

Full Network Model Scope for FNM DB21M4

(Production 4/28/2021)

Revision History

Effective Date	Version	Description
2/25/2021	1.0	Final scope by due date. The scope is considered finalized without any addendum attached
4/26/2021	2.0	Add additional information

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I. NRI Projects

No	PTO	Resource ID	Project Name / Description	Project Key	Capacity (MW)	POD	Additional Information
1	PGAE	DAIRLD_1_CR1BM1	Clapper Rail Plant 1	20GEN13715	2	Dairy Land 115 kV Bus	New Conventional resource
2	PGAE	MSTANG_2_MTGBT1	Mustang 1 BESS	20NGR14760	75	Mustang Switching Station 230kV Bus	New Non-Generation resource
3	SCE	ARLNTN_2_AR1SR1	Arlington	15AS885659	100	Colorado River 230kV Bus	New Solar resource
4	SCE	HIGHDS_2_H5SSR1	High 5 Solar	17AS1740	100	Victor 230 kV Bus	New Solar resource
5	SCE	TOWNSITE_2_MEADDYN	Townsite Solar BESS	20DYN13995	90		New Dynamic resource
6	SCE	ALMASL_2_GS6SR6	Almasol Generating Station 6	20GEN10903	100	Red Bluff 220 kV Substation	New Solar resource
7	SCE	ALMASL_2_GS7SR7	Almasol Generating Station 7	20GEN10904	132	Red Bluff 220 kV Substation	New Solar resource
8	SCE	JAWBNE_2_SRWND	Sky River Wind Repower A	20GEN13818	29	Windhub 230 kV Bus	New Wind/Wind Repower resource
9	SCE	JAWBNE_2_SRWWD2	Sky River Wind Repower B	20GEN13819	29.5	Windhub 230 kV Bus	New Wind/Wind Repower resource
10	SCE	HIGHDS_2_H5SBT1	High 5 Solar BESS	20NGR14425	50	Victor 230 kV Bus	New Non-Generation resource
11	SCE	ALMASL_2_AL6BT6	Almasol 6 BESS	20NGR14426	50	Red Bluff 220 kV Substation	New Non-Generation resource
12	SCE	GARLND_2_GARBT1	Garland B BESS	20NGR14511	88	220KV BUS WIRLWIND	New Non-Generation resource
13	SCE	BARRE_6_PEAKER	Barre Peaker AGC	20RIG14794	47		RIG Reconfiguration
14	SCE	OASIS_6_LPPSR1	Lancaster Psomas PV	21GEN14838	3	Oasis 66 kV Bus	New Solar resource
15	SCE	SANBRN_2_ESABT1	EdSan 1A	21NGR14807	100	Windhub 230 kV Bus	New Non-Generation resource
16	SCE	SANBRN_2_ESBBT1	EdSan 1B	21NGR14826	100	Windhub 230 kV Bus	New Non-Generation resource
17	SDGE	VLCNTR_6_VCEBT1	Valley Center Energy Storage	15AS883200	54	Valley Center 69 kV Bus	New Non-Generation resource
18	SDGE	VLCNTR_6_VCEBT2	Valley Center Energy Storage B	20NGR14758	60	Valley Center 69 kV Bus	New Non-Generation resource
19		MTWIND_1_UNIT 3	Mountain View 3	21RIG15524	22.44		RIG Reconfiguration
20		TERMEX_2_PL1X3	TDM 2021-1	21RIG15647	625		RIG Reconfiguration

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II. Transmission Projects

No	PTO	RIMS ID	Project Name	Project Key
1	PGAE	17TRANS6465	Blackbriar Generation Interconnection	ET3272
2	PGAE	19TRANS8817	Ultrapower Chinese Station (Q1116)	ET4043
3	PGAE	21TRANS15449	Rio Oso Emergency Transformer 1 Replacement	ET4581
4	PGAE	21TRANS15593	CENTRAL BUNDLE C-17	ET4583
5	PGAE	21TRANS15602	FNM Update: Kern PP 115 kV Switches	ET4585
6	SCE	20TRANS10928	Inland Empire RAS Removal	ET4289
7	SCE	20TRANS10928	Inland Empire RAS Removal	ET4290
8	SDGE	14TRANS5897	South Orange County Reliability Upgrade	ET4584

