

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

### *Revision History*

<b>Effective Date</b>	<b>Version</b>	<b>Description</b>
8/21/2020	1.0	Final scope by due date. The scope is considered finalized without any addendum attached
10/23/2020	2.0	Add additional information

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

### I. NRI Projects

No	PTO	Resource ID	Project Name / Description	Project Key	Capacity (MW)	POD	Additional Information
1	PGAE	HENRTA_6_HDEBT1	Henrietta D Energy Storage	19NGR10387	10	Henrietta 70kV Bus	New resource
2	SCE	JOHANN_2_OCEBT2	Orange County Energy Storage 2	19NGR10385	9	Johanna 230 kV Bus	New resource
3	SCE	JOHANN_2_OCEBT3	Orange County Energy Storage 3	19NGR10386	6	Johanna 230 kV Bus	New resource
4	SCE	JOHANN_2_JOSBT1	Johanna Storage 1	19NGR10541	10	Johanna 230 kV Bus	New resource
5	SCE	JOHANN_2_JOSBT2	Johanna Storage 2	19NGR10542	10	Johanna 230 kV Bus	New resource
6	SCE	BLKCRK_2_GMCBT1	Genesis McCoy BESS	20NGR13014	230	Colorado River 230kV Bus	New resource
7	SCE	DRACKR_2_DSUBT2	Dracker Solar Unit 2 BESS	20NGR13015	115	Colorado River 230kV Bus	New resource
8	SCE	DRACKR_2_DSUBT3	Dracker Solar Unit 3 BESS	20NGR13016	115	Colorado River 230kV Bus	New resource
9	SCE	TEHAPI_2_PW1WD1	Point Wind 1 MAX GEN Increase	20GEN13231	47.495	Vincent 230kV Bus	EMS Pmax increase from 46.011 MW to 47.495 MW

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

### II. Transmission Projects

No	PTO	RIMS ID	Project Name	Project Key
1	PGAE	17TRANS6528	Cascade Substation Upgrade	ET3389
2	PGAE	19TRANS9067	Kern PP 115 kV BAAH	ET4100
3	PGAE	19TRANS9261	Dallas Energy Storage	ET4138
4	PGAE	19TRANS9234	Exchequer-Yosemite 70kV Reliability Project	ET4416
5	PGAE	18TRANS6563	Caltrain Intrconnection Site 1 East Grand	ET4421
6	PGAE	18TRANS6566	Caltrain Intrconnection Site 3 FMC Substation	ET4422
7	PGAE	20TRANS13261	Add Pittsburg 230 kV SWs 472, 473, 482, and 483 to FNM	ET4431
8	PGAE	T.0004934	Exchequer ζ Legrand 115 kV RAS	ET4439
9	PGAE	20TRANS13795	Bakersfield CB 252	ET4463
10	SCE	20TRANS13018	ICCP object deletes - SPRINGVILLE	ET4418
11	SCE	20TRANS13212	Eldorado Substation ICCP Removal	ET4429
12	SCE	20TRANS13250	El Nido RAS ICCP Removal	ET4430
13	SCE	17TRANS6471	West of Devers	ET4440
14	SCE	17TRANS6471	West of Devers	ET4441
15	SCE	17TRANS6471	West of Devers	ET4442
16	SCE	17TRANS6471	West of Devers	ET4443
17	SDGE	2014-00068-ZZ	South Orange County Reliability Upgrade	ET1197
18	SDGE	2014-00068-ZZ	South Orange County Reliability Upgrade	ET1198
19	SDGE	20TRANS13166	Reconductor - TL6923	ET4423
20	VEA	20TRANS12622	Valley Sub Correction	ET4379
21	VEA	20TRANS12622	Valley Sub Correction	ET4380

