



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	
CC-T-01	COBURN 230/60 kV #2 Bank	P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P1	N-1	98.90	101.66	98.19	98.22	45.60				Congestion Managent. Reduce renewable output
CC-T-02	CRZY HRS-NTVD SW2 115 kV #1 Line	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	23.98	24.23	25.65	27.44	25.86				Nativdad Project still needed. Rating increased from 80.9MVA in 2017 to 228MVA after 2020.
CC-T-03	CRZY HRS-NTVD SW1 115 kV #1 Line	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	<100	<100	<100	<100	<100				Nativdad Project still needed based on 2025 load levels
CC-T-04	NTVD SW2-SALINAS 115 kV #1 Line	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	<100	<100	<100	<100	<100				Nativdad Project still needed based on 2025 load levels
CC-T-05	PRNDL J1-MOSLND D 115 kV #1 Line	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	103.65	104.73	108.18	118.43	109.04				Mitigation under review
CC-T-06	PRNDL J2-MOSLND D 115 kV #1 Line	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	99.91	100.93	104.27	113.91	105.09				Mitigation under review
CC-T-07	MOSLND E 115/230 kV #8 Bank	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	90.34	90.47	92.03	100.40	92.14				Mitigation under review
CC-T-08	MOSLND D 115/230 kV #2 Bank	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	101.77	102.08	104.05	114.81	104.31				Moss Landing Bank Upgrade Project still needed
CC-T-09	MOSLND D 115230 kV #1 Bank	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	95.58	95.84	97.56	107.48	97.77				Mitigation under review
CC-T-10	B.VSTA J-FIRESTNE 60 kV #1 Line	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	142.18	143.49	148.74	153.81	149.51				Mitigation under review
CC-T-11	FIRESTNE-SPNCE J2 60 kV #1 Line	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	141.85	143.18	148.15	153.26	149.04				Mitigation under review
CC-T-12	SPNCE J1-SPENCE 60 kV #1 Line	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	189.35	191.09	197.55	204.59	198.79				Mitigation under review
CC-T-13	SPNCE J1-SNBRN JT 60 kV #1 Line	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	164.08	165.60	171.19	177.38	172.33				Mitigation under review
CC-T-14	SPNCE J2-SPENCE 60 kV #1 Line	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	150.79	152.23	157.50	163.07	158.57				Mitigation under review



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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	
CC-T-15	COBURN J-KING CTY 60 kV #1 Line	P2-1:A19:76:_ORCHRD J-COBURN #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	153.33	153.67	155.96	163.43	156.76				Mitigation under review
CC-T-16	COBURN-S ARDOJ2 60 kV #1 Line	P2-1:A19:88:_S ARDOJ1-TEXCO J1 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	31.11	31.06	28.79	26.91	101.56				Mitigation under review
CC-T-17	COBURN-S ARDOJ1 60 kV #1 Line	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	31.11	31.11	28.89	27.02	105.56				Mitigation under review
CC-T-18	ARDOJ2-TEXCO J2 60 kV #1 Line	P2-1:A19:88:_S ARDOJ1-TEXCO J1 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	50.09	50.07	47.73	45.92	101.44				Mitigation under review
CC-T-19	ARDOJ1-TEXCO J1 60 kV #1 Line	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	36.37	36.33	33.76	31.57	122.88				Mitigation under review
CC-T-20	TEXCO J2-OILFLDS 60 kV #1 Line	P2-1:A19:88:_S ARDOJ1-TEXCO J1 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	50.09	50.12	47.72	45.91	101.17				Mitigation under review
CC-T-21	COBURN 230/60 kV #2 Bank	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P3	T-1/G-1	N/A	N/A	N/A	N/A	102.46				QF needed
CC-T-22	GREN VLY 60/115 kV #1 Bank	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-23	GRN VLY1-ERTA JCT 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-24	CIC JCT-ERTA JCT 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-25	CIC JCT-AGRILINK 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-26	WTSNVLE-AGRILINK 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed