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III. EIM/ RC Projects

No	Entity	Project Name	Project Key
1	AESO_RC	Breaker(s)\ Disconnect(s) - Added Breakers at 895S	20EMS13666
2	AESO_RC	Breaker(s)\ Disconnect(s) - Added disconnectors at 959S	20EMS13671
3	AESO_RC	Breaker(s)\ Disconnect(s) - Added breakers at 95S	20EMS13672
4	AESO_RC	Breaker(s)\ Disconnect(s) - Added disconnectors at 9900S	20EMS13676
5	AESO_RC	Transformer - Added Transformer T1, T2 at 95S	20EMS13682
6	AESO_RC	Generator - Added generator SUF1_G1 at 895S	20EMS13688
7	AESO_RC	Generator - added generator IRO4_G1 at 95S	20EMS13689
8	AESO_RC	Generator - Updated Max Operating MW and Rated MVA for several generators	20EMS13691
9	AVA_TOP	Transmission Line - Ratings update	21EMS15094
10	AVA_TOP	Transmission Line - Ratings update	21EMS15095
11	AVA_TOP	Transmission Line - Ratings update	21EMS15096
12	AVA_TOP	Transmission Line - Ratings update	21EMS15100
13	AVA_TOP	Transmission Line - Ratings update	21EMS15101
14	AVA_TOP	Transmission Line - Ratings update	21EMS15102
15	AVA_TOP	Contingency Definition - Update contingencies due to segment changes	21EMS15103
16	AVA_TOP	Transmission Line - Addition of segments	21EMS15104
17	AVA_TOP	Transmission Line - Removal of segments	21EMS15105
18	AVA_TOP	Transmission Line - Line addition	21EMS15106
19	AVA_TOP	Transmission Line - Line addition	21EMS15107
20	AVA_TOP	Transmission Line - Line removal	21EMS15108
21	AVA_TOP	Transmission Line - Line removal	21EMS15109
22	AVA_TOP	Shunt Cap\Reactor\ SVDÄs - Capacitor addition	21EMS15111
23	AVA_TOP	Substation\Load - Bus ratings update	21EMS15112
24	AVA_TOP	Breaker(s)\ Disconnect(s) - Correct six English/Common names which were incorrectly duplicates of other devices. As these are exclusively changes to the English/Common name, no other documents should be necessary.	21EMS15416
25	AVA_TOP	SADLEMT	21EMS15741
26	AVA_TOP	SADLEMT Project Complete - Please remove double modeling associated to SADLEMT (Saddle Mt Substation Project) at WALAWAL\$, WANAPUMS, OTHELLO, OTHELOSS, and BENTON	21EMS15928
27	AZPS_BA	Transmission Line - Changed line impedances of MK-Wilo	21EMS15202
28	AZPS_BA	Transmission Line - changed susceptance of BG-CF	21EMS15203

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29	AZPS_BA	Transmission Line - Changed line impedances of CF-AJ	21EMS15204
30	AZPS_BA	Transmission Line - Changed line impedances of CFP-WY	21EMS15205
31	AZPS_BA	Transmission Line - Changed line impedances of DBY-AIC	21EMS15206
32	AZPS_BA	Transmission Line - Changed line impedances of MX-BG	21EMS15207
33	AZPS_BA	Transmission Line - Changed line impedances of NOR-STT	21EMS15208
34	AZPS_BA	Transmission Line - Changed line impedances of PP-DD	21EMS15209
35	AZPS_BA	Transmission Line - Changed line impedances of PP-DZ L2	21EMS15210
36	AZPS_BA	Transmission Line - Changed line impedances of PP-DZ L1	21EMS15211
37	AZPS_BA	Transmission Line - Changed line impedances of PP-GRF	21EMS15212
38	AZPS_BA	Transmission Line - Changed line impedances of RSG-NOR	21EMS15213
39	AZPS_BA	Transmission Line - Changed line impedances of RUN-BRD	21EMS15214
40	AZPS_BA	Transmission Line - Changed line impedances of WT-BRD	21EMS15215
41	AZPS_BA	Substation\Load - Addition of LucidEQL (69KV)	21EMS15216
42	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of ABS-BBS and LUCID	21EMS15217
43	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed of ABUSBBUS to ABS-BBS and added 562 (69KV)	21EMS15218
44	AZPS_BA	Substation\Load - removed substation	21EMS15219
45	AZPS_BA	Transmission Line - Removal of PVTTPND	21EMS15220
46	AZPS_BA	Transmission Line - Changed name from FDM-PND line to PND-FDM (230KV)	21EMS15221
47	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed names from SLNX-LBX to SLNX-FDM, LBX to FDM, LBX-PV to FDM-GLX and (230KV)	21EMS15222
48	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of dual modeling switches na%	21EMS15223
49	AZPS_BA	Transmission Line - Addition of EG-TR (69KV)	21EMS15224
50	AZPS_BA	Transmission Line - Removal of TLTTP-EG (69KV)	21EMS15225
51	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of K4879 and TR (69KV)	21EMS15226
52	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of CG (69KV)	21EMS15227
53	AZPS_BA	Transmission Line - Addition of CG-TR (69KV)	21EMS15228
54	AZPS_BA	Transmission Line - Removal of CG-TLTTP (69KV)	21EMS15229
55	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of K4880 (69KV)	21EMS15230
56	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of NBUSSBUS (230KV)	21EMS15231
57	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of XFMR3H (mod replaced with disc) (230KV)	21EMS15232
58	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of XFMR3H (reconfigured) (230KV)	21EMS15233
59	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of CQ and CQT (230KV)	21EMS15234
60	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of CQ (retooled) (230KV)	21EMS15235
61	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of some dual modeling switches na% (230KV)	21EMS15236
62	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of V2259 (69KV)	21EMS15237
63	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of K2259 (69KV)	21EMS15238