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

### III. EIM/ RC Projects

No	Entity	Project Name	Project Key
1	AVA_TOP	Breaker(s)\ Disconnect(s) - Energize NEW 230/115 #2 through R638/R538 and A964. Retire existing 230/115 #2, R385, and A471. Retire A413.	20EMS13294
2	AVA_TOP	Transformer - Benewah 230/115 Transformer Data. 115 voltage seems to be high in HANA model. Is the model correct?	20EMS13477
3	AVA_TOP	Breaker(s)\ Disconnect(s) - Reconfigure Dalton 115 Sub. Add line breakers A1101, A1102. Add Bus Tie Switch A1105. Add transformer breakers A1103, A1104.	20EMS13478
4	AVA_TOP	Breaker(s)\ Disconnect(s) - Add switch A80 at Delight 115 towards Neilson.	20EMS13479
5	AVA_TOP	Breaker(s)\ Disconnect(s) - Ensure Sunset line is connected to Westside SW 115 Bus A956. A410 was retired previously (Fall 2019).	20EMS13480
6	AVA_TOP	Breaker(s)\ Disconnect(s) - Moving NineMile line terminal to NEW Westside SE 115 bus through new breaker A968. Energize SE 115 bus through A962.	20EMS13481
7	AZPS_BA	Breaker(s)\ Disconnect(s) - Added XFMR3	20EMS13300
8	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed K6155	20EMS13301
9	AZPS_BA	Generator - Updated CC1 A, CC2 A, CC3 A max gen limit and Added Unit Capability Curve Point Data	20EMS13302
10	AZPS_BA	Breaker(s)\ Disconnect(s) - Added FDR13Reg	20EMS13303
11	AZPS_BA	Breaker(s)\ Disconnect(s) - Added FDR4	20EMS13304
12	AZPS_BA	Substation\Load - Added FDR4 load	20EMS13305
13	AZPS_BA	Breaker(s)\ Disconnect(s) - Added dual modeling naBB*, naSF*, naSD*, DX FUT	20EMS13306
14	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed PP to PP L1	20EMS13307
15	AZPS_BA	Breaker(s)\ Disconnect(s) - Added 1161, 1361, 1461	20EMS13308
16	AZPS_BA	Transmission Line - Added PP-DZ L2 future Pinnacle Peak to Dale Line 2	20EMS13309
17	AZPS_BA	Transmission Line - Renamed PP-DZ to PP-DZ L1 (Pinnacle Peak to Dale Line 1)	20EMS13310
18	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed CB062	20EMS13311
19	AZPS_BA	ShuntCap\Reactor\SVDÂ¿s - Removed CB062	20EMS13312
20	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed 161	20EMS13313
21	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed dual modeling naBB*, naSF*, naSD*	20EMS13314
22	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed 161	20EMS13315
23	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed PLK to RMN	20EMS13316
24	AZPS_BA	Transmission Line - Renamed HKM-RMN line named to RMN-HKM (between Red Mountain and Hohokam)	20EMS13317
25	AZPS_BA	Transmission Line - Removed PLK-HKM (between Polk and Hohokam)	20EMS13318
26	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed ST1	20EMS13319
27	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed dual modeling naBB*, naSF*, naSD*	20EMS13320
28	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed HKM to RMN	20EMS13321
29	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed CB1	20EMS13322
30	AZPS_BA	Transmission Line - Renamed PNR-PYR to PYR-PNR (between Pyramid Peak and Pioneer)	20EMS13323

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
31	AZPS_BA	Breaker(s)\ Disconnect(s) - Added DZ L1 and dual modeling for moving lines to new bays and adding new line	20EMS13324
32	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed dual modeling for Pinnacle Peak to Scatterwash and PP to Raceway	20EMS13325
33	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed RY to SCW	20EMS13326
34	AZPS_BA	Transmission Line - Renamed SCW-PP to PP-SCW (between Pinnacle Peak and Scatterwash)	20EMS13327
35	AZPS_BA	Transmission Line - Removed RY-PP2S (between Pinnacle Peak and Raceway)	20EMS13328
36	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed SBSXFRB	20EMS13329
37	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed XFMR3H	20EMS13330
38	AZPS_BA	Substation\Load - Removed substation Contrail Temp	20EMS13331
39	AZPS_BA	Substation\Load - Added substation Contrail	20EMS13332
40	AZPS_BA	Transmission Line - Changed ES-Con now between El Sol and Contrail instead of ContrailTemp	20EMS13333
41	AZPS_BA	Transmission Line - Changed WD-CON now between Waddell and Contrail instead of ContrailTemp	20EMS13334
42	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed WD to CON	20EMS13335
43	AZPS_BA	Breaker(s)\ Disconnect(s) - Added 321	20EMS13336
44	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed 961	20EMS13337
45	AZPS_BA	Breaker(s)\ Disconnect(s) - Added FDR1	20EMS13338
46	AZPS_BA	Substation\Load - Added FDR1 Load	20EMS13339
47	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed FDR4	20EMS13340
48	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed 161-TTH to 161-ST5	20EMS13341
49	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed 761-TTH to 761-ST5	20EMS13342
50	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed TTH to ST5	20EMS13343
51	AZPS_BA	Substation\Load - Renamed to PalmValley-Tuthill-Stratus Tap	20EMS13344
52	AZPS_BA	Transformer - Updated XFMR1 A, XFMR10 A, XFMR4 A, XFMR7 A ratings	20EMS13345
53	AZPS_BA	Transformer - Updated transformers that service the respective steam turbine and CTs were previously modeled as 2 winding; changed three winding configuration	20EMS13346
54	AZPS_BA	Substation\Load - Added station service/auxiliary loads to accommodate the difference between the gross and net values	20EMS13347
55	AZPS_BA	Breaker(s)\ Disconnect(s) - Added for switchable service/auxillary loads	20EMS13348
56	AZPS_BA	Generation - Updated CC1 A, CC2 A limits	20EMS13349
57	AZPS_BA	Generation - Updated CT1A A, CT1B B, CT2A A, CT2B A limits	20EMS13350
58	AZPS_BA	Generation - Added CT1A A, CT1B B, CT2A A, CT2B A capability curve points	20EMS13351
59	AZPS_BA	Generation - Updated ST1 A, ST2 A limits and capability curve points	20EMS13352
60	AZPS_BA	Transformer - Updated T1A A and T2A A impedances and ratings and neutral voltage	20EMS13353
61	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed 321-PP to 321-SCW, PP-1121 to SCW-1121, PP to SCW, PP-WW to SCW-WW	20EMS13354
62	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed dual modeling naBB*, naSF*, naSD*	20EMS13355
63	AZPS_BA	Transmission Line - Renamed SCW-RY to RY-SCW (between Raceway and Scatterwash)	20EMS13356

