

Overloaded Facility	Contingency (AllWorst P6)	Category	Category Description	Loading % (Baseline Scenarios)						Loading % (Sensitivity Scenarios)			Project & Potential Mitigation Solutions	
				2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2029 Summer-Off Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2029 SP High CEC Forecast	2026 SP Heavy Renewable & Min Gas Gen	2026 OP BESS Charging		
21076 RAMON230 230 24806 MIRAGE 230 1 1	CVSub230-Mirage 230kV No.1 Line + Ramon230-Mirage 230kV No.2 Line	P6	N-1-1	< 100	< 100	128.4	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Path 42 RAS
21076 RAMON230 230 24806 MIRAGE 230 2 1	CVSUB230-Mirage 230 kV No.1 Line + RAMON230-Mirage 230 kV No.1 Line	P6	N-1-1	< 100	< 100	101.6	< 100	< 100	106.9	< 100	< 100	< 100	< 100	Path 42 RAS
24374 REDBLUFF 500 24377 redblf2 13.8 2 1	Serrano-ValleySC 500 kV No.1 Line + Redbluff 500/230/13.80 kV Transformer Circuit 1	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	WOCR CRAS
24374 REDBLUFF 500 24377 redblf2 13.8 2 1	Redbluff 500/230/13.80 kV Transformer Circuit 1 + Palovrde-PV_CLRVR_11 500 kV No.1 Lineshunt	P6	N-1-1	< 100	< 100	< 100	127.2	< 100	< 100	< 100	< 100	< 100	< 100	WOCR CRAS
24374 REDBLUFF 500 24379 redblf1 13.8 2 1	24374 REDBLUFF 500 24379 redblf1 13.8 2 1	P1	N-1	< 100	< 100	< 100	127.2	< 100	< 100	< 100	< 100	105.3	< 100	WOCR CRAS
24374 REDBLUFF 500 24379 redblf1 13.8 1 1	Serrano-ValleySC 500 kV No.1 Line + Redbluff 500/230/13.80 kV Transformer Circuit 2	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	WOCR CRAS
24374 REDBLUFF 500 24379 redblf1 13.8 1 1	Redbluff 500/230/13.80 kV Transformer Circuit 2 + Palovrde-PV_CLRVR_11 500 kV No.1 Lineshunt	P6	N-1-1	< 100	< 100	< 100	127.2	< 100	< 100	< 100	< 100	< 100	< 100	WOCR CRAS
24374 REDBLUFF 500 24379 redblf1 13.8 1 1	24374 REDBLUFF 500 24377 redblf2 13.8 2 1	P1	N-1	< 100	< 100	< 100	127.2	< 100	< 100	< 100	< 100	105.3	< 100	WOCR CRAS
24900 COLRIVER 500 24959 colrv2 13.8 2 1	Serrano-ValleySc 500 kV No.1 Line + ColRiver 500/230/13.80 kV Transformer Circuit 1	P6	N-1-1	100.4	< 100	< 100	< 100	< 100	< 100	< 100	112.2	< 100	< 100	Further investigation
24900 COLRIVER 500 24959 colrv2 13.8 2 1	ColRiver 500/230/13.80 kV Transformer Circuit 1 + Palovrde-PV_CLRVR_11 500 kV Line No.1 Lineshunt	P6	N-1-1	100.4	< 100	< 100	136.5	< 100	< 100	< 100	112.1	< 100	< 100	Further investigation
24900 COLRIVER 500 24959 colrv2 13.8 2 1	ColRiver 500/230/13.80 kV Transformer 1	P1	N-1	100.3	< 100	< 100	136.5	< 100	< 100	< 100	112.1	< 100	< 100	WOCR CRAS
24900 COLRIVER 500 24993 colrv1 13.8 1 1	ColRiver 500/230/13.80 kV Transformer Circuit 2 + Palovrde-PV_CLRVR_11 500 kV No.1 Lineshunt	P6	N-1-1	< 100	< 100	< 100	136.5	< 100	< 100	< 100	< 100	< 100	< 100	Further investigation
24900 COLRIVER 500 24993 colrv1 13.8 1 1	Serrano-ValleySC 500 kV No.1 Line + ColRiver 500/230/13.80 kV Transformer Circuit 2	P6	N-1-1	100.4	< 100	< 100	< 100	< 100	< 100	< 100	112.2	< 100	< 100	Further investigation
24900 COLRIVER 500 24993 colrv1 13.8 1 1	ColRiver 500/230/13.80 kV Transformer 2	P1	N-1	100.3	< 100	< 100	136.5	< 100	< 100	< 100	112.1	< 100	< 100	WOCR CRAS
25401 EAGLEMTN 230 25405 IRON MTN 230 1 1	Devers-Mirage 230 kV No.1 Line + Devers-Mirage 230 kV No.2 Line	P7	DCTL	101.7	< 100	< 100	< 100	137.6	< 100	< 100	< 100	< 100	< 100	Blythe RAS and Path 42 RAS