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64	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of K8171 (115KV)	21EMS15239
65	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed EBS-WBS (added 562 breaker)	21EMS15240
66	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed Aux to STNPWR, CYX-ST1 to CYX-1852, ST1 to EBUS1862, CYX-ST1 to CYX1852 (500KV)	21EMS15241
67	AZPS_BA	Shunt Cap\Reactor\ SVDAs - Changed CB4s1, CB4S2 reactance (500KV)	21EMS15242
68	AZPS_BA	Substation\Load - Addition of Aux4 and Aux5 loads (20KV)	21EMS15243
69	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of na% switches for JOP gen pseudo ties (20KV)	21EMS15244
70	AZPS_BA	Generator - Addition of naGNst4p, naGNst4s, naGNst4t, naGNst5p, naGNst5s, naGNst5t for JOP (20KV)	21EMS15245
71	AZPS_BA	Generator - Removal of FC4PNM, FC5PNM replaced with new JOP pseudo tie gen (20KV)	21EMS15246
72	AZPS_BA	Transmission Line - Addition of fictitious lines to model pseudo ties of joint owned station. FCFCpX1, FCFCpX2, FCFCsX1, FCFCsX2, FCFCtX1, FCFCtX2 (20KV)	21EMS15247
73	AZPS_BA	Substation\Load - Addition of Aux loads 4 and 5 (20KV)	21EMS15248
74	AZPS_BA	Transmission Line - Removed naFLch_x (500KV)	21EMS15249
75	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed ST4-M (500KV)	21EMS15250
76	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed NBUS RE (retooled 354 changed from a disc to a mod) (500KV)	21EMS15251
77	AZPS_BA	Transformer - Changed XFMR1, XFMR4 impedances (500KV)	21EMS15252
78	AZPS_BA	Transformer - Changed XFMR1, XFMR4 impedances (230KV)	21EMS15253
79	AZPS_BA	Transformer - Changed XFMR1, XFMR4 impedances (34.5KV)	21EMS15254
80	AZPS_BA	Transmission Line - Addition of WTN-FDMT (69KV)	21EMS15255
81	AZPS_BA	Transmission Line - Removal of PYTP-WTN (69KV)	21EMS15256
82	AZPS_BA	Transmission Line - Addition of WPK-FDMT line (69KV)	21EMS15257
83	AZPS_BA	Transmission Line - Removal of WPK-PYTP line (69KV)	21EMS15258
84	AZPS_BA	Substation\Load - Addition of Feeder 19 added (12KV)	21EMS15259
85	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed TTH-PV to PV-PY	21EMS15260
86	AZPS_BA	Substation\Load - Removal of Substation	21EMS15261
87	AZPS_BA	Transmission Line - Removal PYTP-PY (69KV)	21EMS15262
88	AZPS_BA	Transmission Line - Addition PY-FDM (69KV)	21EMS15263
89	AZPS_BA	Substation\Load - Addition XFMR3 equivalent load (69KV)	21EMS15264
90	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of 563 and U6839 (69KV)	21EMS15265
91	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal K6843, K6389 (69KV)	21EMS15266
92	AZPS_BA	Substation\Load - Removed 12KV portion of station (69KV)	21EMS15267
93	AZPS_BA	Substation\Load - removed substation	21EMS15268
94	AZPS_BA	Transmission Line - Removal of PVTP-PV line (230KV)	21EMS15269
95	AZPS_BA	Transmission Line - Changed name from FDM-PV to PV-FDM (230KV)	21EMS15270
96	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed name from LBX-PND to FDM (230KV)	21EMS15271
97	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed dual modeling switches na% (230KV)	21EMS15272