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
64	AZPS_BA	Transformer - Updated step data on XFMR7 A (500KV)	20EMS13357
65	AZPS_BA	Substation\Load - Removed substation Stratus Temp	20EMS13358
66	AZPS_BA	Substation\Load - Added substation Stratus	20EMS13359
67	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed SAR-PV to PV-ST5	20EMS13360
68	AZPS_BA	Transformer - Updated XFMR1, XFMR2 ratings	20EMS13361
69	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed 741J, FDR11, 861	20EMS13362
70	AZPS_BA	Breaker(s)\ Disconnect(s) - Added WBS-EBS, XFMR11L, XFMR11H	20EMS13363
71	AZPS_BA	Transformer - Added XFMR11 A added	20EMS13364
72	AZPS_BA	Substation\Load - Added XFMR11 load	20EMS13365
73	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed ES to CON	20EMS13366
74	AZPS_BA	Breaker(s)\ Disconnect(s) - Added T12L	20EMS13367
75	AZPS_BA	Breaker(s)\ Disconnect(s) - Updated XFMR12 A impedances	20EMS13368
76	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed F1	20EMS13369
77	AZPS_BA	Substation\Load - Added substation Anita	20EMS13370
78	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed v3325	20EMS13371
79	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed V3325 to U3325	20EMS13372
80	AZPS_BA	Substation\Load - Added substation Cataract	20EMS13373
81	AZPS_BA	Breaker(s)\ Disconnect(s) - Added SUM	20EMS13374
82	AZPS_BA	Transmission Line - Removed WilliamsTap to Coconino	20EMS13375
83	AZPS_BA	Transmission Line - Added Summit to Coconino	20EMS13376
84	AZPS_BA	Breaker(s)\ Disconnect(s) - Added K2146, SUM	20EMS13377
85	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed NBS-WM to NBS-SUM and WM-SBS to SUM-SBS	20EMS13378
86	AZPS_BA	Transmission Line - Renamed DRK-SUM to SUM-DRK (Summit to Drake)	20EMS13379
87	AZPS_BA	Substation\Load - Added substation Grand Canyon	20EMS13380
88	AZPS_BA	Substation\Load - Added substation Howard Mesa	20EMS13381
89	AZPS_BA	Substation\Load - Added substation Kiabab	20EMS13382
90	AZPS_BA	Breaker(s)\ Disconnect(s) - Added FDR1	20EMS13383
91	AZPS_BA	Substation\Load - Added substation Miller Wash	20EMS13384
92	AZPS_BA	Breaker(s)\ Disconnect(s) - Renamed V3041 to U3041	20EMS13385
93	AZPS_BA	Substation\Load - Added substation Nadasy	20EMS13386
94	AZPS_BA	Substation\Load - Added substation Ramon	20EMS13387
95	AZPS_BA	Substation\Load - Added substation Red Butte	20EMS13388
96	AZPS_BA	Transmission Line - Removed WMTTP-CQ	20EMS13389
97	AZPS_BA	Transmission Line - Added SUM-CQ	20EMS13390