25401 EAGLEMTN 230 25405 IRON MTN 230 1 1	J.Hinds-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	129.2	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25401 EAGLEMTN 230 25405 IRON MTN 230 1 1	J.Hinds-Mirage 230kV No.1 Line + Eaglemtn 230/161/112kV Transformer Circuit 1	P6	N-1-1	< 100	< 100	121.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25401 EAGLEMTN 230 25405 IRON MTN 230 1 1	J.HINDS 230.0 to MIRAGE 230.0 Circuit 1	P1	N-1	< 100	< 100	< 100	< 100	114.1	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25405 IRON MTN 230 24019 CAMINO 230 1 1	Devers-Mirage 230 kV No.1 Line + Devers-Mirage 230 kV No.2 Line	P7	DCTL	< 100	< 100	< 100	< 100	137.4	< 100	< 100	< 100	< 100	< 100	Blythe RAS and Path 42 RAS
25405 IRON MTN 230 24019 CAMINO 230 1 1	J.Hinds-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	119.2	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25405 IRON MTN 230 24019 CAMINO 230 1 1	J.Hinds-Mirage 230kV No.1 Line + Eaglemtn 230/161/112kV Transformer Circuit 1	P6	N-1-1	< 100	< 100	111.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25405 IRON MTN 230 24019 CAMINO 230 1 1	J.HINDS 230.0 to MIRAGE 230.0 Circuit 1	P1	N-1	< 100	< 100	< 100	< 100	113.7	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25406 J.HINDS 230 24806 MIRAGE 230 1 1	JHINDMWD-J.Hinds 230 kV No. r1 Line + Devers 230 kV Shunt EI	P6	N-1-1	142.4	< 100	< 100	< 100	138.8	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25406 J.HINDS 230 24806 MIRAGE 230 1 1	Devers-Mirage 230kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	< 100	< 100	137.9	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25406 J.HINDS 230 24806 MIRAGE 230 1 1	JHINDMWD - J.HINDS 230.0 Circuit r1	P1	N-1	141.4	< 100	137.5	< 100	137.8	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25406 J.HINDS 230 24806 MIRAGE 230 1 1	JHINDMWD - EAGLEMTN 230 kV	P1	N-1	119.6	< 100	115.5	< 100	137.8	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25512 JHINDMWD 230 25401 EAGLEMTN 230 1 1	Devers-Mirage 230 kV No.1 Line + Devers-Mirage 230 kV No.2 Line	P7	DCTL	164.6	< 100	< 100	< 100	189.0	< 100	< 100	< 100	< 100	< 100	Blythe RAS and Path 42 RAS
25512 JHINDMWD 230 25401 EAGLEMTN 230 1 1	Devers 500/230/13.80 Transformer Circuit 1 + Devers 500/230/13.80 Transformer Circuit 2	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.8	< 100	< 100	< 100	< 100	Blythe RAS
25512 JHINDMWD 230 25401 EAGLEMTN 230 1 1	BlytheSC-Eaglemtn 161kV No.1 Line + J.Hinds-Mirage 230kV No.1 Line	P6	N-1-1	< 100	< 100	150.7	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25512 JHINDMWD 230 25401 EAGLEMTN 230 1 1	J.HINDS 230.0 to MIRAGE 230.0 Circuit 1	P1	N-1	149.4	< 100	142.9	< 100	176.6	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25512 JHINDMWD 230 25406 J.HINDS 230 r1 1	Devers-Mirage 230 kV No.1 Line + Devers-Mirage 230 kV No.2 Line	P7	DCTL	155.4	< 100	< 100	< 100	161.2	< 100	< 100	< 100	< 100	< 100	Blythe RAS and Path 42 RAS
25512 JHINDMWD 230 25406 J.HINDS 230 r1 1	BlytheSC-Eaglemtn 161kV No.1 Line + J.Hinds-Mirage 230kV No.1 Line	P6	N-1-1	< 100	< 100	145.8	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Blythe RAS
25512 JHINDMWD 230 25406 J.HINDS 230 r1 1	J.HINDS 230.0 to MIRAGE 230.0 Circuit 1	P1	N-1	143.2	< 100	137.6	< 100	143.1	< 100	< 100	< 100	< 100	< 100	Blythe RAS