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98	AZPS_BA	Substation\Load - Addition of 69KV station	21EMS15273
99	AZPS_BA	Transmission Line - Changed name of FDM-PV line to PV-FDM (230KV)	21EMS15274
100	AZPS_BA	Transmission Line - Changed name from FDM-PND line to PND-FDM (230KV)	21EMS15275
101	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of 921, PND-SBUS (230KV)	21EMS15276
102	AZPS_BA	Substation\Load - Addition of 69KV portion of station	21EMS15277
103	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of XFMR3H, 961 (69KV)	21EMS15278
104	AZPS_BA	Transformer - Addition of XFMR3A (69KV)	21EMS15279
105	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed SBS-NBS (added 562 breaker) (69KV)	21EMS15280
106	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of dual modeling for shoofly (69KV)	21EMS15281
107	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition DZ L1 (69KV)	21EMS15282
108	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed GRF to DZ L2, DD to GRF, DZ to DD (69KV)	21EMS15283
109	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal dual modeling na% switching fields (69KV)	21EMS15284
110	AZPS_BA	Shunt Cap\Reactor\ SVD \hat{A}_i s - Removal of CB9 A	21EMS15285
111	AZPS_BA	Substation\Load - Addition XFMR10, XFMR20, XFMR30 equiv loads (69KV)	21EMS15286
112	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition XFMR10H, XFMR20H, XFMR30H (69KV)	21EMS15287
113	AZPS_BA	Breaker(s)\ Disconnect(s) - removed XFMR11H and XFMR3H (69KV)	21EMS15288
114	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition ABUSBBUS (69KV)	21EMS15289
115	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal CBUSWBUS	21EMS15290
116	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of CB9, 061 (69KV)	21EMS15291
117	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed EBUSCBUS to BBUSCBUS (69KV)	21EMS15292
118	AZPS_BA	Substation\Load - Removal of 12KV temporarily	21EMS15293
119	AZPS_BA	Transmission Line - Additon of PP L2 (69KV)	21EMS15294
120	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed DX to PP L2 (69KV)	21EMS15295
121	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed DX FUT to DX (69KV)	21EMS15296
122	AZPS_BA	Breaker(s)\ Disconnect(s) - Removlal of dula modeling na% switches (69KV)	21EMS15297
123	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed CLNT name to CLN (69KV)	21EMS15298
124	AZPS_BA	Transmission Line - Addition of BV-DG line (for possible shoofly) (69KV)	21EMS15299
125	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of dual modeling for shoofly na% (69KV)	21EMS15300
126	AZPS_BA	Substation\Load - Removal changed name to CLN)(12KV/69KV)	21EMS15301
127	AZPS_BA	Substation\Load - Addition (replaced CLNT) (12KV/69KV)	21EMS15302
128	AZPS_BA	Substation\Load - Addition of XFR11EL, XFMR19EL, XFM3EL equivalent loads (69KV)	21EMS15303
129	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of WBS-CBS, XFMR3H	21EMS15304
130	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of 1161, 461, WBUSCBUS (69KV)	21EMS15305
131	AZPS_BA	Substation\Load - 12KV portion temporarily removed	21EMS15306
132	AZPS_BA	Substation\Load - Changed CIGTMP objects moved to CIG (69KV)	21EMS15307

