822870B	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	WR839870A	Welding Outlet for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	WR839870B	Welding Outlet for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	30	-	40.1	40.1	30	30.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Common Process & Utility	CPR267870	Cathodic Protection for BOG S/S	Others	LER823870	SWG822870B	480	3	Continuous	50	-	66.8	66.8	50	50.0	1.00	0.950	0.900	Estimated by Electrical

ELECTRICAL LOAD LIST AND SUMMARY

Appendix-1

PROJECT NO.: 194210

CLIENT: Alaska LNG

LOCATION: Nikiski, Alaska

Date 26-May-16

Electrical Load List

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Confidential

REV.	Location	EQUIPMENT TAG NUMBER	EQUIPMENT DESCRIPTION	EQUIPMENT CATEGORY	Substation	BUS	Voltage	Phase	Duty	RATED LOAD		CALC'D FULL LOAD AMPS	DESIGN AMPS NEC TABLE 430-360	BRAKE LOAD (KW)	RATED LOAD (KW)	CALC'D LOAD FACTOR	EFF	PF	DATA STATE
										kW	HP			A	B	C=A/B			
Rev. 0A	Offshore Trestle	ETP861871	Heat Trace for Jetty S/S	Winterization/HVAC	LER823871	SWG822871	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	ETP861872	Heat Trace for Berth S/S 1	Winterization/HVAC	LER822872	SWG822872	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical
Rev. 0A	Offshore Trestle	ETP861873	Heat Trace for Berth S/S 2	Winterization/HVAC	LER822873	SWG822873	480	3	Continuous	200	-	267.3	267.3	200	200.0	1.00	0.950	0.900	Estimated by Electrical

Appendix-2

ELECTRICAL LOAD LIST AND SUMMARY

Project No: 194210

Client: Alaska LNG

Date: 26-May-16

Load Summary for each switchgear

USAL-CB-ELLSC-00-000001-000

Alaska LNG Liquefaction Project

Rev. 1

Confidential

Area	Substation Description	Substation	Switchgear	Voltage	Continuous		Intermittent		Standby		Total kW	Total kvar	Total
				V	kW	kvar	kW	kvar	kW	kvar	kW	kvar	kVA
	-	-	Top Bus	13800	92,989	50,386	36,972	18,876	7,912	4,623	**102,232**	55,105	116,138
	Main Central S/S	LER824600	SWG824600A	13800	51,922	28,211	18,486	9,438	3,956	2,311	56,544	30,570	64,278
	Main Central S/S	LER824600	SWG824600B	13800	41,067	22,175	18,486	9,438	3,956	2,311	45,689	24,535	51,860
	Train1 S/S	LER823100	SWG824100	13800	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Train 1	Train1 S/S	LER823100	SWG823100	4160	1,055	511	6,602	3,377	-	-	2,705	1,355	3,026
Train 1	Train1 S/S	LER823100	SWG822100	480	1,258	618	482	298	271	168	1,379	692	1,543
Train 1 - Main Ref Compressor1	Train1 Compressor S/S 1	LER823101	SWG822101	480	484	275	38	25	348	206	494	281	568
Train 1 - Main Ref Compressor2	Train1 Compressor S/S 2	LER823102	SWG822102	480	484	275	38	25	348	206	494	281	568
Train 1-LER in Main Pipe Rack 1	LER in Main Pipe Rack 1	LER823103	SWG822103	480	927	525	-	-	-	-	927	525	1,065
Train 1-LER in Main Pipe Rack 2	LER in Main Pipe Rack 2	LER823104	SWG822104	480	1,384	784	-	-	-	-	1,384	784	1,591
Train 1-LER in Main Pipe Rack 3	LER in Main Pipe Rack 3	LER823105	SWG822105	480	1,819	1,100	-	-	-	-	1,819	1,100	2,126
Train 1-LER in Main Pipe Rack 4	LER in Main Pipe Rack 4	LER823106	SWG822106	480	1,846	1,116	-	-	-	-	1,846	1,116	2,157
Train 1-LER in Main Pipe Rack 5	LER in Main Pipe Rack 5	LER823107	SWG822107	480	780	468	-	-	-	-	780	468	909
Train 1-LER in Main Pipe Rack 6	LER in Main Pipe Rack 6	LER823108	SWG822108	480	757	439	-	-	-	-	757	439	875
	Train2 S/S	LER823200	SWG824200	13800	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Train 2	Train2 S/S	LER823200	SWG823200	4160	1,055	511	6,602	3,377	-	-	2,705	1,355	3,026
Train 2	Train2 S/S	LER823200	SWG822200	480	1,258	618	482	298	271	168	1,379	692	1,543
Train 2 - Main Ref Compressor1	Train2 Compressor S/S 1	LER823201	SWG822201	480	484	275	38	25	348	206	494	281	568
Train 2 - Main Ref Compressor2	Train2 Compressor S/S 2	LER823202	SWG822202	480	484	275	38	25	348	206	494	281	568
Train 2-LER in Main Pipe Rack 1	LER in Main Pipe Rack 1	LER823203	SWG822203	480	927	525	-	-	-	-	927	525	1,065
Train 2-LER in Main Pipe Rack 2	LER in Main Pipe Rack 2	LER823204	SWG822204	480	1,384	784	-	-	-	-	1,384	784	1,591
Train 2-LER in Main Pipe Rack 3	LER in Main Pipe Rack 3	LER823205	SWG822205	480	1,819	1,100	-	-	-	-	1,819	1,100	2,126
Train 2-LER in Main Pipe Rack 4	LER in Main Pipe Rack 4	LER823206	SWG822206	480	1,846	1,116	-	-	-	-	1,846	1,116	2,157
Train 2-LER in Main Pipe Rack 5	LER in Main Pipe Rack 5	LER823207	SWG822207	480	780	468	-	-	-	-	780	468	909
Train 2-LER in Main Pipe Rack 6	LER in Main Pipe Rack 6	LER823208	SWG822208	480	757	439	-	-	-	-	757	439	875
	Tran3 S/S	LER823300	SWG824300	13800	10,795	6,110	7,160	3,725	967	581	12,585	7,042	14,421
Train 3	Tran3 S/S	LER823300	SWG823300	4160	1,055	511	6,602	3,377	-	-	2,705	1,355	3,026
Train 3	Tran3 S/S	LER823300	SWG822300	480	1,258	618	482	298	271	168	1,379	692	1,543
Train 3 - Main Ref Compressor1	Train3 Compressor S/S 1	LER823301	SWG822301	480	484	275	38	25	348	206	494	281	568
Train 3 - Main Ref Compressor2	Train3 Compressor S/S 2	LER823302	SWG822302	480	484	275	38	25	348	206	494	281	568
Train 3-LER in Main Pipe Rack 1	LER in Main Pipe Rack 1	LER823303	SWG822303	480	927	525	-	-	-	-	927	525	1,065
Train 3-LER in Main Pipe Rack 2	LER in Main Pipe Rack 2	LER823304	SWG822304	480	1,384	784	-	-	-	-	1,384	784	1,591
Train 3-LER in Main Pipe Rack 3	LER in Main Pipe Rack 3	LER823305	SWG822305	480	1,819	1,100	-	-	-	-	1,819	1,100	2,126
Train 3-LER in Main Pipe Rack 4	LER in Main Pipe Rack 4	LER823306	SWG822306	480	1,846	1,116	-	-	-	-	1,846	1,116	2,157
Train 3-LER in Main Pipe Rack 5	LER in Main Pipe Rack 5	LER823307	SWG822307	480	780	468	-	-	-	-	780	468	909
Train 3-LER in Main Pipe Rack 6	LER in Main Pipe Rack 6	LER823308	SWG822308	480	757	439	-	-	-	-	757	439	875
	Gas Treatment S/S	LER823570	SWG824570	13800	10,013	5,061	14,585	7,205	2,553	1,380	13,660	6,862	15,286
Inlet Gas Treating / Non-Hydrocarbon Utility / Admin	Gas Treatment S/S	LER823570	SWG823570	4160	7,306	3,682	14,335	7,044	2,235	1,184	10,889	5,443	12,174
Inlet Gas Treating / Non-Hydrocarbon Utility	Gas Treatment S/S	LER823570	SWG822570A	480	1,331	673	151	92	-	-	1,369	696	1,535
Non-Hydrocarbon Utility / Power Generation	Gas Treatment S/S	LER823570	SWG822570B	480	1,376	706	99	68	318	196	1,401	723	1,577
	Main Central S/S	LER824600	SWG824600	13800	6,137	2,972	-	-	-	-	6,137	2,972	6,819
Power Generation	Main Central S/S	LER824600	SWG824600	13800	5,053	2,447	-	-	-	-	5,053	2,447	5,614
Power Generation	Main Central S/S	LER824600	SWG822600	480	1,084	525	-	-	-	-	1,084	525	1,205
	Utility S/S	LER823672	SWG824672	13800	2,629	1,465	480	246	1,187	741	2,749	1,527	3,147
Condensate & Diesel Storage	Utility S/S	LER823672	SWG823672	4160	1,105	688	400	194	1,105	688	1,205	736	1,412
Condensate & Diesel Storage	Utility S/S	LER823672	SWG822672A	480	742	394	44	29	68	43	753	402	854
Condensate & Diesel Storage	Utility S/S	LER823672	SWG822672B	480	782	383	36	23	14	10	791	389	882
Common Process & Utility (BOG Comp)	Main Central S/S	LER824600	SWG824600	13800	32,564	18,105	-	-	-	-	32,564	18,105	37,259
	BOG S/S	LER823870	SWG824870	13800	9,262	4,452	427	250	1,270	758	9,368	4,514	10,399
LNG Storage Tank	BOG S/S	LER823870	SWG823870	4160	4,724	2,828	-	-	675	404	4,724	2,828	5,506
Common Process & Utility	BOG S/S	LER823870	SWG822870A	480	1,328	801	34	24	91	58	1,336	807	1,561
Common Process & Utility / LNG Storage Tank	BOG S/S	LER823870	SWG822870B	480	1,522	-	243	140	331	195	1,583	35	1,583
Offshore Trestle	Jetty S/S	LER823871	SWG823871	4160	1,687	822	150	85	173	101	1,725	843	1,920
Offshore Trestle	Jetty S/S	LER823871	SWG822871	480	713	345	-	-	-	-	713	345	792
Offshore Trestle	Berth1 S/S	LER822872	SWG822872	480	487	239	75	43	87	51	506	249	564
Offshore Trestle	Berth2 S/S	LER822873	SWG822873	480	487	239	75	43	87	51	506	249	564

N.2 - Transformer List

Document Number:	Description:	Revision:	Appendix:
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APPENDIX 13O – PLANS AND PROCEDURES

O.1 - Management of Change and Reporting Procedures

Document Number:	Description:	Revision:	Appendix:
USAI-PS-BPMOC-00-000004-000	Management of Change and Reporting Procedure	Rev 0	Public

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Alaska LNG™

MANAGEMENT OF CHANGE AND REPORTING PROCEDURE

USAI-PS-BPMOC-00-000004-000

Rev	Date	Revision Description	Originator	Reviewer / Endorser	Response Code	Approver
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REVISION MODIFICATION LOG

Revision	Section	Description
0	All	Issued for FEED

TABLE OF CONTENTS

LIST OF FIGURES

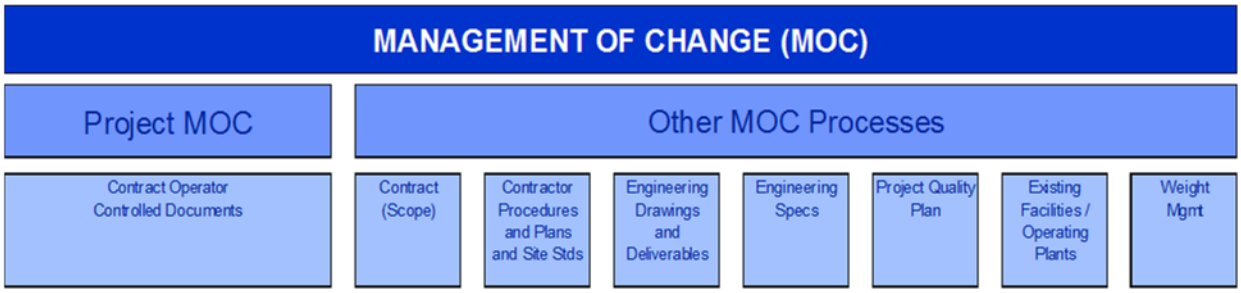
1.0 PURPOSE AND SCOPE

1.1 INTRODUCTION

This document describes the Management of Change (MOC) process from the introduction of the Front End Engineering & Design (FEED) entry, through Execution and Turnover-to-Operations. The MOC Plan explains how project changes to approved design basis, designs, procedures, execution strategies and constructed facilities must be evaluated and managed to ensure Operations Integrity risks arising from these modifications remain at an acceptable level. This plan also defines the areas subject to the Project MOC (PMOC) process, the procedure/processes to be utilized and maintained, as well as the roles, responsibilities, and approval limits for Management of Change. The Alaska LNG (AKLNG) Project Team will utilize this plan with specific emphasis on the FEED Stage and PMOC but will develop updates as the project progresses into Execute Stage.

The Change Coordinator and Project Team should be familiar with the following change processes which fall under Management of Change and which interface with the PMOC process. The Change Coordinator should be proactively engaged with the Project Team to ensure actual project changes that meet PMOC criteria are submitted and processed as PMOC records.

Figure 1: Management of Change Overview



Management of Change embodies many types of change during the project life-cycle. This Management of Change procedure addresses all the processes to manage the different types of change, such as Controlled Documents, drawing revisions, specification changes, scope changes, Contract Change orders, schedule changes, execution/strategy changes, changes in regulations and laws, procedure changes, organization changes, etc.

It should also be noted that changes of all types can occur before and after an approved procedure, design or execution plan are in place. It is not the intent of this procedure to manage design development or execution development before approved designs, plans and procedures are in place, as this would be too burdensome to manage. In production/operating companies with existing facilities, changes are handled through the Operations MOC system. These changes occur to operating plants or organization and these changes to existing facilities or procedures are assessed in order to keep the risks at an acceptable level. Development projects are different because the facilities are usually greenfield in nature and have to be designed and installed prior to ever being put into use. Prior to startup and handover to Operations, there is constant design development, execution development and change. "Management of Change" in the Operator Company is meant to cover those changes to approved or existing conditions mentioned above, not design development. However, as project execution and design basis are still evolving in the Define stage, the main purpose of MOC during this stage is to track cost and schedule impacts caused by design development or changes in project scope / execution

assumptions, and to maximize the opportunities for corrective actions prior to FID (Final Investment Decision).

In order to take full advantage of the systems in place to manage these changes and risks, the Project Management of Change processes interface with numerous other processes, rather than require duplicate risk assessments, approvals and paperwork. These systems are designed to manage the risk appropriately and do not require additional PMOC approvals and reviews. These systems assess the risks internally and seek approval at the appropriate levels.

The Project Management of Change is the formal MOC record for managing [the effects of changes to] the Controlled Documents and procedures on a project. There are other processes that manage other types of change and the associated risks with those changes. This process is consistent with Operator requirements, and describes several related, but independent, procedures required to manage change in a timely and efficient manner. Please see Section **Error! Reference source not found.**, Attachment A**,** and Attachment for an overview of Management of Change and the change processes and procedures.

1.2 OBJECTIVES

The objectives of the MOC Process are to ensure that:

- Changes in operations, procedures, site standards, facilities, or organizations must be evaluated and managed to ensure that Operations Integrity risks arising from these changes remain at an acceptable level.
- Operator requirements for Management of Change are fully implemented meeting all Operator management system and Project Management System guidelines.
- Changes are properly evaluated, approved, and documented so any risks remain at an acceptable level and project objectives are met.
- Appropriate stakeholders, including drilling (as applicable), are involved in the change implementation process in a manner commensurate with the stakeholders' roles in the project.
- Changes are communicated and implemented on a timely basis so that all work is done with consistent, up-to-date project documents.
- Appropriate contractual actions are taken to implement changes in a timely and cost-effective manner.
- Approved changes are effectively implemented, documented, and verified.

