Study Area: **PG&E Central Coast - Summer Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-001	GRN VLY1-MOSLND D 115 kV # 1 Line	Moss Landing-Green Valley #2 115 kV Line	B	L-1	105.1%	<100%	82.1%	Action plan/2015 Watsonville 115 kV Voltage Conversion Project helps
CC-S-T-002	GRN VLY2-MOSLND D 115 kV # 1 Line	Moss Landing-Green Valley #1 115 kV Line	B	L-1	105.1%	N/A	N/A	Action plan/2015 Watsonville 115 kV Voltage Conversion Project helps
CC-S-T-003	GRN VLY1-MOSLND D 115 kV #1 Line	Moss Landing 115 kV Bus Section 2D	C1	Bus	105.7%	<100%	<100%	Same as Category B: Action Plan
CC-S-T-004	GRN VLY2-MOSLND D 115 kV #1 Line	Moss Landing 115 kV Bus Section 1D	C1	Bus	105.6%	N/A	N/A	Same as Category B: Action Plan
CC-S-T-005	LGNTSSW1-NTVD SW1 115 kV #1 Line	Moss Landing 115 kV Bus Section 2D	C1	Bus	101.6%	N/A	N/A	Action plan
CC-S-T-006	NTVD SW1-SALINAS 115 kV #1 Line	Moss Landing 115 kV Bus Section 2D	C1	Bus	120.1%	<100%	<100%	Action plan/Crazy Horse 115 kV project helps
CC-S-T-014	MOSLND E-MOSSLND2 115/230 kV #10 Bank	CB FAULT AT MOSS LANDING SUB 115 CB110	C1	Bus	110.4%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-012	MOSLND D-MOSSLND2 115/230 kV #2 Bank	CB FAULT AT MOSS LANDING SUB 115 CB110	C1	Bus	110.1%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-013	MOSLND E-MOSSLND1 115/230 kV #8 Bank	CB FAULT AT MOSS LANDING SUB 115 CB120	C1	Bus	109.9%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2

Study Area: **PG&E Central Coast - Summer Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-011	MOSLND D-MOSSLND1 115/230 kV #1 Bank	CB FAULT AT MOSS LANDING SUB 115 CB120	C1	Bus	110.1%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-007	CSTRVLJ2-DEL MNTE 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 CB110	C2	CB	88.1%	92.6%	100.4%	Monitor line loading/rerate/drop load/action plan
CC-S-T-008	GRN VLY2-MOSLND D 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	108.8%	N/A	N/A	Action plan
CC-S-T-009	LGNTSSW1-NTVD SW1 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	109.2%	N/A	N/A	Action plan
CC-S-T-010	LGNTSSW2-NTVD SW2 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	149.5%	N/A	N/A	Action plan
CC-S-T-011	MOSLND D-MOSSLND1 115/230 kV #1 Bank	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	116.7%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-012	MOSLND D-MOSSLND2 115/230 kV #2 Bank	CB FAULT AT MOSS LANDING SUB 115 CB110	C2	CB	115.7%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-013	MOSLND E-MOSSLND1 115/230 kV #8 Bank	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	116.4%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-014	MOSLND E-MOSSLND2 115/230 kV #10 Bank	CB FAULT AT MOSS LANDING SUB 115 CB110	C2	CB	115.9%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2

Study Area: **PG&E Central Coast - Summer Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-015	NTVD SW1-SALINAS 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	124.6%	<100%	<100%	Action plan/Crazy Horse 115 kV project helps
CC-S-T-016	BRIGTANO-GRANT JT 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	159.2%	179.6%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-T-017	CIC JCT-AGRILINK 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	141.9%	160.2%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-T-018	CIC JCT-ERTA JCT 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	141.9%	160.2%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-T-019	CRZY_HRS-BRIGTANO 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	160.5%	181.2%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-T-020	CRZY_HRS-NTVD SW2 115 kV #1 Line	Moss Landing-Salinas #1 & 2 115 kV Lines	C3	L-1-1	N/A	148.8%	159.3%	Action plan/Reconsider the on-hold 2017 Natividad Sub project
CC-S-T-021	GRN VLY1-ERTA JCT 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	140.7%	159.0%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-T-022	GRN VLY1-MOSLND D 115 kV #2 Line	Moss Landing-Green Valley #1 115 kV and Crazy Horse-Watsonville 115 kV Lines	C3	L-1-1	N/A	104.4%	111.5%	Monitor/drop load/rerate
CC-S-T-023	GRN VLY1-MOSLND D 115 kV #1 Line	Moss Landing-Green Valley #2 115 kV and Crazy Horse-Watsonville 115 kV Lines	C3	L-1-1	N/A	104.4%	111.5%	Monitor/drop load/rerate
CC-S-T-024	GRN VLY1-MOSLND D 115 kV #1 Line	Moss Landing-Green Valley #2 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	112.0%	<100%	<100%	Action plan/rerate/upgrade limiting equipment
CC-S-T-025	GRN VLY2-MOSLND D 115 kV #1 Line	Moss Landing-Green Valley #1 115 kV Line and PSWTSTCM #1	C3	L-1/N-1	108.4%	N/A	N/A	Action plan/rerate/upgrade limiting equipment