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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	
CC-T-27	WTSNVLE-GRANT JT 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-28	BRIGTANO-GRANT JT 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-29	BRIGTANO-LGNSTAP 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-30	LGNSTAP-SALINAS2 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-31	SALINAS2-SALINAS1 60 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-32	CRZY_HRS-NTVD SW2 115 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-33	CRZY_HRS-NTVD SW1 115 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-T-34	GRANT JT-BRIGTANO 115 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	97.72	98.50	95.93	118.18	96.76				Mitigation under review
CC-T-35	CRZY_HRS-BRIGTANO 115 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	98.51	99.30	96.72	119.32	97.57				Mitigation under review
CC-T-36	NTVD SW2-SALINAS 115 kV #1 Line	P1-2:A19:28:_Moss Landing-Salinas #2 115 kV and P1-2:A19:27:_Moss Landing-Salinas #1 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Nativdad Project still needed
CC-T-37	NTVD SW1-SALINAS 115 kV #1 Line	P1-2:A19:27:_Moss Landing-Salinas #1 115 kV and P1-2:A19:28:_Moss Landing-Salinas #2 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Nativdad Project still needed
CC-T-38	GRN VLY1-GRN VL&1 115 kV #1 Line	P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	85.37	85.84	83.09	102.36	83.58				Mitigation under review
CC-T-39	GRN VLY1-ROB ROY 115 kV #1 Line	P1-2:A19:15:_Green Valley 115 kV Bus Tie Breaker and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	88.76	89.68	87.55	101.58	88.66				Mitigation under review
CC-T-40	GRN VLY2-CMP EVRS 115 kV #1 Line	P1-2:A19:15:_Green Valley 115 kV Bus Tie Breaker and P1-2:A19:17:_Moss Landing-Green Valley #1 115 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Mitigation under review



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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	
CC-T-41	PAUL SWT-ROB ROY 115 kV #1 Line	P1-2:A19:15:_Green Valley 115 kV Bus Tie Breaker and P1-2:A19:19:_Moss Landing-Green Valley #2 115 kV	P6	N-1-1 (Two overlapping singles)	81.56	82.55	80.84	93.59	82.04				Mitigation under review
CC-T-42	PRNDL J1-MOSLND D 115 kV #1 Line	P1-2:A19:28:_Moss Landing-Salinas #1 115 kV and P1-2:A19:29:_Moss Landing-Salinas #2 115 kV	P6	N-1-1 (Two overlapping singles)	91.33	91.75	95.29	102.68	95.99				Mitigation under review
CC-T-43	COBURN 230/60 kV #1 Bank	P1-2:A19:56:_Coburn-Basic Energy 60 kV and P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	101.31				Existing Coburn Bank SPS
CC-T-44	MOSLND D 115/230 kV #2 Bank	P1-3:A19:3:_Moss Landing 230/115 kV Transformer #8 and P1-3:A19:2:_Moss Landing 230/115 kV Transformer #10	P6	N-1-1 (Two overlapping singles)	108.07	108.16	110.02	119.77	110.16				Moss Landing Bank Upgrade Project still needed
CC-T-45	MOSLND D 115/230 kV #1 Bank	P1-3:A19:3:_Moss Landing 230/115 kV Transformer #8 and P1-3:A19:2:_Moss Landing 230/115 kV Transformer #10	P6	N-1-1 (Two overlapping singles)	107.94	108.00	109.84	119.71	109.92				Moss Landing Bank Upgrade Project still needed
CC-T-46	GREN VLY 60/115 kV #1 Bank	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-47	GRN VLY1-ERTA JCT 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-48	CIC JCT-ERTA JCT 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-49	CIC JCT-AGRILINK 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-50	WTSNVLE-AGRILINK 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-51	WTSNVLE-GRANT JT 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-52	BRIGHTANO-GRANT JT 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-53	BRIGHTANO-LGNSTAP 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-54	LGNSTAP-SALINAS2 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.30	0.30	0.30	0.30	0.30				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed



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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	
CC-T-55	SALINAS2-SALINAS1 60 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	13.38	13.43	13.60	13.12	13.62				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-56	GRANT JT-BRIGTANO 115 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	97.74	98.89	95.93	118.16	96.75				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-57	CRZY_HRS 115-BRIGTANO 115 kV #1 Line	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	98.54	99.71	96.72	119.29	97.57				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-T-58	CRZY_HRS-NTVD SW1 115 kV #1 Line	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Nativdad Project
CC-T-59	NTVD SW1-SALINAS 115 kV #1 Line	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Nativdad Project
CC-T-60	NTVD SW2-SALINAS 115 kV #1 Line	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	N/A	N/A	N/A	N/A	N/A				Nativdad Project