1.3 SCOPE

1.3.1 FEED Management of Change (Scope Tracking)

Management of Change involves the systematic tracking of significant changes to the facilities basis and/or the execution strategy and the tracking of smaller changes to provide assurance that the accumulation of these smaller changes is not having a significant impact on cost and / or schedule.

As the project execution and design basis are still evolving in the FEED stage, the main purpose of Management of Change during this stage is to track cost and schedule impacts caused by design development or changes in project scope / execution assumptions, and to maximize the opportunities for timely corrective action during FEED. Management of Change focuses on controlling change for a limited number of Controlled Documents and providing cost transparency to prevent a "blackout" period between FEED entry and Execute Estimates (FID). An effective

Change Management process will have a sound FEED entry basis (facilities, execution, and estimating) and the Project Team (PT) will understand the FEED Entry Estimate details.

Attachment B, PMOC Applicability Table, lists the Controlled Documents at FEED entry which, if changed, require Management of Change and lists other documents or situations which fall under the Scope Tracking and Management process. Periodic review meetings should be held during FEED to confirm PT alignment regarding changes that are being prepared and tracked in the tracking log. Prior to FID, Project Teams can bundle accepted optimization initiatives into one or several PMOCs.

It is recommended that the tracking of these smaller changes is done via a Change Log with a column indicating whether or not a PMOC is required for the change. The process should seek to identify and obtain alignment on major changes on a real time basis and provide cost monitoring between FEED and FID estimates. More details on the PMOC requirements and process during FEED can be found in Section 5.

Changes that affect the following Alaska LNG developed project control documents during FEED stage will require PMOCs. (Also see Attachment B).

1) FEED Project Control Documents - Alaska LNG PT Developed

   Significant impacts from changes to:

   a) Project Objectives and Strategies
   b) Interface and Issues Management Plan
   c) Project Execution Plan
   d) Integrated Project Design Basis–IPDB
   e) Initial Contracting Strategy and Contract Plan (CWBS)
   f) Approved Roadmap Deliverables
   g) Security Model or Plan (as affects reliability of the physical design or technical specifications of the site)

2) FEED Project Control Documents - Contractor Developed

   Significant impacts from changes to:

   a) Approved Plot Plans (Significant revisions to facility layouts, field architecture, pipeline routes)
   b) The decision to not produce AKLNG Project FEED Stage deliverables or changes to the approved facilities design basis, project plan, changes to the Equipment List, significant changes to the IFD (Issued for Design) Plot Plans (e.g. changes in foot print), and modifications affecting Security as described above, would all require a Project MOC.
   c) Revisions to the field architecture, field development plan, production profiles and pressures, compositions, the number and location of wells, injection requirements, etc. all require a PMOC.

   External changes may also impact the project. Changes in government laws/regulations may necessitate a Project MOC. An example would be changing local content requirements. Additionally, changes in Joint Operating Agreements (JOA) or Production Sharing Agreements (PSA), or other commercial agreements may necessitate the development and approval of a PMOC to document the impact, or document actions that the PT chooses to take to address one of these external agreements.

1.3.2 Execute – (FID: Final Investment Decision) to Transfer to Operations Management of Change

After FID during the Execute stage, the Management of Change process becomes more restrictive with the goal of zero discretionary changes. In addition, the number of Controlled Documents and procedures has increased, resulting in the process becoming more rigorous as compared to the limited number of Controlled Documents during FEED.

The Project Management of Change process is aimed at controlling modifications to those approved Controlled Documents and procedures required to achieve the change management objectives and requirements captured above. The purpose is to identify the impacts of each change and obtain alignment with all stakeholders before implementation is approved. These changes generally impact the content of the Controlled Documents established at FID as you enter the Execute stage. Changes to Controlled Documents should only be considered if the impetus for the change meets one or more of the conditions below:

- Was not safe
- Did not meet environmental guidelines, expectations or regulations
- Did not comply with laws, regulations or commercial agreements
- Did not meet specifications
- Was significantly higher cost or longer schedule
- Was significantly less profitable
- Did not work or had significant adverse impact on facility reliability, operability or maintainability
- Was a recent lessons learned where significant benefits can be captured

During Execute, other change (MOC) processes are initiated, such as the Contractor change management procedure, Specification Deviation procedure (this could be initiated in FEED; see Section 4), Engineering Drawings Revisions (including drawing and deliverable revisions), etc.

Similar to design development during FEED, normal engineering evolution and execution development will occur in Execute. As the design matures, greater clarity is achieved and the number and type of engineering deliverables increase. This course of project development is expected and is not typically a valid reason for a PMOC.

Attachment B, PMOC Applicability Table, lists the Controlled Documents for Execute and procedures which, if changed, require a PMOC and addresses other documents or situations which fall under the PMOC process. It is the responsibility of the PT to incorporate the intent of this MOC Process in all dealings with contractors and suppliers. The roles and responsibilities for key Project Team members are included in Attachment D.

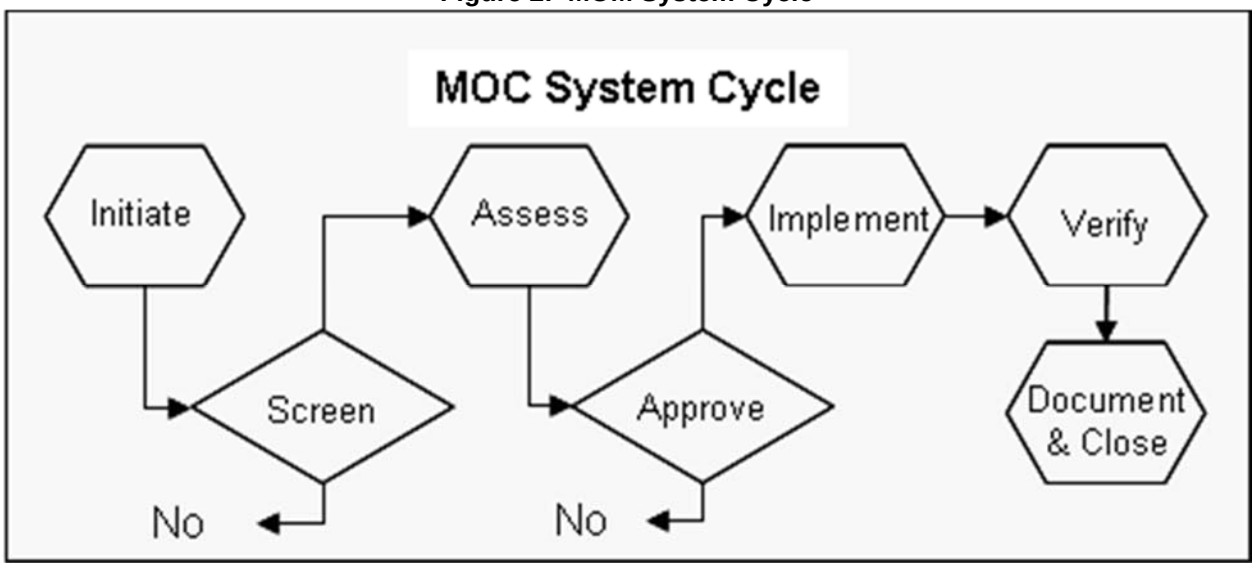
2.0 PMOC PROCEDURE

PMOCs may originate internal or external to the project. Examples are: PT, Operations, Subsurface, Contractors, Vendors, Regulatory Groups, Shareholders, Operators or any other organization associated with the project. Project MOCs are managed through a structured, systematic, and rigorous process of:

- Identification and documentation of reasons and benefits for proposed change
- Evaluation of risk, cost and schedule impacts and any tradeoffs among project objectives
- Approval at an appropriate level before implementation
- Implementation, including communication to all parties affected by the change, obtaining any necessary permits, etc.
- Verification of change implementation and closeout

The basic steps of the Project MOC process are shown in Figure 2.

Figure 2: MOM System Cycle



2.1 PMOC PROCEDURE OVERVIEW

This procedure applies to all PMOCs from FEED through EXECUTE to Turnover to Operations. The PMOC System includes various change management processes that relate to specific project phases or work components.

2.1.1 Step 1 – Change Initiation

The Change Initiator initiates the PMOC by identifying and documenting reasons for the proposed change, along with benefits and areas of impacts. The PMOC should be identified as "Discretionary" or "Non-Discretionary". The Change Initiator identifies a Change Sponsor. The Change Sponsor notifies the Change Coordinator (i.e. - Project Controls Engineer for AKLNG) of the initiated change for inclusion in the next PMOC meeting agenda.

Early discussion between Change Initiator, Change Sponsor, Change Coordinator, and appropriate managers is encouraged to confirm need for PMOC and to avoid unnecessary work in scoping and justifying the need for a PMOC. Cancelled or rejected PMOCs are also expected to be tracked and documented

The Change Sponsor and Change Initiator should identify stakeholders required to be included in review of the PMOC, and identify key actions required to properly assess the proposed change.

2.1.2 Step 2 – Change Screening/Validation

The PT evaluates merit and applicability of PMOC and confirms all stakeholders are identified and included in the PMOC review. Typically, proposed changes will be initially reviewed by the Change Control Committee (or equivalent PT member bodies on each sub-project or with the LT) for merit and validation. Business, Engineering, Construction, Technical, SSHE and Project managers are usual members of the Committee. The Operational Integrity Approval Matrix, in Attachment , identifies appropriate PT members who are required to review and endorse PMOC's based on the Operations Integrity impact (if applicable). The Committee is responsible for deciding if the change requires a PMOC and whether further assessment should be progressed

If the PMOC is approved to progress, the project may issue a Change Inquiry to contractor if applicable.

It is important to maintain records in the PMOC log of what changes were considered for future reference, whether they were accepted or rejected and the reasons for the decision. (Retain record in PMOC Log or equivalent database)

Attachment C addresses the Risk Screening process which is important for determining if a Risk Assessment is required.

2.1.3 Step 3 – Change Assessment

Change assessment will evaluate the PMOC for impacts on cost, schedule, safety, reliability, operability, maintainability, etc. The change assessment is to incorporate all aspects of the underlying issue – i.e. it is not to split the issue into multiple PMOC's

The cost and schedule estimates should be prepared in accordance with Operator estimating practices and, when applicable, up to the same level of detail as the Control Estimate. All estimates are to be accompanied by a written basis that specifies scope and design documents used. They should include the following:

- Description of the change
- Detailed schedule for the execution of the work, showing the required resources and significant milestones
- Details to support estimate and cost assumptions/basis
- Effects on the Control Budget and/or Contract Price, if any, with detailed back-up documentation as per contract
- Effects on the Control Schedule and/or Contract Schedule, if any, with explanatory back-up documentation as per contract
- Estimates should exclude contingency and schedule reserve

The execution schedule for the change needs to identify the impact on start dates and duration for all affected activities.

If applicable, an estimate of potential impacts to project weight should be performed for input to the weight control process.

The project should evaluate the regulatory and environmental impact of the proposed change. This includes examining the change's compliance with regulations and approved standards as well as the possible impact to project permitting (e.g., additional permits or changes to previous regulatory submittals that may cause significant delays).

A risk screening must be performed during this step to determine the potential impact to the overall health, safety, public disruption, environmental, security, operational and financial risks of the project. If the risk screening results in a risk assessment, the risk assessment will be used only to assess the level of risk for the change. If the risk assessment generates actions to mitigate the risk and thus change the risk level, the PMOC should be revised to include those actions in the overall content and not as separate action items. The PMOC must then be resubmitted for Approval to Progress with the mitigating actions and corresponding C&S impacts included in the change.

A Risk Screening is required for all PMOCs (see Attachment C) to assess the level of risk associated with implementing a change. It should be completed by the Change Initiator and must be approved by the Risk Coordinator. The SSH&E Manager will review all PMOCs and endorse all Risk Screenings, ensuring an accurate assessment of potential risk from the proposed change has been completed. The SSH&E Manager may delegate review and endorsement to another SSH&E representative on the project team. This delegation will be documented and retained with PMOC documents.

If a Risk Assessment is completed for a change prior to completing the Risk Screening, (Attachment C), then the Risk Assessment will be included in the PMOC documentation along with the Risk Screening Form.

2.1.4 Step 4 – Change Approval

Once all steps for proper evaluation of the PMOC have been completed, the Change Sponsor forwards the PMOC to the PT for approval. This approval step is the "Authorize for Use" (AFU) approval. If the Manager having the authority for final approval of the change (i.e., DOAG) does not endorse the change at this point, it is rejected and the PMOC is sent back to the Change Coordinator for close-out. The Change Coordinator will notify the Sponsor and all affected groups indicating that the PMOC has been rejected along with the reasons for rejection.

If the PMOC is approved, it is sent back to the Sponsor or Change Coordinator, who issues the approved PMOC to all impacted project groups for implementation. At least one approver must have the proper DOAG in accordance with Attachment – Endorsement & Approval Guide – Project Specific Authority (Figure D-2). The Contracted Cost Limits column of the table, which applies to the current project phase, should be in accordance with the project's DOAG and not exceed the limits in the Operator's DOAG. The approval limits for the Risk Category column are set by the Operator Management System guidelines. The Schedule, Specifications and Non-Contracted Cost Limits are recommended sample approval limits for the given levels. It is the responsibility of the Sr. Project Manager to determine the values in those columns.

If the approved change impacts a contractor's scope, the associated approved Contract Change Order is forwarded to the Business Manager for implementation in accordance with the Contract Procedures.

Senior executive approvals can be obtained via several methods. Direct signature of the PMOC documents is not required. Approval may also be achieved via e-mail or electronic signature.

2.1.5 Step 5 – Implementation

Project implements the PMOC as approved in the PMOC documentation and, if applicable, the associated Contract Change.

2.1.6 Step 6 – Verification

It is confirmed that the change was executed in accordance with PMOC documentation and all affected drawings are updated to reflect "red line" or "as-built" status. Upon completion of all required implementation actions, the verifying PT member(s) is (are) to formally document the date and method of verification on the PMOC form. The Change Coordinator shall not closeout a PMOC until after the required verification has been completed and documented.

FEED verification shall confirm that the change has been incorporated into all applicable documents (plans, specifications, drawings, etc.) so as to satisfy IM requirements and ensure the change will be incorporated into the completed facility.

Execute verification involves actual physical verification that the change has been incorporated into the completed facility if the PMOC affected design.

2.1.7 Step 7 – Document and Closeout

Once the PMOC has been verified as fully implemented, the Change Coordinator is responsible for ensuring that all documentation required for the PMOC is accurate and complete prior to marking the PMOC as "Closed" and sealing the PMOC record.

3.0 ROLES AND RESPONSIBILITIES

A fundamental aspect of an effective Management of Change Process is that recommended changes are reviewed at a level commensurate with the impact and risk involved. Changes that do not have a high level of impact or risk can be reviewed and approved at a lower level than those with a high level of impact and risk. Setting forth and following specific approval and responsibility guidelines will facilitate a consistent and efficient procedure.

Each PT member is responsible for becoming thoroughly familiar with the procedure and must ensure that the proper approval is obtained prior to implementing a change.

3.1 PROJECT TEAM

PT members require sound judgment as no pre-established Roles and Responsibilities list can account for all possible actions. All PT members, contractors, and suppliers should follow procedures established within the respective scope of work for each and provide information/data as required by the Change Coordinator.

All PT members should read the governing Agreements

All PT members involved with the PMOC need to ensure that the requirements listed below, are included in the project's PMOC process.