Substation	Contingency (All and Worst P6)	Category	Category Description	High Low Voltage	Voltage PU (Baseline Scenarios)					Voltage PU (Sensitivity Scenarios)				Project & Potential Mitigation Solutions
					2026 Summer Peak	2026 Spring Off-Peak	2029 Summer-Off Peak	2029 Summer Peak	2029 Spring Off-Peak	2034 Summer Peak	2029 SP High CEC Forecast	2026 SP Heavy Renewable & Min Gas Gen	2026 OP BESS Charging	
BLYTHE 161kV	Blythe-BlytheSC 161kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.73	0.83	0.9 < V < 1.1	0.9 < V < 1.1	System Adjustments & Install Reactive Support
EAGLEMTN 161kV	Blythe-BlytheSC 161kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	Low Voltage	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.77	0.85	0.88	0.9 < V < 1.1	System Adjustments & Install Reactive Support
EAGLEMTN 230kV	Blythe-BlytheSC 161kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.81	0.88	0.9 < V < 1.1	0.9 < V < 1.1	System Adjustments & Install Reactive Support
IRON MTN 230 kV	Blythe-BlytheSC 161kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	System Adjustments & Install Reactive Support
J.HINDS MWD 230 kV	Blythe-BlytheSC 161kV No.1 Line + JHindMWD-J.Hinds 230kV No.r1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.80	0.88	0.9 < V < 1.1	0.9 < V < 1.1	System Adjustments & Install Reactive Support
EAGLEMTN 161kV	J.HINDS-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	Low Voltage	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS
EAGLEMTN 230	J.HINDS-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	Low Voltage	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS
IRON MTN 230 kV	J.HINDS-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	Low Voltage	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS
J.HINDS 230 kV	J.HINDS-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	Low Voltage	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS
J.HINDS MWD 230 kV	J.HINDS-Mirage 230 kV No.1 Line + BlytheSC-EagleMTN 161 kV No.1 Line	P6	N-1-1	Low Voltage	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS
BUCK230 230 kV	J.HINDS-Mirage 230 kV No.1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	High Voltage	1.19	0.9 < V < 1.1	1.13	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS & OP7720F
EAGLEMTN 230 kV	J.HINDS-Mirage 230 kV No.1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	High Voltage	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS & OP7720F
J.HINDS 230 kV	J.HINDS-Mirage 230 kV No.1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	High Voltage	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS & OP7720F
J.HINDS MWD 230 kV	J.HINDS-Mirage 230 kV No.1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	High Voltage	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Blythe RAS & OP7720F
EAGLEMTN 161kV	JHINDMWD-J.HINDS 230 kV No. r1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	Low Voltage	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	System Adjustments & Install Reactive Support
EAGLEMTN 230	JHINDMWD-J.HINDS 230 kV No. r1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	System Adjustments & Install Reactive Support
J.HINDS MWD 230 kV	JHINDMWD-J.HINDS 230 kV No. r1 Line + EagleMTN-Iron MTN 230 kV No.1 Line	P6	N-1-1	Low Voltage	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	System Adjustments & Install Reactive Support