Study Area: **PG&E Central Coast**

Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-01	WTSNVLLE 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conersion Project
CC-VD-02	GRANT RK 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conersion Project
CC-VD-03	BRIGTANO 60 kV	P1-2:A19:35:_Green Valley-Watsonville 60 kV	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conersion Project
CC-VD-04	GRN VLY1 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.188	4.699	4.935	6.036	5.882				Mitigation under review
CC-VD-05	GRN VLY2 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.187	4.698	4.935	6.035	5.881				Mitigation under review
CC-VD-06	WTSNVLLE 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.353	4.788	5.003	5.999	5.895				Mitigation under review
CC-VD-07	GRANT RK 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.505	4.857	5.048	5.926	5.876				Mitigation under review
CC-VD-08	BRIGTANO 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.502	4.85	5.04	5.912	5.863				Mitigation under review
CC-VD-09	SALINAS 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.654	4.904	5.064	5.792	5.807				Mitigation under review
CC-VD-10	CMP EVRS 115 kV	P1-2:A19:21:_Paul Sweet Statcom	P1	N-1	5.408	6.142	6.376	7.339	6.889				Mitigation under review
CC-VD-11	PAUL SWT 115 kV	P1-2:A19:21:_Paul Sweet Statcom	P1	N-1	6.031	6.848	7.109	8.176	7.679				Mitigation under review
CC-VD-12	ROB ROY 115 kV	P1-2:A19:21:_Paul Sweet Statcom	P1	N-1	4.415	5.016	5.208	5.997	5.629				Mitigation under review
CC-VD-13	CAMPHORA 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.818	5.09	5.276	6.068	6.066				Mitigation under review
CC-VD-14	GONZALES 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.872	5.149	5.342	6.146	6.143				Mitigation under review
CC-VD-15	OILFLDS 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	-0.318	-0.354	-0.372	-0.377	9.882				Mitigation under review
CC-VD-16	SALN RVR 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	-0.282	-0.314	-0.33	-0.334	9.884				Mitigation under review
CC-VD-17	SARG CYN 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	-0.272	-0.304	-0.319	-0.323	9.884				Mitigation under review
CC-VD-18	SOLEDAD 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.789	5.06	5.245	6.028	6.029				Mitigation under review
CC-VD-19	TEXACO 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	-0.306	-0.343	-0.361	-0.366	9.861				Mitigation under review
CC-VD-20	CRZY_HRS 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.608	4.875	5.041	5.794	5.798				Mitigation under review
CC-VD-21	CSTRVLLE 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.525	4.75	4.892	5.56	5.595				Mitigation under review
CC-VD-22	DEL MNTE 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.629	4.861	5.009	5.708	5.732				Mitigation under review
CC-VD-23	DOLAN RD 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.513	4.738	4.879	5.546	5.581				Mitigation under review
CC-VD-24	HOLLISTR 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.702	4.975	5.155	5.931	5.93				Mitigation under review
CC-VD-25	NATIVDAD 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.635	4.893	5.056	5.796	5.806				Mitigation under review
CC-VD-26	PRUNEDLE 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.573	4.825	4.982	5.703	5.718				Mitigation under review
CC-VD-27	SNBENITO 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.662	4.933	5.106	5.872	5.873				Mitigation under review
CC-VD-28	MOSLND D 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.492	4.717	4.857	5.521	5.556				Mitigation under review

Study Area: **PG&E Central Coast**

Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-29	MOSLND E 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.498	4.721	4.861	5.522	5.559				Mitigation under review
CC-VD-30	MOSSLND1 230 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.385	4.549	4.664	5.217	5.292				Mitigation under review
CC-VD-31	MOSSLND2 230 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	4.375	4.54	4.653	5.204	5.278				Mitigation under review
CC-VD-32	GREN VLY 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-33	ERTA 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-34	AGRILINK 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-35	WTSNVLL 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-36	GRANT RK 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-37	BRIGTANO 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project still needed
CC-VD-38	WTSNVLL 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	4.342	4.882	5.232	7.06	5.639				Mitigation under review
CC-VD-39	GRANT RK 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	4.939	5.388	5.738	7.371	6.081				Mitigation under review
CC-VD-40	BRIGTANO 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	4.951	5.396	5.744	7.367	6.085				Mitigation under review
CC-VD-41	SALINAS 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	10.116	10.442	11	12.397	11.264				Mitigation under review. Bus reconfiguration
CC-VD-42	NATIVDAD 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	5.595	5.94	6.291	7.679	6.561				Mitigation under review
CC-VD-43	HOLLISTR 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	6.349	6.638	7.03	8.112	7.262				Mitigation under review.
CC-VD-44	CMP EVRS 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	3.882	4.883	5.415	8.149	6.132				Mitigation under review
CC-VD-45	PAUL SWT 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	3.698	4.79	5.353	8.215	6.134				Mitigation under review
CC-VD-46	ROB ROY 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	4.1	4.951	5.43	7.927	6.043				Mitigation under review
CC-VD-47	GRN VLY1 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	4.422	5.065	5.47	7.638	5.938				Mitigation under review
CC-VD-48	GRN VLY2 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	4.389	5.031	5.436	7.597	5.903				Mitigation under review
CC-VD-49	CAMPHORA 60 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	8.61	8.936	9.46	10.797	9.725				Mitigation under review
CC-VD-50	SOLEDAD 60 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	8.557	8.88	9.401	10.722	9.663				Mitigation under review
CC-VD-51	TEXACO 60 kV	P2-2:A19:12:_Oilfields 60 kV Bus	P2	Bus	8.204	8.63	8.83	8.835	-3.496				Mitigation under review
CC-VD-52	CRZY_HRS 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	6.222	6.502	6.872	7.92	7.098				Mitigation under review
CC-VD-53	GONZALES 60 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	8.712	9.044	9.584	10.944	9.855				Mitigation under review