- Assessment of the effects of a proposed change on interrelated facilities and operations
- Technical review of changes
- Special precautions required to maintain safe operations during implementation of the change
- Method and authority for handling emergency changes Communicating to affected personnel the change and its impacts
- Review and revision of integrity critical documentation prior to startup of facility changes

3.2 PROJECT TEAM ROLES AND RESPONSIBILITIES

Sr. Project Manager and Project Manager

- Demonstrate leadership and commitment to the principles of the system.
- Ensure the PT appropriately applies and follows the processes described in the MOC System.
- Ensure changes are timely and properly approved prior to implementation.
- Provide the necessary resources to achieve the process objectives.
- Ensure Operations, SSH&E, external interfaces (such as Operator Affiliates), and other appropriate members of the PT understand their roles and responsibilities in reviewing and providing input to the PMOC approval process to meet Operator and AKLNG JV expectations.
- Review and endorse PMOCs to ensure proper review by appropriate PT and Operations personnel.
- Provide a focus on PMOC utilization (PMOCs are prepared and approved prior to implementation of the change) as well as recognition of PMOC Cycle Time.
- As necessary, review progress in achieving the process goals and objectives with the System Owner and System Administrator. ("System" = PMOC Plan)

- Develop and document an agreement with the Project Executive and Project V.P. defining the method of securing PMOC approvals (e.g., Quarterly Outlook).

SSH&E / ERL Manager

- Review and endorse all PMOCs to ensure SSH&E requirements are met.
- Ensure that changes undergo a review for regulatory and environmental concerns to maintain regulatory compliance and meet environmental expectations.
- Ensure appropriate Operational Integrity categories are identified on PMOCs.
- Ensure a Risk Screening or Risk Assessment is performed for each PMOC prior to approval, and that the completed and signed Risk Screening Checklist, Risk Screening Matrix and Risk Assessment (if required) are provided to the Change Coordinator for inclusion in the PMOC file

Business Manager

- Primary responsibility for implementation and use of system by PT.
- Review and endorse PMOCs with Financial impact.
- Formally revise the project PMOC system in a timely fashion to include subsequent system revisions when implemented and ensure the PT team is advised and adopts subsequent system revisions.
- Assess the performance and effectiveness of the process and inform the LT.
- Ensure PT's PMOC process includes a Project Specific Authority Approval Guide, and that it complies with the Operator Specific Use Schedule (DOAG), and that appropriate levels of management approval for PMOCs are in accordance with this guide. Develop and implement a project specific PMOC Approval Guide addressing DOAG, Risk, Weight (if applicable), Schedule changes, and revisions to Specifications.
- Ensure principles of PMOC process (changes to controlled documents and IFC drawings) are embodied in contractor's systems as applicable in FEED. If the contractor uses a Field Design Change system that changes a controlled document, then a PMOC must be raised (including risk screening) and review and approval by the proper PT members is required.
- Ensure actions for improvement have been identified and carried out.
- Ensure training requirements are adequately addressed, including refresher training.
- Ensure PMOC logs meet system requirements and are reported to LT monthly, and report PMOC Cycle Time metric in monthly reports to LT and Operator Management as appropriate.
- Support engagement of Project Controls SME to conduct project controls follow-up in support of the PT in the area of PMOC System use.
- Ensure PT Change Coordinator (PCE for AKLNG) is adequately trained
- Periodically, at least annually review and report the results and improvement recommendations to the PMOC System Owner and System Administrator.
- As part of Operator stewardship transfer process, before transfer of the facility or part thereof to Operations, coordinate with Operations counterpart, the PT Business Manager and the PT Change Coordinator to jointly develop a transition document outlining the transfer of the PMOC System to Operations. This PMOC System transfer document is to address management of PMOCs pending but not yet approved, approved but not yet implemented, implemented but not yet verified, and fully implemented, verified and closed.

Project Controls Manager

- Ensure actions for improvement have been identified and carried out.
- Ensure training requirements have been adequately addressed, including refresher training.
- Ensure PMOC logs meet system requirements and are reported to Project Leadership Team and Functional Leadership monthly.
- Support engagement of Project Controls SME to conduct project controls follow-up in support of the PT in the area of PMOC System use.
- Ensure PT Change Coordinator (PCE for AKLNG) is adequately trained.
- Periodically, at least annually, review and report the results and improvement recommendations to the PMOC System Owner and System Administrator.
- Ensure consolidation of the changes to the overall project costs and updating of the Current Control Budget and also the Current Control Schedule
- Evaluate the effect of staffing / work-hour changes on the schedule and of updating the Project Control Schedule

Business Lead – Sub-Project

- Ensure that MoC processes are implemented on the sub-project in a timely manner
- Assign a sub-project Change Coordinator and ensure he/she is adequately trained
- Assist the Change Coordinator and the Engineering Manager in promoting the process, communicating across disciplines, managing bottlenecks, and bringing issues to closure
- Provide sub-project PMOC status information to the integration team monthly to support consolidated AKLNG JV reporting
- Ensure the right people are involved in reviewing / endorsing / approving changes as appropriate
- Establish contract change procedures for each contract under Sub-Project Manager's stewardship. Refer to and comply with the Contract MoC Procedure for issues related to contracts, work orders, PO's, etc

Change Coordinator (Sub-projects and central Project Services team)

- Communicate PMOC changes to the affected groups.
- Develop project PMOC distribution matrices for PMOCs
- Ensure PMOCs are properly routed and approved (verification indicated by Change Coordinator endorsement of each PMOC)
- Consolidate the changes to the overall project costs and update the Current Control Budget and Forecast (similar for Current Control Schedule)
- Evaluate the effect of staffing/work-hour changes on the schedule and of updating the Project Control Schedule.
- Ensure that the completed and signed Risk Screening Checklist, Risk Screening Matrix and Risk Assessment (if required) are included in the PMOC file before PMOC is approved/authorized for use.
- Ensure changes are approved per the PMOC Approval Guide.
- Plot/track the total project and individual project component cumulative cost of changes compared with available contingency, allowances, and/or provisional sums depending upon the nature of the change and as per the Cost Stewardship Initiative guidelines

- Plot/track the overall number of approved and pending changes (maintain a project wide single PMOC log).
- Plot/track PMOC reporting metrics (cycle time, etc)
- Conduct a periodic review (at least biannually) to identify project PMOCs that have been initiated but not yet dispositioned (approved to progress), to determine with the Change Sponsors if such PMOCs continue to represent potential changes, or if they should be voided.
- Compile PMOC documentation or verify that documentation compiled by others is clear and complete
- Assist the Project Controls Manager and Business Leads in reviewing the MOC System with all the key members of the PT to identify the personnel who require training. Ensure training is conducted and document with project training records [7.2].
- Train new PT members in MOC system as they are mobilized to the PT
- Conduct semi-annual document assessments of the IFC and IFD drawing changes, CCOs, and NCRs to ensure PMOCs are submitted when required.
- Coordinate with all PT members the preparation of any required project or phase close-out PMOC documentation.
- Confirm that Change Sponsor designated change as "Discretionary" or "Non-discretionary" directly on PMOC at time of Pending Approval to Progress.
- Confirm that Change Sponsor designated verification method directly on PMOC at time of Pending Approval to Progress.
- Confirm that verification method indicated on PMOC by Change Sponsor was performed and documented before closing out a PMOC.
- Discuss proposed changes with Change Sponsor and Change Initiator to confirm need for PMOCs and avoid unnecessary work in scoping and justifying changes.
- Convene change committee meetings as needed
- Maintain a record of Change Control Committee meetings and participants including associated actions raised during the meeting.

Change Initiator

- Initiate the PMOC by identifying and documenting reasons for proposed change, along with benefits and areas of impacts.
- Identify Change Sponsor to steward the change through the PMOC process.
- Discuss proposed changes with Change Sponsor and Change Coordinator to confirm need for PMOCs and avoid unnecessary work in scoping and justifying changes.
- Along with Change Sponsor, identify stakeholders required to be included in review of PMOC and key actions to properly assess the proposed change.
- Complete Risk Screening Checklist to assess potential impact to overall health, safety, public disruption, environmental, security, operational and financial risks of the project.

Change Sponsor

- Steward the change through the PMOC system.
- Along with Change Initiator, identify stakeholders required to be included in review of PMOC and key actions to properly assess the proposed change.
- Check the completeness of the initiated PMOC prior to submitting a PMOC, including: Designation of change verification method. Designation of "Discretionary" or "Non-

discretionary", Designation of time limitations and other requirements as defined herein for content of Temporary PMOCs

- Designate pre- and post Authorization for Use actions
- Designate the appropriate approval assignments for all stages of the change progression.
- Respond to system status regarding progression / delays of changes through the system.

Engineering Manager

- Ensure that changes undergo a review for engineering concerns and compliance with the integrated Project Design Basis.
- Ensure principles of PMOC process (changes to controlled documents, Specification Deviation Requests, and IFC drawings) are embodied in contractor's systems and detailed work processes.
- Ensure that changes to controlled documents as defined for each Stage Pre-FEED, FEED, Execute) initiated by a Contractor's change system (such as Field Design Change system) are identified by Contractor's change system as PMOC candidates. Changes to controlled documents generated by Contractor's change system should be highly visible and subjected to processes to identify when a PMOC must be raised (including risk screening), reviewed, and approved, by the proper PT members.
- Seek input from the I&C Engineer when changes impact I/O count

Project Execution Manager / Lead (In S/P and also in Central Team)

- Prepare change impact estimates by compiling input from the different engineering disciplines, conducting risk screening required, and forwarding coordinated change packages to the Change Coordinator.
- Assess the effect of proposed changes on cost, schedule, weight, risk, regulatory, environmental, and operability to determine whether a contract change is required.
- Ensure change request/authorization forms for contract and purchase order changes are initiated as required, including monitoring development and maintenance of a CCO (Contract Change Order) log for each contract under Project Engineer's stewardship. Obtain functional approvals as required, including consulting with the Contracts team
- Ensure compliance with the Risk Screening process, the Risk Assessment process, the OI Approval Matrix, and the Project Specific Authority Approval Guide.
- Ensure quality assurance /quality control (QA/QC) for all changes.
- Review change activity with management at monthly stewardship reviews.
- Report on the status of all changes to the Change Coordinator.
- For PMOCs requiring verification by actual visual inspection (as identified by Change Sponsor on each PMOC) ensure the verification is conducted prior to closure of the PMOC. Steward the PMOC closure activities prior to transfer of the facility to Operations (as applicable).

Systems Completion Manager (as applicable)

- Ensure the Systems Completion Team has a process to verify PMOCs have been closed out on a particular system during the Pre-Start-up Safety Review (PSSR).
- Review and endorse PMOCs with commissioning, start-up, or performance testing impact.
- Ensure Brownfield interfaces are appropriately addressed.

- Before transfer of the facility or part thereof to Operations, coordinate with Operations, the PT Business Manager and the PT Change Coordinator to jointly develop a transition document outlining the transfer of the PMOC System to Operations. This PMOC System transfer document is to address management of PMOCs pending but not yet approved, approved but not yet implemented, implemented but not yet verified, and fully implemented, verified and closed out. For those verified as implemented, verification method must be documented

Operations Representative (Operations Readiness or Affiliate Operations Manager)

- Where appropriate review applicable PMOCs for operability, reliability and maintainability.
- Ensure interfaces with existing facility operations groups and other applicable systems are appropriately addressed. Endorse any PMOC with impact of Health/Safety, Security, Environmental, or Operations associated implications.
- Review/Revise integrity critical documentation prior to startup of facility changes

Project Quality Manager

- Work with the Business Manager to assess the performance and effectiveness of the MOC system. Any identified instances of unauthorized changes taking place will be readily addressed with the Business Manager and Project Manager.
- Ensure that changes undergo a review for quality related concerns.

Project Risk Coordinator

- Coordinate and provide guidance/oversight for Risk Screenings to ensure an accurate and adequate screening for risk.
- Review and approve all Risk Screenings.
- Endorse any PMOC that reflects increase in risk levels
- Communicate risks associated with the change and required mitigation measures to Project Team.
- Coordinate risk assessments for changes and specification deviations which identify the need for a risk assessment after completion of the risk screening.
- Track, within the PMOC, any action items generated by risk screening, or mitigation actions identified to maintain acceptable risk levels.

Construction Site Supervisor/Manager (as applicable)

- As required, support PMOC process at construction site to ensure potential cost, schedule and risk impacts are properly identified and evaluated.
- Assess the effect of proposed changes on cost, schedule, weight, risk, regulatory, environmental, and operability to determine whether a contract change is required.
- Establish contract change procedures for each contract under stewardship of Site Supervisor/Manager.
- Ensure change request/authorization forms for contract and purchase order changes are initiated as required including monitoring development and maintenance of a CCO log for each contract under stewardship of Site Supervisor/Manager. Obtain intra-functional approvals as required.
- Ensure compliance with the. Risk Screening process, the Risk Assessment process, the OI Approval Matrix and the Project Specific Authority Approval Guide.
- Ensure quality assurance /quality control (QA/QC) for all changes.
- Review change activity with management at monthly stewardship reviews.

- Report status of implementation of changes to the Change Coordinator.
- For PMOCs requiring verification by actual visual inspection (as identified by Change Sponsor on each PMOC) ensure the verification is conducted prior to closure of the PMOC. Steward the PMOC closure activities prior to transfer of the facility to Operations.

Other PT members, contractors, and suppliers

- Follow procedures established within the respective scope of work of each
- Provide information and data as required by the Change Coordinator to support the PMOC System

4.0 EXAMPLE DOCUMENTS

Figure 3: MOC Log (Example)

Alaska LNG

Proprietary

Alaska LNG

Management of Change - Log

Status: All

Moc No. Tracking #	MOC Title	Originator Date Initiated	Status Status Date	Implement by Date Cycle Time	Verified By Closed Date	Sub-Project Area	Operations Integrity Risk Categories	Net Schedule Impact	Net Cost Impact ($k)	Net Weight Impact (MT)
			Average Cycle Time	0				0	$0	0

Figure 4: Cost / Weight / Schedule Impact Detail (Example)

Proprietary

Alaska LNG **Alaska LNG Project**

Cost Impact Detail

Sub-Project		Description		Approved Change ($k)
		Project Engineering Procurement Fabrication Construction		
			Totals	$0

Weight Impact Detail

Sub-Project	Description	Bulks	Steel Module	Equipment	Outfitting	Other (Describe)	Total
						Totals	0.00

Schedule Impact Detail

Sub-Project	Description	Current Schedule Start	Current Schedule End	MOC Schedule Start	MOC Schedule End	Schedule Impact (+/- wks)
					Totals	

Figure 5: Schedule Major Milestones / Risk Assessment / Deliverables Affected

Proprietary

Alaska LNG **Alaska LNG Project**

Schedule Major Milestones Impact Detail

Sub-Project	Description	Baseline Date	Change Request Date	Schedule Impact (+/- wks)
	FEED Phase Milestones Award Major Contracts at Start of FEED Phase FEED JVA Deliverables Complete & Issued to PSC/CoV Issue ITT Packages to Bidders for Execute Phase Ready to Award Execute Contracts JVA FEED Phase Complete Final Investment Decision (FID) **EPC Phase Milestones** Award Major EPC Contracts at Start of Execute Phase Receive Authorization(s) to Construct LNG Last Vessel Sail Away: Sealift1; Sealift 2; Sealift 3 GTP Last Vessel Sail Away: Sealift1; Sealift 2; Sealift 3 First Gas to GTP First Gas to LNG Complete Start-Ups: Train 1; Train 2; Train 3 First Cargo Full Production			
			Totals	

Risk Assessment

Hazard	Initiating Event	Causes	Consequences	Assumed Safeguard	Risk Level	Action Item

Deliverables Affected

Sub-Project	Documents/Drawings	Reference Document	Impact

5.0 ACRONYMS AND TERMS

5.1 ACRONYMS

Term	Definition
AFE	Authorization for Expenditure
AFU	Authorized for Use
AKLNG	Alaska LNG
CCB	Current Control Budget
CCO	Contract Change Order
CCS	Current Control Schedule
CWBS	Contract WBS
DOAG	Delegation of Authority Guideline
EPDB	Early Project Development Basis
ERL	Environmental, Regulatory, Land
FEED	Front End Engineering Design
GTP	Gas Treatment Plant
HAZOP	Hazardous Operations (i.e. an analysis)
IFC	Issued for Construction
IFD	Issued for Design
IPDB	Integrated Project Design Basis
ITT	Invitation To Tender
JV	Joint Venture
LNG	Liquefied Natural Gas
MOC	Management of Change
OCB	Original Control Budget
OCS	Original Control Schedule
OIPMS	Operator's Integrated Project Master Schedule
P&ID	Piping & Instrumentation Drawing
P/L	Pipeline
PCP	Project Controls Plan
PLT	Project Leadership Team (for AKLNG: Leadership Team -- LT)
PMOC	Project MOC
PS	Project Services
PSC	Project Sub-Committee
PT	Project Team
S/P	Sub-Project
S/P-MS	Sub-Project Master Schedule
SDR	Specification Deviation Request

