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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-T-01	CRZY_HRS-NTVD SW1 115 kV #1 Line	MOSS LANDING 115 kV CB 120	C2	CB	149	<100	<100	Short term: existing Action Plan. Long term: Moss Landing BAAH Project
CC-SP-T-02	NTVD SW1-SALINAS 115 kV #1 Line	MOSS LANDING 115 kV CB 120	C2	CB	131	<100	<100	Short term: existing Action Plan. Long term: Moss Landing BAAH Project
CC-SP-T-03	CRZY_HRS-NTVD SW2 115 kV #1 Line	MOSS LANDING 115 kV CB 120	C2	CB	149	<100	<100	Short term: existing Action Plan. Long term: Moss Landing BAAH Project
CC-SP-T-04	NTVD SW2-SALINAS 115 kV #1 Line	MOSS LANDING 115 kV CB 120	C2	CB	131	<100	<100	Short term: existing Action Plan. Long term: Moss Landing BAAH Project
CC-SP-T-05	GREN VLY 60/115 kV #1 Bank	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-06	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-07	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-08	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-T-09	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-10	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-11	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-12	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-13	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-14	SALINAS2-SALINAS1 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-15	CRZY_HRS-NTVD SW2 115 kV #1 Line	Moss Landing-Salinas 115 kV #1 & #2 Lines	C3	L-1-1	145	<100	<100	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-T-16	CRZY_HRS-NTVD SW1 115 kV #1 Line	Moss Landing-Salinas 115 kV #1 & #2 Lines	C3	L-1-1	145	<100	<100	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-17	NTVD SW2-SALINAS 115 kV #1 Line	Moss Landing-Salinas 115 kV #1 & #2 Lines	C3	L-1-1	127	<100	<100	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-18	NTVD SW1-SALINAS 115 kV #1 Line	Moss Landing-Salinas 115 kV #1 & #2 Lines	C3	L-1-1	127	<100	<100	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-19	GREN VLY-GRN VLY1 115 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	387	<100	<100	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-20	GREN VLY-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	303	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-21	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	304	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-22	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	304	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-T-23	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	305	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-24	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	481	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-25	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	482	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-26	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	549	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-27	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Line	C3	L-1-1	549	N/A	N/A	Short term: Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-T-28	CRZY_HRS-NTVD SW1 115 kV #1 Line	Moss Landing - Salinas 115 kV #1 and #2 Lines	C5	L-2	145	<100	<100	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Natividad Substation Project
CC-SP-T-29	NTVD SW1-SALINAS 115 kV #1 Line	Moss Landing - Salinas 115 kV #1 and #2 Lines	C5	L-2	127	<100	<100	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Natividad Substation Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-T-30	CRZY_HRS-NTVD SW2 115 kV #1 Line	Moss Landing - Salinas 115 kV #1 and #2 Lines	C5	L-2	145	<100	<100	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Natividad Substation Project
CC-SP-T-31	NTVD SW2-SALINAS 115 kV #1 Line	Moss Landing - Salinas 115 kV #1 and #2 Lines	C5	L-2	127	<100	<100	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Natividad Substation Project

