



Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)					Loading % (Sensitivity Scenarios)			ISO Approved Projects & Potential Mitigation Solutions
				2021 Summer Peak	2024 Summer Peak	2029 Summer Peak	2021 Spring Off-Peak	2024 Spring Off-Peak	2024 SP High CEC Forecast	2024 SpOP Hi Renew & Min Gas Gen	2021 SP Heavy Renewable & Min Gas Gen	
BAILEY - PASTORIA 230 kV	PARDEE - WARNETAP 230 kV line	P1	N-1	<100	<100	<100	102	105	<100	<100	<100	Modify Pastoria Energy RAS equation
	PARDEE-PASTORIA-WARNE 230 kV line	P1	N-1	<100	<100	<100	<100	101	<100	<100	<100	Modify Pastoria Energy RAS equation
	PASTORIA - WARNETAP 230 kV line	P1	N-1	<100	<100	<100	<100	101	<100	<100	<100	Modify Pastoria Energy RAS equation
BIG CRK1 - RECTOR 230 kV	BIG CRK3 - RECTOR No.1 and BIG CRK4 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	113	112	111	114	112	111	<100	<100	Big Creek RAS
	BIG CRK2 - BIG CRK3 No. 1 and BIG CRK8 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	141	140	140	142	141	140	<100	<100	Big Creek RAS
	RECTOR - BIG CRK3 No. 2 and BIG CRK4 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	101	100	<100	102	101	101	<100	<100	Big Creek RAS
	SPRINGVL - BIG CRK4 No. 1 and RECTOR - BIG CRK3 No. 2 230 kV lines	P6	N-1-1	115	114	113	<100	114	115	<100	<100	Big Creek RAS
BIG CRK2 - BIG CRK3 230 kV	BIG CRK1 - RECTOR No. 1 and BIG CRK8 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	138	136	136	144	137	136	<100	<100	Redispatch resources after initial contingency
BIG CRK3 - RECTOR 230 kV	BIG CRK1 - RECTOR No. 1 and BIG CRK4 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	123	120	120	123	121	120	<100	<100	Big Creek RAS
	MAGUNDEN - VESTAL No. 1 and RECTOR - BIG CRK3 No. 2 230 kV lines	P6	N-1-1	102	101	100	<100	<100	105	<100	<100	Big Creek RAS
	RECTOR - BIG CRK3 230 kV line	P1	N-1	101	<100	<100	<100	<100	102	<100	<100	Big Creek RAS
	RECTOR - BIG CRK3 No. 2 and BIG CRK1 - BIG CRK2 No. 1 230 kV lines	P6	N-1-1	109	108	107	<100	103	111	<100	<100	Big Creek RAS
	RECTOR - BIG CRK3 No. 2 and BIG CRK4 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	118	117	116	118	117	117	<100	<100	Big Creek RAS
	SPRINGVL - BIG CRK4 No. 1 and RECTOR - BIG CRK3 No. 2 230 kV lines	P6	N-1-1	135	134	133	<100	134	135	<100	<100	Big Creek RAS
	SPRINGVL - RECTOR No. 1 and RECTOR - BIG CRK3 No. 2 230 kV lines	P6	N-1-1	104	103	103	<100	<100	109	<100	<100	Big Creek RAS
BIG CRK8 - BIG CRK3 230 kV	BIG CRK1 - RECTOR No. 1 and BIG CRK2 - BIG CRK3 No. 1 230 kV lines	P6	N-1-1	139	138	138	146	145	140	<100	<100	Big Creek RAS
MAGUNDEN - ANTELOPE No. 1 230 kV	MAGUNDEN - ANTELOPE No. 2 and PARDEE - WARNETAP No. 1 230 kV lines	P6	N-1-1	<100	<100	<100	104	<100	<100	<100	<100	Pastoria Energy RAS
	MAGUNDEN - ANTELOPE No. 2 and PARDEE-PASTORIA-WARNE No. 1 230 kV lines	P6	N-1-1	<100	<100	<100	<100	<100	<100	<100	102	Sensitivity only, Redispatch resources after initial contingency



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	MAGUNDEN - ANTELOPE No. 2 and PASTORIA - WARNETAP No. 1 230 kV lines	P6	N-1-1	<100	<100	<100	100	<100	<100	<100	<100	Pastoria Energy RAS
MAGUNDEN - PASTORIA 230 kV	MAGUNDEN - PASTORIA No. 2 and MAGUNDEN - PASTORIA No. 3 230 kV lines	P6	N-1-1	102	<100	<100	123	<100	<100	<100	<100	Big Creek RAS
MAGUNDEN - SPRINGVL 230 kV	VESTAL - RECTOR No. 1 and RECTOR - VESTAL No. 2 230 kV lines	P6	N-1-1	<100	<100	<100	106	<100	<100	<100	<100	Big Creek RAS
PASTORIA - WARNETAP 230 kV	PARDEE - PASTORIA No. 1 and BAILEY - PASTORIA No. 1 230 kV lines	P6	N-1-1	<100	<100	<100	104	<100	<100	<100	<100	Pastoria Energy RAS
	PARDEE - PASTORIA No. 1 and PARDEE - BAILEY No. 1 230 kV lines	P6	N-1-1	<100	<100	<100	102	<100	<100	<100	<100	Pastoria Energy RAS
SPRINGVL - BIG CRK4 230 kV	VESTAL - RECTOR No. 1 and RECTOR - VESTAL 230.0 No. 2	P6	N-1-1	<100	<100	<100	106	<100	<100	<100	<100	Big Creek RAS- Generation Runback

