

## **APPENDIX F: Contingencies on the ISO System that may Impact Adjacent Systems**

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Study Area: **PG&E Bulk**

Contingency files: See Contingency List

Contingency file location: Market Participant Portal -&gt;Transmission Planning -&gt;2020/2021 ISO Transmission Planning Process -&gt;Contingency Files

No	Contingency	Category Description	Description of SPS (if any)	Contingency Name
1	P1_2-25.swt	N-1	shunt capacitor insertion on Table Mtn and/or Malin if low voltages	Captain Jack- Olinda 500 kV, flow North to South
2	P1_2-25_off-pk.swt	N-1	same without shunt capacitors insertion	Captain Jack- Olinda 500 kV, flow South to North
3	P_EXT-1.swt	G-2	FACRI if low voltages, move station load to 230 kv bus	2 Diablo Canyon units
4	P7_1_1-9.swt	N-2	NW generation drop, insertion of shunt capacitors, removal of reactors. Different switch files for different cases due to different generation dispatch in Northwest and no RAS for south to north COI flow	Malin-Round Mtn 500 kV # 1 &2, several RAS options, no RAS off-peak
5	P7_1_1-9_2022.swt	N-2		
6	P7_1_1-9_2022_hi_renew.swt	N-2		
7	P7_1_1-9_2030	N-2		
8	P7_1_1-9_off-pk.swt			
9	P7_1_1-9_2025_off-pk.swt	N-2		
10	P1_2-23_peak.swt	N-1	shunt capacitor insertion if low voltages in the peak cases	Malin-Round Mtn 500 kV # 1
11	P1_2-23_off-pk.swt	N-1		
12	P1_2-24_peak.swt	N-1		Malin-Round Mtn 500 kV # 2
13	P1_2-24_off-pk.swt	N-1		
14	P7_1_1-36.swt	N-2	without RAS	500 kV double line outage north of Los Banos, several RAS options, no RAS on peak
15	P7_1_1-36_RAS.swt	N-2	load and generation tripping	
16	P7_1_1-50.swt	N-2	load and generation tripping depending on Path 15 south to north flow. Load is tripped in five groups and the switch files model this load tripping depending on how many groups are tripped	500 kV double line outage south of Los Banos, RAS for south to north flow
17	P7_1_1-50_less_RAS.swt	N-2		
18	P7_1_1-50_RAS.swt	N-2		
19	P7_1_1-50_gr1.swt	N-2		
20	P7_1_1-50_gr2.swt	N-2		

No	Contingency	Category Description	Description of SPS (if any)	Contingency Name
21	P7_1_1-50_gr3.swt	N-2		
22	P7_1_1-50_gr4.swt	N-2		
23	P7_1_1-57.swt	N-2	load and generation tripping depending on Path 15 south to north flow. Load is tripped in five groups and the switch files model this load tripping depending on how many groups are tripped	500 kV double outage North of Midway, RAS for south to north flow
24	P7_1_1-57_RAS.swt	N-2		
25	P7_1_1-57_gr4.swt	N-2		
26	P7_1_1-57_gr5.swt	N-2		
27	NESE.swt	system separation	load and generation tripping, opening ties	Northeast/Southeast system separation
28	P_EXT-0.swt	G-2	load tripping in Arizona	outage of 2 Palo Verde units
29	P7_2-0.swt	DC bi-pole	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	PDCI bi-pole outage with several RAS options
30	P7_2-0_2022.swt			
31	P7_2-0_22_hi_renew.swt			
32	P7_2-0_2030.swt			
33	P7_1_1-0.swt	N-2	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	Round Mtn-Table Mtn 500 kV # 1&2, several RAS options
34	P7_1_1-0_2022.swt	N-2		
35	P7_1_1-0_2022_hi_renew.swt	N-2		
36	P7_1_1-0_2030.swt	N-2		
37	P7_1_1-0_off-pk.swt	N-2		
38	P7_1_1-86.swt	N-2	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	Round Mtn-Fern Road 500 kV # 1&2, several RAS options
39	P7_1_1-86_2030.swt	N-2		
40	P7_1_1-86_off-pk.swt	N-2		
41	P7_1_1-88.swt	N-2	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	Fern Road- Table Mtn 500 kV # 1&2, several RAS options
42	P7_1_1-88_2030.swt	N-2		
43	P7_1_1-88_off-pk.swt	N-2		
44	P7_1_1-20.swt	N-2		

