SCADA I/O List - AEMO/ElectraNet

PSD1834-200-005

Prepared for

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SCADA I/O List - AEMO/ElectraNet

Summary

Sheet No. 1

Information

This document details the DNP points required for ElectraNet and AEMO

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Comms Configuration
Sheet No. 2

Device	Interface	DNP Port	DNP Server Address	DNP Client Address (SMSC/BUCC)
Gateway A	NSC Interface	20000	TBA	255
Gateway A	NSC Test	20001	TBA	255
Gateway B	NSC Interface	20000	TBA	255
Gateway B	NSC Test	20001	TBA	255

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DNP I/O Schedule

Sheet No. 3

IDX	REV	IO_TYPE	POINT DESCRIPTION	DEVICE	PTNAME	DI - ON DO - CLOSE	DI - OFF DO - TRIP	ALARM ID	NSC_PRIORITY	NSC_INV	NSC_TYPE	NSC_CLASS	ANARANGE	ENG_LOW	ENG_HIGH	UNIT	RAW_LOW	RAW_HIGH	DEADBAND	DNP Control Type	DNP OBJECT	DNP VARIATION	DNP POINT CLASS	DNP ADDRESS
1	A	DI	D01-Q14 SWITCH INDICATION	D01-Q14	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	0
2	A	DI	D01-Q14 SWITCH INDICATION	D01-Q14	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	1
3	A	DI	D01-Q19E SWITCH INDICATION	D01-Q19E	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	2
4	A	DI	D01-Q19E SWITCH INDICATION	D01-Q19E	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	3
5	A	DI	1F01-Q10 SWITCH INDICATION	1F01-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	4
6	A	DI	1F01-Q10 SWITCH INDICATION	1F01-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	5
7	A	DI	1F01-Q11 SWITCH INDICATION	1F01-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	6
8	A	DI	1F01-Q11 SWITCH INDICATION	1F01-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	7
9	A	DI	1F02-Q10 SWITCH INDICATION	1F02-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	8
10	A	DI	1F02-Q10 SWITCH INDICATION	1F02-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	9
11	A	DI	1F02-Q11 SWITCH INDICATION	1F02-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	10
12	A	DI	1F02-Q11 SWITCH INDICATION	1F02-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	11
13	A	DI	1F03-Q10 SWITCH INDICATION	1F03-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	12
14	A	DI	1F03-Q10 SWITCH INDICATION	1F03-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	13
15	A	DI	1F03-Q11 SWITCH INDICATION	1F03-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	14
16	A	DI	1F03-Q11 SWITCH INDICATION	1F03-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	15
17	A	DI	1F04-Q10 SWITCH INDICATION	1F04-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	16
18	A	DI	1F04-Q10 SWITCH INDICATION	1F04-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	17
19	A	DI	1F04-Q11 SWITCH INDICATION	1F04-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	18
20	A	DI	1F04-Q11 SWITCH INDICATION	1F04-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	19