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Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-54	PRUNEDLE 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	6.248	6.601	6.99	8.46	7.267				Mitigation under review
CC-VD-55	CSTRVLE 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	9.479	9.835	10.532	12.224	10.804				Mitigation under review
CC-VD-56	DEL MNTE 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	7.143	7.477	8.021	9.548	8.276				Mitigation under review
CC-VD-57	DOLAN RD 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	9.006	9.371	9.88	11.547	10.158				Mitigation under review
CC-VD-58	SAN ARDO 60 kV	P2-2:A19:12:_Oilfields 60 kV Bus	P2	Circuit Breaker	2.152	2.477	2.678	2.691	-5.824				Mitigation under review
CC-VD-59	SNBENITO 115 kV	P2-4:A19:3:_MOSS LANDING 115 kV CB 120	P2	Circuit Breaker	5.526	5.886	6.246	7.687	6.528				Mitigation under review
CC-VD-60	ERTA 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-VD-61	AGRILINK 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-VD-62	WTSNVLE 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-VD-63	GRANT RK 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-VD-64	BRIGTANO 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-VD-65	CSTRVLE 115 kV	P2-1:A19:23:_MOSLND E-CSTRVLJ1 #1 115 kV	P2-1	Var device/Open ended Line w/No Fault	6.02	6.085	6.502	7.144	6.557				Mitigation under review
CC-VD-66	NTVD SW2 115 kV	P2-1:A19:11:_CRZY_HRS-NTVD SW2 #1 115 kV	P2-1	Var device/Open ended Line w/No Fault	5.505	5.573	6.093	6.447	6.147				Mitigation under review



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Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-67	OILFLDS 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	-0.139	-0.172	-0.189	-0.185	17.117				Mitigation under review
CC-VD-68	SALN RVR 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	-0.123	-0.152	-0.168	-0.164	17.121				Mitigation under review
CC-VD-69	SAN ARDO 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	-0.708	-0.821	-0.832	-0.792	20.513				Mitigation under review
CC-VD-70	SARG CYN 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	-0.119	-0.147	-0.162	-0.159	17.122				Mitigation under review
CC-VD-71	TEXACO 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	-0.134	-0.167	-0.184	-0.18	17.094				Mitigation under review
CC-VD-72	BNA VSTA 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	14.828	15.007	15.619	16.308	15.737				Mitigation under review
CC-VD-73	SPENCE 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	10.125	10.26	10.703	11.243	10.796				Mitigation under review
CC-VD-74	FIRESTNE 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	11.73	11.88	12.382	12.977	12.485				Mitigation under review
CC-VD-75	FRSHXPRS 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	15.034	15.215	15.833	16.526	15.952				Mitigation under review
CC-VD-76	OILFLDS 60 kV	P1-1:A19:2:_SALNR GN 13.80 Generator ID 1 and P1-2:A19:59:_Oil Fields-Sargent Canyon 60 kV	P3	N-1/G-1	10.051	10.423	10.497	10.659	N/A				Mitigation under review