Term	Definition
SME	Subject Matter Expert
SSHE	Safety, Security, Health, Environmental
WBS	Work Breakdown Structure

5.2 TERMS

Term	Definition
Change Inquiry	A request by Company for Contractor to evaluate cost and schedule implications of a potential Contract Change
Change	Generic term for the act or instance of making something different. Change involves the transformation from a set of agreed conditions, state, or criteria to another.
Change Notice: Project (PCN)	A unilateral notice from Company/Buyer to the Contractor instructing the Contractor of some type of revision or set of instructions. The PCN may be administrative in nature or items with impacts to cost and schedule. PCN may be related to scope, work schedule, revision of deadlines, revision of technical standards, etc. The Contractor is expected to comply with the PCN. If PCN results in a change in cost or schedule, the Contractor may propose and submit a request for a Change order or Amendment to Company/Buyer for approval.
Change Proposal	Contractor's proposal for a Contract Change, including justification, scope of work, detailed cost and schedule impacts and assessments of risks including health, safety, environmental, regulatory and technical implications
Change Request	A request by Contractor or Company to clarify or alter certain aspects of a Work Package. These change requests are approved by both parties and may or may not result in a request for a change order.
Corrective Action Request (CAR):	A document that describes non-fulfillment of a specific project requirement relative to a work process and the action necessary to remedy the condition
Contract Change Order (CCO):	A change within the originally contemplated Contractor scope of work but with impact on cost or schedule. Each change order must comply with the contract terms and conditions. The change order will identify the increase or decrease in the contractor's compensation and may also identify any change to the contractual completion date. Change orders must be approved by both the Contractor and the Company/Buyer consistent with the Operator DOAG (Delegation of Authority Guideline) Specific Use Schedule prior to commencement of work.
Control Budget	The basis in cost, quantities, and/or work hours against which the project measures its performance. The Original Control Budget is the approved level of budgetary expenditures including contingency. The Current Control Budget is the sum of the original budget plus all approved Contract changes. [Also see AKLNG PCP: Project Controls Plan]
Control Schedule	The basis in duration of activities, sequence of activities and milestones against which the project measures its performance. [Original Control Schedule and Current Control Schedule are analogous to control budgets. Also see AKLNG PCP: Project Controls Plan]
Controlled Documents	For the purpose of this procedure, documents that define the project technical and execution basis / scope and associated project deliverables as defined in this procedure and in Section **Error! Reference source not found.**
Cycle Time	The numbers of days for a project change from "Approved to Progress" to Authorized for Use
Design Development:	Occurs during the course of engineering evolution from FEED through detailed design and project execution. As the design matures greater clarity is achieved of the number and type of engineering deliverables, equipment, and bulk material, and project execution requirements. This normal course of project maturation is typical and is not necessarily a valid reason for a PMOC.
Discretionary Change	A change that may improve project performance, but it is not required to achieve project objectives

Term	Definition
Integrity Critical	Activity, equipment, device, process, document, position, etc. determined to be vital to the prevention or mitigation of a major event as they relate to Operations Integrity. Such events include an uncontrolled emission, fire, or explosion that involves serious danger to people, property, or the environment.
Leadership Team	The AKLNG Leadership Team (LT) is led by the–Sr. PM and is made up of: Project Managers, Business Manager, Technical Manager, SSHE/ERL Manager, etc. The Operator Functional Leadership Team (FLT) are informed monthly of the project status and ongoing issues to assist in resolution as needed.
MOC	Acronym for Management of Change and the overarching process to ensure changes to approved design bases, designs, documents, procedures, execution strategies, and constructed facilities are managed and controlled
Non-conformance	Non-fulfillment of a specific project requirement. Includes deviations from drawings and specifications
Non-Discretionary Change	A change that is necessary to meet project objectives
Operations Integrity	All aspects of Operator's business, including security, which can impact safety, health, and environmental performance.
Operations Integrity (OI) Category:	A method of categorizing each MOC that identifies the relative Operator management system area such as Health/Safety, Public Disruption, Environmental, Security, Operations and Financial Impact
Operator	Company that will be the designated operator for the FEED stage as per the governance agreement.
Project MOC	Acronym for the formal Project Management of Change process or reference to the formal documented change / modification to Controlled Documents as described in this procedure
Project Deviations	Accepted alternatives to a particular portion of the Job Specification.
Project Team (PT)	The Project Manager and all personnel who report to him/her directly or indirectly
Rough Order of Magnitude Estimate (ROM)	A preliminary estimate that may be based on benchmarks or experience. A ROM is used to provide a relative indicator of the magnitude of the cost and schedule impact associated with a potential change. ROM's have a high degree of uncertainty.
Transfer:	Reallocation of approved budgeted funds from one AFE to another (PMOC is required)
Waiver:	Written authorization to release a work product or process that does not conform to specified requirements. The PT's acceptance of a Deviation Request typically results in the waiver of a requirement.

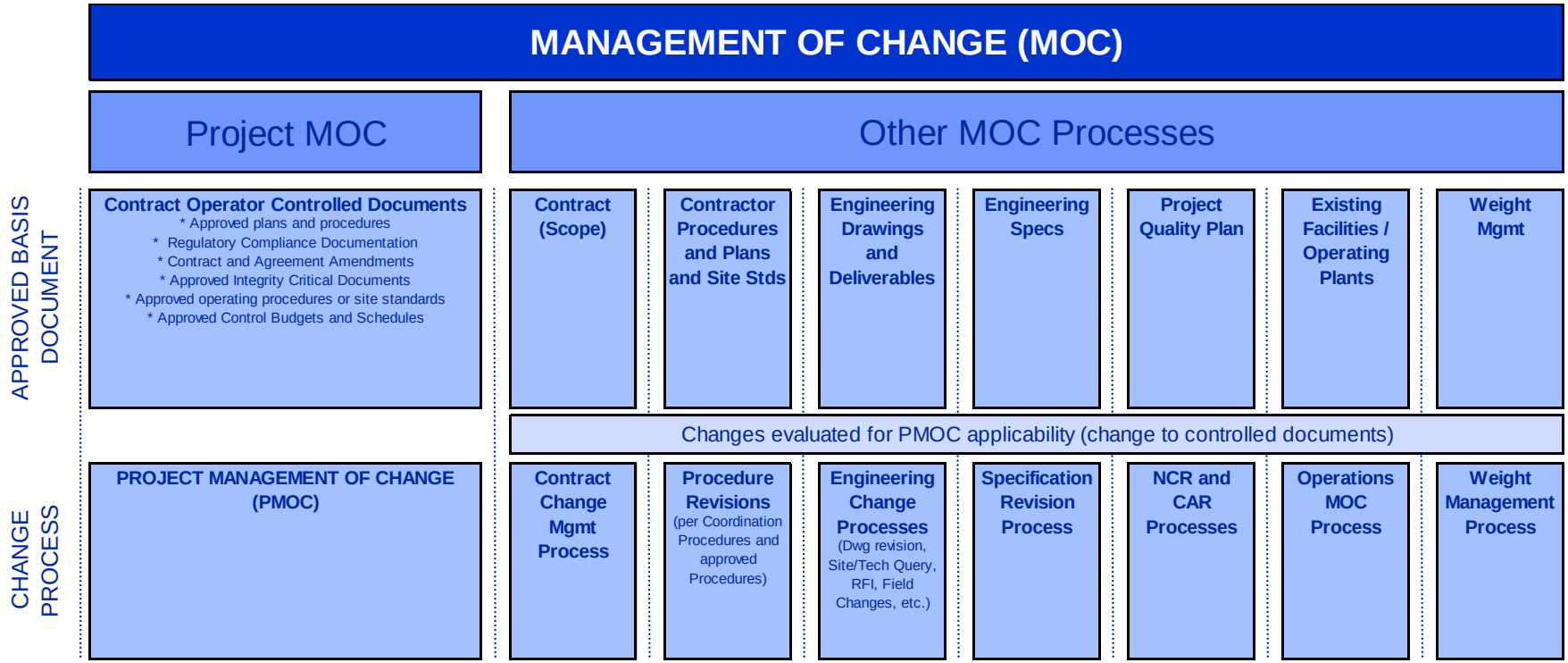
6.0 REFERENCES

Document Number	Document Title
USAI-PS-BPCTL-00-000002-000	FEED Integrated Project Controls Plan
USAI-PS-BPMOC-00-000003-000	AKLNG Contract Management of Change
USAI-PT-BLZZZ-00-000001-000	Key Decision Log

7.0 ATTACHMENTS

Attachment A	Management of Change Overview
Attachment B	Project MOC (PMOC) Applicability Table
Attachment C	Risk Screening Form
Attachment D	Endorsement and Approval Guide
Attachment E	MOC Process Flow
Attachment F	PMOC Example Forms
Attachment G	Abbreviations
Attachment H	MOC Process Overview

7.1 ATTACHMENT A: MANAGEMENT OF CHANGE OVERVIEW



Note: Site/Field originated changes may afffect multiple change processes.

7.2 ATTACHMENT B: PMOC APPLICABILITY TABLE

Attachment B is provided to assist with determining if a proposed change is required to be stewarded by this PMOC procedure. It includes Controlled Documents and other deliverables/situations that, if changed, require a PMOC. Examples are provided for both the FEED and Execute phase.

PMOC Applicability Table	
Operations Integrity Management	The following types of specific changes must be addressed as appropriate for potential Operations Integrity impacts: Additions to/deletions from the unit facilities Installation of equipment or materials not meeting the original installation design intent Addition of new or modified computer control applications or programmable control, surveillance and safety equipment Changes to alarms and interlock set points New or revised procedures and Integrity Critical documentation Deviation from Integrity Critical procedures Changes in operational envelope, approaching safety limitations Changes impacting security Introduction of new chemicals or catalysts

FEED entry to FID	
Controlled Document	Examples of changes requiring a PMOC
Pre-FEED Project Execution Plan (PEP), Contracting Strategy, Pre-Investment (Note: Operator designation for PEP is Early Execution Plan (EPP))	Revisions to these Controlled Documents will require PMOCs. Prior to FID, Project Teams can bundle accepted optimization initiatives into one or several PMOC Revision in execution strategy Revision in execution location and assumptions Change from 1 to 2 prime construction contractors, or from RC to LS (Reimbursable Cost to Lump Sum) Significant change to logistics plan or infrastructure basis
Roadmap of Deliverables based on venture agreement and / or Operator PM System	The project takes the decision not to produce one or more of the deliverables identified on the approved Venture Agreement Deliverables Road Map.

Design Basis / IPDB (Note: Operator designation Facilities Design Basis / Early Project Development Basis (EPDB))	Decision taken to change LNG vaporizers from ORV to SCV Decision to move from stick built to modularized approach Evaluation of engineering/environmental survey data and/or land, environmental, community affairs or regulatory issues indicate re-routing of pipeline segment outside of corridor is warranted Changes to reservoir definition yields sufficient reserves and identifies need to increase throughput from 75 to 120kbd or composition (or # and location of wells). For future expansion - increases in P/L diameter from 12" in Design Basis to 14". Changes to reserve size/definition (GOR/composition). The P/L system configuration is changed to use a significantly higher pressure, smaller diameter, and fewer compressor stations. Completion of the route survey indicates that the P/L corridor needs to be revised. Significant increased CO_2 content of gas in reserve
Organization Plan change	Changes to locations which impact security and safety
Regulation or Commercial Agreement changes	Commercial agreements changed the overall funding basis project duration Significant new legislative issues (national content) Significant changes in operations assumptions New regulation adds 6 months to permitting process or limits flaring emissions
Materials Design Basis Memorandum (MDBM)	Decision to change materials if Operating conditions are changed, such as temp, H_2S pressure, etc.; Facilities design is changed New technologies identified through TQMS are used; Long lead items are not available on schedule.
Security Model	Decision to not use -- or to deviate from – Operator Upstream Security Model Facility Countermeasure Minimum Standards requires special approvals as per process defined in Operator Security Management System. Physical design changes affecting security reliability require PMOC.
Operator Operation Integrity Management System Approved Plans	Decision to deviate from or not follow an Ops Integrity plan that has a SSHE impact requires a PMOC and notification to Operator management system administrator. Examples include: Deleting security check points, gates, and or security buildings Decision to not use -- or to deviate from -- Upstream Security Model Facility Countermeasure Minimum Standards requires special approvals as per process defined in Ops Integrity Management System. Physical design changes affecting security reliability require PMOC.

Examples of Items that do not require an PMOC (FEED entry to FID)
Design development/refinement. Design or Execution development to meet the PEP (EPP) and Design Basis
Pipeline Centerline changes within the Final Corridor prior to FEED entry
Poor FEED contractor performance
Replacement of personnel. Personnel changes (regular changes, not key personnel changes which change the Organizational Plan)
Market fluctuations (captured in monthly Outlook) - Labor cost increase
Performance (captured in monthly Outlook) - LLE delays, material supply constrictions
Schedule extension that does not exceed the FEED project schedule (including Schedule Reserve and SCSA)
Additional studies, such as Geotechnical
Changes to Global Practices or specifications which follow the process set out by Engineering
Changes to Operator Procedures that are entirely focused on business, finances or administration, such as procedures relating to timekeeping, invoicing, lessons learned, progress verification, contingency mgmt., reporting, issues mgmt., contracts admin., work requests, cost recovery, financial controls, HR, banking, etc.
Clarification and revisions/updates to an approved Operator OI Plan or an approved supporting Plan. (e.g., updating this PMOC plan) Note: These changes will be worked through the normal review and approval process.
Estimate Basis Changes that do not require a PMOC: minor changes to Unit Quantities, Unit Rates, Unit Cost, FOREX or Productivity.
In general, activities covered by approved procedures, documents, designs, site standards

Execute to Pre-Startup / Turnover-to-Operations	
At Execute the PMOC process becomes more rigid and the number of Controlled Documents expanded with a goal of zero discretionary changes. Excluding normal updates of the following Controlled Documents that are required per Operator practices for entry to Execute, revisions/changes to the following Controlled Documents will require a PMOC.	
Controlled Document	**Examples of changes requiring a PMOC or MOC**
Project Plan (includes Execution Plan)	Decision taken to change from fabrication in S. Korea to China Decision taken to change module installation from lift to float-over
Project Design Basis	Decision taken to skid equipment packages Decision taken to change sparing philosophy Decision to use a vendor's specification in lieu of an Operator Spec. Decision to change P/L diameter that requires equipment or land not included in IPDB Blowdown valves on a platform were taken out of one contractor's scope but not placed into the other contractor's scope. It is recommended that the transfer of scope from one subproject to another subproject be executed via a formal PMOC so that the impacts are recognized, and interfaces are identified, aware of and agree to the transfer of scope. Revising controls philosophy – adding or deleting control or PSV valves

Cost Control Budget and Control Schedule	Budget Transfer from one AFE to another requires a PMOC Estimate discovered to exclude the costs associated with installation, start-up spares or other significant estimating errors Re-baseline of the Operator's project schedule requires a PMOC
Roadmap of Deliverables based on venture agreement and / or Operator PM System	Decision not to produce one or more of the deliverables identified on the approved Road Map, this requires a PMOC to document deviation
Contract Strategy Plan and Contract Plan - WBS	Decision taken to change contracting model Migration of a lump sum contract to other contractual compensation basis Settling a claim (not supported via normal Contract Changes provisions) Early termination of a major contractor or subcontractor should be documented via a PMOC
Significant Changes to the Final Organizational Plan	Decision taken to eliminate or combine key positions from functionally endorsed organization plan (e.g., Project Executive, Project Manager, SSH&E Manager, Planning & Controls/Business Manager, Technical Manager, Quality Manager, Construction Site Manager, Installation Site Manager, Start-up Manager, and any other positions identified by project leadership to have comparable roles) Decision to relocate PT members from one location to another which could have significant SSH&E impacts (e.g., Decision to relocate team from Houston to PNG)
Operating and Maintenance Procedures	Revising approved operations and maintenance procedures (Engage Operations before taking actions in this area) Addition of new or modified computer control applications or programmable control, surveillance and safety equipment During commissioning and start up, systems often need to be modified in the field. If systems have been transferred to Operations (i.e., endorsed by a Systems Turnover document), an MOC using the Operations system should then be used. If the system has not yet been transferred, use the applicable change management process and check Section **Error! Reference source not found.** to decide if PMOC is required.