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
98	AZPS_BA	Substation\Load - Added Substation Red Lake	20EMS13391
99	AZPS_BA	Substation\Load - Added Substation Sage Valley	20EMS13392
100	AZPS_BA	Breaker(s)\ Disconnect(s) - Added 561, K2175	20EMS13393
101	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed MZT	20EMS13394
102	AZPS_BA	Substation\Load - Added substation Tusayan	20EMS13395
103	AZPS_BA	Substation\Load - Added substation Valle	20EMS13396
104	AZPS_BA	Breaker(s)\ Disconnect(s) - Added U2176	20EMS13397
105	AZPS_BA	Breaker(s)\ Disconnect(s) - Added Q3088 and SUM	20EMS13398
106	AZPS_BA	Breaker(s)\ Disconnect(s) - Removed PU-CQ	20EMS13399
107	AZPS_BA	Transmission Line - Added Red Lake to Williams	20EMS13400
108	AZPS_BA	Transmission Line - Added Williams to Kiabab	20EMS13401
109	AZPS_BA	Substation\Load - Added substation Wilaha	20EMS13402
110	AZPS_BA	Substation\Load - Added and removed 12kv feeders	20EMS13403
111	AZPS_BA	Transformer - Added XFMR20 and XFMR30	20EMS13404
112	AZPS_BA	Transformer - Updated XFMR1 A, XFMR4 A impedances on all 3 legs	20EMS13405
113	AZPS_BA	Substation\Load - Added FDR5 load	20EMS13406
114	AZPS_BA	Transmission Line - Added Anita to Red Butte	20EMS13407
115	AZPS_BA	Transmission Line - Added Cataract to Ramon	20EMS13408
116	AZPS_BA	Transmission Line - Added Cataract to Valle	20EMS13409
117	AZPS_BA	Transmission Line - Update Delaney to Mural impedances and ratings	20EMS13410
118	AZPS_BA	Transmission Line - Update El Sol to Contrail impedances and ratings	20EMS13411
119	AZPS_BA	Transmission Line - Add Grand Canyon to Tusayan	20EMS13412
120	AZPS_BA	Transmission Line - Add Howard Mesa to Ramon	20EMS13413
121	AZPS_BA	Transmission Line - Add Miller Wash to Sage Valley	20EMS13414
122	AZPS_BA	Transmission Line - Add Nadasy to Valle	20EMS13415
123	AZPS_BA	Transmission Line - Remove Polk to Hohokam	20EMS13416
124	AZPS_BA	Transmission Line - Update Pinnacle Peak to Desert Ridge impedance	20EMS13417
125	AZPS_BA	Transmission Line - Update Palm Valley to Stratus impedance	20EMS13418
126	AZPS_BA	Transmission Line - Add Red Lake to Ramon	20EMS13419
127	AZPS_BA	Transmission Line - Changed Scatterwash to Norterra impedances	20EMS13420
128	AZPS_BA	Transmission Line - Changed Prescott Valley tap to SunDog tap impedances	20EMS13421
129	AZPS_BA	Transmission Line - Added Sage Valley and Wilaha	20EMS13422
130	AZPS_BA	Transmission Line - Updated Pinnacle Peak to Desert Ridge impedances	20EMS13423
131	AZPS_BA	Transmission Line - Updated Palm Valley to Stratus impedances	20EMS13424