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133	AZPS_BA	Breaker(s)\ Disconnect(s) - Changed name from CLNT to CLN (69KV)	21EMS15308
134	AZPS_BA	Shoofly Install\ Removal - Addition of BV-DG line (for possible shoofly) (69KV)	21EMS15309
135	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of dual modeling for shoofly na% (69KV)	21EMS15310
136	AZPS_BA	Transmission Line - Removal of line RSG-STT (69KV)	21EMS15311
137	AZPS_BA	Breaker(s)\ Disconnect(s) - Update renamed RSG to NOR (69KV)	21EMS15312
138	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of all dual modeling switches na% (69KV)	21EMS15313
139	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of K6427 (69KV)	21EMS15314
140	AZPS_BA	Transmission Line - Addition of line RSG-NOR (69KV)	21EMS15315
141	AZPS_BA	Transmission Line - Removal RSG-STT (69KV)	21EMS15316
142	AZPS_BA	Breaker(s)\ Disconnect(s) - Update - renamed from STT to NOR (69KV)	21EMS15317
143	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of all dual modeling switches na% (69KV)	21EMS15318
144	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of switch MDT-ME (69KV)	21EMS15319
145	AZPS_BA	Breaker(s)\ Disconnect(s) - Removal of switch K7719 (69KV)	21EMS15320
146	AZPS_BA	Breaker(s)\ Disconnect(s) - Addition of switch K6428 (69KV)	21EMS15321
147	BANC_BA	Entire BANC model including WAPA, MID and Redding	20EMS10836
148	BANC_BA	Shunt Cap\Reactor\ SVD $\hat{\Delta}$ s - Added a ShuntCompensator of the bank2 12kv winding that is normally open.	21EMS15344
149	BANC_BA	Transformer - Converted bank 2 to a three tw-winding transformer with 1kv common bus.	21EMS15345
150	BANC_BA	Transformer - Updated transformer impedances at these stations.	21EMS15346
151	BANC_BA	Breaker(s)\ Disconnect(s) - Added disconnects in MID SubGeographical region substations.	21EMS15347
152	BCHA_RC	Generator - Update generator name	21EMS15338
153	BCHA_RC	Generator - Update generator name	21EMS15339
154	BCHA_RC	Transmission Line - Update Impedance to 60L_18_4	21EMS15340
155	BCHA_RC	Transmission Line - Update Impedance to 60L_18_3	21EMS15341
156	BCHA_RC	Transmission Line - Update Impedance to 60L_18_1	21EMS15342
157	BCHA_RC	N/A - Updated ICCP	21EMS15343
158	BPAT_BA	Generator - DYD Mapping file.	20EMS14029
159	BPAT_BA	Generator - Dynamic Model for Transient Stability Analysis in GE PSLF format.	20EMS14030
160	BPAT_BA	Breaker(s)\ Disconnect(s) - Added DSC JMP_BANK1, JMP_BANK2, JMP_115_1641, JMP_115_1642	21EMS15126
161	BPAT_BA	Substation\Load - Added fake tab station to split the line by owner.	21EMS15127
162	BPAT_BA	Substation\Load - Added fake tab station to split the line by owner.	21EMS15128
163	BPAT_BA	Transmission Line - Split the tie-line "STAC_SOUT_1230" to "STAC_STSW_1230" and "STSW_SOUT_1230"	21EMS15129
164	BPAT_BA	Transmission Line - Split the tie-line "MOSY_CHEH_1230" to "CHEH_CHMO_1230" and "CHMO_MOSY_1230"	21EMS15130
165	BPAT_BA	Transmission Line - Added tie line "RDSM_SCOO_1_34Z1"	21EMS15131
166	BPAT_BA	Transmission Line - Added tie line "EBC_RGLD_1_13Z1"	21EMS15132
167	BPAT_BA	Transmission Line - Added tie line "PEC_GLAD_1_13Z1"	21EMS15133