No	Contingency	Category Description	Description of SPS (if any)	Contingency Name
45	P7_1_1-20_2022.swt	N-2	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	500 kV double line outage south of Table Mtn, several RAS options
46	P7_1_1-20_2022_hi_renew.swt	N-2		
47	P7_1_1-20_2030.swt	N-2		
48	P7_1_1-20_off-pk.swt	N-2		
49	P7_1_1-21.swt	N-2	generation tripping, shunt capacitors insertion, several switch files due to different generation dispatch in Northwest	500 kV double line outage north of Tesla, several RAS options
50	P7_1_1-21_2022.swt	N-2		
51	P7_1_1-21_2022_hi_renew.swt	N-2		
52	P7_1_1-21_2030.swt	N-2		
53	P7_1_1-21_off-pk.swt	N-2	Generation tripping if needed. Several switch files due to different generation dispatch	500 kV double outage of Midway-Vincent 500 kV lines # 1 and 2
54	P7_1_1-75.swt	N-2		
55	P7_1_1-75_2025_pk.swt	N-2		
56	P7_1_1-75_more_trip.swt	N-2		

Study Area: **PG&E North Valley**

Contingency files: See Contingency List

Contingency file location: Market Participant Portal ->Transmission Planning ->2020/2021 ISO Transmission Planning Process ->Contingency Files>PGE NVLY Contingency Files.zip

No	Contingency	Category Description	Description of SPS (if any)
1	NVLY_G1_2022.otg	G-1	
2	NVLY_G1_2025.otg	G-1	
3	NVLY_G1_2030.otg	G-1	
4	NVLY_P1_2022.otg	N-1	
5	NVLY_P1_2025.otg	N-1	
6	NVLY_P1_2030.otg	N-1	
7	NVLY_P2_2022.otg	Bus/Breaker	
8	NVLY_P2_2025.otg	Bus/Breaker	
9	NVLY_P2_2030.otg	Bus/Breaker	
10	NVLY_P5_2022.otg	Non-redundant Relay	
11	NVLY_P5_2025.otg	Non-redundant Relay	
12	NVLY_P5_2030.otg	Non-redundant Relay	
13	NVLY_P7_2022.otg	DCTL	
14	NVLY_P7_2025.otg	DCTL	
15	NVLY_P7_2030.otg	DCTL	

Study Area: PG&amp;E Central Valley

Contingency files: See Contingency List

Contingency file location: Market Participant Portal -&gt;Transmission Planning -&gt;2020/2021 ISO Transmission Planning Process -&gt;Contingency Files&gt;PGE CVLY Contingency Files.zip