Operator Operation Integrity Management System Approved Plans	Decision to deviate from or not follow an Ops Integrity plan requires a PMOC and notification to Operator management system administrator. Examples include: Decision to not use -- or to deviate from -- processes and requirements of Malaria Control and Compliance Program (MCCP) for work in malarial area Decision to not use -- or to deviate from -- processes and requirements of Alcohol and Drug (A&D) program Decision to not use -- or to deviate from -- Upstream Security Model Facility Countermeasure Minimum Standards requires special approvals. Physical design changes affecting security reliability require PMOC. Changes in operating, maintenance or emergency procedures to include security protocols (e.g., standard orders for guards, ID checks, etc.) Changes in security processes used to monitor site (e.g., site entrances, baggage/vehicle check process, etc.) Significant changes in security personnel or organizational structure (e.g., switching from an outside security company to an offsite third party monitoring company)
Project Specifications	Changes to specifications are covered under the Specification Deviation Procedure. See Engineering Manager's Roles and Responsibilities in Attachment D
Operator Procedures	Changes to Operator Procedures which can impact SSHE performance or are involved in the production, manufacture, use, storage, or movement of material or people, such as procedures for start-up, logistics, vehicle transportation, expediting and inspection, site and office visitors, asset disposal, travel, change management/site instructions, field changes, camp management, etc.
Examples of Items that do not require an PMOC Post FID)	
Equipment substitution meeting the same specifications Changes in installation support vessels with no change in method, cost or schedule Change in personnel (Operator and Contractor) if not a Critical Position Rework, Force Majeure and Backcharges Additional site indirect improvements (ex. additional parking space) Estimate Basis Changes that do not require a PMOC: minor changes to Unit Quantities, Unit Rates, Unit Cost, FOREX or Productivity Micro-routing change in pipeline within corridor to address site-specific conditions identified by execution team (micro-route changes are planned for in pipeline execution plan) Changes to Operator Procedures that are entirely focused on business, finances or administration, such as procedures relating to timekeeping, invoicing, lessons learned, progress verification, reporting, issues mgmt., contracts administration, work requests, cost recovery, financial controls, HR, banking, etc. These changes to these procedures are handled in accordance with those procedures.	

7.3 ATTACHMENT C: RISK SCREENING

A Risk Screening is required for all PMOCs to determine potential impact to the overall health, safety, public disruption, environmental, security, operational, and financial risks of the project. This Risk Screening form should be completed by the Change Initiator. However, the Risk Coordinator must approve the Risk Screening and SSHE/ERL Manager must endorse the Risk Screening. The Risk Screening consists of two components, the Risk Screening Checklist and the AKLNG Project Risk Matrix – Table C-2.

The SSH&E/ERL Manager will ensure that the Risk Screening is completed prior to approving any PMOC.

Instructions for AKLNG Project Risk Matrix:

Using Tables C-5, C-4 and C-3, for each of the five considerations (Safety/ Health; Environmental; Community / Public Disruption; Financial: Direct; and Financial: Indirect), determine the Probability and the Consequence levels prior to implementing the change and after implementing the change in accordance with the AKLNG Project Risk Matrix. Fill in Risk Matrix Results Table C-1 below with the risk levels (e.g., III-B or IV-C) prior to change and post change implementation. (The risk "category" is the numerical result from the AKLNG Risk Matrix - Table C-2.)

Increasing Risk Level: A Risk Screening for a proposed change (PMOC) that yields a higher level of assessed risk than existed prior to implementing the change. An increasing risk level is a change that moves the Consequence or Probability determination from a lower risk category to a moderate risk category (higher up or further left on the Risk Screening Matrix).

When a change is categorized as Increasing Risk Level, broad distribution of the pending PMOC should be made to ensure that all applicable interfaces and potential stakeholders have the opportunity to participate in the decision making process. The affected Project Components as well as Operations should participate in the decision process. Where Risk Screening identifies increasing risk levels, the Project Risk Coordinator must be included in the PMOC approval process and confirm the need for a scenario-based risk assessment in accordance with the Operator's system and processes.

Decreasing Risk Level: A Risk Screening for a proposed change (PMOC) that yields a lower level of assessed risk than existed prior to implementing the change. An example of a decreasing risk level would be a change that moves the Consequence level or Probability range level from a higher risk category to a moderate risk category (lower down or further right on the Risk Screening Matrix).

No Change in Risk Level: A Risk Screening for a proposed change (PMOC) that yields no change in the level of risk than existed prior to implementing the change (same Consequence and Probability – same box on Risk Screening Matrix).

If the change increases consequence or probability levels, increasing risk is indicated.

Table C-1:
Risk Screening Results (based on Risk Matrix)

	Prior to PMOC	Post PMOC Implementation
Health/Safety		
Public Disruption		
Environmental Impact		
Financial Impact: Direct		

	Table C-1: Risk Screening Results (based on Risk Matrix)	
	Prior to PMOC	**Post PMOC Implementation**
Financial Impact: Indirect		

The driving risk consideration (area of greatest risk: from Table C-1)

is _____.

The risk category (from Table C-2) Post PMOC Implementation:

From Risk Screening = _____. From Risk Assessment = _____.

The attached Risk Screening consisting of the completed Risk Screening Checklist and the completed AKLNG Project Risk Matrix was prepared by _____.

Instructions for Risk Screening Checklist

Identify / check responses to each question. Increasing risk is indicated if any answer is "Yes" or "Maybe".

When the Risk Screening indicates increased risk, the Project Risk Coordinator must confirm the need for a scenario-based Risk Assessment.

Table C-2: AKLNG Risk Matrix

		PROBABILITY				
		A	**B**	**C**	**D**	**E**
Consequences	**I**	1	1	1	2*	3*
	II	1	1	2	3	4
	III	2	2	3	4	4
	IV	3	4	4	4	4

Note: The Risk Assessment risk category will supersede the Risk Screening risk category

***** For scenarios that have residual risks accepted in the I-D and I-E boxes, the control measures must be periodically verified to ensure the risk assessment has not changed. Frequency and method of verification should be documented in closure comments and approved by the Risk Coordinator.

Table C-3: Probability Considerations

Probability Range	Qualitative Interpretation Guidance	Quantitative Interpretation Guidance (Probability of Occurring per year of exposure)
A	**Very Likely** Similar event has occurred once or more at Site in the last 10 years Has happened several times at Site or many times in Company	0.1 to 1 Mid-point at 0.3
B	**Somewhat Likely** Has happened once before at Site or several times in Company	0.01 to 0.1 Mid-point at 0.03
C	**Unlikely** Has not happened before at Site or has happened a few times in Company	0.001 to 0.01 Mid-point at 0.003
D	**Very Unlikely** Have been isolated occurrences in Company or has happened several times in industry	0.0001 to 0.001 Mid-point at 0.0003
E	**Very Highly Unlikely** Has happened once or not at all in Company Has happened a few times or not at all in industry	<0.0001

Table C-4: Consequence Considerations

Consequence Level	Safety / Health	Environmental Impact	Public Impact	Financial Loss: Direct (*)
I	Fatality(ies); Serious Injury Requiring Medical Treatment to Members of Public	Potential Widespread, Long Term, Significant Adverse Effects	Significant Public Disruption; Extended National or International Media Coverage; Large Community Impact; Large Scale Evacuation; Major Road Closure >24 Hours	Operator
II	Serious or Lost Time Injury / Illness	Potential Localized, Medium Term, Significant Adverse Effects	Small Public Disruption; One Time National or Extended Local Media Coverage; Medium Community Impact; Small Scale Evacuation; Major Road Closure <24 Hours	Project
III	Restricted Work or Medical Treatment	Potential Short Term, Minor Adverse Effects	Public Complaints; One Time Local Media Coverage, Small Community Impact; Secondary Road Closure <24 Hours, Tier 1 PSE	Site

Probability Range	Qualitative Interpretation Guidance			Quantitative Interpretation Guidance (Probability of Occurring per year of exposure)
IV	First Aid / Minor Injury	Inconsequential or No Adverse Effects	Public Complaint; No Media Coverage, Temporary Closure of Side Road; Minor Inconvenience	Other

*) Direct Costs and Property Loss Impact direct loss only; does not include business or production loss

Table C-5: Consequence Considerations
Financial Loss: Indirect

Consequence Level	Working Definitions Financial Impact / Business Loss(*)
I	Corporate 4-month project delay
II	Project 2-month delay
III	Site 2-week delay
IV	Other Less than a week delay

Note:
*) Includes lost or deferred production (indirect).
Table applicable to AKLNG Pre-FEED and FEED per Sr. PM

AKLNG Risk Screening Checklist

		Condition Post Change Implementation		
		No	Yes	Maybe
1	Is it outside industry / Partner(s) operating experience?			
2	Will a Critical Operating Parameter be created or changed?			
3	Will Operations be affected?			
4	Will it cause additional operating complexity / difficulty-of-use?			
5	Will safety systems be bypassed?			
6	Will it require regulatory query or variance?			
7	Does it deviate from Project Philosophies?			
8	Does the change warrant an updated Hazard Assessment?			
9	Will the change impact PBU and / or PTU?			

		Condition Post Change Implementation		
		No	**Yes**	**Maybe**
10	Does it require Operator practices / Project Specification deviation(s) not associated with Safety [S] or Environmental [E]?			
11	Does it require Operator / Project Specification deviation(s) associated with Safety [S] or Environmental [E]?			
12	Does it require revising major risk and loss prevention activities completed to date? Consider: • Escape, Evacuation, and Rescue • Fire and Explosion analysis, including loss of containment • Firewater system sizing • Ventilation and dispersion			
13	Does it require revising major piping or layout activities completed to date? Consider: • Location of people and equipment in "hazardous" vs. "non-hazardous" areas • Piping support(s)			
14	Does it require revising major structural activities completed to date?			
15	Does it require revising major electrical activities completed to date? Consider: • Electrical Area Classification • Electrical load lists			
16	Does it require revising major mechanical activities completed to date? Consider: • Current ventilation design (to prevent explosive mixtures)			
17	Does it require revising major machinery activities completed to date?			
18	Does it require revising major Instrumentation and Controls activities completed to date? Consider: • SAFE Charts • Cause and Effects Analysis • Fire and Gas Detection • Tubing support(s)			
19	Does it require revising major Process activities completed to date? Consider: • Flare, relief, and blowdown scenario development, backflow, blocked flow increase, pressure / vacuum relief (including thermal) • New chemicals • PFD or P&ID changes after HAZOP			

		Condition Post Change Implementation		
		No	**Yes**	**Maybe**
20	Does it require revising major Construction Planning activities completed to date?			
21	Does it require revising major Integration Planning activities completed to date?			
22	Does it require revising major Installation Planning activities completed to date?			
23	Does it impact Human Factors? Consider: • Access / Egress • Noise • Body position, reach • Lighting, etc.			
24	Will personnel protective equipment need to be altered?			
25	Will temporary connections or equipment be installed?			
26	Will utility systems need alteration to support the change?			
27	Will the potential for spill or release increase?			
28	Will normal operating emissions or discharges increase?			
29	Will staffing levels or tour duties / checklists change?			
30	Will security impacted by the change?			
31	Will change result in increased health risks/concerns? (e.g., cold weather exposure, etc.)			
32	Will location change adversely affect availability of specialized or key technical competencies?			
33	Will the schedule's critical path or major project milestone adversely impacted?			

Other Considerations:

Increasing risk is indicated if ANY answers are 'Yes' or 'Maybe'.

Risk Screening Performed by: _____ **Date:** _____

Risk Coordinator Approval: _____ **Date:** _____

SSHE / ERL Manager Endorsement: _____ **Date:** _____

7.4 ATTACHMENT D: ENDORSEMENT & APPROVAL GUIDE

See Section **Error! Reference source not found.** for a description of the overall review, endorsement, and approval of PMOCs by the Project Team. Figure E-1 is used to identify key reviewers/endorsers of an PMOC based on the PMOCs impact, while Figure E-2 lists the appropriate level of management (DOAG) for final approval (i.e. Authorized for Use) of a PMOC.

Figure D-1: Operational Integrity Approval Matrix

	Operational Integrity Category								
Project Team Approvals (Minimum Requirements)	Health / Safety	Security	Public Disruption	Environmental	Operations	Financial	Regulatory	No OI Impact	Comments
Senior Project Manager	√	√	√	√	√	√	√	√	
Project Managers	√	√	√	√	√	√	√	√	For affected subproject(s)
Business Manager						√		o	
Technical Manager	o	o	o	o	o	o	o	o	
Change Coordinator (PCE)	o	o	o	o	o	o	o	o	For affected subproject(s)
SSHE/ERL Manager	√	√	√	√	√	√	√	√	
Enigneering Manager	o	o	o	o	o	o	o	o	For affected subproject(s)
Quality Manager	o	o	o	o	o	o	o	o	For affected Quality Processes
Operations Manager	√	√		√	√			o	
Construction Lead	o	o	o	o	o	o	o	o	For affected subproject(s): Engr / Fab / Constr

Legend: V = Approval Required

o = Review & Endorse as determined by the LT MOC Committee

Figure D-2: Project Specific Authority (*)

Decision Level	DOAG	Risk Category (**)	Schedule	Specifications	PMOC Limit for: Non-Contracted Work For impacts to Execute Phase	PMOC Limit for: Contracted Work Purchase Orders Change Orders For impacts to FEED Phase
Operator Project VP	4	1	>2 weeks	Unlimited		50 $M
Senior Project Manager	5	2	> 2 weeks	Unlimited	Any change that exceeds the last estimate reviewed with the VP	25 $M
GTP Project Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
Pipeline Project Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
LNG / Marine Project Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
SSHE / ERL Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
Technical Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
Business Manager	6	3	< 2 weeks	Technical & Construction Specs	100 $M	5 M$
Engineering Manager	7	4	< 2 weeks	Technical & Construction Specs	50 $M	1 M$

Notes:

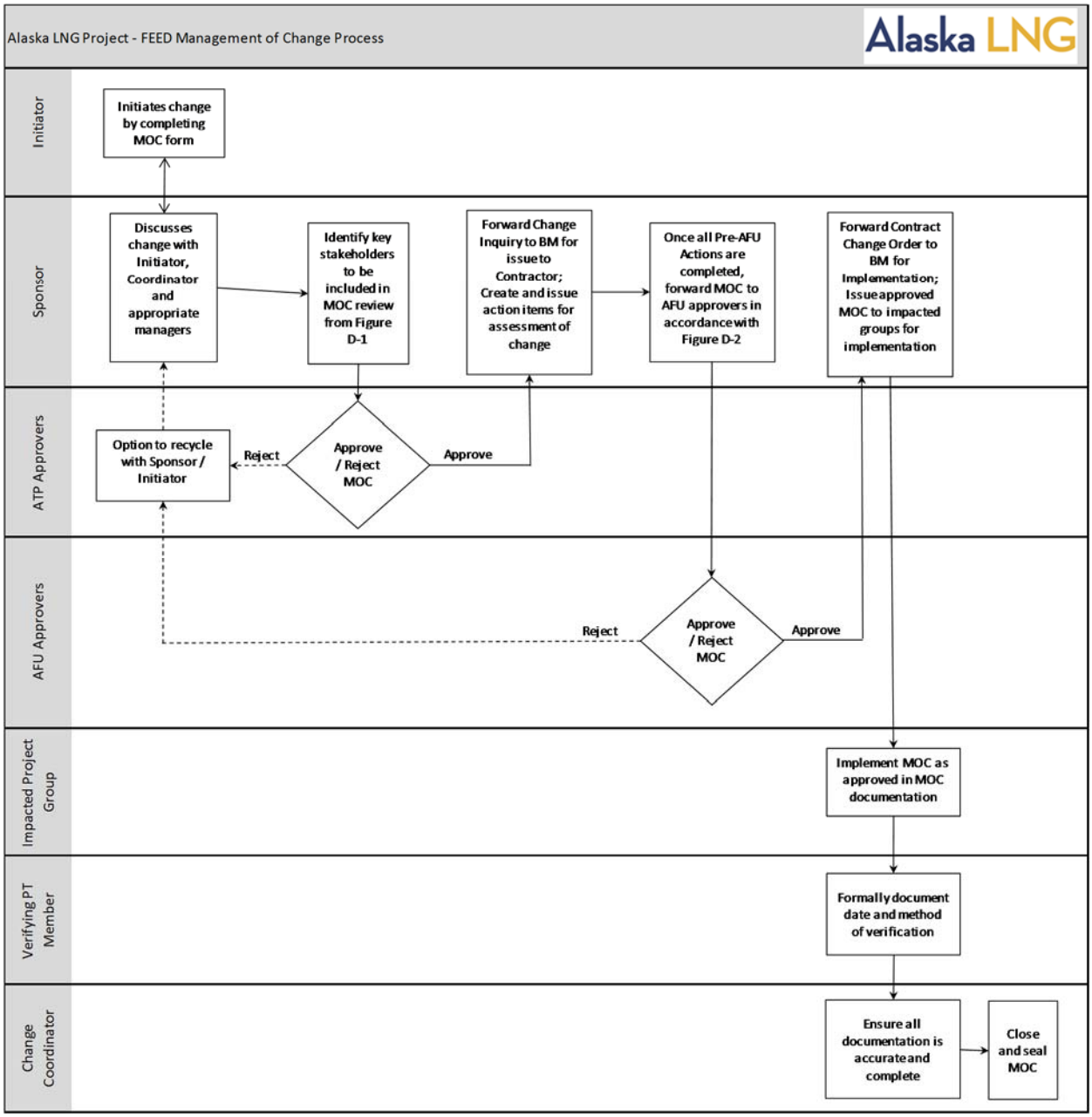
*) PMOC Authority Guide (Changes exceeding Operator - Project VP amounts will require higher-level approval.

