

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

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Table E-1: Contingency Information by Study Area

Study Area	Contingency Files	Contingency File Location
Northern CA	Table E-2: Northern California Contingency List	Market Participant Portal ->Transmission Planning ->2023-2024 ISO Transmission Planning Process ->Contingency Files
Southern CA	Table E-3: Southern California Contingency List	Market Participant Portal ->Transmission Planning ->2023-2024 ISO Transmission Planning Process ->Contingency Files

Table E-2: Northern California Contingency List

No.	Contingency	Category Description	Potentially Affected Adjacent Area/Zone
1	ROUND MT-MALIN #1 500KV LINE	P1	Area 40
2	TABLE MTN-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV	P6	Zone 322
3	TRACY-TESLA #1 500KV LINE & TRACY #1 500/230KV BANK	P6	Zone 325
4	ROUND MT #1 500/230KV TRANSFORMER	P1	Zone 325
5	TABLE MOUNTAIN 500/230KV & TESLA 500/230KV	P6	Zone 322
6	RM_DRS-ROUND MT #1 500KV LINE & RM_DRS-ROUND MT #2 500	P6	Zone 325
7	TABLE MTN #5 & #6 500/230KV BANK	P6	Zone 322
8	ROUND MT-MALIN #1 500KV LINE & ROUND MT-MALIN #2 500KV	P6	Area 40, Zone 300
9	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT-MALIN #2 500KV	P6	Zone 300
10	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT #1 500/230KV	P6	Zone 300

Table E-3: Consolidated Southern California Contingency List

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
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	P1		Area 26, Area 21, Area 14, Area 15, Area 18, Area 19
"line_9" "Line Eldorado-Lugo 500.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'ELDORDO 500.00000' 'ELD_LUGO_11 500.00000' '1 ' 1" "open" 1.000000 "secdd 'ELD_LUGO_11 500.00000' 'ELD_LUGO_12 500.00000' '1 ' 1" "open" 1.000000 "secdd 'ELD_LUGO_12 500.00000' 'ELD_LUGO_13 500.00000' '1 ' 1" "open" 1.000000 "secdd 'ELD_LUGO_13 500.00000' 'ELD_LUGO_14 500.00000' '1 ' 1" "open" 1.000000 "secdd 'ELD_LUGO_14 500.00000' 'LUGO 500.00000' '1 ' 1" "open" 1.000000 0	P1	Lugo-Victorville RAS	Area 26, Area 18
"TL50002" "Line NG-IV 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22536 22360 '1 ' 1" "open" 1.000000 "" "secdd 22536 22360 '1 ' 2" "open" 1.000000 "" "svd 22360 '1'" "open" 1.000000 "" 0	P1		Area 21, Area 14, Area 15, Area 19
"TL50001" "Line ECO-ML 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22930 22468 '1 ' 1" "open" 1.000000 "#50001" "secdd 22930 22468 '1 ' 2" "open" 1.000000 "#50001" "gen 22450 '1'" "open" 1.000000 "ML SYNCON A" "gen 22451 '1'" "open" 1.000000 "ML SYNCON B" 0 Note: For the 2034 and 2039 Base Cases, remove the outage of gen 22450 and 22451 since the 2022-2023 TPP approved project comprises changing Miguel 500 kV buses to breaker-and-a-half arrangement.	P1	TL23040 IV 500 kV N-1 RAS tripping renewable generation in the greater IV area	Area 20, Area 21
"TL50003" "Line OCO-SCR 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 23310 22885 '1 ' 1" "open" 1.000000 "" "secdd 23310 22885 '1 ' 2" "open" 1.000000 "" "svd 22885 'S1'" "open" 1.000000 "" 0	P1	TL23040 IV 500 kV N-1 RAS tripping renewable generation in the greater IV area	Area 20, Area 21
"TL23040" "Line OM-TJI 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22609 20149 '1 ' 1" "open" 1.000000 "" "secdd 22609 20149 '1 ' 2" "open" 1.000000 "" 0	P1		Area 20
"TL23050" "Line IV PST-ROA 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22358 20118 '1 ' 1" "open" 1.000000 "" 0	P1		Area 20
"TL23041" "Line SX-OM-ML 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22832 22467 '1 ' 1" "open" 1.000000 "#23041A" "secdd 22609 22467 '1 ' 1" "open" 1.000000 "#23041B" "secdd 22464 22467 '1 ' 1" "open" 1.000000 "#23041C" 0	P1	TL23041/TL23042 RAS tripping Otay Mesa and/or Pio Pico generation	Area 20
"TL23042" "Line BB-OM-ML 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22771 22466 '1 ' 1" "open" 1.000000 "#23042A" "secdd 22609 22466 '1 ' 1" "open" 1.000000 "#23042B" "secdd 22464 22466 '1 ' 1" "open" 1.000000 "#23042C" 0	P1	TL23041/TL23042 RAS tripping Otay Mesa and/or Pio Pico generation	Area 20
"ML_BK80" "Tran ML 500/230kV ck 1" 0.00 "P1" "N-1" "" 0 "tran 22468 22472 '1'" "open" 1.000000 "" "tran 22464 22472 '1'" "open" 1.000000 ""	P1	Miguel BK 80/81 RAS tripping generation in the greater IV area	Area 20

