



ID	Overloaded Facility	Worst Contingencies	Category	Category Description	Loading (%)											Potential Mitigation Solutions
					B- 2019 Summer Peak	B- 2022 Summer Peak	B- 2027 Summer Peak	B- 2019 Spring Light Load	B- 2022 Spring Off- Peak	S- 2019SP CEC Peak Shift	S- 2022SP High CEC Load & Peak Shift	S- 2022SP Heavy Renewables & Min Gas Gen	S- 2022SP Low Hydro	S- 2027SP CEC Peak Shift	S- 2022 Summer Off- Peak with Maximum PV Output	
BC&T-T-1	MAGUNDEN-PASTORIA 230kV 1(or2)	MAGUNDEN-PASTORIA 230kV 2(or1) and 3 (with RAS)	P6	N-1-1									<100			Big Creek RAS
BC&T-T-2	MAGUNDEN-PASTORIA 230kV 1(or2)	N-2 MAGUNDEN-PASTORIA 230kV 2(or1) and 3 (with RAS)	P7	N-2									<100			Big Creek RAS
BC&T-T-3	MAGUNDEN-SPRINGVL 230 kV 1	MAGUNDEN-VESTAL 230kV 1 and 2 (with RAS)	P6	N-1-1							<100		<100			Big Creek RAS
BC&T-T-4	MAGUNDEN-SPRINGVL 230 kV 1 & 2	RECTOR-VESTAL 230 kV 1 and 2 (with RAS)	P7	N-2									<100			Big Creek RAS
BC&T-T-5	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-SPRINGVL 230 kV 1 and EASTWOOD 13.80 Unit ID 1	P3	N-1/G-1									104.27			System adjustments after initial contingency
BC&T-T-6	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-SPRINGVL 230 kV 1 and BIG CRK1-EASTWOOD 230kV 1	P6	N-1-1									102.52			System adjustments after initial contingency
BC&T-T-7	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-SPRINGVL 230 kV 1 and MAMMOTH-BIG CRK3 230kV 1	P6	N-1-1									104.28			System adjustments after initial contingency
BC&T-T-8	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-VESTAL 230kV 1 and 2 (with RAS)	P6	N-1-1	<100	<100	<100			<100	<100	<100	<100	<100		System adjustments after initial contingency
BC&T-T-9	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-SPRINGVL 230 kV 1(or) 2 and MAGUNDEN-VESTAL 230kV 1(or)2 (with RAS)	P6	N-1-1									<100			Big Creek RAS
BC&T-T-10	MAGUNDEN-SPRINGVL 230 kV 2	MAGUNDEN-SPRINGVL 230 kV 1(or) 2 and RECTOR-VESTAL 230 kV 1(or)2 (with RAS)	P6	N-1-1									<100			Big Creek RAS
BC&T-T-11	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-SPRINGVL 230 kV 1(or) 2 and MAGUNDEN-VESTAL 230kV 1(or)2 (with RAS)	P6	N-1-1									<100			Big Creek RAS
BC&T-T-12	MAGUNDEN-VESTAL 230kV 1 or 2	MAGUNDEN-SPRINGVL 230 kV 1(or) 2 and RECTOR-VESTAL 230 kV 1(or)2 (with RAS)	P6	N-1-1									<100			Big Creek RAS
BC&T-T-13	SPRINGVL-RECTOR 230 kV 1	MAGUNDEN-VESTAL 230kV 1 and 2 (with RAS)	P6	N-1-1							<100		<100			Big Creek RAS
BC&T-T-14	SPRINGVL-RECTOR 230 kV 1	RECTOR-VESTAL 230 kV 1 and 2 (with RAS)	P7	N-2									<100			Big Creek RAS