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
132	AZPS_BA	Transmission Line - Updated Tuthill to Stratus impedances	20EMS13425
133	AZPS_BA	Transmission Line - Added Tusayan to Anita	20EMS13426
134	AZPS_BA	Transmission Line - Added Valle to Miller Wash	20EMS13427
135	AZPS_BA	Transmission Line - Updated Verde to Cottonwood Tie Ratings	20EMS13428
136	AZPS_BA	Transmission Line - Updated Waddell to Conrail impedances and ratings	20EMS13429
137	AZPS_BA	Transmission Line - Updated Willow Lake and Delano Tap ratings	20EMS13430
138	AZPS_BA	Transmission Line - Updated Willow Lake to SunDog tap impedances and ratings	20EMS13431
139	AZPS_BA	Transmission Line - Add Wilaha to Red Butte	20EMS13432
140	AZPS_TOP	Line rating updates	20EMS13699
141	BCHA_RC	Updated ICCP and applied new format as requested by CAISO	20EMS13436
142	BPA	BPA station names change for all the BPA-43 subcontrolarea stations that have the "_BP" name	20EMS13957
143	BPA	Tuolumne (WILLIS) BAA Move from BPA to Avangrid	20EMS14005
144	BPAT_BA	Shunt Cap\Reactor\ SVDs	20EMS13227
145	BPAT_BA	Contingency Definition	20EMS13229
146	BPAT_BA	Substation\Load - Added new load "STATE_PARK". Need to close DSC PSEUD5 once the load energizes.	20EMS13288
147	BPAT_BA	Breaker(s)\ Disconnect(s) - PSEUD1: current configuration normally closed (need to be OPENED once move line from bay 4 to 5)	20EMS13289
148	BPAT_BA	Breaker(s)\ Disconnect(s) - PSEUD2: new configuration normally opened (need to be CLOSED once move line from bay 4 to 5)	20EMS13290
149	BPAT_BA	Breaker(s)\ Disconnect(s) - PSEUD3: current configuration normally closed (need to be OPENED once move line from bay 5 to 6)	20EMS13291
150	BPAT_BA	Breaker(s)\ Disconnect(s) - PSEUD4: new configuration normally opened (need to be CLOSED once move line from bay 5 to 6)	20EMS13292
151	BPAT_BA	Breaker(s)\ Disconnect(s) - PSEUD5: new configuration normally opened (need to be CLOSED once new line connects to bay 4)	20EMS13293
152	BPAT_BA	Transmission Line - Switched limits HIGH3 and HIGH4 from WINTER to SPRING.	20EMS13594
153	BPAT_BA	Transformer - Switched limits HIGH3 and HIGH4 from WINTER to SPRING.	20EMS13595
154	BPAT_BA	Transformer - Fixed 7777 emergency transformer ratings to match normal ratings.	20EMS13596
155	BPAT_BA	Transmission Line - Added new line Lexington (LEXINGTN) to West KELSO (W_KELSO)	20EMS13725
156	BPAT_BA	Breaker(s)\ Disconnect(s) - Added new PCB 115J2 at West Kelso (W_KELSO)	20EMS13726
157	BPAT_BA	Substation\Load - Moved DSC 115OR1 and OLSON_RD load from LEXINGTN to new OLSON ROAD tab (OLSNRD_T).	20EMS13727
158	BPAT_TOP	Updating Request Number 6.23	20EMS13287
159	GCPD_TOP	ADAMS_RD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13482
160	GCPD_TOP	BABCOCK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13483
161	GCPD_TOP	COLMBA_R - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13484
162	GCPD_TOP	E_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13485
163	GCPD_TOP	EVERGN_T - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13486
164	GCPD_TOP	BASSETTJ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13487
165	GCPD_TOP	BKSANDS - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13488



## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
166	GCPD_TOP	FRENCHSP - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13489
167	GCPD_TOP	JERICHO - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13490
168	GCPD_TOP	MAE_VLY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13491
169	GCPD_TOP	CEPHRATA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13492
170	GCPD_TOP	DOVER_GC - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13493
171	GCPD_TOP	GRAHAMRD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13494
172	GCPD_TOP	LARSON\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13495
173	GCPD_TOP	MOSES_LK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13496
174	GCPD_TOP	BRADEN - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13497
175	GCPD_TOP	BURKEGPD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13498
176	GCPD_TOP	CASCADEV - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13499
177	GCPD_TOP	DOVER_GC - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13500
178	GCPD_TOP	E_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13501
179	GCPD_TOP	GENEVAGC - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13502
180	GCPD_TOP	GRAHAMRD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13503
181	GCPD_TOP	MATTAWA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13504
182	GCPD_TOP	MATTAWA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13505
183	GCPD_TOP	MCDONALD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13506
184	GCPD_TOP	MCDONALD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13507
185	GCPD_TOP	MOSES_LK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13508
186	GCPD_TOP	NELSONRD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13509
187	GCPD_TOP	NEPHRATA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13510
188	GCPD_TOP	POTHLGPD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13511
189	GCPD_TOP	ROUND_LK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13512
190	GCPD_TOP	ROYAL - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13513
191	GCPD_TOP	ROYAL - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13514
192	GCPD_TOP	RUFF - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13515
193	GCPD_TOP	SEEP_LK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13516
194	GCPD_TOP	SEPHRATA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13517
195	GCPD_TOP	PALISADS - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13518
196	GCPD_TOP	PAXSON - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13519
197	GCPD_TOP	PELICAN - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13520
198	GCPD_TOP	PENINSLA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13521
199	GCPD_TOP	PENINSLA - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13522