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168	BPAT_BA	Substation\Load - Fix the model to reflect 34.5kV bus tie to RDSMITH (SCL).	21EMS15134
169	BPAT_BA	Substation\Load - Fix the model to reflect 13.8kV bus tie to EBC (SCL).	21EMS15135
170	BPAT_BA	Substation\Load - Fix the model to reflect 13.8kV bus tie to PEC_SCL (SCL) .	21EMS15136
171	BPAT_BA	Generator - BPA DYD mapping file.	21EMS15137
172	BPAT_BA	Contingency Definition - BPA contingency list.	21EMS15138
173	BPAT_TOP	Transmission Line - Updating Request Number 6.23	21EMS14963
174	BPAT_TOP	Generator - Fixed mapping file to include full dyd model.	21EMS15023
175	CEN	ICCP Review	21EMS14876
176	CSU	Missing substations and modelling changes for CSU	21EMS14973
177	IID	RAMON	21EMS15605
178	IID_BA	Generator - ICCP Links Revision 2, to include new ICCP ID	21EMS15060
179	IPCO_BA	Transmission Line - Removed limits on zero impedance branches	21EMS15331
180	IPCO_BA	Breaker(s)\ Disconnect(s) - Updated BOIS switches 104X, 105X, 104Z, 105Z to 134X, 135X, 134Z, 135Z	21EMS15332
181	IPCO_BA	Breaker(s)\ Disconnect(s) - Added new mobile switch FRMT 132X	21EMS15333
182	IPCO_BA	Substation\Load - Separated PTSN into IPCO and Northwestern Energy based on equipment ownership for EIM	21EMS15334
183	IPCO_BA	- All ICCP Object IDs for IPCO_BA FNM.	21EMS15335
184	IPCO_BA	- CIM export of IPCO_BA FNM.	21EMS15336
185	IPCO_BA	Transmission Line - Updated Limits, Resistance, Reactance and Capacitance. No topology changes	21EMS15458
186	IPCO_BA	Contingency Definition - Added "CD-HB" contingency and updated "DN-HBRD" contingency for new CDAL-HBRD 230KV t-line going into service in May.	21EMS16589
187	LDWP_BA	Transformer - One Line comparison of OLV station changes	21EMS15082
188	LDWP_BA	Transformer - Emergency replacement of OLV BK G and OLV BK H	21EMS15083
189	LDWP_BA	Substation\Load - Added ICCP for ADL Solar	21EMS15358
190	LDWP_BA	Substation\Load - Update ADL SOL Modeling to include GSU Transformer	21EMS15359
191	LDWP_BA	Substation\Load - OLV Bank G damaged, swapped with OLV Bank H	21EMS15360
192	LDWP_BA	Transmission Line - Update Transmission Line Ratings and Impedances SCA-AIR, FAR-AIR, FAR-GRA, FAR-OLY	21EMS15361
193	NEVP_TOP	Substation\Load - Added 230 KV Switching station that will be connected between H ALLEN and GRTETON with a 11 MW load.	21EMS15348
194	NEVP_TOP	Generator - Increased MCG3_IPP_GO Pmax from 60 MW to 90 MW ; Resource ID = MCG HILL_2_UNIT 3	21EMS15349
195	NEVP_TOP	Generator - Added Battery Energy Storage System (Generator) to Chukar called CKR_BESS_GEN; Pmax = 10 MW and Resource ID = CHUKAR_1_BESS_UNIT	21EMS15350
196	NEVP_TOP	Substation\Load - Added Chukar 25 kV bus	21EMS15351
197	NEVP_TOP	Substation\Load - Moved elements from BROCKWAY substation to KING BCH substation and removed old switches	21EMS15352
198	NEVP_TOP	Substation\Load - Removed BROCKWAY substation	21EMS15353
199	NVE	BA Modeling Change for Griffith Dynamic	21EMS15182
200	NWMT_BA	Generator - Updated Stillwater Wind capacity from 79.75 to 80 MW for RCBSAP.	21EMS14940
201	NWMT_TOP	Substation\Load - Construction oneline for South Butte rebuild	21EMS15158