Substation	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)						Voltage PU (Sensitivity Scenarios)			Project & Potential Mitigation Solutions
				2026 Summer Peak	2026 Spring Off-Peak	2029 Summer-Off Peak	2029 Summer Peak	2029 Spring Off-Peak	2034 Summer Peak	2029 SP High CEC Forecast	2026 SP Heavy Renewable & Min Gas Gen	2026 OP BESS Charging	

No P1 or P3 contingencies resulted in voltage deviation greater than 8%

Contingency	Category	Category Description	Transient Stability Performance					Potential Mitigation Solutions
			Baseline Scenarios			Sensitivity Scenarios		
			2029 Summer Peak	2034 Summer Peak	2026 Spring Off-Peak	2029 SP High CEC Forecast	2026 Spr Shoulder-Peak Heavy Renewable	
EagleMTN-BlytheSCE 161 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
EagleMTN-BlytheSCE 161 kV & Blythe 1CT trip (RAS)	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV & Blythe 1CT trip (RAS)	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV & Blythe 1CT trip (RAS)	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Palo Verde 500 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Palo Verde 500 kV, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River - Red Bluff 500 kV #1	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River - Red Bluff 500 kV #1, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Red Bluff 500 kV #1	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Red Bluff 500 kV #1, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Valley 500 kV #1	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Valley 500 kV #1, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Valley-Serrano/Alberhill 500 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Valley-Serrano/Alberhill 500 kV, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers 500/230 AA #2	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers 500/230 AA #2, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Imperial Valley - N. Gila 500 kV	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Imperial Valley - N. Gila 500 kV, no Devers SVC	P1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds Bus tie CB fault, loss Julian Hinds	P2.4	Breaker Fault	No issues	No issues	No issues	No issues	No issues	
Devers Middle CB fault, loss of Devers - Red Bluff 500 kV #1 and Devers-Valley 500 kV #1, no Devers SVC	P2.3	Breaker Fault	No issues	No issues	No issues	No issues	No issues	
Devers Middle CB fault, loss of Devers - Red Bluff 500 kV #2 and Devers 1AA Bank, no Devers SVC	P2.3	Breaker Fault	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, CB 872 stuck at BlytheSCE	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, CB 872 stuck at BlytheSCE & Blythe 1CT trip (RAS)	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, CB 70 stuck at EagleMTN	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, CB 70 stuck at EagleMTN & Blythe 1CT trip (RAS)	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV, CB 407 stuck at EagleMTN	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV, CB 407 stuck at EagleMTN & Blythe 1CT trip (RAS)	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV, CB 307 stuck (close to Iron)	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV, CB 405 stuck at EagleMTN	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV, CB 405 stuck at EagleMTN & Blythe 1CT trip (RAS)	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV, Stuck CB 509 at J.Hinds	P4.2	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
EagleMTN 230/161 kV Transformer #5, Stuck CB432 at EagleMTN	P4.3	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
EagleMTN 230/161 kV Transformer #5, Stuck CB432 at EagleMTN & Blythe 1CT trip (RAS)	P4.3	Breaker Failure	No issues	No issues	No issues	No issues	No issues	
Valley-Serrano/Alberhill 500 kV with stuck breaker followed by Valley 4AA Bank	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Red Bluff 500 kV #1 with stuck breaker followed by Devers-Valley 500 kV #1	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Red Bluff 500 kV #2 with stuck breaker followed by Devers 1AA bank	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Mirage 230 kV with stuck breaker followed by Coachell Valley-Mirage 230 kV	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Vista 230 kV with stuck breaker followed by Devers 3A bank	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - El Casco 230 kV with stuck breaker followed by El Casco 2A bank	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mirage-J.Hinds 230 kV with stuck breaker followed by Mirage-Ramon 230 kV	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mirage-J.Hinds 230 kV with stuck breaker followed by Mirage-Ramon 230 kV Blythe 1CT trip (RAS)	P4.2	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
EagleMTN 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	Add redundant DC supply
Julian Hinds 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	Add redundant DC supply
BlytheSCE 161 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	No issues	No issues	No issues	No issues	No issues	
Mirage 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	Add redundant DC supply
Devers 500 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	WECC criteria not met	Add redundant DC supply
El Casco 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	No issues	No issues	No issues	No issues	No issues	
San Bernardino 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	No issues	No issues	No issues	No issues	No issues	
Vista 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	No issues	No issues	No issues	No issues	No issues	
Etiwanda 230 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	No issues	No issues	No issues	No issues	No issues	
Valley 500 kV Bus, non-Redundant DC Supply fail	P5.3.13c	Persistent	WECC criteria not met	WECC criteria not met	No issues	WECC criteria not met	No issues	Add redundant DC supply
Colorado River-Palo Verde 500 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Red Bluff 500 kV #1, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River 1AA Bank, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Genesis 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Black Creek 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Dracker 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Suncatcher 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Crimson 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Centipede 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Filippi 230 kV, non-Redundant Trip Coil fail at Colorado River	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River-Red Bluff 500 kV #1, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Red Bluff 1AA Bank, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Red Bluff 500 kV No. 2, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Desert Sunlight-Red Bluff 230 kV, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Black Ranch-Red Bluff 230 kV, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Almasol-Red Bluff 230 kV, non-Redundant Trip Coil fail at Red Bluff	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Red Bluff 500 kV No. 2, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Valley 500 kV No. 1, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers 1AA Bank, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-El Casco 230 kV, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Mirage 230 kV No. 1, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Sentinel 230 kV, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Vista 230 kV No. 2, non-Redundant Trip Coil fail at Devers	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-El Casco 230 kV, non-Redundant Trip Coil fail at El Casco	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	