**) Refer to the “Risk Category” line listed just after Table C-1

M$=Million $

7.5 ATTACHMENT E: PMOC PROCESS FLOW DIAGRAM

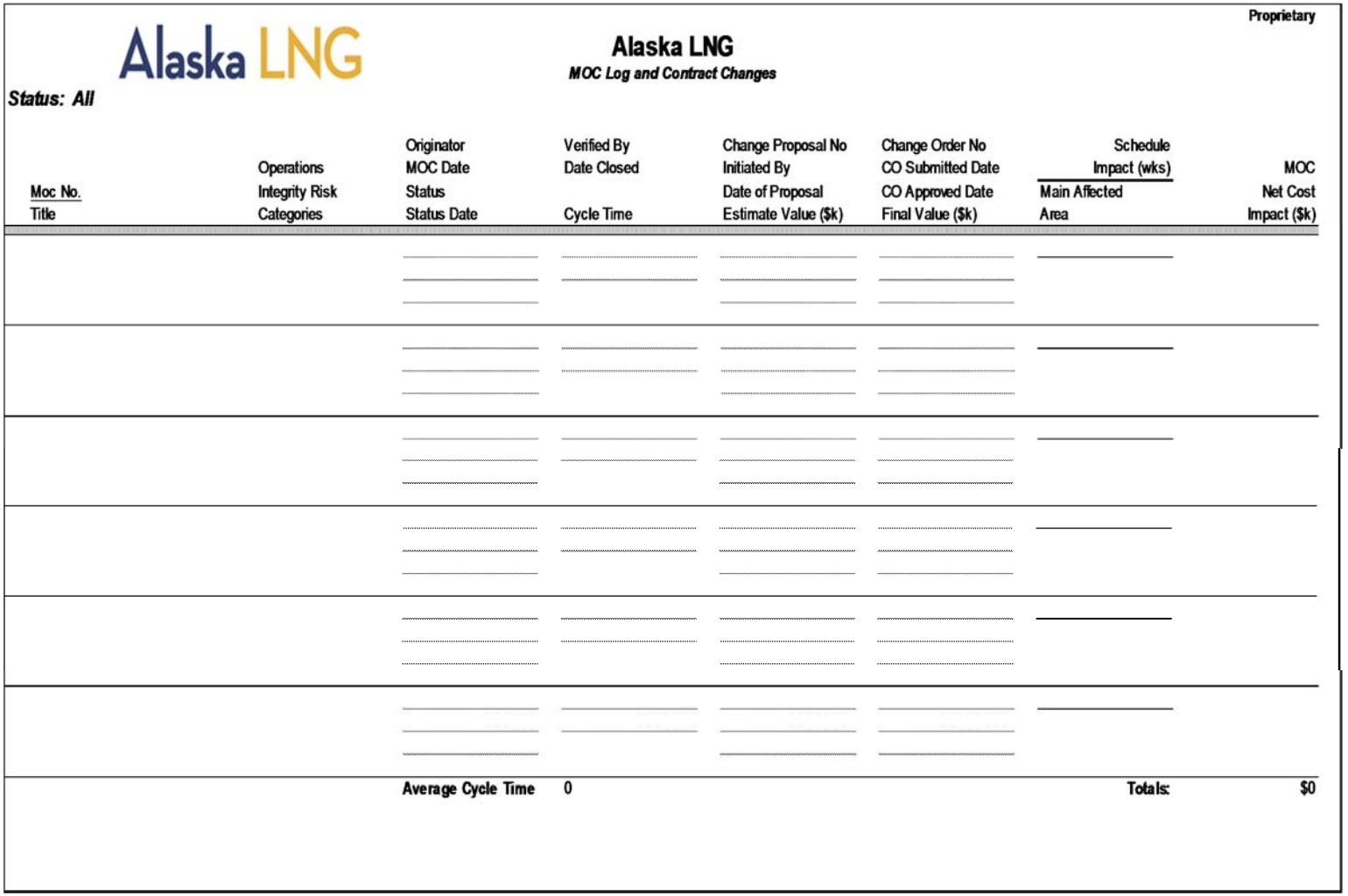
Figure E-1: Typical Flow Diagram for PMOC Process



Note: Reference also **Error! Reference source not found.**

7.6 ATTACHMENT F: PMOC FORMS / REPORTS: EXAMPLES

Figure F-1: PMOC Log for Contract Changes



Proprietary

Alaska LNG

Alaska LNG

MOC Log and Contract Changes

Status: All

Moc No. Title	Operations Integrity Risk Categories	Originator MOC Date Status Status Date	Verified By Date Closed Cycle Time	Change Proposal No Initiated By Date of Proposal Estimate Value ($k)	Change Order No CO Submitted Date CO Approved Date Final Value ($k)	Schedule Impact (wks) Main Affected Area	MOC Net Cost Impact ($k)
		Average Cycle Time	**0**			**Totals:**	**$0**

Figure F-2: PMOC Log Overall

Proprietary

Alaska LNG

Alaska LNG

Management of Change - Log

Status: All

Moc No. Tracking # MOC Title	Originator Date Initiated	Status Status Date	Implement by Date Cycle Time	Verified By Closed Date	Sub-Project Area	Operations Integrity Risk Categories	Net Schedule Impact	Net Cost Impact ($k)	Net Weight Impact (MT)
		Average Cycle Time	0				0	$0	0

Figure F-3: PMOC Summary Sheet

Proprietary

Alaska LNG

Alaska LNG Project

Management of Change - Summary Sheet

Step 1 by Change Requestor

Originator: _____ **Date** _____

MOC Title: _____

MOC Description Justification

Operations Integrity Risk
- ☐ Health / Safety
- ☐ Security
- ☐ Public Disruption
- ☐ Environmental
- ☐ Operations
- ☐ Financial
- ☐ Regulatory
- ☐ No OI Impact

Step 2 by Change Coordinator

MOC No. _____ **Change Coordinator** _____ Lead Supervisor: _____ Date Sent to L.S. _____

Step 3 by Lead Supervisor

Type of Change _____ **MOC Approval Needed by Date** _____

Supervisor's Instructions _____ **Main Affected Area** _____ **Risk Screening** _____

Affected Project Organizations
- ☐ Business Services
- ☐ Technical Team
- ☐ Contracts/Procurement
- ☐ Cost & Schedule
- ☐ Construction
- ☐ Operations

MOC Distribution

Action	Info	Name	Project Title
☐	☐	Steve Butt	Sr Project Manager
☐	☐		Project Manager
☐	☐	Mark Scheffler	Business Manager
☐	☐	Lydia Johnson	Technical Manager
☐	☐	Charlie Kominas	SSHE/ERL Manager
☐	☐		Engineering Manager
☐	☐	Richard Scott	Quality Manager
☐	☐		Operations Manager
☐	☐		Construction Manager
☐	☐		Change Coordinator (PCE)

Step 4 by Product Groups

Step 5 by Change Coordinator

Cost Impact ($k) $0 **Largest Schedule Impact (wks)** 0 **Weight Effect (mt)** 0.00

Source of Funds _____

Final Authorization

Step 6 Appropriate Supervisor / Manager

Title:	Initials	Required	Signature	Date
Sr Project Manager	SB	☐		
Project Manager		☐		
Business Manager	MS	☐		
Technical Manager	LJ	☐		
SSHE/ERL Manager	CK	☐		
Engineering Manager		☐		
Quality Manager	RS	☐		
Operations Manager		☐		
Construction Manager		☐		

Step 7 by Change Coordinator

Implementation

	Yes	No		Yes	No
Technical Documents	☐	☐	Budget	☐	☐
Contracts / Procurment	☐	☐	Schedule	☐	☐

Closed: _____ Date: _____

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7.7 ATTACHMENT G: MOC PROCESS OVERVIEW (FOR TEAM USE)

Areas Subject to MOC	Types of Change	Relevant System / Process	Approval	Comments
EM Procedures, Plans, Agreement				
Approved OIMS related plans (Safety, Security, Regulatory, etc.)	All changes (except format, typos and minor clarifications)	EM Project MOC Process	Per Project MOC Endorsement and Approval guide	Risk screening in eMOC/PMOC process (or equivalent).
Approved EMCAPS related plans (POS, PDB, WBS, etc.)				Risk screening in PMOC process (or equivalent).
Approved Integrity Critical documents (BCP)				Risk screening in PMOC process (or equivalent).
Formal regulations and laws, incl. Ext. 3rd party commitments				Risk screening in PMOC process (or equivalent).
Approved Owner Agreements (PSA, JV, etc.)				Risk screening in PMOC process (or equivalent).
Approved Control Budget and Schedules (Company P50 plans)				Risk Screening, PMOC not req'd unless change to Co. Control Budget or Schedule (P50).
Approved Organization plan (structure and location changes)				Risk screening in PMOC process (or equivalent). Types of change requiring PMOC detailed in procedure.
Approved EMDC plans and procedure (non-Financial or Admin)				Risk screening in PMOC process (or equivalent).
Approved EMDC plans and procedure (Financial and Admin)		EM Relevant Procedure	Per procedure	Same endorsement/approval levels as original.
Contracts & Materials				
Approved Contracts	Contractor scope, schedule or condition changes	Contract Change Management Procedure	per DOAG	Changes to be tested for PMOC relevance. PMOCs to be approved prior to change approval.
Approved Purchase Orders	PO scope, schedule or condition changes	PO terms and conditions	per DOAG	Changes to be tested for PMOC relevance. PMOCs to be approved prior to change approval.
Approved Service Agreements	SA changes and/or revisions	SA terms and conditions	per DOAG	Changes to be tested for PMOC relevance. PMOCs to be approved prior to change approval.
Approved Work Requests and Work Orders	WR/WO changes and/or revisions	WR/WO terms and conditions	per DOAG	Changes to be tested for PMOC relevance. PMOCs to be approved prior to change approval.
Engineering and Design				
Approved Contractor engineering plans and procedures	All changes (ex format, typos & minor clarifications)	Relevant Procedure	EM Engr Mgr (or delegate)	Same endorsement/approval levels as original.
Approved Engineering / Design	P&IDs (post Hazop)	Contractor Dwg Revision Procedure	EM Engr Mgr (or delegate)	P&ID change evaluated for SSHE risks and potential for Re-HAZOP, PMOC (controlled docs) per DRM.
	Key Design Documents - Post IFD (KDD) (e.g. PFDs, Layouts, MSDs	Contractor Dwg Revision Procedure	EM Engr Mgr (or delegate)	KDD change evaluated for SSHE risks and potential for PMOC (controlled docs) per DRM.
	IFC drawings	Contractor Dwg Revision Procedure	EM Engr Mgr (or delegate)	IFC dwg change evaluated for SSHE risks and potential for PMOC (controlled docs) per DRM.
		Contractor Field Change Request (FCR)	EM Engr Mgr (or delegate)	Used to obtain approval to implement a proposed solution to a site initiated design change.
		Contractor Design Change Notice (DCN)	EM Engr Mgr (or delegate)	Used to notify the field that a design change has been identified or is pending. If site agrees to implement, this document can be used to execute the change.
		Contractor As-Built Procedures Redlines to IFC drawings (As-Builts)	Contractor Sign off of Redlines	Another MOC procedure used to agree to the change; this is documentation purposes only.
	ICSS Change Request (post FAT)	Contractor Instr General Query (IGQ)	EM Engr Mgr (or delegate)	Used to track ICSS changes required after FAT (software, cross wiring, Int. panel wiring & graphics).
	Technical Queries / RFI (Queries to Company)	Contractor-Company TQ / RFI Process	EM Engr Mgr (or delegate)	Used to request clarification or document design instruction decisions. Not to be used for design changes or spec deviations; if change needed, it invokes another process.
	Technical Queries / RFI (Queries to Contractor from Fabricator, Constructor or Vendor)	Contractor-Contractor TQ / RFI Process	Contractor Engr Mgr (or delegate)	Used to request clarification to contractor. Not to be used for design changes or spec deviations; if change needed, it invokes another process.
Approved Specifications	Specification Re-Issue, Addendum or Update	SDR process	EM Engr Mgr (or delegate)	Approver to evaluate SSHE risk prior to approval and test PMOC relevance.
	Specification Deviations	SDR process	EM Engr Mgr (or delegate)	Approver to evaluate SSHE risk prior to approval and test PMOC relevance.
Approved Weight Budget	Changes in weight	Weight Mgmt Plan	Per Plan	Test PMOC relevance
Quality				
Approved Product Specifications or Work Processes	Deficiencies or Non-conformances	NCR and CAR process in Quality Plan	Per EM QP procedure	Risk matrix and approval levels per Quality Plan. Approver to evaluate whether SDR or design change is needed
Execution and Construction				
Approved Contractor Site Standards	Change in Contractor site standards	Various	Contractor	Contractor evaluates the SSHE risk. Notification given to EM.
Approved Contractor Site Project Procedures	Change in Contractor site procedures	Various	EM Site Mgr (or delegate)	Same endorsement/approval levels as original evaluate the SSHE risk and determine RA applicability.
Approved Contractor Execution plans and procedures	Change in Contractor execution plans or procedures	Various	EM Site Mgr (or delegate)	Same endorsement/approval levels as original evaluate the SSHE risk and determine RA applicability.
Approved Contractor Scope of Work / Services	Contract Site Instructions	Contractor change management / CPs	Site Authority	Approver to evaluate SSHE risk prior to approval and test PMOC relevance.
Approved Offshore Installation MOC plan	Change in Contractor execution plans or procedures	Offshore Installation MOC	Site Authority	Approver to evaluate SSHE risk prior to approval and test PMOC relevance.
Operations				
Existing Facilities (Brownfield environment)	Existing facilities or equipment / SIMOPS / PTW changes	Operations MOC procedure	Per Operations MOC	EM Operations evaluates SSHE risk through Operations MOC
NOTE: Not being trained or not following the approved procedures, plans and site standards is not Management of Change. See OIMS 5-1 and 5-4 for details.				