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202	NWMT_TOP	Substation\Load - Construction oneline for Mill Creek Rebuild	21EMS15159
203	NWMT_TOP	Substation\Load - Construction oneline for Montana Street Rebuild	21EMS15160
204	NWMT_TOP	Substation\Load - As-built onelines for 2020 work	21EMS15161
205	NWMT_TOP	Transmission Line - Updated English Names template to include all sub-BES equipment and capture other missing Enlighs Names	21EMS15163
206	NWMT_TOP	Substation\Load - Updated CIM model; see attached document for concise description of changes.	21EMS15337
207	PAC_TOP	Breakers/Disconnects - Update 2D611's normal state to OPEN	21EMS14977
208	PAC_TOP	Transmission Lines - Remove FRIEND_HOUSTONL_115 and update 2D619's normal state to OPEN	21EMS14978
209	PAC_TOP	Transmission Lines - Remove WALAWALA_WANAPUM_230 and WALAWALA 230 4 SBUS KV measurement	21EMS14979
210	PAC_TOP	Breakers/Disconnects - Update MO 2H389's NORMST to CLOSE	21EMS14980
211	PAC_TOP	Breakers/Disconnects - Remove JP1,2, 3	21EMS14981
212	PAC_TOP	Transmission Lines - Update line impedance data for HARRISON_HARSNPGE_115	21EMS14982
213	PAC_TOP	Substation\Load - CAISO please change BA to PACE	21EMS14983
214	PAC_TOP	Transformers - Remove T3 and 5 devices	21EMS14984
215	PAC_TOP	Breakers/Disconnects - Add MO 42A	21EMS14985
216	PAC_TOP	Transformers - Add new T2 and 3 devices and a JUMPER	21EMS14986
217	PAC_TOP	Substation\Load - Add new substation	21EMS14987
218	PAC_TOP	Substation\Load - Add new substation	21EMS14988
219	PAC_TOP	Substation\Load - Add line to WILDFLOW, 8 devices, three JUMPERS, rename 10H54 to 7H58, 10H59 to 10H54, AS 146 to 187A	21EMS14989
220	PAC_TOP	Transmission Lines - Add MO 132A and line to MIDWAY	21EMS14990
221	PAC_TOP	Breakers/Disconnects - Add 6 devices, Line to JORDANEL, and a JUMPER	21EMS14991
222	PAC_TOP	Substation\Load - Remove BUS KV and line KV	21EMS14992
223	PAC_TOP	Breakers/Disconnects - Add SW J1923	21EMS14993
224	PAC_TOP	Substation\Load - CAISO please change BA to PACE	21EMS14994
225	PGE_BA	Contingency Definition - Contingency definition changes	21EMS15147
226	PGE_BA	Substation\Load - Replace St Marys relays and breakers at 230kV level yard (SCADA keys changed)	21EMS15148
227	PGE_BA	Transmission Line - Rebuild Sunset-St Marys line to the Butler-St Marys and Butler-Sunset #2 lines with two new line switches SW_11698 and SW_11690	21EMS15149
228	PGE_BA	RAS - RAS screenshot	21EMS15150
229	PGE_BA	- List of ICCP points mapping	21EMS15151
230	PGE_BA	- Model Difference reoport	21EMS15152
231	PGE_BA	- Model Updates for DB103: CIMxml model file	21EMS15153
232	PNM	SAN JUAN	21EMS16183
233	PNM_BA	Transmission Line - DIAMONDTL Line Ratings changed for summer and winter. These are normal continous ratings.	21EMS14943
234	PNM_BA	Transmission Line - HOLLYWD Line Ratings changed for summer and winter. These are normal continous ratings.	21EMS14944
235	PNM_BA	Transmission Line - NORTH Line Ratings changed for summer and winter. These are normal continous ratings.	21EMS14945

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236	PNM_BA	Transmission Line - B_A Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14946
237	PNM_BA	Transmission Line - NORTON Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14947
238	PNM_BA	Transmission Line - WHITERCK Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14948
239	PNM_BA	Transmission Line - BUCKMAN Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14949
240	PNM_BA	Transmission Line - NORTON Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14950
241	PNM_BA	Transmission Line - LAMORADA Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14951
242	PNM_BA	Transmission Line - PETROGLYPH 115kV Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14952
243	PNM_BA	Transmission Line - LOSTHORZ Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14953
244	PNM_BA	Transmission Line - OLDLAGUN Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14954
245	PNM_BA	Transmission Line - SANFIDEL Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14955
246	PNM_BA	Transmission Line - GRANTS T Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14956
247	PNM_BA	Transmission Line - BLUEWATR Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14957
248	PNM_BA	Transmission Line - ALGODONE Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14958
249	PNM_BA	Transmission Line - AMBROSIA Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14959
250	PNM_BA	Transmission Line - Line Ratings changed for summer and winter. These are normal continuous ratings.	21EMS14960
251	PNM_BA	Substation/Load - New ICCP pts. for BA Load and BA Ties added to facilitate EIM	21EMS15030
252	PNM_BA	Breaker(s)\ Disconnect(s) - Added ICCP Objects for breaker and switch	21EMS15071
253	PNM_BA	Breaker(s)\ Disconnect(s) - Added ICCP Objects for switches	21EMS15176
254	PNM_BA	Breaker(s)\ Disconnect(s) - Added ICCP Objects for switches	21EMS15178
255	PNM_BA	Transmission Line - PNM Network Model	21EMS15323
256	PNM_BA	Transmission Line - Full ICCP SCADA Mapping for Network Model	21EMS15324
257	PSCO_BA	COMA, PAWN, and CEDARCK\$	21EMS15388
258	SCL_BA	Transmission Line - Updates to Normal/Emergency Seasonal MVA limits to various transmission lines and transformers.	21EMS15325
259	SCL_BA	Generator - Added resources SUMMERFL_1_GEN161_TOTAL and SUMMERFL_1_GEN162_TOTAL. Removed resources SUMMERFL_1_GEN161 and SUMMERFL_1_GEN162 from reliability model. Market model resources will remain the same. See SLD doc for more details.	21EMS15326
260	SCL_BA	Generator - Added resource MCANLSCL_1_GEN160_TOTAL and removed resource MCANLSCL_1_GEN160 from reliability model. Market model resources will remain the same. See SLD doc for more details.	21EMS15327
261	SCL_BA	Generator - Added resource PEC_1_GEN166_TOTAL and removed resource PEC_1_GEN166 from reliability model. Market model resources will remain the same. See SLD doc for more details.	21EMS15328
262	SCL_BA	Generator - Added resource EBC_1_GEN165_TOTAL and removed resource EBC_1_GEN165 from reliability model. Market model resources will remain the same. See SLD doc for more details.	21EMS15329
263	SCL_BA	Generator - Added resource RDSMITH_1_GEN164_TOTAL and removed resource RDSMITH_1_GEN164 from reliability model. Market model resources will remain the same. See SLD doc for more details.	21EMS15330
264	SNPD_TOP	Transformer - Add new ICCP points	21EMS15025
265	SNPD_TOP	Breaker(s)\ Disconnect(s) - Add new ICCP points	21EMS15026