Contingency	Category	Category Description	Transient Stability Performance					Potential Mitigation Solutions
			Baseline Scenarios			Sensitivity Scenarios		
			2029 Summer Peak	2034 Summer Peak	2026 Spring Off-Peak	2029 SP High CEC Forecast	2026 Spr Shoulder-Peak Heavy Renewable	
El Casco-San Bernardino 230 kV, non-Redundant Trip Coil fail at El Casco	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
El Casco-San Bernardino 230 kV, non-Redundant Trip Coil fail at San Bernardino	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda-San Bernardino 230 kV, non-Redundant Trip Coil fail at San Bernardino	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mountainview-San Bernardino 230 kV No. 3, non-Redundant Trip Coil fail at San Bernardino	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
San Bernardino-Vista 230 kV, non-Redundant Trip Coil fail at San Bernardino	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
San Bernardino-Vista 230 kV, non-Redundant Trip Coil fail at Vista	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Vista 230 kV No. 1, non-Redundant Trip Coil fail at Vista	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda-Vista 230 kV, non-Redundant Trip Coil fail at Vista	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mira Loma-Vista 230 kV No. 1, non-Redundant Trip Coil fail at Vista	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mira Loma-Vista 230 kV No. 2, non-Redundant Trip Coil fail at Vista	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda-San Bernardino 230 kV, non-Redundant Trip Coil fail at Etiwanda	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda-Vista 230 kV, non-Redundant Trip Coil fail at Etiwanda	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Valley 500 kV No. 1, non-Redundant Trip Coil fail at Valley	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Serrano-Valley 500 kV, non-Redundant Trip Coil fail at Valley	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Valley 1AA Bank, non-Redundant Trip Coil fail at Valley	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Valley 4AA Bank, non-Redundant Trip Coil fail at Valley	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-Mirage 230 kV No. 1, non-Redundant Trip Coil fail at Mirage	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV, non-Redundant Trip Coil fail at Mirage	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Mirage-Ramon 230 kV, non-Redundant Trip Coil fail at Mirage	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Coachella Valley-Mirage 230 kV, non-Redundant Trip Coil fail at Mirage	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV, non-Redundant Trip Coil fail at Julian Hinds	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Buck Blvd-Julian Hinds 230 kV, non-Redundant Trip Coil fail at Julian Hinds	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
Eagle Mtn-Julian Hinds (MWD), non-Redundant Trip Coil fail at Julian Hinds	P5.4.13d	Delayed Clearing	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
BlytheSCE-EagleMTN 161 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
EagleMTN-IronMTN 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV & Blythe 1CT trip (RAS), non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-EagleMTN 230 kV & Blythe 1CT trip (RAS), non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV & Blythe 1CT trip (RAS), non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV, non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage 230 kV & Blythe 1CT trip (RAS), non-redundant pilot relay fail	P5.2	Zone2 Clearing	No issues	No issues	No issues	No issues	No issues	