No	Contingency	Category Description	Description of SPS (if any)
1	SACR_G1_2022.otg	G-1	
2	SACR_G1_2025.otg	G-1	
3	SACR_G1_2030.otg	G-1	
4	SACR_P1_2022.otg	N-1	
5	SACR_P1_2025.otg	N-1	
6	SACR_P1_2030.otg	N-1	
7	SACR_P2_2022.otg	Bus/Breaker	
8	SACR_P2_2025.otg	Bus/Breaker	
9	SACR_P2_2030.otg	Bus/Breaker	
10	SACR_P5_2022.otg	Non-redundant Relay	
11	SACR_P5_2025.otg	Non-redundant Relay	
12	SACR_P5_2030.otg	Non-redundant Relay	
13	SACR_P7_2022.otg	DCTL	
14	SACR_P7_2025.otg	DCTL	
15	SACR_P7_2030.otg	DCTL	
16	SIRA_G1_2022.otg	G-1	
17	SIRA_G1_2025.otg	G-1	
18	SIRA_G1_2030.otg	G-1	
19	SIRA_P1_2022.otg	N-1	
20	SIRA_P1_2025.otg	N-1	
21	SIRA_P1_2030.otg	N-1	
22	SIRA_P2_2022.otg	Bus/Breaker	
23	SIRA_P2_2025.otg	Bus/Breaker	
24	SIRA_P2_2030.otg	Bus/Breaker	
25	SIRA_P5_2022.otg	Non-redundant Relay	
26	SIRA_P5_2025.otg	Non-redundant Relay	
27	SIRA_P5_2030.otg	Non-redundant Relay	
28	SIRA_P7_2022.otg	DCTL	
29	SIRA_P7_2025.otg	DCTL	
30	SIRA_P7_2030.otg	DCTL	

31	STOK_G1_2022.otg	G-1	
32	STOK_G1_2025.otg	G-1	
33	STOK_G1_2030.otg	G-1	
34	STOK_P1_2022.otg	N-1	
35	STOK_P1_2025.otg	N-1	
36	STOK_P1_2030.otg	N-1	
37	STOK_P2_2022.otg	Bus/Breaker	
38	STOK_P2_2025.otg	Bus/Breaker	
39	STOK_P2_2030.otg	Bus/Breaker	
40	STOK_P5_2022.otg	Non-redundant Relay	
41	STOK_P5_2025.otg	Non-redundant Relay	
42	STOK_P5_2030.otg	Non-redundant Relay	
43	STOK_P7_2022.otg	DCTL	
44	STOK_P7_2025.otg	DCTL	
45	STOK_P7_2030.otg	DCTL	



Study Area: **PG&E Greater Bay Area**

Contingency files: See contingency list

Contingency file location: Market Participant Portal ->Transmission Planning ->2020/2021 ISO  
Transmission Planning Process ->Contingency Files> PGE GBA Contingency Files.zip

No	Contingency	Category Description	Description of SPS (if any)
1	a20_System_1in5_Final_Round_2_2022_System_A9_A10_P1.otg	N-1	
2	a20_System_1in5_Final_Round_2_2022_System_A9_A10_P1-1.otg	N-1	
3	a20_System_1in5_Final_Round_2_2022_System_cont_A7_A8_A16_A17_A18_P1.otg	N-1	
4	a20_System_1in5_Final_Round_2_2022_System_cont_A7_A8_A16_A17_A18_P1-1.otg	N-1	
5	a20_System_1in5_Final_Round_2_2025_System_A9_A10_P1.otg	N-1	
6	a20_System_1in5_Final_Round_2_2025_System_A9_A10_P1-1.otg	N-1	
7	a20_System_1in5_Final_Round_2_2025_System_cont_A7_A8_A16_A17_A18_P1.otg	N-1	
8	a20_System_1in5_Final_Round_2_2025_System_cont_A7_A8_A16_A17_A18_P1-1.otg	N-1	
9	a20_System_1in5_Final_Round_2_2030_System_A9_A10_P1.otg	N-1	
10	a20_System_1in5_Final_Round_2_2030_System_A9_A10_P1-1.otg	N-1	
11	a20_System_1in5_Final_Round_2_2030_System_cont_A7_A8_A16_A17_A18_P1.otg	N-1	
12	a20_System_1in5_Final_Round_2_2030_System_cont_A7_A8_A16_A17_A18_P1-1.otg	N-1	
13	svp-P1.otg	N-1	
14	a20_System_1in5_Final_Round_2_2022_System_A9_A10_P2.otg	Bus/Brkr	
15	a20_System_1in5_Final_Round_2_2022_System_cont_A7_A8_A16_A17_A18_P2.otg	Bus/Brkr	
16	a20_System_1in5_Final_Round_2_2025_System_A9_A10_P2.otg	Bus/Brkr	
17	a20_System_1in5_Final_Round_2_2025_System_cont_A7_A8_A16_A17_A18_P2.otg	Bus/Brkr	
18	a20_System_1in5_Final_Round_2_2030_System_A9_A10_P2.otg	Bus/Brkr	
19	a20_System_1in5_Final_Round_2_2030_System_cont_A7_A8_A16_A17_A18_P2.otg	Bus/Brkr	
20	svp-P2.otg	Bus/Brkr	
21	a20_System_1in5_2022_GRBA_A7_A8_A16_A17_A18_P7-1.otg	DCTL	