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
"tran 22452 22472 '1' "" "open" 1.000000 "" 0			
"tran_52" "Tran ELDORDO 500.00 to ELDORDO 230.00 Circuit3 ELDOR 3T 13.80" 1.00 "" "" "" 0 "tran 'ELDORDO 500.00000' 'ELDORDO 230.00000' 'ELDOR 3T 13.80000' '3' "" "open" 1.000000 0	P1		Area 26, Area 18, Area 19
"tran_53" "Tran ELDORDO 500.00 to ELDORDO 230.00 Circuit4 ELDOR 4T 13.80" 1.00 "" "" "" 0 "tran 'ELDORDO 500.00000' 'ELDORDO 230.00000' 'ELDOR 4T 13.80000' '4' "" "open" 1.000000 0	P1		Area 26, Area 18, Area 19
"tran_54" "Tran ELDORDO 500.00 to ELDORDO2 230.00 Circuit5 ELDOR 5T 13.80" 1.00 "" "" "" 0 "tran 'ELDORDO 500.00000' 'ELDORDO2 230.00000' 'ELDOR 5T 13.80000' '5' "" "open" 1.000000 0	P1	Ivanpah RAS	Area 26, Area 18, Area 19
"line_10" "Line Lugo-Mohave 500.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'LUGO 500.00000' 'LGO_MOHVE_11 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_11 500.00000' 'LGO_MOHVE_12 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_12 500.00000' 'LGO_MOHVE_13 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_13 500.00000' 'LGO_MOHVE_14 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_14 500.00000' 'MOHAVE 500.00000' '1' '1' "open" 1.000000 0	P1		Area 26, Area 18, Area 19
"line_11" "Line MOHAVE 500.0 to ELDORDO 500.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'MOHAVE 500.00000' 'ELDORDO 500.00000' '1' '1' "open" 1.000000 0	P1		Area 26, Area 18, Area 19
"line_14" "Line Cima-Eld-Pisgah 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'CIMAT1 230.00000' 'ELDORDO 230.00000' '1' '1' "open" 1.000000 "secdd 'CIMAT1 230.00000' 'PISGAH 230.00000' '1' '1' "open" 1.000000 "secdd 'CIMA 230.00000' 'CIMAT1 230.00000' '1' '1' "open" 1.000000 "load 24628 '1' "" "open" 1.000000 "tran 24627 24628 '1' "" "open" 1.000000 0	P1		Area 26
"line_15" "Line Cima-Eld-Pisgah 230.0 Circuit 2" 1.00 "" "" "" 0 "secdd 'CIMAT2 230.00000' 'ELDORDO 230.00000' '2' '1' "open" 1.000000 "secdd 'CIMAT2 230.00000' 'PISGAH 230.00000' '2' '1' "open" 1.000000 0	P1		Area 26
"line_4" "Item 18: Line ELDORDO2 230.0 to SLOAN CANYON 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'ELDORDO2 230.00' 'SLOAN CANYON 230.00' '1' '1' "open" 1.000000 0	P1		Area 26, Area 18, Area 19
"line_12" "Line PISGAH 230.0 to LUGO 230.0 Circuit 2" 1.00 "" "" "" 0 "secdd 'PISGAH 230.00000' 'LUGO 230.00000' '2' '1' "open" 1.000000 0	P1		Area 26
"line_13" "Line PISGAH 230.0 to CALCITE 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'PISGAH 230.00000' 'CALCITE 230.00000' '1' '1' "open" 1.000000 0	P1		Area 26
"line_29" "Line CALCITE 230.0 to LUGO 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'CALCITE 230.00000' 'LUGO 230.00000' '1' '1' "open" 1.000000 0	P1		Area 26
"line_58" "Line CONTROL-Silver Peak A 55.0 Circuit 1" 1.00 "" "" "" 0	P1		Area 18