Study Area: **PG&E Central Coast - Summer Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-026	LGNTSSW1-NTVD SW1 115 kV #1 Line	Moss Landing-Salinas #1 & 2 115 kV Lines	C3	L-1-1	126.7%	N/A	N/A	Use existing action plan if necessary
CC-S-T-027	LGNTSSW2-NTVD SW2 115 kV #1 Line	Moss Landing-Salinas #1 & 2 115 kV Lines	C3	L-1-1	162.4%	N/A	N/A	Use existing action plan if necessary
CC-S-T-028	MOSLND D-MOSSLND1 115/230 kV #1 Bank	Moss Landing 230/115 kV Bank #10 & 8	C3	T-1-1	192.7%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-029	MOSLND D-MOSSLND2 115/230 kV #2 Bank	Moss Landing 230/115 kV Bank #10 & 8	C3	T-1-1	191.9%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-030	MOSLND E-MOSSLND1 115/230 kV #8 Bank	Moss Landing 230/115 kV Bank #10 & 2	C3	T-1-1	107.8%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-031	MOSLND E-MOSSLND2 115/230 kV #10 Bank	Moss Landing 230/115 kV Bank #8 & 1	C3	T-1-1	108.2%	<100%	<100%	Same as Category C1: Increase capacity of existing project replacing Moss Landing 115/230 kV Bank #1 & 2
CC-S-T-032	NTVD SW1-SALINAS 115 kV #1 Line	Moss Landing-Salinas #1 & 2 115 kV Lines	C3	L-1-1	96.7%	115.3%	123.4%	Reconsider the on-hold 2017 Natividad Sub project
CC-S-T-033	WTSNVLLE-GRANT JT 115 kV #1 Line	Moss Landing-Green Valley #1 & 2 115 kV Lines	C3	L-1-1	N/A	154.1%	174.1%	Increase capacity of the approved 2014 Watsonville 115 kV Voltage Conversion Project
CC-S-T-034	LGNTSSW1-NTVD SW1 115 kV #1 Lin	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	126.7%	N/A	N/A	Drop load and follow existing Action Plan if needed

Study Area: PG&E Central Coast - Summer Peak

California ISO
Shaping a Renewed Future

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-035	LGNTSSW2-NTVD SW2 115 kV #1 Lin	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	162.4%	N/A	N/A	Drop load and follow existing Action Plan if needed
CC-S-T-036	NTVD SW2-SALINAS 115 kV #1 Line	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	127.5%	114.5%	122.4%	Drop load/consider the on-hold 2017 Natividad Sub project
CC-S-T-037	NTVD SW1-SALINAS 115 kV #1 Line	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	96.7%	114.5%	122.4%	Drop load/consider the on-hold 2017 Natividad Sub project
CC-S-T-038	GRN VLY1-ERTA JCT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	138.2%	154.0%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-039	CIC JCT-ERTA JCT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	139.3%	155.2%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-040	CIC JCT-AGRILINK 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	139.3%	155.2%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-041	WTSNVLLE-GRANT JT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	151.3%	168.5%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-042	WTSNVLLE-AGRILINK 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	139.4%	155.3%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Central Coast - Summer Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-T-043	BRIGTANO-GRANT JT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	156.2%	173.9%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-044	CRZY_HRS-NTVD SW2 115 kV #1 Line	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	N/A	147.7%	158.1%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-045	CRZY_HRS-NTVD SW1 115 kV #1 Line	Moss Landing - Salinas #1 and #2 115 kV Lines	C5	L-2	N/A	147.7%	158.1%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-S-T-046	CRZY_HRS-BRIGTANO 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	157.6%	175.4%	Drop load/Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Central Coast - Winter Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-T-001	GRN VLY2 -MOSLND D 115 kV #1 Line	CB FAULT AT MOSS LANDING SUB 115 kV CB110	C2	CB	100.1%	N/A	N/A	Monitor/rerate/drop load
CC-W-T-002	BRIGTANO-GRANT JT 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	129.5%	156.8%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-003	CIC JCT-AGRILINK 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	115.6%	140.1%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-004	CIC JCT-ERTA JCT 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	115.6%	140.1%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-005	CRZY_HRS-BRIGTANO 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	130.6%	158.1%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-006	GRN VLY1-ERTA JCT 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	115.1%	139.4%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-007	GRN VLY1-MOSLND D 115 #2 Line	Moss Landing-Green Valley #1 and Crazy Horse-Watsonville 115 kV Lines	C3	L-1-1	N/A	96.4%	103.8%	Monitor facility loading/drop load/rerate/drop load
CC-W-T-008	GRN VLY1-MOSLND D 115 #1 Line	Moss Landing-Green Valley #2 and Crazy Horse-Watsonville 115 kV Lines	C3	L-1-1	N/A	96.4%	103.8%	Monitor facility loading/drop load/rerate/drop load
CC-W-T-009	GRN VLY1-MOSLND D 115 #1 Line	Moss Landing-Green Valley #2 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	105.1%	<100%	<100%	Monitor line loading/drop load
CC-W-T-010	GRN VLY2-MOSLND D 115 #1 Line	Moss Landing-Green Valley #1 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	105.1%	N/A	N/A	Monitor line loading/drop load

