



ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)										Potential Mitigation Solutions
					2018 Summer Off-Peak	2018 Summer Peak	2021 Summer Light Load	2021 Summer Peak	2026 Summer Peak	2021 SP with High Load	2018 SP with No BTM PV	2026 SP with No BTM PV	2021 SP Heavy Renewable & Min Gas Gen	2021 Summer Peak with Low Hydro	
BC&T-T-1	RECTOR-BIG CRK3 230kV 1 or 2	RECTOR-BIG CRK3 230kV 1 or 2	P1	N-1	<100		<100								
BC&T-T-2	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230kV 1 or 2	P1	N-1		<100		<100	<100	<100	<100	<100	<100	101.00	Operating Procedure
BC&T-T-3	MAGUNDEN-PASTORIA 230kV 1 or 2 or 3	N-2 MAGUNDEN-PASTORIA 230kV 1 or 2 or 3 (with RAS)	P7	N-2	<100		<100								BC RAS- Edmonston pump trip
BC&T-T-4	PASTORIA-WARNETAP 230kV 1	MAGUNDEN-ANTELOPE 230kV 1 or 2 and BAILEY-PASTORIA 230kV 1 (with RAS)	P6	N-1-1	<100		<100								Pastoria RAS- PEF generation trip
BC&T-T-5	PASTORIA-WARNETAP 230kV 2	MAGUNDEN-ANTELOPE 230kV 1 or 2 and PARDEE-BAILEY 230kV 2 (with RAS)	P6	N-1-1	<100		<100								
BC&T-T-6	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and BIG CRK3-RECTOR 230 kV 1 or 2	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	(a) Thyristor Controlled Series Capacitor. (b) ACCC upgrade (c) PGE - SCE connection line (d) PGE - SCE connection substation (e) Operating Procedure
BC&T-T-7	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and MAGUNDEN-SPRINGVL 230 kV 1 or 2 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	116.44	
BC&T-T-8	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-SPRINGVL 230 kV 1 or 2 and MAGUNDEN-VESTAL 230 kV 2 or 1 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	116.44	
BC&T-T-9	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and SPRINGVL-RECTOR 230 kV 1 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	111.40	
BC&T-T-10	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 and PASTORIA-PSTRIA 230 kV 1	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-11	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and BIG CRK1-RECTOR 230 kV 1	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-12	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and BIG CRK3-RECTOR 230 kV 1 or 2	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-13	MAGUNDEN-VESTAL 230kV 1 or 2	SPRINGVL-RECTOR 230 kV 1 and MAGUNDEN-VESTAL 230 kV 2 or 1 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	111.40	
BC&T-T-14	MAGUNDEN-VESTAL 230kV 1 or 2	N-2 MAGUNDEN-SPRINGVL 230 kV 1 and 2 (with RAS)	P7	N-2		<100		<100	<100	<100	<100	<100	<100	103.35	
BC&T-T-15	MAGUNDEN-SPRINGVL 230 kV 1 or 2	N-2 MAGUNDEN-VESTAL 230kV 1 and 2 (with RAS)	P7	N-2		<100		<100	<100	<100	<100	<100	<100	103.36	
BC&T-T-16	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-VESTAL 230 kV 2 or 1 and Gen WELLGEN 13.8 Unit ID 1	P3	N-1/G-1		<100		<100	<100	<100	<100	<100	<100	102.47	
BC&T-T-17	MAGUNDEN-VESTAL 230kV 1 or 2	RECTOR-VESTAL 230 kV 2 or 1 and Gen B CRK2-1 13.8 Unit ID 1 or 2	P3	N-1/G-1		<100		<100	<100	<100	<100	<100	<100	100.33	