21	A	DI	1F05-Q10 SWITCH INDICATION	1F05-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	20
22	A	DI	1F05-Q10 SWITCH INDICATION	1F05-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	21
23	A	DI	1F05-Q11 SWITCH INDICATION	1F05-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	22
24	A	DI	1F05-Q11 SWITCH INDICATION	1F05-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	23
25	A	DI	1F06-Q10 SWITCH INDICATION	1F06-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	24
26	A	DI	1F06-Q10 SWITCH INDICATION	1F06-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	25
27	A	DI	1F06-Q11 SWITCH INDICATION	1F06-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	26
28	A	DI	1F06-Q11 SWITCH INDICATION	1F06-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	27
29	A	DI	1F07-Q10 SWITCH INDICATION	1F07-Q10	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	28
30	A	DI	1F07-Q10 SWITCH INDICATION	1F07-Q10	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	29
31	A	DI	1F07-Q11 SWITCH INDICATION	1F07-Q11	SWITCH INDICATION	OPEN	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	30
32	A	DI	1F07-Q11 SWITCH INDICATION	1F07-Q11	SWITCH INDICATION	CLOSED	-	IND	S1	FALSE		NC3P									1 / 2	2 / 2	1	31
33	04	DI	CL_W_B VOLTAGE CONTROL	CL_W_B	VOLTAGE CONTROL	ON	OFF	G275	G0	FALSE		NALM									1 / 2	2 / 2	1	32
34	04	DI	CL_W_B POWER FACTOR CONTROL	CL_W_B	POWER FACTOR CONTROL	ON	OFF	G278	G0	FALSE		NALM									1 / 2	2 / 2	1	33
35	04	DI	CL_W_B MVAR CONTROL	CL_W_B	MVAR CONTROL	ON	OFF	G276	G2	FALSE		NO_P									1 / 2	2 / 2	1	34
36	04	DI	CL_W_B MW CONTROL MODE	CL_W_B	MW CONTROL MODE	REMOTE	LOCAL	G330	G2	FALSE		NO_P									1 / 2	2 / 2	1	35
37	04	DI	CL_W_B FREQUENCY RESPONSE ACTIVE	CL_W_B	FREQUENCY RESPONSE ACTIVE	ALARM	CLEAR	G323	G0	FALSE											1 / 2	2 / 2	1	36
38	04	DI	CL_W_B NLCAS ACTIVE	CL_W_B	NLCAS ACTIVE	ON	OFF	DN03	G0	FALSE		NO_P									1 / 2	2 / 2	1	37
39	04	DI	CL_W_B NLCAS ACTIVE	CL_W_B	NLCAS ACTIVE	ON	OFF	DN04	G0	FALSE		NO_P									1 / 2	2 / 2	1	38
40	04	DI	CL_W_B NLCAS TERMINATED	CL_W_B	NLCAS TERMINATED	ALARM	CLEAR	DN05	G0	FALSE		NO_P									1 / 2	2 / 2	1	39
41	04	DI	CL_W_B AVAILABLE FOR VAR CONTROL	CL_W_B	AVAILABLE FOR VAR CONTROL	YES	NO	VAVL	G0	FALSE											1 / 2	2 / 2	1	40
42	04	DI	CL_W_B CONTROL MODE	CL_W_B	CONTROL MODE	LOCAL	AGC	G001	G0	FALSE		NANO									1 / 2	2 / 2	1	41
43	04	DI	CL_W_B VDS PARTICIPATION	CL_W_B	VDS PARTICIPATION	AVAILABLE	UNAVAILABLE	G350	G0	FALSE											1 / 2	2 / 2	1	42
44	04	DI	CL_W_B AVAILABLE FOR AGC	CL_W_B	AVAILABLE FOR AGC	YES	NO	G000	G0	FALSE		NANP									1 / 2	2 / 2	1	43
45	04	DI	CL_W_B PERMISSIVE TO CLOSE	CL_W_B	PERMISSIVE TO CLOSE	ON	OFF	N207	G2	FALSE											1 / 2	2 / 2	1	44
46	A	DI	T_1 X PROT TRIP	T_1	X PROT TRIP	ALARM	CLEAR	K006	G2	FALSE		NO_P									1 / 2	2 / 2	1	45
47	A	DI	T_1 Y PROT TRIP	T_1	Y PROT TRIP	ALARM	CLEAR	K008	G2	FALSE		NO_P									1 / 2	2 / 2	1	46