Study Area: **PG&E Central Coast - Winter Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-T-011	MOSLND D-MOSSLND1 115/230 #1 Bank	Moss Landing 230/115 kV Bank #10 and Moss Landing 230/115 kV Bank #8	C3	T-1-1	168.3%	<100%	<100%	Action plan/drop load/revise existing project to replace Moss Landing 115/230 kV #1 & 2 Banks
CC-W-T-012	MOSLND D-MOSSLND2 115/230 #2 Bank	Moss Landing 230/115 kV Bank #10 and Moss Landing 230/115 kV Bank #8	C3	T-1-1	167.7%	<100%	<100%	Action plan/drop load/revise existing project to replace Moss Landing 115/230 kV #1 & 2 Banks
CC-W-T-013	WTSNVLLE-AGRILINK 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	115.7%	140.2%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-014	WTSNVLLE-GRANT JT 115 #1 Line	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	125.7%	152.3%	Increase capacity of the approved 2015 Watsonville 115 kV voltage conversion project
CC-W-T-015	GRN VLY1-ERTA JCT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	112.9%	131.0%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-W-T-016	CIC JCT-ERTA JCT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	113.5%	131.6%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-W-T-017	CIC JCT-AGRILINK115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	113.5%	131.6%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-W-T-018	WTSNVLLE-GRANT JT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	123.3%	143.0%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Central Coast - Winter Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-T-019	WTSNVLLE-AGRILINK 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	113.6%	131.7%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-W-T-020	BRIGTANO-GRANT JT 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	127.0%	147.2%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project
CC-W-T-021	CRZY_HRS-BRIGTANO 115 kV #1 Line	Moss Landing - Green Valley #1 and #2 115 kV	C5	L-2	N/A	128.0%	148.4%	Increase capacity of the approved 2015 Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Central Coast - Summer Light Load & Summer Off-Peak**

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	

No thermal overloads identified.

Study Area: **PG&E Central Coast - Summer Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-VD-001	HOLLISTR 115 kV	Crazy Horse-Hollister #2 115 kV Line	B	L-1	N/A	-4.78%	-5.04%	Monitor voltage deviation
CC-S-VD-002	CSTRVLLE 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB110	C2	CB	-9.1%	-9.6%	-11.6%	Monitor voltage deviation/load drop
CC-S-VD-003	DOLAN RD 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB110	C2	CB	-9.0%	-8.8%	-10.2%	Monitor voltage deviation/load drop
CC-S-VD-004	HOLST D 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	-11.7%	-6.0%	-7.1%	Monitor voltage deviation/load drop
CC-S-VD-005	LGNTSSW1 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	-11.0%	N/A	N/A	Monitor voltage deviation/load drop
CC-S-VD-006	PRUNEDLE 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	-12.0%	-6.7%	-7.8%	Monitor voltage deviation/load drop
CC-S-VD-007	SNBENITO 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	-11.4%	-5.9%	-7.0%	Monitor voltage deviation/load drop
CC-S-VD-008	SARG CYN 60 kV	Coburn-Oil Fields #1 60 kV Line and SALNR GN Unit #1	C3	(L-1/G-1)/G-1	-9.4%	-10.1%	-10.5%	Monitor voltage deviation/load drop
CC-S-VD-009	AGRILINK 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.2%	-17.4%	Monitor voltage deviation/load drop
CC-S-VD-010	BRIGTANO 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-9.0%	-12.5%	Monitor voltage deviation/load drop
CC-S-VD-011	CMP EVRS 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.2%	-18.4%	Monitor voltage deviation/load drop
CC-S-VD-012	ERTA 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.5%	-18.0%	Monitor voltage deviation/load drop
CC-S-VD-013	GRANT RK 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-9.2%	-12.8%	Monitor voltage deviation/load drop