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*O.2 – QA/QC Plans and Procedures**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

*O.3 – Commissioning Plans**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

*O.4 – Operating Plans and Procedures**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

*O.5 – Maintenance Plans and Procedures**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

*O.6 – Safety Procedures**

Document Number:	Description:	Revision:	Appendix:
N/A	An asterisk (*) denotes information that is optional and can be provided in final design.	N/A	Public

APPENDIX 13P – PROCESS CONTROL AND INSTRUMENTATION

P.1 – Instrument Lists

Document Number:	Description:	Revision:	Appendix:
N/A	Will be provided in detailed design, if requested	N/A	Public

P.2 - Control System Architecture Drawings

Document Number:	Description:	Revision:	Appendix:
N/A	Will be provided in detailed design, if requested	N/A	Public

APPENDIX 13Q – SAFETY INSTRUMENTED SYSTEMS AND SHUT OFF VALVES

Q.3 - Shutdown Valve List

Document Number:	Description:	Revision:	Appendix:
USAL-CB-ILZZZ-00-000002-000	Shutdown Valve List	Rev 2	Public

Confidential

Alaska LNG™

CBI CHIYODA CORPORATION

ASRC ENERGY SERVICES
a subsidiary of Arctic Slope Regional Corporation

Shutdown Valve List

USAL-CB-ILZZZ-00-000002-000

Rev	Date	Revision Description	Originator	Reviewer / Endorser	Response Code	Approver
0	16-Dec-15	Issued for FEED	K. Kothare/ A. Masud	S. Potdar	2	S. Oster
1	22-Mar-16	Issued for FEED	J. Iwatsuka			H. Ishii
2	23-May-16	Issued for FEED	J. Iwatsuka			H. Ishii

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	US	AL	CB	I	L	ZZZ	00	000002	000

REVISION MODIFICATION LOG

Revision	Section	Description
0		Issued for FEED
1	SD Valve List	Updated as per PIPING & INSTRUMENTATION DIAGRAM Rev. B
2	SD Valve List	Updated as per PIPING & INSTRUMENTATION DIAGRAM Rev. 0

TABLE OF CONTENTS

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
1	SDV661113-01	DRY GAS FROM MOLECULAR SIEVE DRYER AFTER FILTERS TO DEFROST GAS HEATER NAP661113	USAL - CB - PDPID - 10 - 000661 - 101
2	SDV661113-02	DRY GAS FROM DEFROST GAS HEATER NAP661113 TO DEFROST GAS DISTRIBUTION	USAL - CB - PDPID - 10 - 000661 - 101
3	SDV695108-02	NITROGEN MAKE-UP FROM HIGH PURITY LIQUID NITROGEN STORAGE & VAPORIZER PACKAGE TO MCHE HBA695108 BOTTOM	USAL - CB - PDPID - 10 - 000666 - 101
4	SDV695108-03	ETHANE MAKE- UP FROM DEETHANIZER COLUMN TO MCHE HBA695108 BOTTOM	USAL - CB - PDPID - 10 - 000666 - 101
5	SDV695108-04	ETHANE MAKE-UP FROM ETHANE REFRIGERENT STORAGE BULLETS TO MCHE HBA695108 BOTTOM	USAL - CB - PDPID - 10 - 000666 - 101
6	SDV666106-01	MR FROM MCHE HBA695108 TO LP MR COMPRESSOR SUCTION DRUM MBD666106	USAL - CB - PDPID - 10 - 000666 - 111
7	SDV666113-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO LP MR COMPRESSOR SUCTION DRUM MBD666106 INLET	USAL - CB - PDPID - 10 - 000666 - 112
8	SDV666114-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO MP MR COMPRESSOR SUCTION DRUM MBD666124 INLET	USAL - CB - PDPID - 10 - 000666 - 113
9	SDV666114-02	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO HP MR COMPRESSOR SUCTION DRUM MBD666123 INLET	USAL - CB - PDPID - 10 - 000666 - 115
10	SDV666132-01	MR FROM HPMR COMPRESSOR AFTERCOOLER HFF666132 TO MR/HP PROPANE COOLER	USAL - CB - PDPID - 10 - 000666 - 115
11	SDV666107-01	MR FROM MCHE HBA695108 TO LP MR COMPRESSOR SUCTION DRUM MBD666107	USAL - CB - PDPID - 10 - 000666 - 121
12	SDV666153-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO LP MR COMPRESSOR SUCTION DRUM MBD666107 INLET	USAL - CB - PDPID - 10 - 000666 - 122
13	SDV666154-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO MP MR COMPRESSOR SUCTION DRUM MBD666164 INLET	USAL - CB - PDPID - 10 - 000666 - 123
14	SDV666154-02	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO HP MR COMPRESSOR SUCTION DRUM MBD666163 INLET	USAL - CB - PDPID - 10 - 000666 - 125
15	SDV666172-01	MR FROM HPMR COMPRESSOR AFTERCOOLER HFF666172 TO MR/HP PROPANE COOLER	USAL - CB - PDPID - 10 - 000666 - 125
16	SDV666103-01	PROPANE FROM DEETHANIZER CONDENSER	USAL - CB - PDPID - 10 - 000666 - 132
17	SDV666103-02	PROPANE MAKE-UP FROM DEPROPANIZER COLUMN	USAL - CB - PDPID - 10 - 000666 - 132
18	SDV666101-01A	MR FROM MR/LP PROPANE COOLER TO HP MR SEPARATOR MBD666101	USAL - CB - PDPID - 10 - 000666 - 133
19	SDV666101-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 133
20	SDV666101-02A	HP MR SEPARATOR MBD666101 BOTTOMS TO MCHE HBA695108	USAL - CB - PDPID - 10 - 000666 - 133
21	SDV666101-02B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 133
22	SDV666102-01	MR HYDRAULIC TURBINE TGT666102 INLET	USAL - CB - PDPID - 10 - 000666 - 134
23	SDV666102-02	MR HYDRAULIC TURBINE TGT666102 OUTLET	USAL - CB - PDPID - 10 - 000666 - 134
24	SDV666112-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO LP PROPANE SUCTION DRUM MBD666141 INLET	USAL - CB - PDPID - 10 - 000666 - 141
25	SDV666112-02	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO MP PROPANE SUCTION DRUM MBD666142 INLET	USAL - CB - PDPID - 10 - 000666 - 141
26	SDV666141-01	PROPANE FROM MR/LP PROPANE COOLER TO LP PROPANE SUCION DRUM MBD666141	USAL - CB - PDPID - 10 - 000666 - 141
27	SDV666141-02	PROPANE FROM LP PROPANE SUCTION DRUM MBD666141 BOTTOM TO MR/LP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 141
28	SDV666142-01	PROPANE FROM MR/MP PROPANE COOLER TO MP PROPANE SUCION DRUM MBD666142	USAL - CB - PDPID - 10 - 000666 - 141
29	SDV666142-02	PROPANE FROM MP PROPANE SUCTION DRUM MBD666142 BOTTOM TO MR/LP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 141
30	SDV666112-03	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO HP PROPANE SUCTION DRUM MBD666143 INLET	USAL - CB - PDPID - 10 - 000666 - 142
31	SDV666143-01	PROPANE FROM MR/HP PROPANE COOLER TO HP PROPANE SUCION DRUM MBD666143	USAL - CB - PDPID - 10 - 000666 - 142

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
32	SDV666143-02	PROPANE FROM HP PROPANE SUCTION DRUM MBD666143 BOTTOM TO MR/MP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 142
33	SDV666144-01	PROPANE FROM PROPANE DESUPERHEATER TO PROPANE CONDENSER	USAL - CB - PDPID - 10 - 000666 - 144
34	SDV666152-01	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO LP PROPANE SUCTION DRUM MBD666181 INLET	USAL - CB - PDPID - 10 - 000666 - 151
35	SDV666152-02	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO MP PROPANE SUCTION DRUM MBD666182 INLET	USAL - CB - PDPID - 10 - 000666 - 151
36	SDV666181-01	PROPANE FROM MR/LP COOLER TO LP PROPANE SUCION DRUM MBD666181	USAL - CB - PDPID - 10 - 000666 - 151
37	SDV666181-02	PROPANE FROM LP PROPANE SUCTION DRUM MBD666181 BOTTOM TO MR/LP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 151
38	SDV666182-01	PROPANE FROM MR/MP COOLER TO MP PROPANE SUCION DRUM MBD666182	USAL - CB - PDPID - 10 - 000666 - 151
39	SDV666182-02	PROPANE FROM MP PROPANE SUCTION DRUM MBD666182 BOTTOM TO MR/LP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 151
40	SDV666152-03	PARALLEL SDV TO ANTI SURGE CONTROL VALVE TO HP PROPANE SUCTION DRUM MBD666183 INLET	USAL - CB - PDPID - 10 - 000666 - 152
41	SDV666183-01	PROPANE FROM MR/HP COOLER TO HP PROPANE SUCION DRUM MBD666183	USAL - CB - PDPID - 10 - 000666 - 152
42	SDV666183-02	PROPANE FROM HP PROPANE SUCTION DRUM MBD666183 BOTTOM TO MR/MP PROPNE COOLER	USAL - CB - PDPID - 10 - 000666 - 152
43	SDV666184-01	PROPANE FROM PROPANE DESUPERHEATER HFF666184 TO PROPANE CONDENSER	USAL - CB - PDPID - 10 - 000666 - 154
44	SDV666192-01A	PROPANE ACCUMULATOR MBA666192 BOTTOMS TO PROPANE SUBCOOLER HFF666193	USAL - CB - PDPID - 10 - 000666 - 161
45	SDV666192-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 161
46	SDV666197-01	PROPANE RECLAIMER CONDENSER HBG666197 OUTLET TO LP MR COMPRESSOR SUCTION DRUMS	USAL - CB - PDPID - 10 - 000666 - 161
47	SDV666193-01	PROPANE TO LPG REINJECTION COOLER	USAL - CB - PDPID - 10 - 000666 - 162
48	SDV666195-01	PROPANE TO/FROM PROPANE STORAGE	USAL - CB - PDPID - 10 - 000666 - 162
49	SDV666111-01	FROM HP FUEL GAS HEATER HBG966515 TO MR/PR COMPRESSOR GAS TURBINE DRIVER CGT666111	USAL - CB - PDPID - 10 - 000666 - 171
50	SDV666111-02	FROM HP FUEL GAS HEATER HBG966515 TO MR/PR COMPRESSOR GAS TURBINE DRIVER CGT666111	USAL - CB - PDPID - 10 - 000666 - 171
51	SDV666111-03	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 171
52	SDV666111-04	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 171
53	SDV666151-01	FROM HP FUEL GAS HEATER HBG966515 TO MR/PR COMPRESSOR GAS TURBINE DRIVER CGT666151	USAL - CB - PDPID - 10 - 000666 - 181
54	SDV666151-02	FROM HP FUEL GAS HEATER HBG966515 TO MR/PR COMPRESSOR GAS TURBINE DRIVER CGT666151	USAL - CB - PDPID - 10 - 000666 - 181
55	SDV666151-03	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 181
56	SDV666151-04	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000666 - 181
57	SDV695101-01A	DRY GAS FROM MOLECULAR SIEVE DRYER AFTER FILTERS TO FEED GAS/ MP PROPANE COOLER HBG695101	USAL - CB - PDPID - 10 - 000695 - 101
58	SDV695101-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000695 - 101
59	SDV695104-01A	SCRUB COLUMN MAF695104 BOTTOM TO SCRUB COLUMN COOLER HHF695110	USAL - CB - PDPID - 10 - 000695 - 102
60	SDV695104-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000695 - 102
61	SDV695104-02	LPG FROM SCRUB COLUMN MAF695104 BOTTOM TO SCRUB COLUMN BOTTOM VAPORIZER	USAL - CB - PDPID - 10 - 000695 - 102
62	SDV695108-01	LPG FROM LPG REINJECTION PUMPS TO MCHE HBA695108	USAL - CB - PDPID - 10 - 000695 - 103

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
63	SDV695109-01	LNG HYDRAULIC TURBINE TGT695109 INLET	USAL - CB - PDPID - 10 - 000695 - 105
64	SDV695109-02	LNG HYDRAULIC TURBINE TGT695109 OUTLET	USAL - CB - PDPID - 10 - 000695 - 105
65	SDV695109-03A	FROM MCHE HBA695108 TO LNG STORAGE TANKS	USAL - CB - PDPID - 10 - 000695 - 105
66	SDV695109-03B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 10 - 000695 - 105
67	SDV695110-01	LPG FROM SCRUB COLUMN COOLER HHF695110 TO FRACTIONATION FEED SEPARATOR	USAL - CB - PDPID - 10 - 000695 - 106
68	SDV623503-01A	FEED GAS FROM INLET METERING STATION	USAL - CB - PDPID - 50 - 000623 - 501
69	SDV623503-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 50 - 000623 - 501
70	SDV623501-01	FEED GAS FROM INLET GAS HEATER HBG623501 TO INLET GAS SEPARATORS (HIPPS)	USAL - CB - PDPID - 50 - 000623 - 502
71	SDV623501-02	FEED GAS FROM INLET GAS HEATER HBG623501 TO INLET GAS SEPARATORS (HIPPS)	USAL - CB - PDPID - 50 - 000623 - 502
72	SDV623501-03	PARALLEL SDV TO ABOVE SDV (HIPPS)	USAL - CB - PDPID - 50 - 000623 - 502
73	SDV623501-04	PARALLEL SDV TO ABOVE SDV (HIPPS)	USAL - CB - PDPID - 50 - 000623 - 502
74	SDV623505-01	LP STEAM FROM HEADER TO INLET GAS HEATER HBG623501	USAL - CB - PDPID - 50 - 000623 - 504
75	SDV631501-01	DEETHANIZER COLUMN MAF631501 BOTTOMS TO DEPRPANIZER COLUMN MAF631506	USAL - CB - PDPID - 50 - 000631 - 502
76	SDV631505-01	ETHANE FROM DEETHENIZER COLUMN MAF631501 OVERHEAD TO STORAGE	USAL - CB - PDPID - 50 - 000631 - 505
77	SDV631506-01	DEPROPANIZER COLUMN MAF631506 BOTTOMS TO DEBUTANIZER COLUMN	USAL - CB - PDPID - 50 - 000631 - 511
78	SDV631511-01	PROPANE FROM DEPROPANIZER REFLUX PUMPS PBA631511A/B TO STORAGE	USAL - CB - PDPID - 50 - 000631 - 514
79	SDV631512-01	DEBUTANIZER COLUMN MAF631512 BOTTOMS TO DEBUTANIZER CONDENSATE PRODUCT COOLER HFF631518	USAL - CB - PDPID - 50 - 000631 - 521
80	SDV631517-01	BUTANE FROM DEBUTANIZER REFLUX PUMPS PBA631517A/B TO LPG INJECTION COOLER	USAL - CB - PDPID - 50 - 000631 - 524
81	SDV631518-01	C5+ TO CONDENSATE STORAGE TANK	USAL - CB - PDPID - 50 - 000631 - 527
82	SDV661513-01	BOG VAPOR FROM BOG COMPRESSOR AFTERCOOLER TO REGENERATION GAS HEATER NAP661514	USAL - CB - PDPID - 50 - 000661 - 506
83	SDV661512-01	WATER FROM REGENERATION KNOCK OUT DRUM MBD661512 TO EQUALIZTION TANK	USAL - CB - PDPID - 50 - 000661 - 507
84	SDV661512-02	SPENT REGENERATION GAS TO HP FUEL GAS MIXING DRUM	USAL - CB - PDPID - 50 - 000661 - 507
85	SDV669504-01A	TREATED GAS FROM MERCURY ADSORBER AFTER FILTERS TO TO MOLECULAR SIEVE DRYERS	USAL - CB - PDPID - 50 - 000669 - 504
86	SDV669504-01B	PARALLEL SDV TO ABOVE SDV	USAL - CB - PDPID - 50 - 000669 - 504
87	SDV965501-01	HP FUEL GAS TO LP FUEL GAS DRUM MFG965501	USAL - CB - PDPID - 50 - 000965 - 501
88	SDV965501-02	DROP OUT LIQUIDS FROM LP FUEL GAS DRUM MFG965501 TO TANK	USAL - CB - PDPID - 50 - 000965 - 501
89	SDV966502-01	MAKE UP FUEL GAS TO START UP FUEL GAS HEATER	USAL - CB - PDPID - 50 - 000966 - 501
90	SDV966501-01	START UP FUEL GAS TO START UP FUEL GAS HEATER	USAL - CB - PDPID - 50 - 000966 - 501
91	SDV966516-01	LPG FROM BUTANE REINJECTION PUMPS TO EXCESS LPG VAPORIZER NAP966516	USAL - CB - PDPID - 50 - 000966 - 503
92	SDV966505-01	FUEL GAS FROM BOG COMPRESSOR AFTERCOOLER TO BOG RECYCLE COMPRESSOR CAR966505	USAL - CB - PDPID - 50 - 000966 - 504
93	SDV966506-01	HP FUEL GAS FROM BOG RECYCLE COMPRESSOR AFTERCOOLER HFF966506 TO FEED GAS MP PROPANE COOLER	USAL - CB - PDPID - 50 - 000966 - 504