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
"secdd 'TAP642 55.00000' 'ZACK 55.00000' '1' '1' 'open" 1.000000 "secdd 'TAP642 55.00000' 'NEVBD501 55.00000' '1' '1' 'open" 1.000000 "secdd 'CONTROL 55.00000' 'TAP642 55.00000' '1' '1' 'open" 1.000000 0			
"line_41" "Line CONTROL 115.0 to INYO 115.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'CONTROL 115.00000' 'INYO 115.00000' '1' '1' 'open" 1.000000 0	P1		Area 26
"line_35" "Line CONTROL-HAIWEE-INYOKERN 115.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'INYOKERN 115.00000' 'TAP189 115.00000' '1' '1' 'open" 1.000000 "secdd 'TAP189 115.00000' 'CONTROL 115.00000' '1' '1' 'open" 1.000000 0	P1	Bishop RAS - trips Bishop area generation	Area 26
"line_31" "Line INYOKERN 115.0 to KRAMER 115.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'INYOKERN 115.00000' 'KRAMER 115.00000' '1' '1' 'open" 1.000000 0	P1		Area 26
"line_32" "Line INYOKERN-KRAMER-RANDBS 115.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'TAP701 115.00000' 'KRAMER 115.00000' '1' '1' 'open" 1.000000 "secdd 'TAP701 115.00000' 'INYOKERN 115.00000' '1' '1' 'open" 1.000000 "secdd 'RANDBS 115.00000' 'TAP701 115.00000' '1' '1' 'open" 1.000000 0	P1		Area 26
"line_36" "Line CONTROL-COSO-HAIWEE-INYOKERN 115.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'TAP710 115.00000' 'INYOKERN 115.00000' '1' '1' 'open" 1.000000 "secdd 'TAP710 115.00000' 'TAP188 115.00000' '1' '1' 'open" 1.000000 "secdd 'TAP188 115.00000' 'CONTROL 115.00000' '1' '1' 'open" 1.000000 0	P1	Bishop RAS - trips Bishop area generation	Area 26
"line_1" "Item 28: Line NWEST 230.0 to DESERT VIEW 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'NWEST 230.00' 'DESERT VIEW 230.00' '1' '1' 'open" 1.000000 0	P1		Area 18, Area 19
"line_3" "Item 29: Line MEAD S 230.0 to SLOAN CANYON 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'MEAD S 230.00' 'SLOAN CANYON 230.00' '1' '1' 'open" 1.000000 0	P1		Area 19, Area 26, Area 24, Area 18
"line_7" "Item 30: Line AMARGOSA 138.0 to SANDY 138.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'AMARGOSA 138.00' 'SANDY 138.00' '1' '1' 'open" 1.000000 0	P1		Area 18
"line_6" "Item 31: Line PAHRUMP 230.0 to GAMEBIRD 230.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'PAHRUMP 230.00' 'GAMEBIRD 230.00' '1' '1' 'open" 1.000000 0	P1	VEA's UVLS scheme	Area 18
"line_24" "Item 33: Line JACKASSF 138.0 to MERCRYSW 138.0 Circuit 1" 1.00 "" "" "" 0 "secdd 'JACKASSF 138.00' 'MERCRYSW 138.00' '1' '1' 'open" 1.000000 0	P1		Area 18
line_120001 "P2_Control WEST BUS" 1.000 line "CONTROL 115.00" "INYO 115.00" "1" "1" 0 line "CONTROL 115.00" "TAP704 115.00" "1" "1" 0 line "TAP189 115.00" "CONTROL 115.00" "1" "1" 0 line "INYOKERN 115.00" "TAP189 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 0	P2		Area 26