22	a20_System_1in5_2022_GRBA_P7-1.otg	DCTL	
23	a20_System_1in5_2025_GRBA_A7_A8_A16_A17_A18_P7-1.otg	DCTL	
24	a20_System_1in5_2025_GRBA_P7-1.otg	DCTL	
25	a20_System_1in5_2030_GRBA_A7_A8_A16_A17_A18_P7-1.otg	DCTL	
26	a20_System_1in5_2030_GRBA_P7-1.otg	DCTL	
27	svp-P7.otg	DCTL	
28	GBA_2020-21_TPP_Transient.otg	Transient Stability	

Study Area: **PG&E Greater Fresno**

Contingency files: See contingency list

Contingency file location: Market Participant Portal ->Transmission Planning ->2020/2021 ISO  
Transmission Planning Process ->Contingency Files>PGE SJVL Contingency Files

No	Contingency	Category Description	Description of SPS (if any)
1	a20_System_1in5_Final_Round_2_2022_GFA_G1_M.otg	G-1	
2	a20_System_1in5_Final_Round_2_2025_GFA_P1-1.otg	G-1	
3	a20_System_1in5_Final_Round_2_2030_GFA_P1-1.otg	G-1	
4	a20_System_1in5_Final_Round_2_2022_GFA_P1.otg	N-1	
5	a20_System_1in5_Final_Round_2_2025_GFA_P1.otg	N-1	
6	a20_System_1in5_Final_Round_2_2030_GFA_P1.otg	N-1	
7	a20_System_1in5_Final_Round_2_2022_GFA_P2.otg	Bus/Brkr	
8	a20_System_1in5_Final_Round_2_2025_GFA_P2.otg	Bus/Brkr	
9	a20_System_1in5_Final_Round_2_2030_GFA_P2.otg	Bus/Brkr	
10	a20_SJVL_2022_GFA_P5-5.otg	Non-redundent Relay	
11	a20_SJVL_2025_GFA_P5-5.otg	Non-redundent Relay	
12	a20_SJVL_2030_GFA_P5-5.otg	Non-redundent Relay	
13	a20_SJVL_2022_GFA_P7-1.otg	DCTL	
14	a20_SJVL_2025_GFA_P7-1.otg	DCTL	
15	a20_SJVL_2030_GFA_P7-1.otg	DCTL	

Study Area: **PG&E Kern**

Contingency files: See Contingency List

Contingency file location: Market Participant Portal -&gt;Transmission Planning -&gt;2020/2021 ISO Transmission Planning Process -&gt;Contingency Files&gt;PGE KERN.zip

No	Contingency	Category Description	Description of SPS (if any)
1	a20_System_1in5_2022_A15_P1.otg	N-1	
2	a20_System_1in5_2022_A15_P1-1.otg	N-1	
3	a20_System_1in5_2022_A15_P2.otg	Bus/Brkr	
4	a20_System_1in5_2022_A15_P5-5.otg	Non-redundant Relay	
5	a20_System_1in5_2022_A15_P7-1.otg	DCTL	
6	a20_System_1in5_2025_A15_P1.otg	N-1	
7	a20_System_1in5_2025_A15_P1-1.otg	N-1	
8	a20_System_1in5_2025_A15_P2.otg	Bus/Brkr	
9	a20_System_1in5_2025_A15_P5-5.otg	Non-redundant Relay	
10	a20_System_1in5_2025_A15_P7-1.otg	DCTL	
11	a20_System_1in5_2030_A15_P1.otg	N-1	
12	a20_System_1in5_2030_A15_P1-1.otg	N-1	
13	a20_System_1in5_2030_A15_P2.otg	Bus/Brkr	
14	a20_System_1in5_2030_A15_P5-5.otg	Non-redundant Relay	
15	a20_System_1in5_2030_A15_P7-1.otg	DCTL	
16	Kern-Transient-2020-21	Transient Stability	