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					B- 2019 Summer Peak	B- 2022 Summer Peak	B- 2027 Summer Peak	B- 2019 Spring Light Load	B- 2022 Spring Off-Peak	S- 2019SP CEC Peak Shift	S- 2022SP High CEC Load & Peak Shift	S- 2022SP Heavy Renewables & Min Gas Gen	S- 2022SP Low Hydro	S- 2027SP CEC Peak Shift	S- 2022 Summer Off-Peak with Maximum PV Output	
BC&T-T-15*	BIG CRK2-BIG CRK3 230kV 1	BIG CRK1-RECTOR 230kV and BIG CRK3-BIG CRK8 230kV	P6	N-1-1					<100							
BC&T-T-16*	BIG CRK2-BIG CRK8 230kV 1	BIG CRK1-RECTOR 230kV and BIG CRK2-BIG CRK3 230kV	P6	N-1-1					<100							
BC&T-T-17																
BC&T-T-18																
BC&T-T-19																
BC&T-T-20																
Note	BC&T-T-15* and BC&T-T-16*	These scenarios were run on 2022 Spring Off peak base case with high (maximum) Big Creek Hydro output														



ID	Substation	Worst Contingencies	Category	Category Description	Post Cont. Voltage Deviation %											Potential Mitigation Solutions
					B- 2019 Summer Peak	B- 2022 Summer Peak	B- 2027 Summer Peak	B- 2019 Spring Light Load	B- 2022 Spring Off-Peak	S- 2019SP CEC Peak Shift	S- 2022SP High CEC Load & Peak Shift	S- 2022SP Heavy Renewables & Min Gas Gen	S- 2022SP Low Hydro	S- 2027SP CEC Peak Shift	S- 2022 Summer Off-Peak with Maximum PV Output	
BC&T-VD-1	No Voltage Deviation violations were identified during the studies															
X-VD-2																



ID	Substation	Worst Contingencies	Category	Category Description	Voltage (PU)											Potential Mitigation Solutions
					B- 2019 Summer Peak	B- 2022 Summer Peak	B- 2027 Summer Peak	B- 2019 Spring Light Load	B- 2022 Spring Off- Peak	S- 2019SP CEC Peak Shift	S- 2022SP High CEC Load & Peak Shift	S- 2022SP Heavy Renewables & Min Gas Gen	S- 2022SP Low Hydro	S- 2027SP CEC Peak Shift	S- 2022 Summer Off- Peak with Maximum PV Output	
BC&T-V-1	BAILEY 230kV	PARDEE-BAILEY 230kV and BAILEY-PASTORIA 230kV	P6	N-1-1	0.823	0.813	0.824	-	-	0.815	0.8	0.84	0.813	0.8055	-	Operating Proceedure 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																
X-V-12																
X-V-13																
X-V-14																
X-V-15																
X-V-16																
X-V-17																
X-V-18																
X-V-19																