Study Area: **PG&E Central Coast - Summer Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-VD-014	GRN VLY1 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.7%	-18.3%	Monitor voltage deviation/load drop
CC-S-VD-015	PAUL SWT 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-11.9%	-18.1%	Monitor voltage deviation/load drop
CC-S-VD-016	PAUL SWT 115 kV	Moss Landing-Green Valley #2 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	-10.0%	-6.1%	-7.1%	Monitor voltage deviation/load drop
CC-S-VD-017	ROB ROY 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.5%	-18.3%	Monitor voltage deviation/load drop
CC-S-VD-018	WTSNVLLE 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.1%	-17.3%	Monitor voltage deviation/load drop
CC-S-VD-019	GRN VLY1 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	-0.60%	-11.2%	-15.8%	Monitor/drop load
CC-S-VD-020	CMP EVRS 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	-0.06%	-10.2%	-15.5%	Monitor/drop load
CC-S-VD-021	PAUL SWT 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	0.00%	-10.1%	-15.2%	Monitor/drop load
CC-S-VD-022	ROB ROY 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	0.40%	-10.9%	-15.7%	Monitor/drop load
CC-S-VD-023	ERTA 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-11.0%	-15.6%	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-VD-024	WTSNVLLE 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-10.7%	-15.0%	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-VD-025	GRANT RK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-8.1%	-11.0%	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project

Study Area: **PG&E Central Coast - Summer Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-VD-026	AGRILINK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-10.8%	-15.1%	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-VD-027	BRIGTANO 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-7.9%	-10.8%	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project

Study Area: **PG&E Central Coast - Winter Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-VD-001	CSTRVLLE 115 kV	CB FAULT AT MOSS LANDING SUB 115 kV CB110	C2	CB	-8.89%	-8.73%	-10.30%	Monitor voltage deviation/drop load
CC-W-VD-002	AGRILINK 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.47%	-22.65%	Monitor voltage deviation/drop load
CC-W-VD-003	BRIGTANO 60 kV	Moss Landing-Green Valley #1 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	-10.05%	N/A	N/A	Monitor/follow existing action plan if needed
CC-W-VD-004	BRIGTANO 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-9.32%	-16.30%	Monitor voltage deviation/drop load
CC-W-VD-005	CMP EVRS 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-11.64%	-23.43%	Monitor voltage deviation/drop load
CC-W-VD-006	ERTA 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.77%	-23.39%	Monitor voltage deviation/drop load
CC-W-VD-007	GRANT RK 60 kV	Moss Landing-Green Valley #1 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	-10.12%	N/A	N/A	Monitor/follow existing action plan if needed
CC-W-VD-008	GRANT RK 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-9.53%	-16.69%	Monitor voltage deviation/drop load
CC-W-VD-009	GRN VLY1 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.91%	-23.79%	Monitor voltage deviation/drop load
CC-W-VD-010	PAUL SWT 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-11.42%	-23.28%	Monitor voltage deviation/drop load
CC-W-VD-011	PAUL SWT 115 kV	Moss Landing-Green Valley #2 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	-10.39%	-4.51%	-6.03%	Monitor voltage deviation/drop load
CC-W-VD-012	ROB ROY 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.50%	-23.72%	Monitor voltage deviation/drop load
CC-W-VD-013	WTSNVLLE 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	-12.40%	-22.46%	Monitor voltage deviation/drop load
CC-W-VD-014	GRN VLY1 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	-1.05%	-11.36%	-18.94%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-015	CMP EVRS 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	0.09%	-9.79%	-18.07%	Monitor/drop load