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266	SNPD_TOP	Shoofly Install\ Removal - Install a shoo-fly at Paine Field Substation	21EMS15031
267	SNPD_TOP	Shoofly Install\ Removal - Install a shoo-fly at Paine Field Substation	21EMS15066
268	SNPD_TOP	Shoofly Install\ Removal - Removal of Paine Field shoo-fly	21EMS15201
269	SRP_BA	Breaker(s)\ Disconnect(s) - Updated normal state of temp switches	21EMS15113
270	SRP_BA	Generator - Added ICCP IDs for generator analog measurements	21EMS15114
271	SRP_BA	Substation\Load - Added ICCP IDs for breakers and disconnectors status, generator and line analog measurements	21EMS15115
272	SRP_BA	Breaker(s)\ Disconnect(s) - Removed temporary disconnect switches	21EMS15116
273	SRP_BA	Breaker(s)\ Disconnect(s) - Added breaker and disconnecter	21EMS15117
274	SRP_BA	Substation\Load - Added shunt compensator, breakers and disconnectors	21EMS15118
275	SRP_BA	Transmission Line - Removed 22.06E1N Tap-Marcos 69kV line	21EMS15119
276	SRP_BA	Transmission Line - Added new Lassen-Marcos 69kV line	21EMS15120
277	SRP_BA	Transmission Line - Added ICCP measurements on Howard-McGinnis branch	21EMS15121
278	SRP_BA	Breaker(s)\ Disconnect(s) - Removed temporary switch TMP 27	21EMS15122
279	SRP_BA	Transformer - Updated transformer impedance and tap ratio	21EMS15123
280	SRP_BA	Breaker(s)\ Disconnect(s) - Updated nodes of switches 391 and 393	21EMS15124
281	SRP_BA	Transmission Line - Updated branch parameters and ICCP measurements on branch	21EMS15125
282	SRP_BA	SRP Gila River Block 1 FNM pmax increases	21EMS16071
283	TPWR_BA	Transmission Line - Update to show Mossyrock-Chehalis line as separate TPWR and BPA segments instead of single line.	21EMS15027
284	TPWR_BA	Transmission Line - Update to show South Tacoma-Southwest line as separate TPWR and BPA segments instead of single line.	21EMS15028
285	TPWR_BA	Transmission Line - Updates to BPA-TPWR tie line data.	21EMS15322
286	TSGT_TOP	Transmission Line - Update of Ratings	21EMS15067
287	TSGT_TOP	Transformer - Update of Ratings	21EMS15068
288	TSGT_TOP	Transformer - Update of Ratings	21EMS15179
289	TSGT_TOP	Transmission Line - Update of Ratings	21EMS15180
290	WASN_TOP	Transmission - Captain Jack - Olinda 500 kV line rating update	21EMS14972