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Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-77	OILFLDS 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	10.401				Mitigation under review
CC-VD-78	SALN RVR 60 kV	P1-1:A19:2:_SALNR GN 13.80 Generator ID 1 and P1-2:A19:59:_Oil Fields-Sargent Canyon 60 kV	P3	N-1/G-1	10.052	10.424	10.498	10.66	N/A				Mitigation under review
CC-VD-79	SALN RVR 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	10.403				Mitigation under review
CC-VD-80	SARG CYN 60 kV	P1-1:A19:1:_SARGCN G 13.80 Generator ID 1 and P1-2:A19:60:_Oil Fields-Salinas River 60 kV	P3	N-1/G-1	7.606	7.97	8.015	8.186	N/A				Mitigation under review
CC-VD-81	SARG CYN 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	10.404				Mitigation under review
CC-VD-82	TEXACO 60 kV	P1-1:A19:2:_SALNR GN 13.80 Generator ID 1 and P1-2:A19:59:_Oil Fields-Sargent Canyon 60 kV	P3	N-1/G-1	10.03	10.401	10.474	10.636	N/A				Mitigation under review
CC-VD-83	TEXACO 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	10.382				Mitigation under review
CC-VD-84	CAMPORA 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	5.443	5.63	6.021	6.959	6.269				Mitigation under review
CC-VD-85	GONZALES 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	5.505	5.696	6.098	7.05	6.35				Mitigation under review
CC-VD-86	SOLEDAD 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	5.41	5.596	5.985	6.913	6.231				Mitigation under review
CC-VD-87	WTSNVLL 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	3.76	4.777	4.36	12.712	5.099				Watsonville 115 kV Voltage Conversion Project
CC-VD-88	GRANT RK 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	3.914	4.65	4.335	10.312	4.872				Watsonville 115 kV Voltage Conversion Project
CC-VD-89	BRIGTANO 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	3.889	4.613	4.303	10.169	4.831				Watsonville 115 kV Voltage Conversion Project
CC-VD-90	SALINAS 115 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	6.943	7.13	7.562	8.565	7.809				
CC-VD-91	CRZY_HRS 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.789	3.2	3.063	6.004	3.364				Watsonville 115 kV Voltage Conversion Project
CC-VD-92	HOLLISTR 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.844	3.265	3.13	6.145	3.439				Watsonville 115 kV Voltage Conversion Project
CC-VD-93	SOLEDAD 115 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	5.404	5.59	5.978	6.904	6.223				Mitigation under review
CC-VD-94	CMP EVRS 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.13	3.769	3.394	14.497	4.573				Mitigation under review
CC-VD-95	ROB ROY 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.376	3.848	3.445	14.057	4.508				Mitigation under review
CC-VD-96	PAUL SWT 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	1.925	3.66	3.309	14.603	4.556				Mitigation under review
CC-VD-97	GRN VLY1 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.747	3.989	3.544	13.506	4.446				Green Valley Sub Project

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Voltage Deviations



ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %								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	
CC-VD-98	GRN VLY2 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	2.776	4.019	3.573	13.548	4.475				Green Valley Sub Project

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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	
CC-V-01	GONZALES 60 kV	Base Case	P0	N-0	0.9611	0.955	0.9486	0.9431	0.9441				Mitigation under review
CC-V-02	OILFLDS 60 kV	Base Case	P0	N-0	1.0235	1.0225	1.0213	1.0212	0.9165				Mitigation under review
CC-V-03	SALN RVR 60 kV	Base Case	P0	N-0	1.0246	1.0237	1.0227	1.0226	0.9163				Mitigation under review
CC-V-04	SAN ARDO 60 kV	Base Case	P0	N-0	1.0106	1.0089	1.0075	1.0077	0.9403				Mitigation under review
CC-V-05	SARG CYN 60 kV	Base Case	P0	N-0	1.0315	1.0306	1.0297	1.0296	0.9163				Mitigation under review
CC-V-06	TEXACO 60 kV	Base Case	P0	N-0	1.0219	1.0209	1.0197	1.0197	0.9153				Mitigation under review
CC-V-07	GREN VLY 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-08	ERTA 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-09	AGRILINK 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-10	WTSNVLL 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-11	GRANT RK 60 kV	P1-2:A19:35:_Green Valley-Watsonville 60 kV	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-12	BRIGTANO 60 kV	P1-3:A19:4:_Green Valley 115/60 Transformer #1	P1	N-1	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion Project
CC-V-13	GONZALES 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	0.9124	0.9035	0.8952	0.8817	0.8827				Mitigation under review
CC-V-14	CAMPHORA 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	0.9227	0.9139	0.9065	0.8931	0.8941				Mitigation under review
CC-V-15	SOLEDAD 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P1	N-1	0.9282	0.9195	0.9119	0.8991	0.8996				Mitigation under review
CC-V-16	OILFLDS 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	1.0267	1.026	1.0251	1.025	0.8177				Mitigation under review
CC-V-17	SALN RVR 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	1.0275	1.0269	1.026	1.026	0.8175				Mitigation under review
CC-V-18	SARG CYN 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	1.0343	1.0337	1.0328	1.0328	0.8174				Mitigation under review
CC-V-19	TEXACO 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P1	N-1	1.025	1.0243	1.0234	1.0233	0.8167				Mitigation under review
CC-V-20	GREN VLY 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-21	ERTA 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-22	AGRILINK 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-23	WTSNVLL 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-24	GRANT RK 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-25	BRIGTANO 60 kV	P2-4:A19:1:_GREEN VALLEY 115 kV CB 102	P2	Circuit Breaker	N/A	N/A	N/A	N/A	N/A				Action Plan. Watsonville 115 kV Voltage Conversion still needed
CC-V-26	GONZALES 60 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.874	0.8645	0.8528	0.8337	0.8456				Action Plan. Install shunt caps
CC-V-27	CAMPHORA 60 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.8848	0.8755	0.8646	0.8458	0.8575				Mitigation under review
CC-V-28	CSTRVLL 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	0.9255	0.9161	0.9064	0.8867	0.8994				Mitigation under review