Study Area: **PG&E Central Coast - Winter Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-VD-016	PAUL SWT 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	0.00%	-9.52%	-17.87%	Monitor/drop load
CC-W-VD-017	ROB ROY 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	0.10%	-10.84%	-18.68%	Monitor/drop load
CC-W-VD-018	ERTA 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-11.25%	-18.63%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-019	CIC JCT 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-11.08%	-18.20%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-020	WTSNVLLE 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-10.96%	-17.94%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-021	GRANT RK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-8.42%	-13.35%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-022	AGRILINK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-11.02%	-18.08%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-VD-023	BRIGTANO 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	-8.23%	-13.03%	Monitor/drop load/add reactive support to the 2015 Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Central Coast - Summer Light Load & Summer Off-Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
CC-NPK-VD-001	BRIGTANO 60 kV	Green Valley 115/60 Bank #1	B	T-1	-5.14%	N/A		Action plan/existing Watsonville UVLS may operate
CC-NPK-VD-002	CAMPHORA 60 kV	Soledad #2 60 kV Line(Gonzales 60 kV Tap #2)	B	L-1	-6.20%	-0.58%		Monitor/Follow existing Action Plan if needed
CC-NPK-VD-003	CMP EVRS 115 kV	PSWTSTCM 8.00 Unit ID 1	B	N-1	5.11%	0.60%		Under review for possible exemption
CC-NPK-VD-004	DEL MNTE 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.13%	-0.02%		Under review for possible exemption
CC-NPK-VD-005	DUKE ML1 230 kV	Duke Moss Landing 1-Moss Landing 230 kV Line	B	L-1	1.29%	5.28%		Monitor voltage deviation
CC-NPK-VD-006	FORT ORD 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.14%	-0.02%		Under review for possible exemption
CC-NPK-VD-007	GONZALES 60 kV	Soledad #1 60 kV Line(Gonzales 60 kV Tap #1)	B	L-1	-6.51%	-0.69%		Monitor
CC-NPK-VD-008	HATTON 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.14%	-0.03%		Under review for possible exemption
CC-NPK-VD-009	HOLLISTR 115 kV	ML-SD-SL #2 115 kV Line	B	L-1	-6.89%	N/A		Monitor
CC-NPK-VD-010	HOLST D 115 kV	San Benito-Hollister 115 kV Line	B	L-1	-6.60%	N/A		Monitor
CC-NPK-VD-011	LGNTSSW1 115 kV	ML-SD-SL #1 115 kV Line	B	L-1	-7.36%	N/A		Monitor
CC-NPK-VD-012	LGNTSSW2 115 kV	ML-SD-SL #2 115 kV Line	B	L-1	-7.48%	N/A		Monitor
CC-NPK-VD-013	MANZANTA 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.13%	-0.03%		Under review for possible exemption
CC-NPK-VD-014	MONTEREY 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.14%	-0.02%		Under review for possible exemption
CC-NPK-VD-015	NAVY LAB 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.13%	N/A		Under review for possible exemption

Study Area: **PG&E Central Coast - Summer Light Load & Summer Off-Peak**

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
CC-NPK-VD-016	NTVD SW1 115 kV	ML-SD-SL #1 115 kV Line	B	L-1	-5.02%	N/A		Monitor
CC-NPK-VD-017	NTVD SW2 115 kV	ML-SD-SL #2 115 kV Line	B	L-1	-5.57%	N/A		Monitor
CC-NPK-VD-018	NVY SCHL 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.13%	-0.02%		Under review for possible exemption
CC-NPK-VD-019	PAUL SWT 115 kV	PSWTSTCM 8.00 Unit ID 1	B	N-1	5.62%	0.67%		Under review for possible exemption
CC-NPK-VD-020	SLDAD 4M 115 kV	Soledad 115/60 Bank 4M	B	T-1	-6.09%	-0.59%		Monitor
CC-NPK-VD-021	SLDAD 5M 115 kV	Soledad 115/60 Bank 5M	B	T-1	-6.19%	-0.69%		Monitor
CC-NPK-VD-022	SNBENITO 115 kV	ML-SD-SL #1 115 kV Line	B	L-1	-7.00%	N/A		Monitor
CC-NPK-VD-023	VIEJO 60 kV	Del Monte 115/60 kV Bank #4	B	T-1	6.15%	-0.02%		Under review for possible exemption