48	A	DI	AUX_BCU DUM CB SWITCH INDICATION	AUX_BCU	DUM CB SWITCH INDICATION	OPEN	-	INDD	S0	FALSE		NALM									1 / 2	2 / 2	1	47
49	A	DI	AUX_BCU DUM CB SWITCH INDICATION	AUX_BCU	DUM CB SWITCH INDICATION	CLOSED	-	INDD	S0	FALSE		NALM									1 / 2	2 / 2	1	48
50	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			49
51	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			50
52	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			51
53	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			52
54	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			53
55	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			54
56	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			55
57	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			56
58	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			57
59	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			58
60	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			59
61	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			60
62	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			61
63	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			62
64	04	DI	CL_W_B SPARE	CL_W_B	SPARE																			63
65	A	DO	AUX_BCU DUM CB SWITCH INDICATION	AUX_BCU	DUM CB SWITCH INDICATION	OPEN		INDD	S0	FALSE		NALM								SBO / TRIP / PULSE ON	10 / 12	2 / 1	2	0
66	A	DO	AUX_BCU DUM CB SWITCH INDICATION	AUX_BCU	DUM CB SWITCH INDICATION	CLOSE		INDD	S0	FALSE		NALM								SBO / CLOSE / PULSE ON	10 / 12	2 / 1	2	1
67	A	DO	B_BESS_GEN VAR TIMING SIGNAL	B_BESS_GEN	VAR TIMING SIGNAL	ON	OFF	VDSC	G0	-										SBO / TRIP / CLOSE	10 / 12	2 / 1	2	2
68	A	DO	B_BESS_GEN VAR DEVICE CONFORMANCE	B_BESS_GEN	VAR DEVICE CONFORMANCE	YES	NO	VCFC	G0	-										SBO / TRIP / CLOSE	10 / 12	2 / 1	2	3
69	A	DO	CG_WEST SPARE	CG_WEST	SPARE																10 / 12	2 / 1	2	4
70	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	5
71	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	6
72	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	7
73	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	8
74	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	9
75	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	10
76	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	11
77	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	12
78	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	13
79	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	14
80	04	DO	CL_W_B SPARE	CL_W_B	SPARE																10 / 12	2 / 1	2	15
81	A	AI	CG_WEST PHASE R CURRENT (AMP)	CG_WEST	PHASE R CURRENT (AMP)			AMPR		-	ANALOG	NA	0 - 480 A	0	480	A	0	4800	24		30 / 32	2 / 2	2	0
82	A	AI	CG_WEST PHASE S CURRENT (AMP)	CG_WEST	PHASE S CURRENT (AMP)			AMPS		-	ANALOG	NA	0 - 480 A	0	480	A	0	4800	24		30 / 32	2 / 2	2	1
83	A	AI	CG_WEST PHASE T CURRENT (AMP)	CG_WEST	PHASE T CURRENT (AMP)			AMPT		-	ANALOG	NA	0 - 480 A	0	480	A	0	4800	24		30 / 32	2 / 2	2	2