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
200	GCPD_TOP	QUINCY\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13523
201	GCPD_TOP	QUINCY\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13524
202	GCPD_TOP	QUINCY\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13525
203	GCPD_TOP	SCHRAG - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13526
204	GCPD_TOP	UPPER_C - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13527
205	GCPD_TOP	UPPER_C - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13528
206	GCPD_TOP	UPPER_C - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13529
207	GCPD_TOP	WILSON_C - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13530
208	GCPD_TOP	WIN_USBR - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13531
209	GCPD_TOP	WINCHEST - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13532
210	GCPD_TOP	SIELER\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13533
211	GCPD_TOP	SIELER\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13534
212	GCPD_TOP	SILICON - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13535
213	GCPD_TOP	SILICON - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13536
214	GCPD_TOP	SILICON - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13537
215	GCPD_TOP	WHEELER - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13538
216	GCPD_TOP	WHEELER - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13539
217	GCPD_TOP	WHITE_TR - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13540
218	GCPD_TOP	MTN_VIE\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13541
219	GCPD_TOP	MTN_VIE\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13542
220	GCPD_TOP	N_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13543
221	GCPD_TOP	N_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13544
222	GCPD_TOP	WARDEN_G - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13545
223	GCPD_TOP	WARDEN_G - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13546
224	GCPD_TOP	SOAPLAKE - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13547
225	GCPD_TOP	W_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13548
226	GCPD_TOP	W_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13549
227	GCPD_TOP	WAHLUKE - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13550
228	GCPD_TOP	RANDOLPH - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13551
229	GCPD_TOP	RANDOLPH - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13552
230	GCPD_TOP	MTN_VIE\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13553
231	GCPD_TOP	CLOUD_VW - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13554
232	GCPD_TOP	JERICHO - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13555
233	GCPD_TOP	NELSONRD - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13556

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
234	GCPD_TOP	QUINCY_P - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13557
235	GCPD_TOP	SEEP_LK - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13558
236	GCPD_TOP	W_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13559
237	GCPD_TOP	W_QUINCY - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13560
238	GCPD_TOP	WARDEN_G - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13561
239	GCPD_TOP	CLOUD_VW - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13562
240	GCPD_TOP	CLOUD_VW - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13563
241	GCPD_TOP	MTN_VIE\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13564
242	GCPD_TOP	MTN_VIE\$ - Substation\Load - GCPD P_fix and Q_fix for summer season	20EMS13565
243	GRID_BA	Breaker(s)\ Disconnect(s) - Added CHR832, CHR833, CHR811, CHR831 to IRO-010-6.17	20EMS13233
244	GRID_BA	Substation\Load - Added Chukar_G to IRO-010-6.13	20EMS13234
245	GRID_BA	Generator - Added Sun Streams 1 Dynamic Schedule to IRO-010-6.16	20EMS13235
246	IPCO_BA	Latest CIM xml File for IPCO	20EMS13447
247	IPCO_BA	Latest SCADA template file	20EMS13448
248	IPCO_BA	Breaker(s)\ Disconnect(s) - Add EMET 131X EMET 132X MPSN CPT2	20EMS13449
249	IPCO_BA	Transmission Line - Update limits	20EMS13450
250	IPCO_BA	Breaker(s)\ Disconnect(s) - Update names PTSN, ORSP, FGWP, SAMN, BOIS, EMET, BIGRASS, MPSN, MHSR	20EMS13451
251	IPCO_BA	Generator - Add SFPR G004 and associated breakers and switches	20EMS13713
252	IPCO_TOP	ICCP points in EMS and RTCA	20EMS14022
253	LDWP	Add MOBT CB	20MRKT13200
254	LDWP	Add MOBT CB	20MRKT13201
255	LDWP	Add MOBT CB	20MRKT13202
256	LDWP_BA	Transmission Line - Updates to Adelanto Filter Telemetry	20EMS13454
257	LDWP_BA	Transmission Line - Update Series Compensation Modeling	20EMS13455
258	LDWP_BA	Transmission Line - Updates to Adelanto Filter Telemetry, Added ICCP for Glendale area	20EMS13707
259	LDWP_BA	Transmission Line - Update Series Compensation Modeling, Update Glendale Area model	20EMS13708
260	LDWP_BA	Transmission Line - Replace by "LADWP_OpenNet_PDS_081220_a.xml"	20EMS13709
261	LDWP_BA	Transmission Line - Replace by "2020M10 ICCP SCADA Mapping.xlsx"	20EMS13710
262	NEVP_TOP	Added DRY HILLS load at CORTEZ	20EMS13270
263	NEVP_TOP	Renamed switches at FALLON, 611D became 611J and 6001_NRVVR became 611K	20EMS13271
264	NEVP_TOP	Included Shapefiles and IRO-010-6.13 data	20EMS13272
265	NEVP_TOP	Screenshots of newly created RAS display for South system	20EMS13273
266	NVE	Eldorado-Harry Allen 500kV - Incorrect default switch position at Harry Allen Substation	20EMS13694
267	PACE	Cleanup PACE double modeling at GOSHENI-THREEMLE	20EMS13799