ID	Contingency	Category	Category Description	Transient Stability Performance											Potential Mitigation Solutions
				B- 2019 Summer Peak	B- 2022 Summer Peak	B- 2027 Summer Peak	B- 2019 Spring Light Load	B- 2022 Spring Off- Peak	S- 2019SP CEC Peak Shift	S- 2022SP High CEC Load & Peak Shift	S- 2022SP Heavy Renewables & Min Gas Gen	S- 2022SP Low Hydro	S- 2027SP CEC Peak Shift	S- 2022 Summer Off- Peak with Maximum PV Output	
BC&T-TS-1	Big Creek 1-Big Creek 2 230 kV line	P5	N-1				local area instability	local area instability							Protection Project- OD of 12/31/2019
BC&T-TS-2	Big Creek 3 (Bus) NRBD	P5	Non-redundant bus-differential	local area instability	local area instability	local area instability	local area instability	local area instability				local area instability			System Adjustment
BC&T-TS-3	Mangunden NRBD	P5	Non-redundant bus-differential	local area instability	local area instability	local area instability	local area instability	local area instability				local area instability			Zone 251 islanded
BC&T-TS-4	Springville NRBD	P5	Non-redundant bus-differential	No Violations											
BC&T-TS-5	Big Creek 1-Rector & Rector-Vestal No.1	P4	1 Phase	No Violations											
BC&T-TS-5b*	Big Creek 1-Rector & Rector-Vestal No.1	P4	1 Phase					local area instability							Big Creek RAS
BC&T-TS-6	Big Creek 3-Rector No.1 & Rector-Vestal No.2	P4	1 Phase	No Violations											
BC&T-TS-7	Big Creek 4-Springville & Magunden-Springville No.2	P6	3 Phase	No Violations											
BC&T-TS-8	Big Creek 1-Rector & Big Creek 3-Rector No.1	P6	3 Phase	No Violations											
BC&T-TS-9	Big Creek 3-Rector No.2 & Big Creek 4-Springville	P6	3 Phase	No Violations											
BC&T-TS-9b*	Big Creek 3-Rector No.2 & Big Creek 4-Springville	P6	3 Phase					local area instability							Big Creek generation runback. Modify Big Creek RAS
BC&T-TS-10	Big Creek 4-Springville & Rector-Springville	P6	3 Phase	No Violations											
BC&T-TS-11	Rector-Vestal No.1 & Rector-Vestal No.2	P6	3 Phase	No Violations											
BC&T-TS-12	Magunden-Springville No.1 & Magunden-Springville No.2	P6	3 Phase	No Violations											
BC&T-TS-13	Magunden-Vestal No.1 & Magunden-Vestal No.2	P6	3 Phase	No Violations											
BC&T-TS-14	Big Creek 3-Rector No.2 & Rector-Springville	P7	1 Phase	No Violations											
BC&T-TS-15	Magunden-Pastoria No. 1 & Bailey-Pastoria	P4	1 Phase	No Violations											



ID	Contingency	Category	Category Description	Transient Stability Performance											Potential Mitigation Solutions
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BC&T-TS-16	Magunden-Pastoria No. 2 & Pardee-Pastoria	P4	1 Phase	No Violations											
BC&T-TS-17	Magunden-Pastoria No. 3 & Pardee-Pastoria-Warne	P4	1 Phase	No Violations											
BC&T-TS-18	Pardee-Pastoria & Pardee-Vincent No.2	P4	1 Phase	No Violations											
BC&T-TS-19	Bailey-Pardee & Pardee-Vincent No.1	P4	1 Phase	No Violations											
BC&T-TS-20	Pardee-Pastoria-Warne & Pardee-Santa clara	P4	1 Phase	No Violations											
BC&T-TS-21	Mesa-Vincent No.2 & Santa Clara-Vincent	P4	1 Phase	No Violations											
BC&T-TS-22	Magunden-Pastoria No. 1 & Magunden-Pastoria No. 2	P6	3 Phase	No Violations											
BC&T-TS-23	Magunden-Pastoria No. 1 & Magunden-Pastoria No. 3	P6	3 Phase	No Violations											
BC&T-TS-24	Magunden-Pastoria No. 2 & Magunden-Pastoria No. 3	P6	3 Phase	No Violations											
BC&T-TS-25	Bailey-Pastoria & Pardee-Pastoria	P6	3 Phase	No Violations											
BC&T-TS-26	Bailey-Pastoria & Pardee-Pastoria-Warne	P6	3 Phase	No Violations											
BC&T-TS-27	Pardee-Pastoria & Pardee-Pastoria-Warne	P6	3 Phase	No Violations											
BC&T-TS-28	Pardee-Pastoria & Bailey-Pardee	P6	3 Phase	No Violations											
BC&T-TS-29	Pardee-Pastoria-Warne & Bailey-Pardee	P6	3 Phase	No Violations											
BC&T-TS-30	Antelope-Magunden No. 1 & Antelope-Magunden No. 2	P6	3 Phase	No Violations											
BC&T-TS-31	Pardee-Vincent No. 1 & Pardee-Vincent No. 2	P6	3 Phase	No Violations											
Note	BC&T-TS-5b* and BC&T-TS-9b*	These scenarios were run on 2022 Spring Off peak base case with high (maximum) Big Creek Hydro output													



Single Contingency Load Drop

ID	Worst Contingencies	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..	Select..	Select..	
X-SS-1												

No single source substation with more than 100 MW Load