

Study Area: SCE Bulk

Thermal Overloads



ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2018 Summer Peak	2021 Summer Peak	2026 Summer Peak	2018 Spring Off-Peak	2021 Spring Light Load	2018 Summer Off-Peak with Maximum PV Output	2021 SP Heavy Renewable & Min Gas Gen	Select..	
Bulk-T-1	Line 24804 DEVERS 230 kV to 24942 SBLR 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				123.28		128.37			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-2	Line 24132 SANBRDNO 230 kV to 24942 SBLR 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				123.28		128.37			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-3	Line 24944 Vista2LR 230 kV to 24901 VSTA 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				118.24		123.28			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-4	Line 24804 DEVERS 230 kV to 24944 Vista2LR 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				118.24		123.28			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-5	Line 24941 EICascoLR 230 kV to 25666 EL CASCO 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				103.05		107.14			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-6	Line 24804 DEVERS 230 kV to 24941 EICascoLR 230 kV	Line SERRANO 500.0 to VALLEYSC 500.0 Circuit 1	P1	L-1				103.05		107.14			Inland Empire SPS, West of Devers SPS, Congestion Management and Curtailment
Bulk-T-7	Transformer Devers 500/230 kV ck 1T	Line ALBERHIL 500.0 to VALLEYSC 500.0 Circuit 1 AND Tran DEVERS 500.00 to DEVERS 230.00 Circuit 2DEVERS2T 13.80	P6	L-1, T-1							117.87		Congestion Management, Expansion of Colorado River Corridor SPS
Bulk-T-8	Transformer Devers 500/230 kV ck 2T	Line ALBERHIL 500.0 to VALLEYSC 500.0 Circuit 1 AND Tran DEVERS 500.00 to DEVERS 230.00 Circuit 1DEVERS 1T 13.80	P6	L-1, T-1							116.22		Congestion Management, Expansion of Colorado River Corridor SPS
Bulk-T-9	Line 24086 LUGO 500 kV to 26105 VICTORVILLE 500 kV	Line ELDORDO 500.0 to LUGO 500.0 Circuit 1 AND Line MOHAVE 500.0 to ELDORDO 500.0 Circuit 1	P6	L-1-1			100.34				103.64		Preferred Resources, Increase line rating
Bulk-T-10	Line 30060 MIDWAY 500 kV to 29402 WIRLWIND 500 kV	Line MIDWAY 500 to VINCENT 500 Circuit 1 AND Line MIDWAY 500 to VINCENT 500 Circuit 2	P7	L-2	149.57	147.85	108.45						Path 26 SPS
Bulk-T-11	Line 24132 SANBRDNO 230 kV to 24942 SBLR 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				145.69		151.02			West of Devers SPS, Congestion Management and Curtailment

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Bulk-T-12	Line 24804 DEVERS 230 kV to 24942 SBLR 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				145.69		151.02			West of Devers SPS, Congestion Management and Curtailment
Bulk-T-13	Line 24804 DEVERS 230 kV to 24944 Vista2LR 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				140.45		145.70			West of Devers SPS, Congestion Management and Curtailment
Bulk-T-14	Line 24944 Vista2LR 230 kV to 24901 VSTA 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				140.45		145.70			West of Devers SPS, Congestion Management and Curtailment
Bulk-T-15	Line 24804 DEVERS 230 kV to 24941 EICascoLR 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				121.01		125.28			West of Devers SPS, Congestion Management and Curtailment
Bulk-T-16	Line 24941 EICascoLR 230 kV to 25666 EL CASCO 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2				121.01		125.28			West of Devers SPS, Congestion Management and Curtailment
Bulk-T-17	Line 25666 EL CASCO 230 kV to 24132 SANBRDNO 230 kV	Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 1 AND Line DEVERS 500.0 to VALLEYSC 500.0 Circuit 2	P7	L-2						102.16			West of Devers SPS, Congestion Management and Curtailment

Study Area: SCE Bulk

Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								Potential Mitigation Solutions
					Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-VD-1													
X-VD-2													
X-VD-3													
X-VD-4													
X-VD-5													
X-VD-6													
X-VD-7													
X-VD-8													
X-VD-9													
X-VD-10													
X-VD-11													
X-VD-12													
X-VD-13													
X-VD-14													
X-VD-15													
X-VD-16													
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X-VD-25													
X-VD-26													
X-VD-27													
X-VD-28													
X-VD-29													
X-VD-30													
X-VD-31													
X-VD-32													
X-VD-33													
X-VD-34													
X-VD-35													

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High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-V-1													
X-V-2													
X-V-3													
X-V-4													
X-V-5													
X-V-6													
X-V-7													
X-V-8													
X-V-9													
X-V-10													
X-V-11													
X-V-12													
X-V-13													
X-V-14													
X-V-15													
X-V-16													
X-V-17													
X-V-18													
X-V-19													

Study Area: SCE Bulk

Transient Stability



ID	Contingency	Category	Category Description	Transient Stability Performance								Potential Mitigation Solutions
				Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-TS-1												
X-TS-2												
X-TS-3												
X-TS-4												
X-TS-5												
X-TS-6												
X-TS-7												
X-TS-8												
X-TS-9												
X-TS-10												
X-TS-11												
X-TS-12												
X-TS-13												
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X-TS-28												
X-TS-29												
X-TS-30												
X-TS-31												

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Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)								Potential Mitigation Solutions
				Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-SLD-1												

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

Study Area: SCE Bulk

Single Source Substation with more than 100 MW Load



ID	Substation	Load Served (MW)								Potential Mitigation Solutions
		Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	
X-SS-1										

No single source substation with more than 100 MW Load