84	A	AI	CG_WEST VOLTAGE (KV) U-V PH	CG_WEST	VOLTAGE (KV) U-V PH			KV_U		-	ANALOG	NA	0 - 158.4 kV	0	158.4	kV	0	1584	3		30 / 32	2 / 2	2	3
85	A	AI	CG_WEST VOLTAGE (KV) V-W PH	CG_WEST	VOLTAGE (KV) V-W PH			KV_V		-	ANALOG	NA	0 - 158.4 kV	0	158.4	kV	0	1584	3		30 / 32	2 / 2	2	4
86	A	AI	CG_WEST VOLTAGE (KV) W-U PH	CG_WEST	VOLTAGE (KV) W-U PH			KV_W		-	ANALOG	NA	0 - 158.4 kV	0	158.4	kV	0	1584	3		30 / 32	2 / 2	2	5
87	A	AI	CG_WEST ACTIVE POWER (MW)	CG_WEST	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	1		30 / 32	1 / 1	2	6
88	A	AI	CG_WEST REACTIVE POWER (MVAR)	CG_WEST	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	1		30 / 32	1 / 1	2	7
89	A	AI	CG_WEST FREQUENCY (HZ)	CG_WEST	FREQUENCY (HZ)			FREQ		-	ANALOG	NA	45 - 55 Hz	45	55	Hz	4500	5500	11		30 / 32	2 / 2	2	8
90	A	AI	CG_WEST POWER FACTOR	CG_WEST	POWER FACTOR			PF		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-100	100	0		30 / 32	2 / 2	2	9
91	A	AI	T_1_INC PHASE 1 CURRENT (AMP)	T_1_INC	PHASE 1 CURRENT (AMP)			AMP1		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	10		30 / 32	2 / 2	2	10
92	A	AI	T_1_INC PHASE 2 CURRENT (AMP)	T_1_INC	PHASE 2 CURRENT (AMP)			AMP2		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	10		30 / 32	2 / 2	2	11
93	A	AI	T_1_INC PHASE 3 CURRENT (AMP)	T_1_INC	PHASE 3 CURRENT (AMP)			AMP3		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	10		30 / 32	2 / 2	2	12
94	A	AI	T_1_INC ACTIVE POWER (MW)	T_1_INC	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	2		30 / 32	2 / 2	2	13
95	A	AI	T_1_INC REACTIVE POWER (MVAR)	T_1_INC	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	2		30 / 32	2 / 2	2	14
96	A	AI	T_1_INC POWER FACTOR	T_1_INC	POWER FACTOR			PF		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-100	100	0		30 / 32	2 / 2	2	15
97	A	AI	33BUS VOLTAGE (KV) 1-2 PH	33BUS	VOLTAGE (KV) 1-2 PH			KV_1		-	ANALOG	NA	0 - 39.6 kV	0	39.6	kV	0	3960	8		30 / 32	2 / 2	2	16
98	A	AI	33BUS VOLTAGE (KV) 2-3 PH	33BUS	VOLTAGE (KV) 2-3 PH			KV_2		-	ANALOG	NA	0 - 39.6 kV	0	39.6	kV	0	3960	8		30 / 32	2 / 2	2	17
99	A	AI	33BUS VOLTAGE (KV) 3-1 PH	33BUS	VOLTAGE (KV) 3-1 PH			KV_3		-	ANALOG	NA	0 - 39.6 kV	0	39.6	kV	0	3960	8		30 / 32	2 / 2	2	18
100	A	AI	33BUS FREQUENCY (HZ)	33BUS	FREQUENCY (HZ)			FREQ		-	ANALOG	NA	45 - 55 Hz	45	55	Hz	4500	5500	11		30 / 32	2 / 2	2	19
101	04	AI	CL_W_B MW ACTIVE SETPOINT	CL_W_B	MW ACTIVE SETPOINT			MASP		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	20
102	04	AI	CL_W_B MVAR SETPOINT	CL_W_B	MVAR SETPOINT			SPMV		-	ANALOG	NA	-25 to 25 MVar	-25	25	MVar	-2500	2500	1		30 / 32	1 / 1	2	21
103	04	AI	CL_W_B POWER FACTOR SETPOINT	CL_W_B	POWER FACTOR SETPOINT			SPPF		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-1000	1000	2		30 / 32	1 / 1	2	22
104	04	AI	CL_W_B VOLTAGE SETPOINT	CL_W_B	VOLTAGE SETPOINT			SPKV		-	ANALOG	NA	105 - 145 kV	105	145	kV	10500	14500	1		30 / 32	1 / 1	2	23

