

**FNM Scope for FNM 21M6 DB105**  
(Production Week of 6/7/2021)

*Revision History – Final Scope Due by 4/1/2021*

Effective Date	Version	Description
4/1/2021	1.0	Final scope by due date. The scope is considered finalized without any addendum attached.

**FNM Scope for FNM 21M6 DB105**  
(Production Week of 6/7/2021)

**I. NRI Projects**

No	PTO	Resource ID	Project Name	Project Key
1	PGAE		Byron Highway Solar	20GEN14402
2	SCE		Coso Energy Storage	20NGR14091
3	SCE		Mojave 90 PMAX Increase	21GEN15059
4	SCE		Mojave 89 BESS 2A	21NGR15044
5	SDGE	PALOMR_2_PL1X3	Palomar Energy Center 2	13AS839853
6	SDGE		Wistaria Ranch Solar CLAP	20CLAP14415
7	SDGE		Kearny North Energy Storage	21NGR15172
8	SDGE		Kearny South Energy Storage	21NGR15173

**FNM Scope for FNM 21M6 DB105**  
(Production Week of 6/7/2021)

**II. Transmission Projects**

No	PTO	RIMS ID	Project Name	Project Key
1	PGAE	19TRANS8657	Mulqueeny 20 MW Wind Project	ET3959
2	PGAE	19TRANS8657	Mulqueeny 20 MW Wind Project	ET3960
3	PGAE	19TRANS8657	Mulqueeny 20 MW Wind Project	ET4252
4	PGAE	20TRANS11197	Emergency Replace Vaca-Dixon Bank 2	ET4305
5	PGAE	21TRANS15713	FNM Update: South of Palermo 115 kV Reinforcement Project	ET4587
6	SDGE	15TRANS874029	Artesian 230kV Expansion With 69kV Upgrades	ET2906
7	SDGE	15TRANS874029	Artesian 230kV Expansion With 69kV Upgrades	ET3173
8	SDGE	15TRANS874029	Artesian 230kV Expansion With 69kV Upgrades	ET3323
9	SDGE	15TRANS874029	Artesian 230kV Expansion With 69kV Upgrades	ET3324

## FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

### III. EIM/ RC Projects

No	Entity	Project Name	Project Key
1	AVA_TOP	Substation\Load - WESTSIDE substation re-configuration	21EMS15601
2	AVA_TOP	Contingency Definition - WESTSIDE substation re-configuration	21EMS15640
3	AVA_TOP	Substation\Load - These are two ICCP names requested for EIM Track 3 Load Forecasting; Conforming and Non-Conforming Load values for the Avista system. See Ken Swain for additional info.	21EMS15729
4	AVA_TOP	Breaker(s)\ Disconnect(s) - The transmission line switches numbered A776 and A780 are swapped in the current model, DB103. As shown in the attached line diagram, the A776 switch should be on the line heading from IDAHO_RD toward RATHDRUM, and the A780 switch should be on the line heading from IDAHO_RD toward PRAIRIEB.	21EMS15733
5	BANC_BA	Generator - Updated ICCP Object ID in measurement report for Generator and Transformer values.	21EMS15714
6	BANC_BA	Shunt Cap\Reactor\ SVDÂ¿s - Added bus that capacitor regulates.	21EMS15715
7	BANC_BA	Shunt Cap\Reactor\ SVDÂ¿s - Update to name of series compensator due to connecting to a new station (STE).	21EMS15716
8	BANC_BA	Breaker(s)\ Disconnect(s) - Changed normal state of switches.	21EMS15717
9	BANC_BA	Transformer - Added new step down transformer for LLL and updated impedance values for 2 transformers in LLN.	21EMS15718
10	BANC_BA	Substation\Load - Added 13.8 kV at LLL, created peseudo AC line to 13.8 kV at LLN, and transferred non conforming load from LLN to LLL.	21EMS15719
11	BANC_BA	Transformer - Updated Base Voltage linkages, and voltage step	21EMS15720
12	BCHA_RC	Generator - Deleted	21EMS15686
13	BCHA_RC	substation - add new substation	21EMS15687
14	BCHA_RC	substation - delete old substation	21EMS15688
15	BCHA_RC	Transmission Line - Deleted	21EMS15689
16	BCHA_RC	Transmission Line - Deleted	21EMS15690
17	BCHA_RC	Transmission Line - Deleted	21EMS15691
18	BCHA_RC	Transmission Line - Deleted	21EMS15692
19	BCHA_RC	Transmission Line - Deleted	21EMS15693
20	BCHA_RC	Transmission Line - Deleted	21EMS15694
21	BCHA_RC	Transmission Line - Deleted	21EMS15695
22	BCHA_RC	Transmission Line - Add new line section	21EMS15696
23	BCHA_RC	Transmission Line - Update Impedance to 60L27_2	21EMS15697
24	BCHA_RC	Transmission Line - Update Impedance to 60L292_2	21EMS15698

### FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
25	BCHA_RC	Generator - Update generator rating	21EMS15699
26	BCHA_RC	Equipment Type - Updated ICCP	21EMS15700
27	BCHA_RC	Substation\Load - Provided long name of substations as requested by MPAI	21EMS16008
28	BCHA_RC	Generator - Deleted	21EMS16009
29	BCHA_RC	substation - add new substation	21EMS16010
30	BCHA_RC	substation - delete old substation	21EMS16011
31	BCHA_RC	Transmission Line - Deleted	21EMS16012
32	BCHA_RC	Transmission Line - Deleted	21EMS16013
33	BCHA_RC	Transmission Line - Deleted	21EMS16014
34	BCHA_RC	Transmission Line - Deleted	21EMS16015
35	BCHA_RC	Transmission Line - Deleted	21EMS16016
36	BCHA_RC	Transmission Line - Deleted	21EMS16017
37	BCHA_RC	Transmission Line - Deleted	21EMS16018
38	BCHA_RC	Transmission Line - Add new line section	21EMS16019
39	BCHA_RC	Transmission Line - Update Impedance to 60L27_2	21EMS16020
40	BCHA_RC	Transmission Line - Update Impedance to 60L292_2	21EMS16021
41	BCHA_RC	Generator - Update generator rating	21EMS16022
42	BCHA_RC	Equipment Type - Updated ICCP	21EMS16023
43	BPA	Default breaker status correction at AHSE and MCKENZEW	21EMS15530
44	BPAT_BA	Generator - BPA dynamic mapping package	21EMS15511
45	BPAT_BA	Substation\Load - Added new Avista substation to show correct location. Please fix RC West model to match topology from BPA model.	21EMS15512
46	BPAT_BA	Contingency Definition - BPA Contingency List	21EMS15513
47	BPAT_BA	Transmission Line - Moved tie "SWST_MCCD_1115B" line from Tacoma to BPA BA.	21EMS15648
48	BPAT_BA	Transmission Line - Moved tie "OHOP_OHOP_21115" line from Tacoma to BPA BA.	21EMS15649
49	BPAT_BA	Transmission Line - Moved tie "OHOP_OHOP_1115A" line from Tacoma to BPA BA.	21EMS15650
50	BPAT_BA	Transmission Line - Moved tie "BRKD_BRDL_1115A" line from Tacoma to BPA BA.	21EMS15651
51	BPAT_BA	Transmission Line - Moved tie "SULK_SULK_1115A" line from Tacoma to BPA BA.	21EMS15652

## FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
52	BPAT_BA	Transmission Line - Moved tie "GSPH_GREE_1115A" line from Tacoma to BPA BA.	21EMS15653
53	BPAT_BA	Generator - Generator is moving from BPA BA to PAC BA.	21EMS15654
54	BPAT_BA	Substation\Load - Generator is moving from BPA BA to PAC BA.	21EMS15655
55	BPAT_BA	Generator - BPA Dynamic generator model mapping	21EMS15656
56	BPAT_BA	Contingency Definition - BPA Contingency List	21EMS15657
57	CEN_BA	Substation\Load - Addition of New Substation GWY	21EMS16188
58	CEN_BA	Substation\Load - Addition of New Substation GWY	21EMS16189
59	CEN_BA	Transmission Line - Removal and Addition of Transmission Line in 161 kV Grid	21EMS16190
60	CEN_BA	Transmission Line - Removal and Addition of Transmission Line in 161 kV Grid	21EMS16191
61	CHPD_BA	Generator - Updating the Ratings for Rocky Reach C8 and C9.	21EMS15559
62	IID_TOP	Breaker(s)\ Disconnect(s) - Addition of breakers NETNW0 and SETSW0 along with their disconnects as part of the El Centro bus splitting project. Location is where TE line from El Centro to Terminal used to be. Please see associated documents. Request to be done ASAP	21EMS15573
63	IPCO_BA	- IRO-010 -Item 6.25 data update for TFPR Units 1 and 2	21EMS15418
64	IPCO_BA	Substation\Load - Add GOWN T132 load/breaker/switch	21EMS15681
65	IPCO_BA	Substation\Load - Add BLDT station/line	21EMS15682
66	IPCO_BA	Substation\Load - Add BLDR station/breaker/switches/line	21EMS15683
67	IPCO_BA	- All ICCP Object IDs for IPCO_BA FNM.	21EMS15684
68	IPCO_BA	- CIM export of IPCO_BA FNM.	21EMS15685
69	LDWP_BA	Transformer - Parallel Modeling of VIC Bank K replacement and relocation	21EMS15734
70	LDWP_BA	Transmission Line - Parallel Modeling of cutover existing PP2-OLV to new PP2-HSK.	21EMS15735
71	LDWP_BA	Generator - Update station names in UCON mapping	21EMS15736
72	LDWP_BA	Substation\Load - Update station names in ICCP mapping	21EMS15737
73	LDWP_BA	Substation\Load - Deleted "empty" substations: CAS, HAR, HAY, LAK_bwp, MAG_bwp, OG, OLVG_BWP, PP1_PP2, SCA, VAL	21EMS15738
74	LDWP_BA	Substation\Load - EIM applications only detects UCONs at the same substation as the generator. Consolidate generator stations with their respective transmission substations. (eg CAS_LA + CAS_PP --> CAS_PP)	21EMS15739
75	MID	Remove ICCP for WOODLD Transformer 2 (excluding the AGC ICCP)	21EMS16091
76	NEVP_TOP	Breaker(s)\ Disconnect(s) - Removed switches used for dual modeling	21EMS15705

## FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
77	NEVP_TOP	Breaker(s)\ Disconnect(s) - Removed switches used for dual modeling	21EMS15706
78	NEVP_TOP	Breaker(s)\ Disconnect(s) - Removed switches used for dual modeling	21EMS15707
79	NEVP_TOP	Substation\Load - Added new load to Riley	21EMS15708
80	NEVP_TOP	Generator - Fixed high and low MVAR limits on gen	21EMS15709
81	NEVP_TOP	Breaker(s)\ Disconnect(s) - Added new breakers to 345 kV Bus	21EMS15710
82	NEVP_TOP	Substation\Load - New 345 kV substation in between N VALMY and E TRACY	21EMS15711
83	NEVP_TOP	Transformer - Added temporary transformer to CAL SUB	21EMS15712
84	NWMT_TOP	Substation\Load - As-built one-lines	21EMS15662
85	NWMT_TOP	Generator - Addition of solar generation to SGIT; updated limits on select generators	21EMS15663
86	NWMT_TOP	Transmission Line - Holter, Alkali Creek, Montana Street substation work; 50kV to 100kV conversion of Billings Eighth Street-Laurel line; addition of Wilsall Reactor Bank	21EMS15664
87	PACE	PACE RAS ICCP Point Mapping	21EMS15666
88	PACW	PACW default breakers correction. (Internal tracking before TOP submit CIM)	21EMS15430
89	PAC_TOP	Breakers/Disconnects - Update normal state to OPEN for MO 2R67	21EMS15432
90	PAC_TOP	Breakers/Disconnects - Remove 3W88 and SB-2, add 3W93	21EMS15433
91	PAC_TOP	Transmission Lines - Remove HOUSTONL_PONDEROO_115	21EMS15434
92	PAC_TOP	Breakers/Disconnects - Delete AS 2D790 and add AS 2D801	21EMS15435
93	PAC_TOP	Generator - Update Prinville Solar generation to 40 MW	21EMS15436
94	PAC_TOP	Substation\Load - Add new substation	21EMS15437
95	PAC_TOP	Breakers/Disconnects - Remove AS 3R279	21EMS15438
96	PAC_TOP	Breakers/Disconnects - Update 2P36 normal state to CLOSE	21EMS15439
97	PAC_TOP	Substation\Load - CAISO please change BA to PACE	21EMS15440
98	PAC_TOP	Transmission Lines - Update line impedance data for FAIRCHLD_OQUIRRH_138_1	21EMS15441
99	PAC_TOP	Substation\Load - Update T-4's P=22, Q=8	21EMS15442
100	PAC_TOP	Breakers/Disconnects - Rename AS E1438 to E1938	21EMS15443
101	PAC_TOP	Breakers/Disconnects - Remap CB 43 and CB 45	21EMS15444
102	PAC_TOP	Substation\Load - Update LD 1 and 2's P and Q	21EMS15445
103	PAC_TOP	Shunt Cap\Reactor\SVDs - Update 27.9 MVAR C1 to 32.4 MVAR C1	21EMS15446

## FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
104	PAC_TOP	Breakers/Disconnects - Remove JP1 and update RIGBY line 2's TO measurements	21EMS15447
105	PAC_TOP	Substation\Load - CAISO please change BA to PACE	21EMS15448
106	PAC_TOP	Transmission Lines - Addd line measurement to TULELTAP	21EMS15671
107	PAC_TOP	Transmission Lines - Addd line measurement to MERRILLO	21EMS15672
108	PAC_TOP	Transmission Lines - Addd line measurement to HENLEYTP	21EMS15673
109	PAC_TOP	Transmission Lines - Addd line measurements to RUCH and MEDFORD	21EMS15674
110	PAC_TOP	Breakers/Disconnects - Remap two MO's SCADA keys	21EMS15675
111	PAC_TOP	Transformers - Add XFMR 6 and 7. JP1, 2, 3	21EMS15676
112	PAC_TOP	Transmission Lines - Add line measurements to COLDSPRI and HINKLETP	21EMS15677
113	PAC_TOP	Breakers/Disconnects - Update normal state to OPEN for MO 2M119	21EMS15678
114	PAC_TOP	Breakers/Disconnects - Update normal state to OPEN for MO 3M19	21EMS15679
115	PAC_TOP	Substation\Load - CAISO please change BA to PACE	21EMS15680
116	PGE_BA	Substation\Load - Remove Boardman Plant from FNM	21EMS16192
117	PGE_BA	Substation\Load - Move the Mobile load 2 from Woodburn(WDBN) to Swan Island (SWNI)	21EMS16193
118	PGE_BA	- List of ICCP points mapping	21EMS16195
119	PGE_BA	- Model Difference reoport	21EMS16196
120	PGE_BA	- Model Updates for DB103: CIMxml model file	21EMS16197
121	PNM_BA	Generator - Also renamed the switches and breakers of JANPA 345kV bus	21EMS15606
122	PNM_BA	Generator - Added a JANPA Solar 3 unit of PMAX=2 MW	21EMS15607
123	PNM_BA	Disconnect(s) - Added switches and breakers for 24.9kV and 115kV station	21EMS15608
124	PNM_BA	Transformer - Added a new 115/24.8 xmfr	21EMS15609
125	PNM_BA	Generator - Capability curves for both generators are updated[effective immediately]	21EMS15638
126	PNM_BA	Generator - PMAX of both generators changed[effective immediately]	21EMS15639
127	PNM_BA	Transmission Line - WESTERN SPIRIT WIND EXPANSION	21EMS15641
128	PNM_BA	RAS - WESTERN SPIRIT WIND EXPANSION	21EMS15642
129	PNM_BA	Breaker(s)\ Disconnect(s) - WESTERN SPIRIT WIND EXPANSION	21EMS15643
130	PNM_BA	Contingency Definition - WESTERN SPIRIT WIND EXPANSION	21EMS15644
131	PNM_BA	Transmission Line - WESTERN SPIRIT WIND EXPANSION	21EMS15645