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
94	SDV966514-01	LP STEAM FROM HEADER TO HP FUEL GAS HEATER	USAL - CB - PDPID - 50 - 000966 - 505
95	SDV833611-01	FUEL GAS TO GTG 1 TGT833611 PACKAGE 1	USAL - CB - PDPID - 60 - 000833 - 602
96	SDV833621-01	FUEL GAS TO GTG 2 TGT833621 PACKAGE 1	USAL - CB - PDPID - 60 - 000833 - 602
97	SDV833631-01	FUEL GAS TO GTG 1 TGT833631 PACKAGE 2	USAL - CB - PDPID - 60 - 000833 - 603
98	SDV833641-01	FUEL GAS TO GTG 2 TGT833641 PACKAGE 2	USAL - CB - PDPID - 60 - 000833 - 603
99	SDV955602-01	DIESEL FUEL FROM FUEL FILTER TO AIR COMPRESSOR DIESEL DAY TANK	USAL - CB - PDPID - 60 - 000955 - 601
100	SDV956610-01	UTILITY/SERVICE AIR FROM INSTRUMENT AIR RECEIVER TO DISTRIBUTION	USAL - CB - PDPID - 60 - 000956 - 603
101	SDV964734-01	SLOP OIL FROM CPI SLOP OIL PUMPS TO TANK	USAL - CB - PDPID - 60 - 000964 - 602
102	SDV964750-01	SLOP OIL TANK MBJ964750 INLET	USAL - CB - PDPID - 60 - 000964 - 603
103	SDV964750-02	SLOP OIL TANK MBJ964750 OUTLET	USAL - CB - PDPID - 60 - 000964 - 603
104	SDV976648-01	LP STEAM FROM HEADER TO FRESH WATER PRE-HEATER HBG976609	USAL - CB - PDPID - 60 - 000976 - 606
105	SDV612701-01	DRY FLARE KO DRUM BTM LIQUID	USAL - CB - PDPID - 70 - 000612 - 731
106	SDV612708-01	FROM DRY FLARE BLOWCASE MAB612708 BOTTOMS TO WET FLARE KO DRUM MBD612705	USAL - CB - PDPID - 70 - 000612 - 731
107	SDV612705-01	FROM WET FLARE KO DRUM MBD612705 BOTTOMS TO WET FLARE KO DRUM PUMP PBE612706A/B	USAL - CB - PDPID - 70 - 000612 - 732
108	SDV634701-01	CONDENSATE FROM CONDENSATE STORAGE TANK ABJ634801 TO TRUCK LOADING	USAL - CB - PDPID - 70 - 000634 - 701
109	SDV634701-02	TRUCK TO CONDENSATE STORAGE TANK	USAL - CB - PDPID - 70 - 000634 - 701
110	SDV634701-04	NITROGEN TO CONDENSATE STORAGE TANK	USAL - CB - PDPID - 70 - 000634 - 701
111	SDV634702-01	CONDENSATE FROM CONDENSATE LOADING PUMPS PBA634702A/B TO TRUCK LOADING	USAL - CB - PDPID - 70 - 000634 - 703
112	SDV634704-01	OFFSPEC CONDENSATE FROM OFFSPEC CONDENSATE TANK ABJ634804 TO DEBUTANIZER	USAL - CB - PDPID - 70 - 000634 - 704
113	SDV634704-02	NITROGEN TO OFFSPEC CONDENSATE STORAGE TANK	USAL - CB - PDPID - 70 - 000634 - 704
114	SDV634705-01	OFFSPEC CONDENSATE FROM OFFSPEC CONDENSATE LOADING PUMPS PBA634705A/B TO DEBUTANIZER	USAL - CB - PDPID - 70 - 000634 - 705
115	SDV634706-01	LP FUEL GAS TO THERMAL OXIDIZER EAL634706	USAL - CB - PDPID - 70 - 000634 - 707
116	SDV634706-02	LP FUEL GAS TO THERMAL OXIDIZER EAL634706	USAL - CB - PDPID - 70 - 000634 - 707
117	SDV634706-03	LP FUEL GAS TO ATMOSPHERE	USAL - CB - PDPID - 70 - 000634 - 707
118	SDV634706-04	LP FUEL GAS TO THERMAL OXIDIZER EAL634706	USAL - CB - PDPID - 70 - 000634 - 707
119	SDV698701-01	FROM ETHANE REFRIGERENT STORAGE BULLET 1 MBJ698701 BOTTOMS TO ETHANE VAPORIZER NAP698711	USAL - CB - PDPID - 70 - 000698 - 701
120	SDV698702-01	FROM ETHANE REFRIGERENT STORAGE BULLET 2 MBJ698702 BOTTOMS TO ETHANE VAPORIZER NAP698712	USAL - CB - PDPID - 70 - 000698 - 701
121	SDV698711-01	ETHANE VAPOR TO BOG HEADER	USAL - CB - PDPID - 70 - 000698 - 702
122	SDV698721-01	PROPANE REFRIGERENT STORAGE BULLET MBJ698721 BOTTOMS TO PROPANE STORAGE PUMP PBA698718	USAL - CB - PDPID - 70 - 000698 - 703
123	SDV698722-01	PROPANE REFRIGERENT STORAGE BULLET MBJ698722 BOTTOMS TO PROPANE STORAGE PUMP PBA698718	USAL - CB - PDPID - 70 - 000698 - 703
124	SDV698723-01	PROPANE REFRIGERENT STORAGE BULLET MBJ698723 BOTTOMS TO PROPANE STORAGE PUMP PBA698718	USAL - CB - PDPID - 70 - 000698 - 704

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
125	SDV698724-01	PROPANE REFRIGERENT STORAGE BULLET MBJ698724 BOTTOMS TO PROPANE STORAGE PUMP PBA698718	USAL - CB - PDPID - 70 - 000698 - 704
126	SDV698721-02	PROPANE VAPOR FROM PROPANE REFRIGERENT STORAGE BULLET TO BOG HEADER	USAL - CB - PDPID - 70 - 000698 - 705
127	SDV698713-01	PROPANE FROM PROPANE LOADING PUMP PBA698713 TO PROPANE REFRIGERENT STORAGE BULLETS MBJ698721/2/3/4	USAL - CB - PDPID - 70 - 000698 - 706
128	SDV698713-02	VAPOR EQUALIZING/RETURN LINE FROM/TO PROPANE REFRIGERANT STORAGE BULLETS MBJ698721/722/723/724	USAL - CB - PDPID - 70 - 000698 - 706
129	SDV911701-01	DIESEL OIL FROM STORAGE TO DIESEL TRANSER PUMPS PBA911702A/B	USAL - CB - PDPID - 70 - 000911 - 701
130	SDV911705-01	DIESEL TRUCK UNLOADING LINE	USAL - CB - PDPID - 70 - 000911 - 701
131	SDV691810-01	FROM TRAIN 1/2/3 LNG RUNDOWN TO LNG STORAGE TANK 1	USAL - CB - PDPID - 80 - 000691 - 801
132	SDV691810-03	CIRCULATING/LOADING LNG TO LOADING HEADER	USAL - CB - PDPID - 80 - 000691 - 801
133	SDV691810-04	LOADING LNG TO CIRCULATION HEADER	USAL - CB - PDPID - 80 - 000691 - 801
134	SDV691810-02	FROM BOG COMPRESSOR AFTERCOOLERS TO LNG STORAGE TANK 1	USAL - CB - PDPID - 80 - 000691 - 802
135	SDV691810-07	CIRCULATING LNG FROM LOADING/CIRCULATION HEADER	USAL - CB - PDPID - 80 - 000691 - 802
136	SDV691820-01	FROM TRAIN 1/2/3 LNG RUNDOWN TO LNG STORAGE TANK 2	USAL - CB - PDPID - 80 - 000691 - 811
137	SDV691820-03	CIRCULATING/LOADING LNG TO LOADING HEADER	USAL - CB - PDPID - 80 - 000691 - 811
138	SDV691820-04	LOADING LNG TO CIRCULATION HEADER	USAL - CB - PDPID - 80 - 000691 - 811
139	SDV691820-02	FROM BOG COMPRESSOR AFTERCOOLERS TO LNG STORAGE TANK 2	USAL - CB - PDPID - 80 - 000691 - 812
140	SDV691820-05	CIRCULATING LNG FROM LOADING/CIRCULATION HEADER	USAL - CB - PDPID - 80 - 000691 - 812
141	SDV691810-05	LNG FROM STORAGE TANKS TO LOADING HEADER	USAL - CB - PDPID - 80 - 000691 - 821
142	SDV691810-06	LNG TO/FROM LNG STORAGE TANKS TO CIRCULATION HEADER	USAL - CB - PDPID - 80 - 000691 - 821
143	SDV691840-01	FROM BOG COMPRESSOR SUCTION DRUM BLOWCASE TO BERTHS	USAL - CB - PDPID - 80 - 000691 - 830
144	SDV691840-02	FROM BOG COMPRESSOR SUCTION DRUM BLOWCASE TO BERTHS	USAL - CB - PDPID - 80 - 000691 - 830
145	SDV691815-01	COLD LNG FROM LOADING LINE TO BOG COMPRESSOR SUCTION DRUM MBD691815	USAL - CB - PDPID - 80 - 000691 - 831
146	SDV691815-02	BOG VAPORFROM BOG HEADER TO BOG COMPRESSOR SUCTION DRUM MBD691815	USAL - CB - PDPID - 80 - 000691 - 831
147	SDV691815-03	BOG COMPRESSOR SUCTION DRUM MBD691815 BOTTOM	USAL - CB - PDPID - 80 - 000691 - 831
148	SDV691843-01	BOG COMPRESSOR 1 AFTERCOOLER HFF691843 OUTLET	USAL - CB - PDPID - 80 - 000691 - 832
149	SDV691825-01	COLD LNG FROM LOADING LINE TO BOG COMPRESSOR SUCTION DRUM MBD691825	USAL - CB - PDPID - 80 - 000691 - 841
150	SDV691825-02	BOG VAPORFROM BOG HEADER TO BOG COMPRESSOR SUCTION DRUM MBD691825	USAL - CB - PDPID - 80 - 000691 - 841
151	SDV691825-03	BOG COMPRESSOR SUCTION DRUM MBD691825 BOTTOM	USAL - CB - PDPID - 80 - 000691 - 841
152	SDV691853-01	BOG COMPRESSOR 2 AFTERCOOLER HFF691853 OUTLET	USAL - CB - PDPID - 80 - 000691 - 842
153	SDV691825-01	COLD LNG FROM LOADING LINE TO BOG COMPRESSOR SUCTION DRUM MBD691835	USAL - CB - PDPID - 80 - 000691 - 851
154	SDV691825-02	BOG VAPORFROM BOG HEADER TO BOG COMPRESSOR SUCTION DRUM MBD691835	USAL - CB - PDPID - 80 - 000691 - 851
155	SDV691835-03	BOG COMPRESSOR SUCTION DRUM MBD691835 BOTTOM	USAL - CB - PDPID - 80 - 000691 - 851

ITEM #	SDV TAG #	SERVICE DESCRIPTION	PIPING & INSTRUMENTATION DIAGRAM # (BASED ON REV 0) (NOTE 1)
156	SDV691863-01	BOG COMPRESSOR 3 AFTERCOOLER HFF691863 OUTLET	USAL - CB - PDPID - 80 - 000691 - 852
157	SDV691871-01	LNG TO LOADING ARM FAY 691871	USAL - CB - PDPID - 90 - 000691 - 901
158	SDV691871-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 1 MBD691876	USAL - CB - PDPID - 90 - 000691 - 901
159	SDV691872-01	LNG TO LOADING ARM FAY 691872	USAL - CB - PDPID - 90 - 000691 - 902
160	SDV691872-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 1 MBD691876	USAL - CB - PDPID - 90 - 000691 - 902
161	SDV691873-01	BOG VAPOR RETURN FROM LOADING ARM FAY691873 TO BOG HEADER	USAL - CB - PDPID - 90 - 000691 - 903
162	SDV691874-01	LNG TO LOADING ARM FAY 691874	USAL - CB - PDPID - 90 - 000691 - 904
163	SDV691874-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 1 MBD691876	USAL - CB - PDPID - 90 - 000691 - 904
164	SDV691877-01	LNG FROM LOADING ARM DRAIN / SURGE DRUM BLOWCASE TO LOADING HEADER	USAL - CB - PDPID - 90 - 000691 - 905
165	SDV691881-01	LNG TO LOADING ARM FAY 691881	USAL - CB - PDPID - 90 - 000691 - 911
166	SDV691881-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 2 MBD691886	USAL - CB - PDPID - 90 - 000691 - 911
167	SDV691882-01	LNG TO LOADING ARM FAY 691882	USAL - CB - PDPID - 90 - 000691 - 912
168	SDV691882-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 2 MBD691886	USAL - CB - PDPID - 90 - 000691 - 912
169	SDV691883-01	BOG VAPOR RETURN FROM LOADING ARM FAY691883 TO BOG HEADER	USAL - CB - PDPID - 90 - 000691 - 913
170	SDV691884-01	LNG TO LOADING ARM FAY 691884	USAL - CB - PDPID - 90 - 000691 - 914
171	SDV691884-02	LNG TO LOADING ARM DRAIN/SURGE DRUM-BERTH 2 MBD691886	USAL - CB - PDPID - 90 - 000691 - 914
172	SDV691887-01	LNG FROM LOADING ARM DRAIN / SURGE DRUM BLOWCASE TO LOADING HEADER	USAL - CB - PDPID - 90 - 000691 - 915
173	SDV411606-01	DIESEL FUEL TO DIESEL DAY TANK ABJ411606	USAL - CB - FDPID - 00 - 000411 - 001

NOTE 1: This list excludes Train 2 and Train 3 SDVs.

Q.4 – Drawing of ESD Manual Activation Devices

Document Number:	Description:	Revision:	Appendix:
N/A	Will be provided in detailed design, if requested	N/A	Public

APPENDIX 13R – RELIEF VALVES AND FLARE/VENT SYSTEMS

R.1 – Relief Valves Capacities and Sizing

Document Number:	Description:	Revision:	Appendix:
N/A	Refer to R.3, Flare and Vent Study Report	N/A	Public

R.2 – Flaring Load and Venting Capacities and Sizing

Document Number:	Description:	Revision:	Appendix:
N/A	Refer to R.3, Flare and Vent Study Report	N/A	Public

APPENDIX 13S – SPILL, TOXIC, FIRE, AND EXPLOSION PROTECTION

S.4 – Passive Protection Drawings

Document Number:	Description:	Revision:	Appendix:
N/A	Will be provided in detailed design, if requested and needed	N/A	Public

S.5 - Hazard Detection Matrix

Document Number:	Description:	Revision:	Appendix:
USAL-CB-FLMEL-00-000001-000	Fire and Gas Detection Equipment List	Rev 1	Public

S.6 S.7 - Hazard Control Matrix

Document Number:	Description:	Revision:	Appendix:
USAL-CB-MLMEL-00-000001-000-A	Hazard Control and Safety Equipment List	Rev 1	Public