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
268	PACE	Add MOBT CB	20MRKT13203
269	PAC_TOP	Substation\Load - Remove GOODNOEH 34.5 BUS's SCADA measurement	20EMS13972
270	PAC_TOP	Breakers/Disconnects - Rename MO 1W18 to CB 1W18	20EMS13973
271	PAC_TOP	Transmission Lines - Delete COVETAP_MADRAS_69 and add COVE_MADRAS_69	20EMS13974
272	PAC_TOP	Transmission Lines - Delete COVETAP_CULVER_69 and add COVE_CULVER_69	20EMS13975
273	PAC_TOP	Substation\Load - Remove substation	20EMS13976
274	PAC_TOP	Breakers/Disconnects - Remove 2A10 and 2A14	20EMS13977
275	PAC_TOP	Substation\Load - CAISO please change BA to PACE	20EMS13978
276	PAC_TOP	PAC Incremental Updates for DB100	20EMS14013
277	PGE_BA	Model Updates for DB100: CIMxml model file	20EMS13265
278	PGE_BA	Model Difference report	20EMS13266
279	PGE_BA	List of ICCP points mapping	20EMS13267
280	PGE_BA	Substation\Load - Remove the entire Linneman Substation	20EMS13268
281	PNM_BA	Split the two Pyramid generations into four separate individual units	20EMS13042
282	PNM_BA	Generator - New ICCP pts. for UCON st. of PNM's FourCORN, San Juan, and Afton Gen. Shares	20EMS13248
283	PNM_BA	Generator - Updated PMAX values and Resource ID names	20EMS13249
284	PNM_BA	Transmission Line - Added new switches and a breaker	20EMS13567
285	PNM_BA	Breaker(s)\ Disconnect(s) - Added two new transmission lines	20EMS13568
286	PNM_BA	Contingency Definition - The old lines are still in the model so a double modeling is done with pseudo switches called "EIM switches"	20EMS13569
287	PNM_BA	Transmission Line - Added new switches and breakers	20EMS13570
288	PNM_BA	Breaker(s)\ Disconnect(s) - Added three new transmission lines	20EMS13571
289	PNM_BA	Contingency Definition - The old lines are still in the model so a double modeling is done with pseudo switches called "EIM switches"	20EMS13572
290	PNM_BA	Substation\Load - Added a new substation	20EMS13573
291	PNM_BA	Transmission Line - Added new switches and breakers	20EMS13574
292	PNM_BA	Breaker(s)\ Disconnect(s) - Added five new transmission lines	20EMS13575
293	PNM_BA	Contingency Definition -	20EMS13576
294	PNM_BA	Transmission Line - Added new switches and a breaker	20EMS13577
295	PNM_BA	Breaker(s)\ Disconnect(s) - Added one new transmission lines	20EMS13578
296	PNM_BA	- The old lines are still in the model so a double modeling is done with pseudo switches called "EIM switches"	20EMS13579
297	PNM_BA	Substation\Load - Added a new substation	20EMS13580
298	PNM_BA	Transmission Line - Added new switches and breakers	20EMS13581
299	PNM_BA	Breaker(s)\ Disconnect(s) - Added one new transmission lines	20EMS13582
300	PNM_BA	Contingency Definition - Added two new generators	20EMS13583
301	PNM_BA	Generator -	20EMS13584