## FNM Scope for FNM 21M6 DB105

(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
132	PNM_BA	Transmission Line - WESTERN SPIRIT WIND EXPANSION	21EMS15646
133	PNM_BA	Generator - WESTERN SPIRIT WIND EXPANSION	21EMS15701
134	PNM_BA	Transmission Line - Changed initial from PS to KS for this line segment _d62e77ba-ac8b-4590-b384-bbaecb1ff18e	21EMS15702
135	PSCC	PSCO-PRPA modeling	21EMS14914
136	PSEI_BA	- ICCP list	21EMS15756
137	PSEI_BA	- full CIM model	21EMS15757
138	SCL_BA	Transmission Line - Seasonal MVA Ratings Updates	21EMS15704
139	SPP_RC	SPP July 2020 CIM Network Model and ICCP	20EMS13295
140	SPP_RC	- List of SPP contingent elements.	21EMS15415
141	SRP_BA	Generator - Submitted ICCP IDs for SRP total battery storage MW & MWH outputs per CAISO request in 120A 2.22 and 2.23.	21EMS15612
142	SRP_BA	Contingency Definition - Updated breakers in contingency definition for Henshaw-Knox 1 & 2 lines	21EMS15613
143	SRP_BA	Breaker(s)\ Disconnect(s) - Updated RDFIDs of breaker B 69 322 and disconnect D 69 321	21EMS15614
144	SRP_BA	Transmission Line - Updated RDFID of LA__MA__69_1 ACLineSegment and the RDFIDs of line, measurements and terminals associated to the AcLineSegment.	21EMS15615
145	SRP_BA	Substation\Load - Updated Measurement Linking on Hartman Bank4 and Bank5	21EMS15616
146	SRP_BA	Transmission Line - Removed 69KV line segment to Ingleside	21EMS15617
147	SRP_BA	Transmission Line - Added line segment to Tap_69	21EMS15618
148	SRP_BA	Transmission Line - Updated Broadway - Riverside line impedance	21EMS15619
149	SRP_BA	Transmission Line - Updated Measurement Linking on Henshaw - Knox 230 kV	21EMS15620
150	SRP_BA	Breaker(s)\ Disconnect(s) - Added Open Jumpers (disconnects) on low side of banks	21EMS15621
151	SRP_BA	Transformer - Updated NET MW and Mvar measurements on high side of GSU	21EMS15622
152	SRP_BA	Substation\Load - Updated kV measurement linking on the 69 kV bus	21EMS15623
153	SRP_BA	Substation\Load - Updated kV measurement linking on the 115 kV bus	21EMS15624
154	SRP_BA	Breaker(s)\ Disconnect(s) - Added Open Jumper on Lassen side of Lassen Marcos Line	21EMS15625
155	SRP_BA	Substation\Load - Added new substation between Cerderstrom/Ingleside	21EMS15626
156	SRP_BA	Transmission Line - Removed SCADA from GSU #1 branch	21EMS15627
157	SRP_BA	Breaker(s)\ Disconnect(s) - Updated DFK SCADA linking	21EMS15628

**FNM Scope for FNM 21M6 DB105**  
(Production Week of 6/7/2021)

No	Entity	Project Name	Project Key
158	SRP_BA	Breaker(s)\ Disconnect(s) - Removed Tempory Switches	21EMS15629
159	SRP_BA	Transformer - Updated Orme Bay 3 transformer	21EMS15630
160	SRP_BA	Transmission Line - Updated Orme-Kay 69kv branch	21EMS15631
161	SRP_BA	Substation\Load - Added measurements to substation model	21EMS15632
162	SRP_BA	Breaker(s)\ Disconnect(s) - Added new breakers and switches	21EMS15633
163	SRP_BA	Transmission Line - Added new Turpen-Humphrey 69kV line	21EMS15634
164	SRP_BA	Breaker(s)\ Disconnect(s) - Added breaker (312) and Disc (TMP37)	21EMS15635
165	SRP_BA	Transformer - Updated transformer Bank 2 and Bank 3 impedances and tap ratio	21EMS15636
166	SRP_BA	Transformer - Added transformer bank 1 load tap changer	21EMS15637
167	TSGT_TOP	Transformer - Update of Ratings	21EMS15574
168	TSGT_TOP	Transmission Line - Update of Ratings	21EMS15575