Study Area: SCE Tehachapi & Big Creek Corridor

High/Low Voltages



Substation	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)					t Cont. Voltage Deviation % (Sensitivity Scenar			ISO Approved Projects & Potential Mitigation Solutions
				2021 Summer Peak	2024 Summer Peak	2029 Summer Peak	2021 Spring Off-Peak	2024 Spring Off-Peak	2024 SP High CEC Forecast	2024 SpOP Hi Renew & Min Gas Gen	2021 SP Heavy Renewable & Min Gas Gen	
BAILEY 230 kV	PARDEE - BAILEY No. 1 and BAILEY - PASTORIA No. 1 230 kV	P6	N-1-1	>0.9	>0.9	>0.9	>0.9	>0.9	0.8561	0.6208	>0.9	Sensitivity only, Redispatch resources after initial contingency
NEENACH 66 kV	PARDEE - BAILEY No. 1 and BAILEY - PASTORIA No. 1 230 kV	P6	N-1-1	>0.9	>0.9	>0.9	>0.9	>0.9	>0.9	0.8588	>0.9	Sensitivity only, Redispatch resources after initial contingency
SPRINGVL 230 kV	VESTAL - RECTOR No. 1 and RECTOR - VESTAL No. 2 230 kV	P6	N-1-1	>0.9	>0.9	>0.9	0.8822	>0.9	>0.9	>0.9	>0.9	Redispatch resources after initial contingency

Study Area: SCE Tehachapi & Big Creek Corridor

Voltage Deviation



Substation	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)				ISO Approved Projects & Potential Mitigation Solutions
				2021 Summer Peak	2024 Summer Peak	2029 Summer Peak	2021 Winter Peak	2024 Winter Peak	2029 Winter Peak	2021 Spring Off-Peak	2024 Spring Off-Peak	2024 SP High CEC Forecast	2024 SpOP Hi Renew & Min Gas Gen	2021 SP Heavy Renewable & Min Gas Gen	2029 Retirement of QF Generations	

No voltage deviation issues were identified

Study Area: SCE Tehachapi & Big Creek Corridor

Transient Stability



Contingency	Category	Category Description	Transient Stability Performance					Potential Mitigation Solutions
			Baseline Scenarios			Sensitivity Scenarios		
			2024 Summer Peak	2029 Summer Peak	2024 Spring Off-Peak	2024 SP High CEC Forecast	2024 SpOP Hi Renew & Min Gas Gen	
Big Creek 1 (Bus) NRBD	P5	Non-redundant bus-differential	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 2 (Bus) NRBD	P5	Non-redundant bus-differential	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 4 (Bus) NRBD	P5	Non-redundant bus-differential	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 8 (Bus) NRBD	P5	Non-redundant bus-differential	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Springville NRBD	P5	Non-redundant bus-differential	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 1-Rector & Rector-Vestal No.1	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 3-Rector No.1 & Rector-Vestal No.2	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 4-Springville & Magunden-Springville No.2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 1-Rector & Big Creek 3-Rector No.1	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 3-Rector No.2 & Big Creek 4-Springville	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 4-Springville & Rector-Springville	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Rector-Vestal No.1 & Rector-Vestal No.2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Springville No.1 & Magunden-Springville No.2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Vestal No.1 & Magunden-Vestal No.2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Big Creek 3-Rector No.2 & Rector-Springville	P7	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 1 & Bailey-Pastoria	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 2 & Pardee-Pastoria	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 3 & Pardee-Pastoria-Warne	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Pastoria & Pardee-Vincent No.2	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Bailey-Pardee & Pardee-Vincent No.1	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Pastoria-Warne & Pardee-Santa clara	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Mesa-Vincent No.2 & Santa Clara-Vincent	P4	1 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 1 & Magunden-Pastoria No. 2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 1 & Magunden-Pastoria No. 3	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Magunden-Pastoria No. 2 & Magunden-Pastoria No. 3	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Bailey-Pastoria & Pardee-Pastoria	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Bailey-Pastoria & Pardee-Pastoria-Warne	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Pastoria & Pardee-Pastoria-Warne	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Pastoria & Bailey-Pardee	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Pastoria-Warne & Bailey-Pardee	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Antelope-Magunden No. 1 & Antelope-Magunden No. 2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation
Pardee-Vincent No. 1 & Pardee-Vincent No. 2	P6	3 Phase	No Issues	No Issues	No Issues	No Issues	No Issues	No violation

Study Area: SCE Tehachapi & Big Creek Corridor



Single Contingency Load Drop

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)										Potential Mitigation Solutions
			Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	

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

Substation	Load Served (MW)										Potential Mitigation Solutions
	Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	Select..	

No single source substation with more than 100 MW