

Study Area: PG&E Los Padres

Thermal Overloads



ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)								Potential Mitigation Solutions
					2020 Summer Peak	2020 SP Heavy Renewable & Min Gas Gen	2025 Summer Peak	2025 SP No AAEE	2025 Retirement of QF Generations	N/A	N/A	N/A	
LP-T-01	SAN MIGL-COLNGA 1 70 kV #1 Line	P1-2:A20:35:_Paso Robles-Templeton 70 kV	P1	N-1	N/A	N/A	N/A	N/A	N/A				Estrella 230 kV Project still needed
LP-T-02	SAN MIGL-COLNGA 1 70 kV #1 Line	P1-3:A20:1:_Templeton 230/70 kV Transformer	P1	N-1	18.12	2.43	12.91	12.75	10.17				Estrella 230 kV Project still needed
LP-T-03	SN LS OB-CARRIZO 115 kV #1 Line	P2-4:A20:2:_MORRO BAY 230 kV CB 622	P2	Circuit Breaker	44.32	38.17	50.33	53.38	49.96				Midway-Andrew 230 kV Project
LP-T-04	SAN MIGL-COLNGA 1 70 kV #1 Line	P2-1:A20:34:_TEMPL7-TEMPL J #1 70 kV	P2-1	Var device/Open ended Line w/No Fault	15.88	3.38	13.43	11.70	9.27				Estrella 230 kV Project
LP-T-05	SAN MIGL-COLNGA 1 70 kV #1 Line	P2-1:A20:36:_TEMPL J-PSA RBLS #1 70 kV	P2-1	Var device/Open ended Line w/No Fault	15.88	3.37	13.43	11.70	9.27				Estrella 230 kV Project
LP-T-06	MORRO BY 115/230 kV #6 Bank	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Morro Bay Bank Addition Project
LP-T-07	SAN MIGL-COLNGA 1 70 kV #1 Line	P1-2:A14:13:_Templeton-Gates 230 kV and P1-2:A20:14:_Morro Bay-Templeton 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Estrella 230 kV Project
LP-T-08	SAN MIGL-PSA RBLS 70 kV #1 Line	P1-2:A14:13:_Templeton-Gates 230 kV and P1-2:A20:35:_Paso Robles-Templeton 70 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Estrella 230 kV Project
LP-T-09	ATASCDRO-SN LS OB 70 kV #1 Line	P1-2:A14:13:_Templeton-Gates 230 kV and P1-2:A20:14:_Morro Bay-Templeton 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Estrella 230 kV Project
LP-T-10	MUSTNG J-SN LS OB 70 kV #1 Line	P1-2:A14:13:_Templeton-Gates 230 kV and P1-2:A20:14:_Morro Bay-Templeton 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Estrella 230 kV Project
LP-T-11	MUSTNG J-SN LS OB 70 kV #1 Line	P1-2:A20:41:_Atascadero-San Luis Obispo 70 kV and P1-3:A20:1:_Templeton 230/70 kV Transformer	P6	N-1-1	N/A	N/A	N/A	81.02	N/A				Action Plan. Estrella 230 kV Project
LP-T-12	S.YNZ JT-ZACA 115 kV #1 Line	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-T-13	SISQUOC-PALMR 115 kV #1 Line	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-T-14	PALMR-AECCEORTP 115 kV #1 Line	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-T-15	AECCEORTP-ZACA 115 kV #1 Line	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project