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
302	PNM_BA	Transmission Line - Added new switches	20EMS13585
303	PNM_BA	Breaker(s)\ Disconnect(s) - Added one new transmission lines	20EMS13586
304	PNM_BA	Contingency Definition - The old lines are still in the model so a double modeling is done with pseudo switches called "EIM swithces"	20EMS13587
305	PNM_BA	Transmission Line - Added new switches and breakers	20EMS13588
306	PNM_BA	Breaker(s)\ Disconnect(s) - Added three new transmission lines	20EMS13589
307	PNM_BA	Substation\Load - Added a new substation	20EMS13590
308	PNM_BA	Breaker(s)\ Disconnect(s) - Added new switches and a breaker	20EMS13591
309	PSEI_BA	Full CIM model; ICCP list	20EMS13264
310	PSEI_BA	Transmission Line - PSE uses ambient adjust ratings, the attached file is the seasonal ratings for use in the RC's EMS. I have also uploaded the full "AltLIM" file that shows the ratings at the different temperatures with PSEI operations utilizing 32 for winter Emergency, 50 for winter norm, 95 for summer norm, and 86 for Summer Emergency. Please update the procedure so that PSEI limits are pulled from the CIM/XML model submission in future model submittals.	20EMS13456
311	PSEI_BA	update pfixed and qfixed values	20EMS13696
312	SNPD_TOP	Winter Line and Transformer Ratings	20EMS12564
313	SNPD_TOP	Construct Swamp Creek 115kV Ring-bus Switching Station - Install SE drops Swamp Creek - Brightwater 115kV line	20EMS12646
314	SNPD_TOP	Construct Swamp Creek 115kV Ring-bus Switching Station - Install SW drops Swamp Creek - Halls Lake 115kV line	20EMS12647
315	SNPD_TOP	Construct Swamp Creek 115kV Ring-bus Switching Station - Remove 115kV Switch 1845	20EMS12648
316	SNPD_TOP	Winter Line and Transformer Ratings	20EMS12651
317	SNPD_TOP	Remove a shoo-fly at Portage 115kV Substation	20EMS13039
318	SNPD_TOP	Default breaker position corrections at EVERT_BP substation	20EMS13194
319	SNPD_TOP	Default breaker position update at PORTAGE substation	20EMS13195
320	SNPD_TOP	Two Shoofly modeling at Swamp Creek substation	20EMS13224
321	SNPD_TOP	Default breaker position corrections at EDGECOMB substation	20EMS13772
322	SNPD_TOP	Default breaker position corrections at BOEING substation	20EMS13784
323	SNPD_TOP	Transmission Line - Construct Swamp Creek 115kV Ring-bus Switching Station - Install NE drops Sno-King - Swamp Creek 115kV line	20EMS13828
324	SNPD_TOP	Transmission Line - Construct Swamp Creek 115kV Ring-bus Switching Station - Install NW drops Beverly Park - Swamp Creek 115kV line	20EMS13829
325	SNPD_TOP	Transmission Line - Construct Swamp Creek 115kV Ring-bus Switching Station - Install SE drops Swamp Creek - Brightwater 115kV line	20EMS13830
326	SNPD_TOP	Transmission Line - Construct Swamp Creek 115kV Ring-bus Switching Station - Install SW drops Swamp Creek - Halls Lake 115kV line	20EMS13831
327	SNPD_TOP	Breaker(s)\ Disconnect(s) - Construct Swamp Creek 115kV Ring-bus Switching Station - Remove 115kV Switch 1845	20EMS13832
328	SNPD_TOP	non-existent breakers in PORTG_BP	20EMS13834
329	SRP	SRP Aux Load UCON mapping	20EMS13601
330	SRP_BA	Substation/Load - Removed Quail 12Kv bus measurements	20EMS13457
331	SRP_BA	Breaker(s)\ Disconnect(s) - Added temp switches on Pinal Central to Randolph lines (around Vah Ki).	20EMS13458
332	SRP_BA	Breaker(s)\ Disconnect(s) - Updated Grand Central Disconnecter 89M1	20EMS13459
333	SRP_BA	Shunt Cap\Reactor\ SVD&A;A;A;A;s - Updated White Tanks Cap Bank 303 size	20EMS13460

## Full Network Model Scope for FNM DB20M10

(Production 10/26/2020)

No	Entity	Project Name	Project Key
334	SRP_BA	Generator - Updated Capability curves and Pmax to align with GRDT values	20EMS13461
335	SRP_BA	Transmission Line - Updated line impedance for the Neely - Shultz 69 kV line (3 ACLinesegments)	20EMS13462
336	SRP_BA	Breaker(s)\ Disconnect(s) - Updated various TMP and OJ numbering across the model	20EMS13463
337	SRP_BA	Breaker(s)\ Disconnect(s) - Updated breaker names and types at Grand Central Solar substation	20EMS13464
338	SVP	SVPSSS	20EMS13722
339	TIDC_BA	Substation\Load - Responding to request from CAISO for RC data gathering template, tab 6.13.	20EMS13286
340	TPWR_BA	Default load Pfixed and Qfixed values	20EMS13712
341	TSGT_TOP	Transmission Line - Multiple Ratings updates	20EMS13719
342	TSGT_TOP	Transformer - Multiple Ratings updates	20EMS13720
343	WALC	WALC Rating Update 7/15/20	20EMS13196