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC-WP-T-01	COBURN 230/60 kV #2 Bank	Coburn 230/60 kV #1 Bank	B	T-1	103	101	100	Activate the existing Coburn Special Protection Scheme (SPS)
CC-WP-T-02	GREN VLY 60/115 kV #1 Bank	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-03	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-04	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-05	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-06	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-07	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-08	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-09	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: 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
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC-WP-T-10	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-11	SALINAS2-SALINAS1 60 kV #1 Line	Moss Landing 115 kV CB 110	C2	CB	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-12	COBURN 230/60 kV #2 Bank	Coburn 230/60 kV #1 Bank & King City-Coburn 60 kV #1 Line	C3	T-1/L-1	119	119	119	Activate the existing Coburn Special Protection Scheme (SPS)
CC-WP-T-13	GREN VLY 60/115 kV #1 Bank	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	442	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-14	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	270	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-15	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	272	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-16	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	272	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-17	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	272	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-18	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	466	N/A	N/A	Short term: Existing Action Plan. Long term: 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
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC-WP-T-19	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	440	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-20	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	545	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-21	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3	L-1-1	545	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-22	GREN VLY 60/115 kV #1 Bank	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	<100	<100	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-23	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-24	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-25	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-26	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-27	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: 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
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC-WP-T-28	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-29	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-30	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-T-31	SALINAS2-SALINAS1 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5	L-2	Diverge	N/A	N/A	Short term: Existing Action Plan. Long term: Watsonville 115 kV Voltage Conversion Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-T-01	COBURN 230/60 kV #2 Bank	Coburn 230/60 kV #1 Bank	B		110	<100	N/A	Activate Existing Coburn Special Protection Scheme
CC-NPK-T-02	S ARDOJ2-TEXCO J2 60 kV #1 Line	Coburn-Oil Fields 60 kV #2 Line	B		<100	103	N/A	Monitor line loading and reconductor if needed
CC-NPK-T-03	TEXCO J2-OILFLDS 60 kV #1 Line	Coburn-Oil Fields 60 kV #2 Line	B		<100	102	N/A	Monitor line loading and reconductor if needed
CC-NPK-T-04	TEXCO J1-OILFLDS 60 kV #1 Line	Coburn-Oil Fields 60 kV #1 Line	B		<100	103	N/A	Monitor line loading and reconductor if needed
CC-NPK-T-05	GREN VLY 60/115 kV #1 Bank	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-06	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-07	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-08	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-09	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-10	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-T-11	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-12	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-13	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing 115 kV CB 110	C2		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-14	COBURN 230/60 kV #2 Bank	King City-Coburn 60 kV #1 Line & Coburn 230/60 kV #1 Bank	C3		123	N/A	N/A	Activate Existing Coburn Special Protection Scheme
CC-NPK-T-15	GREN VLY 60/115 kV #1 Bank	Salinas 115/60 kV #2 & #3 Banks	C3		237	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-16	GRN VLY1-ERTA JCT 60 kV #1 Line	Salinas 115/60 kV #2 & #3 Banks	C3		177	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-17	CIC JCT-AGRILINK 60 kV #1 Line	Salinas 115/60 kV #2 & #3 Banks	C3		176	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-18	WTSNVLLE-AGRILINK 60 kV #1 Line	Salinas 115/60 kV #2 & #3 Banks	C3		175	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-19	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3		267	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-T-20	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3		267	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-21	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3		304	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-22	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C3		304	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-23	GREN VLY 60/115 kV #1 Bank	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-24	GRN VLY1-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-25	CIC JCT-ERTA JCT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-26	CIC JCT-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-27	WTSNVLLE-AGRILINK 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-28	WTSNVLLE-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project

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

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-T-29	BRIGTANO-GRANT JT 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-30	BRIGTANO-LGNSTAP 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-NPK-T-31	LGNSTAP-SALINAS2 60 kV #1 Line	Moss Landing-Green Valley 115 kV #1 & #2 Lines	C5		Diverge	N/A	N/A	Short term: Existing Action Plan Long term: 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
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-VD-01	GREN VLY 60 kV	Green Valley 115/60 #1 Bank	B	T-1	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-02	ERTA 60 kV	Green Valley 115/60 #1 Bank	B	T-1	14	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-03	AGRILINK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-04	WTSNVLLE 60 kV	Green Valley 115/60 #1 Bank	B	T-1	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-05	GRANT RK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	9	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-06	BRIGTANO 60 kV	Green Valley 115/60 #1 Bank	B	T-1	9	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-07	ERTA 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	14	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-08	AGRILINK 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH 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
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-VD-09	GREN VLY 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	14	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-10	WTSNVLLE 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-11	ERTA 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	14	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-12	AGRILINK 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-13	GREN VLY 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	14	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-14	WTSNVLLE 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	13	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH Project
CC-SP-VD-15	DOLAN RD 115 kV	MOSS LANDING 115 kV CB 120	C2	CB	9	10.202	11.474	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project and Moss Landing BAAH 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
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC_WP_VD_01	GREN VLY 60 kV	Green Valley 115/60 #1 Bank	B	T-1	17	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_02	ERTA 60 kV	Green Valley 115/60 #1 Bank	B	T-1	16	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_03	AGRILINK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_04	WTSNVLLE 60 kV	Green Valley 115/60 #1 Bank	B	T-1	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_05	GRANT RK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	11	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_06	BRIGTANO 60 kV	Green Valley 115/60 #1 Bank	B	T-1	10	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_07	GREN VLY 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	17	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_08	ERTA 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	16	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_09	AGRILINK 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_10	WTSNVLLE 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_11	GRANT RK 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	11	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC_WP_VD_12	BRIGTANO 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	10	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_13	GREN VLY 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	17	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_14	ERTA 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	16	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_15	AGRILINK 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_16	WTSNVLLE 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	15	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_17	GRANT RK 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	10	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project
CC_WP_VD_18	BRIGTANO 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	10	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Conversion Project