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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
CC-V-29	DEL MNTE 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	0.9318	0.9224	0.9138	0.8945	0.9069				Mitigation under review
CC-V-30	DOLAN RD 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.8946	0.8854	0.8762	0.858	0.8692				Mitigation under review
CC-V-31	SALINAS 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.8969	0.8877	0.8786	0.8606	0.8716				Mitigation under review
CC-V-32	NTVD SW1 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.8965	0.8873	0.878	0.86	0.871				Mitigation under review
CC-V-33	HOLLISTR 115 kV	P2-4:A19:2:_Moss Landing 115 kV CB 110	P2	Circuit Breaker	0.9335	0.9238	0.9144	0.8938	0.9072				Mitigation under review
CC-V-34	SOLEDAD 115 kV	P2-4:A19:4:_MOSS LANDING 115 kV CB 500	P2	Circuit Breaker	0.8917	0.8824	0.8716	0.8534	0.8645				Mitigation under review
CC-V-35	ERTA 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-V-36	AGRILINK 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-V-37	WTSNVLE 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-V-38	GRANT RK 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-V-39	BRIGHTANO 60 kV	P2-1:A19:37:_GREN VLY-ERTA JCT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	N/A	N/A	N/A	N/A	N/A				Mitigation under review
CC-V-40	SALN RVR 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	1.0259	1.0252	1.0244	1.0243	0.7451				Mitigation under review
CC-V-41	SAN ARDO 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	1.0177	1.0171	1.0159	1.0156	0.7351				Mitigation under review



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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	
CC-V-42	SARG CYN 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	1.0327	1.0321	1.0313	1.0312	0.745				Mitigation under review
CC-V-43	TEXACO 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	1.0233	1.0226	1.0216	1.0215	0.7443				Mitigation under review
CC-V-44	OILFLDS 60 kV	P2-1:A19:83:_COBURN-S ARDOJ2 #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	1.0249	1.0242	1.0232	1.0231	0.7454				Mitigation under review
CC-V-45	SPENCE 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	0.8905	0.883	0.8744	0.8645	0.869				Mitigation under review
CC-V-46	BNA VSTA 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	0.8463	0.8384	0.8281	0.8168	0.8225				Mitigation under review
CC-V-47	FIRESTNE 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	0.8748	0.8671	0.8579	0.8475	0.8524				Mitigation under review
CC-V-48	FRSHXPRS 60 kV	P2-1:A19:45:_SALINAS1-FREXP JT #1 60 kV	P2-1	Var device/Open ended Line w/No Fault	0.8451	0.8372	0.8269	0.8156	0.8213				Mitigation under review
CC-V-49	GONZALES 60 kV	P2-1:A19:13:_NTVD SW2-SOLEDAD #1 115 kV	P2-1	Var device/Open ended Line w/No Fault	0.9233	0.9164	0.907	0.8992	0.9021				Mitigation under review
CC-V-50	CAMPHORA 60 kV	P1-1:A19:4:_BAF COG2 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	0.9182	0.91	0.9027	0.8884	N/A				Mitigation under review
CC-V-51	CAMPHORA 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8889				Mitigation under review
CC-V-52	GONZALES 60 kV	P1-1:A19:4:_BAF COG2 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	0.9078	0.8995	0.8914	0.8769	N/A				Mitigation under review