Study Area: **PG&E Central Coast & Los Padres**

Contingency files: See contingency list

Contingency file location: Market Participant Portal ->Transmission Planning ->2020/2021 ISO Transmission Planning Process -

>Contingency Files>PGE CCLP Contingency Files

No	Contingency	Category Description	Description of SPS (if any)
1	a20_System_lin5_2025_A1920_P1.otg	N-1	
2	a20_System_lin5_2025_A1920_P1-1.otg	N-1	
3	a20_System_lin5_2025_A1920_P2.otg	Bus/Brkr	
4	a20_System_lin5_2025_A1920_P5-5.otg	Non-redundent Relay	
5	a20_System_lin5_2025_A1920_P7-1.otg	DCTL	
6	a20_System_lin5_2030_A1920_P1.otg	N-1	
7	a20_System_lin5_2030_A1920_P1-1.otg	N-1	
8	a20_System_lin5_2030_A1920_P2.otg	Bus/Brkr	
9	a20_System_lin5_2030_A1920_P5-5.otg	Non-redundent Relay	
10	a20_System_lin5_2030_A1920_P7-1.otg	DCTL	

## Study Area: Consolidated Southern CA

Contingency file location: Market Participant Portal ->Transmission Planning ->2020/2021 ISO  
Transmission Planning Process ->Contingency Files>

No	Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
	Steady State Contingencies (OTG Format)			
1	line "PALOVRDE 500.00" "PV_CLRVR_11 500.00" "1 " 1 0 line "PV_CLRVR_11 500.00" "PV_CLRVR_12 500.00" "1 " 1 0 line "PV_CLRVR_12500.00" "COLRIVER 500.00" "1 " 1 0	P1		Area26, Area21, Area 14
2	line_100041 "Line ELDORDO 500.0 to LUGO 500.0 Circuit1" line 24042 29240 "1 " 1 0 line 29240 29241 "1 " 1 0 line 29241 29242 "1 " 1 0 line 29242 29243 "1 " 1 0 line 29243 24086 "1 " 1 0	P1	Lugo-Victorville RAS	Area 26
3	line"N.GILA 500.00" "IMPRVLVLY 500.00" "1 " 1 0	P1		Area 21, Area 14
4	line"ECO 500.00" "MIGUEL 500.00" "1 " 1 0	P1	TL23040IV 500kV N-1 RAS	Area 20, Area 21
5	line"OCOTILLO 500.00" "SUNCREST 500.00" "1 " 1 0	P1	TL23040IV 500kV N-1 RAS	Area 20, Area 21
6	line"OTAYMESA 230.00" "TJI-230 230.00" "1 " 1 0	P1		Area 20
7	line"IVPFC 230.00" "ROA-230 230.00" "1 " 1 0	P1		Area 20
8	line"OTAYMESA 230.00" "MLMS3TAP 230.00" "1 " 1 0 line"MIGUEL 230.00" "MLMS3TAP 230.00" "1 " 1 0 line"BAYBLVD 230.00" "MLMS3TAP 230.00" "1 " 1 0	P1	RAS tripping Otay Mesay and/or Pio Pico generation	Area 20
9	line"MIGUEL 230.00" "MIGUEL 500.00" "2 " 1 0	P1	Miguel Banks RAS shedding gen in the greater IV area	Area 20
10	tran"ELDORDO 500.00" "ELDORDO 230.00" "3" 0"ELDOR 3T 13.80"	P1		Area 26
11	tran"ELDORDO 500.00" "ELDORDO 230.00" "4" 0"ELDOR 4T 13.80"	P1		Area 26
12	tran"ELDORDO 500.00" "ELDORDO2 230.00" "5 " 0 "ELDOR5T 13.80"	P1	Ivanpah RAS	Area 26