Julian Hinds-Mirage & EagleMTN-IronMTN 230 kV	P6.1	Normal Clearing	Diverged	Diverged	No issues	Diverged	No issues	ISO7720 (OP) with system adjustments after the first contingency
Julian Hinds-Mirage & EagleMTN-IronMTN 230 kV & ISO7720 (OP)	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River - Red Bluff 500 kV #1 & #2	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Red Bluff 500 kV #1 & #2	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Valley 500 kV #1 & #2	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda - San Bernardino & El Casco-San Bernardino 230kV	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
San Bernardino - Vista & Devers - San Bernardino 230kV	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Colorado River - Palo Verde & Colorado River - Delaney 500 kV	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Mirage-Ramon & Coachella Valley-Mirage 230 kV	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Mirage-Ramon & Coachella Valley-Mirage 230 kV with RAS	P6.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Mirage 230 kV #1 & #2	P7.1	Normal Clearing	No issues	No issues	WECC criteria not met	Diverged	No issues	Path 42 RAS with system adjustments
Devers - Mirage 230 kV #1 & #2 with RAS	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-San Bernardino & Devers-El Casco 230 kV	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers-San Bernardino & San Bernardino-El Casco 230 kV	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Devers - Vista 230 kV #1 & #2	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Etiwanda-San Bernardino & San Bernardino-Vista 230 kV	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Mira Loma-Vista #2 & Mira Loma-Vista #1/Vista-Wildlife 230 kV	P7.1	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Coachella Valley-Ramon & Coachella Valley-Mirage 230 kV	P7.1	Normal Clearing	Oscillations	Diverged	No issues	Oscillations	No issues	Path 42 RAS with system adjustments
Coachella Valley-Ramon & Coachella Valley-Mirage 230 kV with RAS	P7.1	Normal Clearing	Oscillations	Oscillations	No issues	Oscillations	No issues	Path 42 RAS with system adjustments
Devers Substation 500 kV Bus & AA Banks	Extreme	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Valley Substation 500 kV Bus & AA Banks	Extreme	Normal Clearing	No issues	No issues	No issues	No issues	No issues	
Loss of Mountainview Generation Station	Extreme	Normal Clearing	No issues	No issues	No issues	No issues	No issues	

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)									Potential Mitigation Solutions
			2026 Summer Peak	2026 Spring Off-Peak	2029 Summer Off Peak	2029 Summer Peak	2029 Spring Off-Peak	2034 Summer Peak	2029 SP High CEC Forecast	2026 SP Heavy Renewable & Min Gas Gen	2026 OP BESS Charging	

No single contingency resulted in total load drop of more than 250 MW

2024-2025 ISO Reliability Assessment - Study Results

Study Area: **SCE Eastern Area**

*Single Source Substation with more than 100 MW Load*



Substation	Load Served (MW)									Potential Mitigation Solutions
	2026 Summer Peak	2026 Spring Off-Peak	2029 Summer Off Peak	2029 Summer Peak	2029 Spring Off-Peak	2034 Summer Peak	2029 SP High CEC Forecast	2026 SP Heavy Renewable & Min Gas Gen	2026 OP BESS Charging	

No single source substation with more than 100 MW