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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	
CC-V-53	GONZALES 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8774				Mitigation under review
CC-V-54	OILFLDS 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:5:_Coburn-LASAGUILASS 230	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8885				Mitigation under review
CC-V-55	OILFLDS 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8037				Mitigation under review
CC-V-56	OILFLDS 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:58:_Coburn-Oil Fields #2 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8908				Mitigation under review
CC-V-57	OILFLDS 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.883				Mitigation under review
CC-V-58	SALN RVR 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8035				Mitigation under review
CC-V-59	SARG CYN 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8034				Mitigation under review
CC-V-60	SOLEDAD 60 kV	P1-1:A19:4:_BAF COG2 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	0.9237	0.9156	0.9081	0.8944	N/A				Mitigation under review
CC-V-61	SOLEDAD 115 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8956				Mitigation under review
CC-V-62	TEXACO 60 kV	P1-1:A19:5:_KCTYPKER 13.80 Generator ID 1 and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P3	N-1/G-1	N/A	N/A	N/A	N/A	0.8026				Mitigation under review
CC-V-63	GREN VLY 60 kV	P1-3:A19:11:_Coburn 230/60 kV Transformer #1 and P1-3:A19:4:_Green Valley 115/60 Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-V-64	ERTA 60 kV	P1-3:A19:11:_Coburn 230/60 kV Transformer #1 and P1-3:A19:4:_Green Valley 115/60 Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-V-65	AGRILINK 60 kV	P1-3:A19:11:_Coburn 230/60 kV Transformer #1 and P1-3:A19:4:_Green Valley 115/60 Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-V-66	WTSNVILLE 60 kV	P1-3:A19:11:_Coburn 230/60 kV Transformer #1 and P1-3:A19:4:_Green Valley 115/60 Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-V-67	GRANT RK 60 kV	P1-2:A19:11:_Moss Landing-Coburn 230 kV and P1-2:A19:35:_Green Valley-Watsonville 60 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed
CC-V-68	BRIGTANO 60 kV	P1-2:A19:11:_Moss Landing-Coburn 230 kV and P1-2:A19:35:_Green Valley-Watsonville 60 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	N/A				Watsonville 115 kV Voltage Conversion Project still needed

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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	
CC-V-69	GRANT RK 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV	P6	N-1-1 (Two overlapping singles)	0.9012	0.8766	0.8738	0.8533	0.8623				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-70	WTSNVLE 115 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8758	0.8498	0.8606				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-71	BRIGTANO 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.9028	0.8935	0.8772	0.864	0.8638				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-72	SALINAS 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.8972	0.8881	0.8717	0.8599	0.8585				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-73	NATIVDAD 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV	P6	N-1-1 (Two overlapping singles)	0.8997	0.8757	0.8725	0.8536	0.8612				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-74	CRZY_HRS 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.9032	0.8941	0.8777	0.8658	0.8646				Watsonville 115 kV Voltage Conversion incl. reactive support Project still needed
CC-V-75	MOSSLND1 230 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	0.8896	0.8882	0.8747	0.8782				Mitigation under review
CC-V-76	MOSSLND2 230 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.884	0.867	0.8712				Mitigation under review
CC-V-77	MOSLND D 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:1:_Spring-Moss Landing 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8948	0.8775	0.8833				Mitigation under review
CC-V-78	MOSLND E 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:1:_Spring-Moss Landing 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8956	0.8784	0.8842				Mitigation under review
CC-V-79	GRN VLY1 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.9188	0.9094	0.8939	0.8786	0.8803				Mitigation under review
CC-V-80	GRN VLY2 115 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8872	0.8603	0.8719				Mitigation under review
CC-V-81	CMP EVRS 115 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9027	0.8711	0.8863				Mitigation under review
CC-V-82	PAUL SWT 115 kV	P1-2:A19:21:_Paul Sweet Statcom and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.9096	0.9043	0.8978	0.8795	0.8849				Mitigation under review
CC-V-83	ROB ROY 115 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.894	0.8643	0.8781				Mitigation under review