SCADA I/O List - AEMO/ElectraNet
DNP I/O Schedule
Sheet No. 3

IDX	REV	IO_TYPE	POINT DESCRIPTION	DEVICE	PTNAME	DI - ON DO - CLOSE	DI - OFF DO - TRIP	ALARM ID	NSC_PRIORITY	NSC_INV	NSC_TYPE	NSC_CLASS	ANARANGE	ENG_LOW	ENG_HIGH	UNIT	RAW_LOW	RAW_HIGH	DEADBAND	DNP Control Type	DNP OBJECT	DNP VARIATION	DNP POINT CLASS	DNP ADDRESS
105	04	AI	CL_W_B POSSIBLE POWER (MW)	CL_W_B	POSSIBLE POWER (MW)			POSP		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	24
106	04	AI	CL_W_B MVAR REFERENCE	CL_W_B	MVAR REFERENCE			MVRF		-	ANALOG	NA	-25 to 25 MVar	-25	25	MVar	-2500	2500	1		30 / 32	1 / 1	2	25
107	04	AI	CL_W_B VOLTAGE REFERENCE	CL_W_B	VOLTAGE REFERENCE			VREF		-	ANALOG	NA	105 - 145 kV	105	145	kV	10500	14500	1		30 / 32	1 / 1	2	26
108	04	AI	CL_W_B POWER FACTOR REFERENCE (DISCHARGI	CL_W_B	POWER FACTOR REFERENCE (DISCHARGE)			PFRFC		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-1000	1000	2		30 / 32	1 / 1	2	27
109	04	AI	CL_W_B POWER FACTOR REFERENCE (CHARGE)	CL_W_B	POWER FACTOR REFERENCE (CHARGE)			PFRFD		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-1000	1000	2		30 / 32	1 / 1	2	28
110	04	AI	CL_W_B MW REFERENCE	CL_W_B	MW REFERENCE			MWRF		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	29
111	04	AI	CL_W_B NUMBER OF INVERTERS AVAILABLE	CL_W_B	NUMBER OF INVERTERS AVAILABLE			INVA		-	ANALOG	NA	0 - 25 Inverters	0	25	Inverters	0	25	0		30 / 32	1 / 1	2	30
112	04	AI	CL_W_B NUMBER OF INVERTERS RUNNING	CL_W_B	NUMBER OF INVERTERS RUNNING			INVB		-	ANALOG	NA	0 - 25 Inverters	0	25	Inverters	0	25	0		30 / 32	1 / 1	2	31
113	04	AI	CL_W_B MW LOCAL SETPOINT	CL_W_B	MW LOCAL SETPOINT			MWLS		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	32
114	04	AI	CL_W_B RAMP DOWN RATE (MW/MINUTE)	CL_W_B	RAMP DOWN RATE (MW/MINUTE)			MWRD		-	ANALOG	NA	0 - 60 MW/MINUTE	0	60	MW/MINUTE	0	6000	1		30 / 32	1 / 1	2	33
115	04	AI	CL_W_B RAMP UP RATE (MW/MINUTE)	CL_W_B	RAMP UP RATE (MW/MINUTE)			MWRU		-	ANALOG	NA	0 - 60 MW/MINUTE	0	60	MW/MINUTE	0	6000	1		30 / 32	1 / 1	2	34
116	04	AI	CL_W_B UNIT LOW MW LIMIT	CL_W_B	UNIT LOW MW LIMIT			MWL		-	ANALOG	NA	0 - 60 MW	0	60	MW	0	6000	1		30 / 32	1 / 1	2	35
117	04	AI	CL_W_B UNIT HIGH MW LIMIT	CL_W_B	UNIT HIGH MW LIMIT			MWH		-	ANALOG	NA	0 - 60 MW	0	60	MW	0	6000	1		30 / 32	1 / 1	2	36
118	04	AI	CL_W_B ENERGY REMAINING (CHARGE)	CL_W_B	ENERGY REMAINING (CHARGE)			MWERC		-	ANALOG	NA	0 - 120 MWh	0	120	MWh	0	12000	1		30 / 32	1 / 1	2	37
119	04	AI	CL_W_B ENERGY REMAINING (DISCHARGE)	CL_W_B	ENERGY REMAINING (DISCHARGE)			MWERD		-	ANALOG	NA	0 - 120 MWh	0	120	MWh	0	12000	1		30 / 32	1 / 1	2	38
120	04	AI	CL_W_B FULL PACK ENERGY	CL_W_B	FULL PACK ENERGY			NWFE		-	ANALOG	NA	0 - 120 MWh	0	120	MWh	0	12000	1		30 / 32	1 / 1	2	39
121	04	AI	CL_W_B AVAILABLE MAXIMUM CAPACITY	CL_W_B	AVAILABLE MAXIMUM CAPACITY			MAXC		-	ANALOG	NA	0 - 120 %	0	120	%	0	12000	1		30 / 32	1 / 1	2	40
122	04	AI	CL_W_B AVAILABLE DISCHARGE POWER	CL_W_B	AVAILABLE DISCHARGE POWER			POSPD		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	41
123	04	AI	CL_W_B AVAILABLE CHARGE POWER	CL_W_B	AVAILABLE CHARGE POWER			POSPC		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	42
124	04	AI	CL_W_B LOCAL DISCHARGE LIMIT	CL_W_B	LOCAL DISCHARGE LIMIT			MWLLD		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	43
125	04	AI	CL_W_B LOCAL CHARGE LIMIT	CL_W_B	LOCAL CHARGE LIMIT			MWLLC		-	ANALOG	NA	-60 to 60 MW	-60	60	MW	-6000	6000	1		30 / 32	1 / 1	2	44
126	A	AI	T_1 AVR SETPOINT VARIABLE (KV)	T_1	AVR SETPOINT VARIABLE (KV)			SPAV		-	ANALOG	NA	0 - 39.6 kV	0	39.6	kV	0	3960	8		30 / 32	1 / 1	2	45
127	A	AI	T_1 TAP POSITION	T_1	TAP POSITION			TAP		-	ANALOG	NA	0 - 25	0	25		0	25	0		30 / 32	1 / 1	2	46
128	A	AI	T_1_LV PHASE 1 CURRENT (AMP)	T_1_LV	PHASE 1 CURRENT (AMP)			AMP1		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	9		30 / 32	1 / 1	2	47
129	A	AI	T_1_LV PHASE 2 CURRENT (AMP)	T_1_LV	PHASE 2 CURRENT (AMP)			AMP2		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	9		30 / 32	1 / 1	2	48
130	A	AI	T_1_LV PHASE 3 CURRENT (AMP)	T_1_LV	PHASE 3 CURRENT (AMP)			AMP3		-	ANALOG	NA	0 - 1920 A	0	1920	A	0	1920	9		30 / 32	1 / 1	2	49
131	A	AI	T_1_LV ACTIVE POWER (MW)	T_1_LV	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	2		30 / 32	1 / 1	2	50
132	A	AI	T_1_LV REACTIVE POWER (MVAR)	T_1_LV	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-109.74 - 109.74 MW	-109.74	109.74	MW	-10974	10974	2		30 / 32	1 / 1	2	51
133	A	AI	T_1_LV POWER FACTOR	T_1_LV	POWER FACTOR			PF		-	ANALOG	NA	-1 - 1 PF	-1	1	PF	-100	100	0		30 / 32	1 / 1	2	52
134	A	AI	FILTER_1 REACTIVE POWER (MVAR)	FILTER_1	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-15 - 15 MW	-15	15	MVar	-1500	1500	2		30 / 32	1 / 1	2	53
135	A	AI	CG_1 ACTIVE POWER (MW)	CG_1	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MW	-2743	2743	2		30 / 32	1 / 1	2	54
136	A	AI	CG_1 REACTIVE POWER (MVAR)	CG_1	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MVar	-2743	2743	2		30 / 32	1 / 1	2	55
137	A	AI	CG_2 ACTIVE POWER (MW)	CG_2	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MW	-2743	2743	2		30 / 32	1 / 1	2	56