Study Area: SCE Tehachapi & Big Creek Corridor

Thermal Overloads



ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)										Potential Mitigation Solutions
					2018 Summer Off-Peak	2018 Summer Peak	2021 Summer Light Load	2021 Summer Peak	2026 Summer Peak	2021 SP with High Load	2018 SP with No BTM PV	2026 SP with No BTM PV	2021 SP Heavy Renewable & Min Gas Gen	2021 Summer Peak with Low Hydro	
BC&T-T-18	BIG CRK3-RECTOR 230 kV 1 or 2	BIG CRK3-RECTOR 230 kV 1 or 2 and BIG CRK1-RECTOR 230 kV 1 (with RAS)	P7	N-2		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-19	RECTOR-VESTAL 230 kV 1 or 2	RECTOR-VESTAL 230 kV 2 or 1 and SPRINGVL-RECTOR 230 kV 1 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-20	RECTOR-VESTAL 230 kV 1 or 2	MAGUNDEN-SPRINGVL 230 kV 1 and RECTOR-VESTAL 230 kV 2 or 1 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-21	RECTOR-VESTAL 230 kV 1 or 2	RECTOR-VESTAL 230 kV 2 or 1 and MAGUNDEN-SPRINGVL 230 kV 1 or 2 (with RAS)	P6	N-1-1		<100		<100	<100	<100	<100	<100	<100	<100	
BC&T-T-20															
BC&T-T-21															
BC&T-T-22															
BC&T-T-23															
BC&T-T-24															
BC&T-T-25															
BC&T-T-26															
BC&T-T-27															
BC&T-T-28															
BC&T-T-29															
BC&T-T-30															
BC&T-T-31															
BC&T-T-32															
BC&T-T-33															
BC&T-T-34															
BC&T-T-35															

Study Area: SCE Tehachapi & Big Creek Corridor

Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %										Potential Mitigation Solutions
					2018 Summer Off-Peak	2018 Summer Peak	2021 Summer Light Load	2021 Summer Peak	2026 Summer Peak	2021 SP with High Load	2018 SP with No BTM PV	2026 SP with No BTM PV	2021 SP Heavy Renewable & Min Gas Gen	2021 Summer Peak with Low Hydro	
BC&T-VD-1	BAILEY 230kV	PARDEE-BAILEY 230kV and BAILEY-PASTORIA 230kV	P6	N-1-1		14%		13%	15.80%	8.90%	9.90%	9.60%	7%	12.60%	Antelope/Bailey OP 46
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															
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X-VD-29															
X-VD-30															
X-VD-31															
X-VD-32															
X-VD-33															
X-VD-34															
X-VD-35															

Study Area: SCE Tehachapi & Big Creek Corridor

High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)										Potential Mitigation Solutions
					2018 Summer Off-Peak	2018 Summer Peak	2021 Summer Light Load	2021 Summer Peak	2026 Summer Peak	2021 SP with High Load	2018 SP with No BTM PV	2026 SP with No BTM PV	2021 SP Heavy Renewable & Min Gas Gen	2021 Summer Peak with Low Hydro	
BC&T-V-1	BAILEY 230kV	PARDEE-BAILEY 230kV and BAILEY-PASTORIA 230kV	P6	N-1-1	0.9	0.79	0.84	0.78	0.745	0.84	0.84	0.82	0.84	0.78	Antelope/Bailey OP 46
BC&T-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															
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X-V-13															
X-V-14															
X-V-15															
X-V-16															
X-V-17															
X-V-18															
X-V-19															

Study Area: SCE Tehachapi & Big Creek Corridor

Transient Stability



ID	Contingency	Category	Category Description	Transient Stability Performance										Potential Mitigation Solutions
				2018 Summer Off-Peak	2018 Summer Peak	2021 Summer Light Load	2021 Summer Peak	2026 Summer Peak	2021 SP with High Load	2018 SP with No BTM PV	2026 SP with No BTM PV	2021 SP Heavy Renewable & Min Gas Gen	2021 Summer Peak with Low Hydro	
BC&T-TS-1	Big Creek 1-Big Creek 2 230 kV line	P5	N-1	local area instability	local area instability	local area instability	local area instability	local area instability	local area instability	local area instability	local area instability	local area instability	local area instability	Protection Project- OD of 12/31/2017
BC&T-TS-2	Big Creek 3 (Bus) NRBD	P5	N>2	local area instability		local area instability								Congestion Management
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-29														
X-TS-30														
X-TS-31														

Study Area: SCE Tehachapi & Big Creek Corridor



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..	Select..	Select..	
X-SLD-1														

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

Study Area: **SCE Tehachapi & Big Creek Corridor**



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