Study Area: **PG&E Central Coast - Summer Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-V-001	SNBENITO 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	0.88	0.95	0.94	Monitor/load drop
CC-S-V-002	GONZALES 60 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	0.89	0.91	0.94	Monitor/load drop
CC-S-V-003	HOLST D 115 kV	CB FAULT AT MOSS LANDING SUB 115 CB120	C2	CB	0.86	0.95	0.93	Monitor/load drop
CC-S-V-004	OILFLDS 60 kV	Coburn-Oil Fields #1 60 kV Line and SALNR GN Unit #1	C3	(L-1/G-1)/G-1	0.901	0.893	0.89	Monitor and follow existing Action Plan if needed/adjust equipment voltage settings
CC-S-V-005	SALN RVR 60 kV	Coburn-Oil Fields #1 60 kV Line and SALNR GN Unit #1	C3	(L-1/G-1)/G-1	0.9	0.893	0.889	Monitor and follow existing Action Plan if needed/adjust equipment voltage settings
CC-S-V-006	TEXACO 60 kV	Coburn-Oil Fields #1 60 kV Line and SALNR GN Unit # 1	C3	(L-1/G-1)/G-1	0.9	0.892	0.889	Monitor and follow existing Action Plan if needed/adjust equipment voltage settings
CC-S-V-007	AGRILINK 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.898	0.844	Monitor/load drop/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-S-V-008	BRIGTANO 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.927	0.89	Monitor/load drop/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-S-V-009	CMP EVRS 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.904	0.842	Monitor/load drop
CC-S-V-010	CRYHSE60 60 kV	PSWTSTCM Unit # 1 and DUKMOSS1 Unit # 1	C3	N-1/G-1	1.029	0.999	N/A	Monitor voltage/load drop
CC-S-V-011	ERTA 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.896	0.839	Monitor/load drop/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-S-V-012	GRANT RK 60 kV	Moss Landing-Green Valley #1 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	0.895	N/A	N/A	Monitor and follow existing Action Plan if needed

Study Area: **PG&E Central Coast - Summer Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-V-013	GRANT RK 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.923	0.885	Monitor/load drop/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-S-V-014	GRN VLY1 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.895	0.837	Monitor voltage/load drop
CC-S-V-015	PAUL SWT 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.906	0.844	Monitor voltage/load drop
CC-S-V-016	ROB ROY 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.897	0.837	Monitor voltage/load drop
CC-S-V-017	SARG CYN 60 kV	Coburn-Oil Fields #1 60 kV and Oil Fields-Salinas River 60 kV Lines	C3	L-1-1	0.908	0.901	0.897	Monitor voltage/load drop
CC-S-V-018	WTSNVLLE 115 kV	Moss Landing-Green Valley #1 115 kV and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.899	0.845	Monitor/load drop/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-S-V-019	GRN VLY1 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.015	0.913	0.865	Monitor/drop load
CC-S-V-020	CMP EVRS 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.922	0.871	Monitor/drop load
CC-S-V-021	PAUL SWT 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.924	0.873	Monitor/drop load
CC-S-V-022	ROB ROY 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.915	0.866	Monitor/drop load
CC-S-V-023	ERTA 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.913	0.867	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project
CC-S-V-024	WTSNVLLE 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.916	0.872	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project

Study Area: **PG&E Central Coast - Summer Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
CC-S-V-025	AGRILINK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.915	0.871	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion Project

Study Area: **PG&E Central Coast - Winter Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-V-001	HOLLISTR 115 kV	-	A	Normal	1.052	1.038	1.034	Monitor/Adjust generator and transformer voltage settings
CC-W-V-002	MOSLND E 115 kV	-	A	Normal	1.054	1.057	1.054	Monitor/Adjust generator and transformer voltage settings
CC-W-V-003	MOSLND D 115 kV	-	A	Normal	1.054	1.056	1.053	Monitor/Adjust generator and transformer voltage settings
CC-W-V-004	CSTRVLLE 115 kV	-	A	Normal	1.050	1.052	1.049	Monitor/Adjust generator and transformer voltage settings
CC-W-V-005	DOLAN RD 115 kV	-	A	Normal	1.053	1.055	1.052	Monitor/Adjust generator and transformer voltage settings
CC-W-V-006	AGRILINK 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.906	0.801	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-V-007	BRIGTANO 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.941	0.868	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-V-008	CMP EVRS 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.909	0.79	Monitor voltage/drop load
CC-W-V-009	ERTA 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.903	0.794	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-V-010	GRANT RK 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.937	0.862	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-V-011	GRN VLY1 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.902	0.79	Monitor voltage/drop load
CC-W-V-012	PAUL SWT 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.911	0.792	Monitor voltage/drop load