138	A	AI	CG_2 REACTIVE POWER (MVAR)	CG_2	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MVar	-2743	2743	2		30 / 32	1 / 1	2	57
139	A	AI	CG_3 ACTIVE POWER (MW)	CG_3	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MW	-2743	2743	2		30 / 32	1 / 1	2	58
140	A	AI	CG_3 REACTIVE POWER (MVAR)	CG_3	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MVar	-2743	2743	2		30 / 32	1 / 1	2	59
141	A	AI	CG_4 ACTIVE POWER (MW)	CG_4	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MW	-2743	2743	2		30 / 32	1 / 1	2	60
142	A	AI	CG_4 REACTIVE POWER (MVAR)	CG_4	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MVar	-2743	2743	2		30 / 32	1 / 1	2	61
143	A	AI	CG_5 ACTIVE POWER (MW)	CG_5	ACTIVE POWER (MW)			MW		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MW	-2743	2743	2		30 / 32	1 / 1	2	62
144	A	AI	CG_5 REACTIVE POWER (MVAR)	CG_5	REACTIVE POWER (MVAR)			MVAR		-	ANALOG	NA	-27.43 - 27.43 MW	-27.43	27.43	MVar	-2743	2743	2		30 / 32	1 / 1	2	63
145	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			64
146	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			65
147	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			66
148	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			67
149	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			68
150	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			69
151	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			70
152	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			71
153	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			72
154	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			73
155	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			74
156	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			75
157	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			76
158	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			77
159	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			78
160	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			79
161	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			80
162	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			81
163	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			82
164	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			83
165	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			84
166	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			85
167	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			86
168	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			87
169	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			88
170	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			89
171	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			90
172	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			91
173	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			92
174	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			93
175	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			94
176	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			95
177	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			96
178	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			97
179	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			98
180	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			99
181	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			100
182	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			101
183	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			102
184	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			103
185	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			104
186	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			105
187	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			106
188	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			107
189	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			108
190	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			109
191	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			110
192	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			111
193	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			112
194	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			113
195	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			114
196	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			115
197	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			116
198	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			117
199	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			118
200	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			119
201	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			120
202	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			121
203	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			122
204	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			123
205	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			124
206	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			125
207	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			126
208	04	AI	CL_W_B SPARE	CL_W_B	SPARE																			127