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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
CC-V-84	SNBENITO 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.8964	0.8872	0.8697	0.8572	0.8563				Mitigation under review
CC-V-85	SOLEDAD 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.8729	0.8634	0.844	0.8304	0.8301				Mitigation under review
CC-V-86	PRUNEDLE 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV	P6	N-1-1 (Two overlapping singles)	0.9108	0.8871	0.8843	0.8664	0.8733				Mitigation under review
CC-V-87	CSTRVLE 115 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8931	0.873	0.8792				Mitigation under review
CC-V-88	DEL MNTE 115 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.9034	0.8944	0.8787	0.8672	0.8659				Mitigation under review
CC-V-89	DOLAN RD 115 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:1:_Spring-Moss Landing 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.8927	0.8752	0.8812				Mitigation under review
CC-V-90	CAMPHORA 60 kV	P1-2:A19:27:_Salinas-Soledad 115 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	0.8886	0.8828	0.8676	0.8509	0.8543				Mitigation under review
CC-V-91	FIRESTNE 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:1:_Spring-Moss Landing 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9039	0.8809	0.8904				Mitigation under review
CC-V-92	FRSHXPRS 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:1:_Spring-Moss Landing 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9078	0.885	0.8943				Mitigation under review
CC-V-93	GABILAN 60 kV	P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9135	0.8994	0.8989				Mitigation under review
CC-V-94	SPENCE 60 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9065	0.8807	0.8902				Mitigation under review
CC-V-95	RSVTN RD 60 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.9068	0.88	0.8904				Mitigation under review
CC-V-96	LAURELES 60 kV	P1-2:A18:1:_Spring-Moss Landing 230 kV and P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9	P6	N-1-1 (Two overlapping singles)	N/A	N/A	0.89	0.8612	0.8732				Mitigation under review
CC-V-97	OILFLDS 60 kV	P1-2:A19:56:_Coburn-Basic Energy 60 kV and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	0.805				Mitigation under review
CC-V-98	SALN RVR 60 kV	P1-2:A19:29:_Moss Landing-Salinas #2 115 kV and P1-2:A19:57:_Coburn-Oil Fields #1 60 kV	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	0.809				Mitigation under review
CC-V-99	SARG CYN 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV and P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	0.8013				Mitigation under review

Study Area: **PG&E Central Coast**

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	
CC-V-100	TEXACO 60 kV	P1-2:A19:57:_Coburn-Oil Fields #1 60 kV and P1-3:A19:8:_Coburn 230/60 kV Transformer #1	P6	N-1-1 (Two overlapping singles)	N/A	N/A	N/A	N/A	0.8005				Mitigation under review
CC-V-101	OTTER 60 kV	P1-3:A19:1:_Moss Landing 500/230 kV Transformer #9 and P1-2:A18:9:_Metcalf-Moss Landing #1 230 kV	P6	N-1-1 (Two overlapping singles)	N/A	0.8932	0.8881	0.8631	0.8753				Mitigation under review
CC-V-102	GONZALES 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	0.9061	0.898	0.8877	0.8726	0.8806				Mitigation under review
CC-V-103	CAMPHORA 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	0.9165	0.9085	0.899	0.8841	0.8921				Mitigation under review
CC-V-104	SOLEDAD 60 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	0.922	0.9141	0.9045	0.8902	0.8976				Mitigation under review
CC-V-105	WTSNVLL 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.9701	0.9556	0.9575	0.8703	0.9468				Watsonville 115 kV Voltage Conversion Project
CC-V-106	GRANT RK 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.9625	0.95	0.9503	0.8867	0.9411				Watsonville 115 kV Voltage Conversion Project
CC-V-107	BRIGTANO 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.9643	0.952	0.9521	0.8897	0.9431				Watsonville 115 kV Voltage Conversion Project
CC-V-108	SALINAS 115 kV	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	0.9287	0.9208	0.913	0.899	0.9062				Watsonville 115 kV Voltage Conversion Project
CC-V-109	GRN VLY1 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.9898	0.9737	0.9766	0.8736	0.9648				Mitigation under review
CC-V-110	GRN VLY2 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	0.9896	0.9735	0.9764	0.8733	0.9646				Mitigation under review
CC-V-111	ROB ROY 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	1.0003	0.9836	0.9868	0.8783	0.9746				Mitigation under review
CC-V-112	CMP EVRS 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	1.0119	0.9947	0.9982	0.8855	0.9857				Mitigation under review
CC-V-113	PAUL SWT 115 kV	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	1.0157	0.9984	1.0019	0.8882	0.9893				Mitigation under review