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
line_120002 "P2_Control EAST BUS " 1.000 line "CONTROL 115.00" "INYO 115.00" "1 " 1 0 line "CONTROL 115.00" "CSA DIAB 115.00" "1 " 1 0 line "TAP188 115.00" "CONTROL 115.00" "1 " 1 0 line "TAP710 115.00" "TAP188 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 0	P2		Area 26
"IV_GEN1_ALL" "Gen IV GEN1 CTG2/CTG3/STG" 0.00 "P1" "G-1" "" 0 "gen 22981 '1'" "open" 1.000000 "" "gen 22982 '1'" "open" 1.000000 "" "gen 22983 '1'" "open" 1.000000 "" 0 "TL50002" "Line NG-IV 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22536 22360 '1 ' 1" "open" 1.000000 "" "secdd 22536 22360 '1 ' 2" "open" 1.000000 "" "svd 22360 '1'" "open" 1.000000 "" 0	P3		Area 21, Area 14, Area 15, Area 18, Area 19
"OMEC_ALL" "Gen OTAYMGT1/GT2/ST1 ID 1" 0.00 "P1" "G-1" "" 0 "gen 22605 '1'" "open" 1.000000 "" "gen 22606 '1'" "open" 1.000000 "" "gen 22607 '1'" "open" 1.000000 "" 0 "TL50001" "Line ECO-ML 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22930 22468 '1 ' 1" "open" 1.000000 "#50001" "secdd 22930 22468 '1 ' 2" "open" 1.000000 "#50001" "gen 22450 '1'" "open" 1.000000 "ML SYNCON A" "gen 22451 '1'" "open" 1.000000 "ML SYNCON B" 0  Note: For the 2034 and 2039 Base Cases, remove the outage of gen 22450 and 22451 since the 2022-2023 TPP approved project comprises changing Miguel 500 kV buses to breaker-and-a-half arrangement.	P3	TL23040 IV 500 kV N-1 RAS tripping renewable generation in the greater IV area	Area 20
P4-2-7 "Item 38: PAHRUMP-VISTA 138 & PAHRUMP-GAMEBIRD 138; BKR PA222" 1.00 line "VISTA 138.00" "PAHRUMP 138.00" "1 " 1 0 line "PAHRUMP 138.00" "GAMEBIRD 138.00" "1 " 1 0 0	P4	VEA's UVLS scheme	Area 18
P4-3-3 "Item 39: PAHRUMP 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 138; BKR PA232" 1.00 tran "PAHRUMP 230.00" "PAHRUMP 138.00" "1 " 0 " 0.00" line "PAHRUMP 138.00" "GAMEBIRD 138.00" "1 " 1 0 0	P4	VEA's UVLS scheme	Area 18
P4-2-11 "Item 32: INNOVATION -PAHRUMP 230 & INNOVATION-DESERT VIEW 230 & INNOVATION TRANS" 1.00 isol "INNOVATION 230.00" isol "INNOVATION 138.00" 0	P4		Area 18
P4-3-2 "Item 40: PAHRUMP 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 230.0-kVLine; BKR PA112" 1.00 tran "PAHRUMP 230.00" "PAHRUMP 138.00" "1 " 0 " 0.00" line "PAHRUMP 230.00" "GAMEBIRD 230.00" "1 " 1 0 0	P4	VEA's UVLS scheme	Area 18
line "ELDORDO 500.0" "LUGO 500.0" "1 " 1 0 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	P6	Lugo-Victorville RAS	Area 26



Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
line "PV_CLRVR_12 500.00" "COLRIVER 500.00" "1" "1" 0			
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
"secdd 'LGO 500.00000' 'LGO_MOHVE_11 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_11 500.00000' 'LGO_MOHVE_12 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_12 500.00000' 'LGO_MOHVE_13 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_13 500.00000' 'LGO_MOHVE_14 500.00000' '1' '1' "open" 1.000000 "secdd 'LGO_MOHVE_14 500.00000' 'MOHAVE 500.00000' '1' '1' "open" 1.000000 "secdd 'MOHAVE 500.00000' 'ELDORDO 500.00000' '1' '1' "open" 1.000000	P6	NVE RAS	Area 18
"TL50001" "Line ECO-ML 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22930 22468 '1' '1' "open" 1.000000 "#50001" "secdd 22930 22468 '1' '2' "open" 1.000000 "#50001" "gen 22450 '1' "" "open" 1.000000 "ML SYNCON A" "gen 22451 '1' "" "open" 1.000000 "ML SYNCON B" 0 "TL23054" "Line SCR-SX 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22886 22832 '1' '1' "open" 1.000000 "#23054" 0  Note: For the 2034 and 2039 Base Cases, remove the outage of gen 22450 and 22451 since the 2022-2023 TPP approved project comprises changing Miguel 500 kV buses to breaker-and-a-half arrangement.	P6	TL23054/ TL23055 RAS tripping renewable generation in the greater IV area	Area 20, Area 21
"TL50002" "Line NG-IV 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22536 22360 '1' '1' "open" 1.000000 "" "secdd 22536 22360 '1' '2' "open" 1.000000 "" "svd 22360 '1' "" "open" 1.000000 "" 0 "S-LINE1" "Line IV-WIXOM_SS 230kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22356 21113 '1' '1' "open" 1.000000 "S-LINE1" 0	P6		Area 21, Area 14
"TL50001" "Line ECO-ML 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22930 22468 '1' '1' "open" 1.000000 "#50001" "secdd 22930 22468 '1' '2' "open" 1.000000 "#50001" "gen 22450 '1' "" "open" 1.000000 "ML SYNCON A" "gen 22451 '1' "" "open" 1.000000 "ML SYNCON B" 0 "TL50002" "Line NG-IV 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22536 22360 '1' '1' "open" 1.000000 "" "secdd 22536 22360 '1' '2' "open" 1.000000 "" "svd 22360 '1' "" "open" 1.000000 "" 0  Note: For the 2034 and 2039 Base Cases, remove the outage of gen 22450 and 22451 since the 2022-2023 TPP approved project comprises changing Miguel 500 kV buses to breaker-and-a-half arrangement.	P6		Area 20, Area 21
"TL50003" "Line OCO-SCR 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 23310 22885 '1' '1' "open" 1.000000 "" "secdd 23310 22885 '1' '2' "open" 1.000000 "" "svd 22885 'S1' "" "open" 1.000000 ""	P6		Area 20, Area 21

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
0 "TL50002" "Line NG-IV 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22536 22360 '1' 1" "open" 1.000000 "" "secdd 22536 22360 '1' 2" "open" 1.000000 "" "svd 22360 '1' "" "open" 1.000000 "" 0			
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, Area 15, Area 18, Area 19
line "DELANY 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, Area 15, Area 18, Area 19
"line_31" "Line Inyokern-Kramer and Inyokern-Randsburg-Kramer 115kV lines" 1.00 "" "" "" 0 "secdd 'INYOKERN 115.00000' 'KRAMER 115.00000' '1' 1" "open" 1.000000 "secdd 'TAP701 115.00000' 'KRAMER 115.00000' '1' 1" "open" 1.000000 "secdd 'TAP701 115.00000' 'INYOKERN 115.00000' '1' 1" "open" 1.000000 "secdd 'RANDSBRG 115.00000' 'TAP701 115.00000' '1' 1" "open" 1.000000 0	P6		Area 26
line "DEVERS 500.00" "DVRB_RB_11 500.00" "1" "1 0 line "DVRB_RB_11 500.00" "DVRB_RB_12 500.00" "1" "1 0 line "DVRB_RB_12 500.00" "REDBLUFF 500.00" "1" "1 0 line "DEVERS 500.00" "DVRB_RB_21 500.00" "2" "1 0 line "DVRB_RB_21 500.00" "DVRB_RB_22 500.00" "2" "1 0 line "DVRB_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, Area 15, Area 18, Area 19
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, Area 15, Area 18, Area 19
"41_Extreme_Mohave500kV" "Extreme: 3PH 4Cycle-loss of Eldorado-Lugo & Eldorado-Mohave 500kV" 0.00 "EE" "" "" 0 "bus 24042" "FAULT 3PB SOLID" 1.000000 "" "bus 24042" "CLEARFAULT" 1.066700 "" "secdd 24097 24042 '1' 1" "OPEN" 1.066700 "Eldorado-Mhve" "secdd 29247 24097 '1' 1" "OPEN" 1.066700 "" "secdd 29246 29247 '1' 1" "OPEN" 1.066700 "" "secdd 29245 29246 '1' 1" "OPEN" 1.066700 "" "secdd 29244 29245 '1' 1" "OPEN" 1.066700 "" "secdd 24086 29244 '1' 1" "OPEN" 1.066700 "" 0	P6/Extreme	Lugo-Victorville RAS	Area 26, Area 14, Area 15, Area 18, Area 19
"TL50001" "Line ECO-ML 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 22930 22468 '1' 1" "open" 1.000000 "#50001" "secdd 22930 22468 '1' 2" "open" 1.000000 "#50001" "gen 22450 '1' "" "open" 1.000000 "ML SYNCON A" "gen 22451 '1' "" "open" 1.000000 "ML SYNCON B" 0 "TL50003" "Line OCO-SCR 500kV ck 1" 0.00 "P1" "N-1" "" 0 "secdd 23310 22885 '1' 1" "open" 1.000000 "" "secdd 23310 22885 '1' 2" "open" 1.000000 "" "svd 22885 'S1' "" "open" 1.000000 "" 0	P6/Extreme	TL50003 Gen Drop RAS or TL50001 Gen Drop RAS tripping generation in the greater IV area and South of San Onofre Safety Net	Area 20, Area 21, Area 14, Area 15, Area 19