Study Area: **PG&E Central Coast - Winter Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Winter Peak	2017 Winter Peak	2022 Winter Peak	
CC-W-V-013	ROB ROY 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.903	0.789	Monitor voltage/drop load
CC-W-V-014	WTSNVLLE 115 kV	Moss Landing-Green Valley #1 and Moss Landing-Green Valley #2 115 kV Lines	C3	L-1-1	N/A	0.907	0.803	Monitor/drop load/consider adding reactive support to the 2015 Watsonville 115 kV Voltage Conversion project
CC-W-V-015	GRANT RK 60 kV	Moss Landing-Green Valley #1 115 kV Line and Paul Sweet Statcom	C3	L-1/N-1	0.894	N/A	N/A	Monitor and follow existing Action Plan if needed
CC-W-V-016	GRN VLY1 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.015	0.920	0.842	Monitor/drop load/consider adding reactive support to the Watsonville 115 kV Voltage Conversion project
CC-W-V-017	CMP EVRS 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.928	0.844	Monitor/drop load
CC-W-V-018	PAUL SWT 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.930	0.846	Monitor/drop load
CC-W-V-019	ROB ROY 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	1.025	0.922	0.841	Monitor/drop load
CC-W-V-020	ERTA 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.922	0.845	Monitor/drop load/consider adding reactive support to the Watsonville 115 kV Voltage Conversion project
CC-W-V-021	WTSNVLLE 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.925	0.852	Monitor/drop load/consider adding reactive support to the Watsonville 115 kV Voltage Conversion project
CC-W-V-022	GRANT RK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.952	0.900	Monitor/drop load/consider adding reactive support to the Watsonville 115 kV Voltage Conversion project
CC-W-V-023	AGRILINK 115 kV	Moss Landing - Green Valley #1 and #2 115 kV Lines	C5	L-2	N/A	0.924	0.850	Monitor/drop load/consider adding reactive support to the Watsonville 115 kV Voltage Conversion project

Study Area: **PG&E Los Padres - Summer Light Load & Summer Off-Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
CC-NPK-LV-001	AGRILINK 60 kV	-	A	Normal	1.075	N/A		Under review for possible exemption
CC-NPK-LV-002	BIG BASN 60 kV	-	A	Normal	1.052	1.031		Under review for possible exemption
CC-NPK-LV-003	BRIGTANO 60 kV	-	A	Normal	1.051	N/A		Under review for possible exemption
CC-NPK-LV-004	BURNS 60 kV	-	A	Normal	1.051	1.030		Under review for possible exemption
CC-NPK-LV-005	CAMPHORA 60 kV	-	A	Normal	1.067	1.011		Under review for possible exemption
CC-NPK-LV-006	COBURN 230 kV	-	A	Normal	1.059	1.013		Under review for possible exemption
CC-NPK-LV-007	CRYHSE60 60 kV	-	A	Normal	1.081	0.999		Under review for possible exemption
CC-NPK-LV-008	CSTRVLLE 115 kV	-	A	Normal	1.076	1.031		Under review for possible exemption
CC-NPK-LV-009	DEL MNTE 115 kV	-	A	Normal	1.064	1.025		Under review for possible exemption
CC-NPK-LV-010	DOLAN RD 115 kV	-	A	Normal	1.077	1.031		Under review for possible exemption
CC-NPK-LV-011	GONZALES 60 kV	-	A	Normal	1.067	1.009		Under review for possible exemption
CC-NPK-LV-012	GREN VLY 60 kV	-	A	Normal	1.085	N/A		Under review for possible exemption
CC-NPK-LV-013	GRN VLY1 115 kV	-	A	Normal	1.051	1.024		Under review for possible exemption
CC-NPK-LV-014	GRN VLY2 115 kV	-	A	Normal	1.051	N/A		Under review for possible exemption
CC-NPK-LV-015	HOLLISTR 115 kV	-	A	Normal	1.074	1.017		Under review for possible exemption