SCADA I/O List - AEMO/ElectraNet
DNP I/O Schedule
Sheet No. 3

IDX	REV	IO_TYPE	POINT DESCRIPTION	DEVICE	PTNAME	DI - ON DO - CLOSE	DI - OFF DO - TRIP	ALARM ID	NSC_PRIORITY	NSC_INV	NSC_TYPE	NSC_CLASS	ANARANGE	ENG_LOW	ENG_HIGH	UNIT	RAW_LOW	RAW_HIGH	DEADBAND	DNP Control Type	DNP OBJECT	DNP VARIATION	DNP POINT CLASS	DNP ADDRESS
209	04	AO	CL_W_B MW ACTIVE SETPOINT	CL_W_B	MW ACTIVE SETPOINT			MASP		-	ANALOG	NA	-60 - 60 MW	-60	60	MW	-16000	16000	0		40 / 41	1 / 1		0
210	04	AO	CL_W_B DISPATCH CAPPED FLAG	CL_W_B	DISPATCH CAPPED FLAG			CAPX		-	ANALOG	NA	-1 - 1	-1	1		-1	1	0		40 / 41	1 / 1		1
211	04	AO	CL_W_B DELTA VOLTAGE CHANGE (AEMO VDS)	CL_W_B	DELTA VOLTAGE CHANGE (AEMO VDS)			VV_D		-	ANALOG	NA	-14 to 14 Kv	-14	14	kV	-1400	1400	0		40 / 41	1 / 1		2
212	04	AO	CL_W_B VARIABLE SETPOINT (AGC)	CL_W_B	VARIABLE SETPOINT (AGC)			AGC		-	ANALOG	NA	-60 - 60 MW	-60	60	MW	-16000	16000	0		40 / 41	1 / 1		3
213	04	AO	CL_W_B AEMO LINK HEARTBEAT	CL_W_B	AEMO LINK HEARTBEAT			HTBT		-	ANALOG	NA	1 - 10000	1	10000		1	10000	0		40 / 41	1 / 1		4
214	04	AO	CL_W_B SPARE	CL_W_B	SPARE																			5
215	04	AO	CL_W_B SPARE	CL_W_B	SPARE																			6
216	04	AO	CL_W_B SPARE	CL_W_B	SPARE																			7
217																								
218																								
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