Contingency	Category Description	Description of RAS if Applicable	Potentially Affected Adjacent Area
<b>Steady State Contingencies (OTG Format)</b>			
Note: For the 2034 and 2039 Base Cases, remove the outage of gen 22450 and 22451 since the 2022-2023 TPP approved project comprises changing Miguel 500 kV buses to breaker-and-a-half arrangement.			
line "EAGLROCK 230.00" "SYLMAR S 230.00" "1" "1" 0 line "SYLMAR S 230.00" "GOULD 230.00" "1" "1" 0	P7		Area 26
"TL23041+23042" "Lines SX-OM-ML 230kV ck 1 + BB-OM-ML 230kV ck 1" 0.00 "P7" "N-2" "" 0 "secdd 22832 22467 '1' '1" "open" 1.000000 "#23041A" "secdd 22609 22467 '1' '1" "open" 1.000000 "#23041B" "secdd 22464 22467 '1' '1" "open" 1.000000 "#23041C" "secdd 22771 22466 '1' '1" "open" 1.000000 "#23042A" "secdd 22609 22466 '1' '1" "open" 1.000000 "#23042B" "secdd 22464 22466 '1' '1" "open" 1.000000 "#23042C" 0	P7	230 kV Otay Mesa Gen Drop RAS tripping Otay Mesa and Pio Pico generation	Area 20
line "CVSUB230 230.00" "MIRAGE 230.00" "1" "1" 0 line "RAMON 230.00" "MIRAGE 230.00" "1" "1" 0	P7		Area 21
line_201128 "P7-9:Line CONTROL - INYOKERN 115.0 ck 1,line CONTROL-COSO-INYOKERN 115 ck 2" line "TAP189 115.00" "CONTROL 115.00" "1" "1" 0 line "INYOKERN 115.00" "TAP189 115.00" "1" "1" 0 line "TAP188 115.00" "CONTROL 115.00" "1" "1" 0 line "TAP710 115.00" "TAP188 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 0	P7	Bishop RAS - trips Bishop area generation	Area 26
tran "ELDORDO2 230" "ELDORDO 500" "5" "0" "ELDOR 5T 13.80" "secdd 'MEAD S 230.00' 'SLOAN CANYON 230.00' '1' '1" "open" 1.000000	P6		18, 19, 24, 26
tran "ELDORDO2 230" "ELDORDO 500" "5" "0" "ELDOR 5T 13.80" "secdd 'MEAD S 230.00' 'SLOAN CANYON 230.00' '1' '1" "open" 1.000000	P6	Existing UVLS scheme.	18
"secdd 'PAHRUMP 230.00' 'INNOVATION 230.00' '1' '1" "open" 1.000000 "secdd 'GAMEBIRD 230.00' 'TROUT CANYON 230.00' '1' '1" "open" 1.000000	P6	Existing UVLS scheme.	18
"secdd 'TROUT CANYON 500.00' 'SLOAN_CYN_5 500.00' '1' '1" "open" 1.000000 "secdd 'TROUT CANYON 500.00' 'SLOAN_CYN_5 500.00' '2' '1" "open" 1.000000	P7	Future Trout Canyon RAS	19,18
"tran 26094 24147 'G'" "OPEN" 1.25000 "" "tran 26094 24147 'E'" "OPEN" 1.25000 ""	P2/P4		Area 26
"tran 26094 24147 'G'" "OPEN" 1.25000 "" "tran 26094 24147 'F'" "OPEN" 1.25000 ""	P2/P4		Area 26
<b>Stability Contingencies</b>			
None identified			