Study Area: **PG&E Los Padres - Summer Light Load & Summer Off-Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
CC-NPK-LV-016	HOLST D 115 kV	-	A	Normal	1.066	1.017		Under review for possible exemption
CC-NPK-LV-017	LGNTSSW1 115 kV	-	A	Normal	1.074	N/A		Under review for possible exemption
CC-NPK-LV-018	LGNTSSW2 115 kV	-	A	Normal	1.075	N/A		Under review for possible exemption
CC-NPK-LV-019	LONE STR 60 kV	-	A	Normal	1.050	1.029		Under review for possible exemption
CC-NPK-LV-020	MOSLND D 115 kV	-	A	Normal	1.077	1.031		Under review for possible exemption
CC-NPK-LV-021	MOSLND E 115 kV	-	A	Normal	1.078	1.032		Under review for possible exemption
CC-NPK-LV-022	NTVD SW1 115 kV	-	A	Normal	1.073	1.022		Under review for possible exemption
CC-NPK-LV-023	NTVD SW2 115 kV	-	A	Normal	1.074	1.022		Under review for possible exemption
CC-NPK-LV-024	PRUNEDLE 115 kV	-	A	Normal	1.075	1.026		Under review for possible exemption
CC-NPK-LV-025	PT MRTTI 60 kV	-	A	Normal	1.050	1.029		Under review for possible exemption
CC-NPK-LV-026	SALINAS 115 kV	-	A	Normal	1.073	1.022		Under review for possible exemption
CC-NPK-LV-027	SLDAD 4M 115 kV	-	A	Normal	1.069	1.014		Under review for possible exemption
CC-NPK-LV-028	SLDAD 5M 115 kV	-	A	Normal	1.069	1.014		Under review for possible exemption
CC-NPK-LV-029	SNBENITO 115 kV	-	A	Normal	1.070	1.019		Under review for possible exemption
CC-NPK-LV-030	SOLEDAD 60 kV	-	A	Normal	1.070	1.015		Under review for possible exemption

Study Area: **PG&E Los Padres - Summer Light Load & Summer Off-Peak**

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
CC-NPK-LV-031	SOLEDAD 115 kV	-	A	Normal	1.069	1.014		Under review for possible exemption
CC-NPK-LV-032	WTSNVLLE 60 kV	-	A	Normal	1.074	N/A		Under review for possible exemption
CC-NPK-LV-033	WTSNVLLE 60 kV	PSWTSTCM Unit #1	B	N-1	1.109	N/A		Under review for possible exemption
CC-NPK-LV-034	GREN VLY 60 kV	PSWTSTCM Unit #1	B	N-1	1.120	N/A		Under review for possible exemption
CC-NPK-LV-035	CRYHSE60 60 kV	PSWTSTCM Unit #1	B	N-1	1.116	1.000		Under review for possible exemption
CC-NPK-LV-036	CRYHSE60 60 kV	Paul Sweet Statcom	B	N-1	1.101	0.998		Under review for possible exemption
CC-NPK-LV-037	AGRILINK 60 kV	PSWTSTCM Unit #1	B	N-1	1.110	N/A		Under review for possible exemption
CC-NPK-LV-038	WTSNVLLE 60 kV	Camp Evers-Paul Sweet and Green Valley - Paul Sweet 115 kV Lines	C5-DCTL	L-2	1.10	N/A		Under review for possible exemption
CC-NPK-LV-039	GREN VLY 60 kV	Camp Evers-Paul Sweet and Green Valley - Paul Sweet 115 kV Lines	C5-DCTL	L-2	1.11	N/A		Under review for possible exemption
CC-NPK-LV-040	CRYHSE60 60 kV	Camp Evers-Paul Sweet and Green Valley - Paul Sweet 115 kV Lines	C5-DCTL	L-2	1.11	N/A		Under review for possible exemption
CC-NPK-LV-041	AGRILINK 60 kV	Camp Evers-Paul Sweet and Green Valley - Paul Sweet 115 kV Lines	C5-DCTL	L-2	1.10	N/A	N/A	Under review for possible exemption
CC-NPK-LV-042	WTSNVLLE 60 kV	Watsonville-Salinas 60 kV Line and PSWTSTCM Unit # 1	C3	L-1/N-1	1.13	N/A		Under review for possible exemption
CC-NPK-LV-043	GREN VLY 60 kV	Green Valley-Watsonville 60 kV Line and PSWTSTCM Unit #1	C3	L-1/N-1	1.14	N/A		Under review for possible exemption
CC-NPK-LV-044	CRYHSE60 60 kV	Watsonville-Salinas 60 kV Line and PSWTSTCM Unit #1	C3	L-1/N-1	1.14	N/A		Under review for possible exemption
CC-NPK-LV-045	AGRILINK 60 kV	Watsonville-Salinas 60 kV Line and PSWTSTCM Unit #1	C3	L-1/N-1	1.13	N/A		Under review for possible exemption

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

Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2014	2017	2022	

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

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

Single Source Substation with more than 100 MW Load

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2014	2017	2022	

No single source substation with more than 100 MW Load