13	line"LUGO 500.00" "LGO_MOHVE_11 500.00" "1 " 1 0 line"LGO_MOHVE_11 500.00" "LGO_MOHVE_12 500.00" "1" 10 line"LGO_MOHVE_12 500.00" "LGO_MOHVE_13 500.00" "1" 10 line"LGO_MOHVE_13 500.00" "LGO_MOHVE_14 500.00" "1" 10 line"LGO_MOHVE_14 500.00" "MOHAVE 500.00" "1 " 1 0	P1		Area 26
14	line"MOHAVE 500.00" "ELDORDO 500.00" "1 " 1 0	P1		Area 26
15	line"PISGAH 230.00" "CIMAT1 230.00" "1 " 1 0 line"CIMAT1 230.00" "ELDORDO 230.00" "1 " 1 0	P1		Area 26
16	line"PISGAH 230.00" "CIMAT2 230.00" "2 " 1 0 line"CIMAT2 230.00" "ELDORDO 230.00" "2 " 1 0	P1		Area 26
17	line"ELDORDO2 230.00" "BOB SS 230.00" "1 " 1 0	P1		Area 26, Area 18
18	line"PISGAH 230.00" "LUGO 230.00" "1 " 1 0	P1		Area 26
19	line"PISGAH 230.00" "CALCITE 230.00" "1 " 1 0	P1		Area 26
20	line"CALCITE 230.00" "LUGO 230.00" "1 " 1 0	P1		Area 26
21	line "TAP645 55.00" "NEVBD502 55.00" "1 " 1 0	P1		Area 18
22	line"CONTROL 115.00" "INYO 115.00" "1 " 1 0	P1		Area 26
23	line"CONTROL 115.00" "INYOKERN 115.00" "1 " 1 0	P1	Bishop RAS - trips Bishop area generation	Area 26
24	line"INYOKERN 115.00" "KRAMER 115.00" "1 " 1 0	P1		Area 26
25	line "TAP701 115.00" "KRAMER 115.00" "1 " 1 0 line "TAP701 115.00" "INYOKERN 115.00" "1 " 1 0 line "RANDSBRG 115.00" "TAP701 115.00" "1 " 1 0	P1		Area 26
26	line "CONTROL 115.00" "TAP710 115.00" "1 " 1 0 line" TAP710 115.00" "INYOKERN 115.00" "1" 1 0 line"COSO 115.00" "TAP710 115.00" "1 " 1 0	P1	Bishop RAS - trips Bishop area generation	Area 26
27	line"NWEST 230.00" "DESERT VIEW 230.00" "1 " 1 0	P1		Area 18
28	line"BOBSS 230.00" "MEAD S 230.00" "1 " 1 0	P1		Area 19, Area 26, Area 24, Area 18
29	line"AMARGOSA 138.00" "SANDY 138.00" "1 " 1 0	P1		Area 18
30	line"GAMEBIRD 138.00" "PAHRUMP 138.00" "1 " 1 0	P1	VEA's UVLS scheme	Area 18
31	isol "INNOVATION 138.00"	P1		Area 18
32	line"JACKASSF 138.00" "MERCYSW 138.00" "1 " 1 0	P1		Area 18
33	line"CONTROL 115.00" "INYO 115.00" "1 " 1 0 line"CONTROL 115.00" "TAP704 115.00" "1 " 1 0 line"CONTROL 115.00" "INYOKERN 115.00" "1 " 1 0 tran"CONTROL 115.00" "CONTROL 55.00" "3 " 0" 0.00" line"CONTROL 115.00" "OXBOW B 115.00" "1 " 1 0	P2		Area 26