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					2020 Summer Peak	2020 SP Heavy Renewable & Min Gas Gen	2025 Summer Peak	2025 SP No AAEE	2025 Retirement of QF Generations	N/A	N/A	N/A	
LP-T-16	MESA_PGE-UNION OL 115 kV #1 Line	P1-3:A20:2:_Morro Bay 230/115 Transformer #6 and P1-3:A20:1:_Templeton 230/70 kV Transformer	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-17	OCEANO-UNION OL 115 kV #1 Line	P1-3:A20:2:_Morro Bay 230/115 Transformer #6 and P1-3:A20:1:_Templeton 230/70 kV Transformer	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-18	SN LS OB-OCEANO 115 kV #1 Line	P1-2:A20:17:_Diablo-Mesa 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-19	SN LS OB-CARRIZO 115 kV #1 Line	P1-3:A20:2:_Morro Bay 230/115 Transformer #6 and P1-3:A20:1:_Templeton 230/70 kV Transformer	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-20	SN LS OB-SNTA MRA 115 kV #1 Line	P1-2:A20:17:_Diablo-Mesa 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-21	FTHILTP1-SN LS OB 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-22	FTHILTP2-SN LS OB 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-23	GLDTRJC1-FTHILTP2 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-24	GLDTRJC2-FTHILTP1 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-25	MORRO BY-GLDTRJC1 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-26	MORRO BY-GLDTRJC2 115 kV #1 Line	P1-2:A20:15:_Morro Bay-Diablo 230 kV and P1-2:A20:16:_Morro Bay-Mesa 230 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project. Modify Santa Maria SPS/UVLS.
LP-T-27	SN LS OB-CARRIZO 115 kV #1 Line	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	37.40	30.18	43.29	46.02	42.88				Action Plan. Estrella 230 kV Project
LP-T-28	SAN MIGL-COLNGA 1 70 kV #1 Line	P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines	P7	DCTL	16.00	3.45	13.55	11.84	9.39				Action Plan. Estrella 230 kV Project

Study Area: **PG&E Los Padres**

Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								Potential Mitigation Solutions
					2017 Summer Peak	Select..	Select..	2020 Summer Peak	2020 SP Heavy Renewable & Min Gas Gen	2025 Summer Peak	2025 SP No AAEE	2025 Retirement of QF Generation s	

No voltage deviations identified.

Study Area: **PG&E Los Padres**

High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					2020 Summer Peak	2020 SP Heavy Renewable & Min Gas Gen	2025 Summer Peak	2025 SP No AAEE	2025 Retirement of QF Generations	N/A	N/A	N/A	
LP-V-01	ATASCDRO 70 kV	P1-2:A20:36:_Templeton-Atascadero 70 kV and P1-2:A20:41:_Atascadero-San Luis Obispo 70 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Estrella 230 kV Project
LP-V-02	TEMPLETN 230 kV	P1-2:A14:18:_Templeton-Gates 230 kV and P1-2:A20:19:_Morro Bay-Templeton 230 kV	P6	N-1-1	0.8136	0.8143	0.8127	0.8081	0.8116				Mitigation under review
LP-V-03	MORRO BY 115 kV	P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV and P1-3:A20:2:_Morro Bay 230/115 Transformer #6	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Mitigation under review
LP-V-04	FOOTHILL 115 kV	P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV and P1-3:A20:2:_Morro Bay 230/115 Transformer #6	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Mitigation under review
LP-V-05	GOLDTREE 115 kV	P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV and P1-3:A20:2:_Morro Bay 230/115 Transformer #6	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Mitigation under review
LP-V-06	SN LS OB 115 kV	P1-3:A20:2:_Morro Bay 230/115 Transformer #6 and P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Mitigation under review
LP-V-07	OCEANO 115 kV	P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV and P1-3:A20:2:_Morro Bay 230/115 Transformer #6	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-08	UNION OL 115 kV	P1-2:A20:27:_Callender Sw. Sta-Mesa 115 kV and P1-3:A20:2:_Morro Bay 230/115 Transformer #6	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-09	VAFB SSA 70 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-10	VAFB SSB 70 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-11	DIVIDE 70 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-12	DIVVIDE 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-13	BUELLTON 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-14	CABRILLO 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-15	MANVILLE 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-16	PURISIMA 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project

Study Area: **PG&E Los Padres**

High/Low Voltage



ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)								Potential Mitigation Solutions
					2020 Summer Peak	2020 SP Heavy Renewable & Min Gas Gen	2025 Summer Peak	2025 SP No AAEE	2025 Retirement of QF Generations	N/A	N/A	N/A	
LP-V-17	SNTA YNZ 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-18	SURF 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project
LP-V-19	ZACA 115 kV	P1-2:A20:25:_Mesa-Divide 115 kV #1 and P1-2:A20:26:_Mesa-Divide 115 kV #2	P6	N-1-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Midway-Andrew Project