34	line"CONTROL 115.00" "INYO 115.00" "1" "1" 0 line"CONTROL 115.00" "CSADIAB 115.00" "1" "1" 0 line"CONTROL 115.00" "TAP710 115.00" "1" "1" 0 tran"CONTROL 115.00" "CONTROL 55.00" "1" "0" 0.00" tran"CONTROL 115.00" "BSPHYD34 2.20" "1" "0" 0.00" gen "BSPHYD34 2.20" "34" "0"	P2		Area 26
35	gen"IVGEN1STG 21.00" "1" "0" gen"IVGEN1CTG2 18.00" "1" "0" gen"IVGEN1CTG3 18.00" "1" "0" line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0	P3		Area 21, Area 14
36	gen"OTAYMST1 16.00" "1" "0" gen"OTAYMGT1 18.00" "1" "0" gen"OTAYMGT2 18.00" "1" "0" line"ECO 500.00" "MIGUEL 500.00" "1" "1" 0 gen"MIGUELA 17.50" "1" "0" gen"MIGUELB 17.50" "1" "0"	P3	TL23040IV 500kVN-1 RAS	Area 20
37	line"VISTA 138.00" "PAHRUMP 138.00" "1" "1" 0 line"PAHRUMP 138.00" "GAMEBIRD 138.00" "1" "1" 0	P4	VEA's UVLS scheme	Area 18
38	tran"PAHRUMP 230.00" "PAHRUMP 138.00" "1" "0" -1 line"PAHRUMP 138.00" "GAMEBIRD 138.00" "1" "1" 0	P4	VEA's UVLS scheme	Area 18
39	tran"PAHRUMP 230.00" "PAHRUMP 138.00" "1" "0" -1 line"PAHRUMP 230.00" "BOB SS 230.00" "1" "1" 0	P4	VEA's UVLS scheme	Area 18
40	line"ELDORDO 500.0" "LUGO 500.0" "1" "1" 0 line"PALOVRDE 500.00" "COLRIVER 500.00" "1" "1" 0	P6	Lugo-Victorville RAS	Area 26
41	line"PALOVRDE 500.00" "PV_CLRVR_11 500.00" "1" "1" 0 line "PV_CLRVR_11 500.00" "PV_CLRVR_12 500.00" "1" "1" 0 line "PV_CLRVR_12 500.00" "COLRIVER 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0	P6		Area 26, Area 21, Area 14
42	line"MOHAVE 500.0" "ELDORDO 500.0" "1" "1" 0 line"MOHAVE 500.0" "LUGO 500.0" "1" "1" 0	P6	NVE RAS	Area 18
43	line"ECO 500.00" "MIGUEL 500.00" "1" "1" 0 gen"MIGUELA 17.50" "1" "0" gen"MIGUELB 17.50" "1" "0" line"SYCAMORE TP1 230.00" "SYCAMORE 230.00" "1" "1" 0 line"SUNCREST TP1 230.00" "SYCAMORE TP1 230.00" "1" "1" 0 line"SUNCREST TP1 230.00" "SYCAMORE TP1" "2" "1" 0 line"SUNCREST 230.00" "SUNCREST TP1 230.00" "1" "1" 0	P6	Suncrest-Sycamore 230kV GenDrop RAS	Area 20, Area 21



44	line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0 line"IMPRLVLY 230.00" "FERN 230.00" "1" "1" 0	P6		Area 21, Area 14
45	line"ECO 500.00" "MIGUEL 500.00" "1" "1" 0 gen"MIGUELA 17.50" "1" "0" gen"MIGUELB 17.50" "1" "0" line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0	P6	RAS shedding generation in the greater IV area	Area 20, Area 21
46	line"OCOTILLO 500.00" "SUNCREST 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0	P6	IV Gen Shedding RAS	Area 20, Area 22
47	line"PALOVRDE 500.00" "PV_CLRVR_11 500.00" "1" "1" 0 line"PV_CLRVR_11 500.00" "PV_CLRVR_12 500.00" "1" "1" 0 line"PV_CLRVR_12 500.00" "COLRIVER 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "2" 0	P6		Area 14, Area 26, Area 21
48	line"DELANEY 500.00" "DEL_CLRVR_11 500.00" "1" "1" 0 line"DEL_CLRVR_11 500.00" "DEL_CLRVR_12 500.00" "1" "1" 0 line"DEL_CLRVR_12 500.00" "COLRIVER 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "1" 0 line"N.GILA 500.00" "IMPRLVLY 500.00" "1" "2" 0	P6		Area 14
49	line"INYOKERN 115.00" "KRAMER 115.00" "1" "1" 0 line"TAP701 115.00" "KRAMER 115.00" "1" "1" 0 line"TAP701 115.00" "INYOKERN 115.00" "1" "1" 0 line"RANDSBRG 115.00" "TAP701 115.00" "1" "1" 0	P6		Area 26
50	line"DEVERS 500.00" "DVRS_RB_11 500.00" "1" "1" 0 line"DVRS_RB_11 500.00" "DVRS_RB_12 500.00" "1" "1" 0 line"DVRS_RB_12 500.00" "REDBLUFF 500.00" "1" "1" 0 line"DEVERS 500.00" "DVRS_RB_21 500.00" "2" "1" 0 line"DVRS_RB_21 500.00" "DVRS_RB_22 500.00" "2" "1" 0 line"DVRS_RB_22 500.00" "REDBLUFF 500.00" "2" "1" 0	P6 (NERC)/ WECC Common Corridor /Extreme	Colorado River Corridor RAS	Area 26, Area 21, Area 14
50	line"COLRIVER 500.00" "REDBLUFF 500.00" "1" "1" 0 line"COLRIVER 500.00" "REDBLUFF 500.00" "2" "1" 0	P6 (NERC)/ WECC Common Corridor	Colorado River Corridor RAS	Area 14
51	line"MOHAVE 500.0" "ELDORDO 500.0" "1" "1" 0 line"ELDORDO 500.0" "LUGO 500.0" "1" "1" 0	P6/Extreme	Lugo-Victorville RAS	Area 26

52	line"ECO 500.00" "MIGUEL 500.00" "1" 10 gen"MIGUEL A 17.50" "1" 0 gen"MIGUEL B 17.50" "1" 0 line"OCOTILLO 500.00" "SUNCREST 500.00" "1" 10	P6/Extreme	San Diego 500kV Gen Drop RAS, San Diego Safety Net	Area 20, Area 21, Area 14
52	line"EAGLOCK 230.00" "SYLMARS 230.00" "1" 10 line"SYLMARS 230.00" "GOULD 230.00" "1" 10	P7		Area 26
53	line"OTAYMESA 230.00" "MLSXTAP 230.00" "1" 10 line"MIGUEL 230.00" "MLSXTAP 230.00" "1" 10 line"SYCAMORE 230.00" "MLSXTAP 230.00" "1" 10 line"OTAYMESA 230.00" "MLMS3TAP 230.00" "1" 10 line"MIGUEL 230.00" "MLMS3TAP 230.00" "1" 10 line"BAYBLVD 230.00" "MLMS3TAP 230.00" "1" 10	P7	RAS tripping Otay Mesay and/or Pio Pico generation	Area 20
54	line"CVSUB230 230.00" "MIRAGE 230.00" "1" 10 line"RAMON 230.00" "MIRAGE 230.00" "1" 10	P7		Area 21
55	line"CONTROL 115.00" "TAP710 115.00" "1" 10 line"TAP710 115.00" "INYOKERN 115.00" "1" 10 line"COSO 115.00" "TAP710 115.00" "1" 10 line"CONTROL 115.00" "INYOKERN 115.00" "1" 10	P7	Bishop RAS - trips Bishop area generation	Area 26
56	line"INNOVATION 230.00" "DESERT VIEW 230.00" "1" 10			
	Stability Contingencies			
	None identified			