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

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC_NPK_VD_01	GREN VLY 60 kV	Green Valley 115/60 #1 Bank	B	T-1	9	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC_NPK_VD_02	ERTA 60 kV	Green Valley 115/60 #1 Bank	B	T-1	9	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC_NPK_VD_03	AGRILINK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	8	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC_NPK_VD_04	WTSNVLLE 60 kV	Green Valley 115/60 #1 Bank	B	T-1	8	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC_NPK_VD_05	GRANT RK 60 kV	Green Valley 115/60 #1 Bank	B	T-1	6	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC_NPK_VD_06	BRIGTANO 60 kV	Green Valley 115/60 #1 Bank	B	T-1	6	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	
CC-SP-V-01	ERTA 60 kV	Base Case	A	Normal	1.06	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-SP-V-02	AGRILINK 60 kV	Base Case	A	Normal	1.05	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-SP-V-03	WTSNVLLE 60 kV	Base Case	A	Normal	1.05	N/A	N/A	Short term: Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-SP-V-04	CSTRVLLE 115 kV	Base Case	A	Normal	1.05	<1.05	<1.05	Under review with PTO
CC-SP-V-05	DOLAN RD 115 kV	Base Case	A	Normal	1.05	<1.05	<1.05	Under review with PTO

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	
CC-WP-V-01	ERTA 60 kV	Base Case	A	Normal	1.05	N/A	N/A	Under review with PTO
CC-WP-V-02	DOLAN RD 115 kV	Base Case	A	Normal	1.06	1.05	<1.05	Under review with PTO
CC-WP-V-03	CSTRVLLE 115 kV	Base Case	A	Normal	1.05	1.05	<1.05	Under review with PTO
CC-WP-V-04	ERTA 60 kV	B3_8_Green Valley 115/60 Transformer #1	B	T-1	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-05	AGRILINK 60 kV	B3_8_Green Valley 115/60 Transformer #1	B	T-1	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-06	WTSNVLLE 60 kV	B3_8_Green Valley 115/60 Transformer #1	B	T-1	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-07	ERTA 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-08	AGRILINK 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-09	WTSNVLLE 60 kV	BUS FAULT AT GRN VLY1 115 kV Sub	C1	BUS	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-10	ERTA 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-11	AGRILINK 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project
CC-WP-V-12	WTSNVLLE 60 kV	GREEN VALLEY 115 kV CB 102	C2	CB	0.89	N/A	N/A	Short term: Existing Action Plan Long term: Watsonville 115 kV Voltage Conversion Project

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

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-V-01	CRUSHER 60 kV	Base Case	A	Normal	1.06	<1.05	N/A	Under review with PTO
CC-NPK-V-02	BIG BASN 60 kV	Base Case	A	Normal	1.06	<1.05	N/A	Under review with PTO
CC-NPK-V-03	LONE STR 60 kV	Base Case	A	Normal	1.06	<1.05	N/A	Under review with PTO
CC-NPK-V-04	PT MRTTI 60 kV	Base Case	A	Normal	1.06	<1.05	N/A	Under review with PTO
CC-NPK-V-05	HOLST D 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-06	ROB ROY 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-07	SALINAS 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-08	SOLEDAD 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-09	BRIGTANO 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-10	CSTRVLLE 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-11	DEL MNTE 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-12	DOLAN RD 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-13	GRANT RK 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-14	GRN VLY1 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-15	GRN VLY2 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO
CC-NPK-V-16	HOLLISTR 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO

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

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2016 Summer Off-Peak	2019 Summer Light Load	N/A	
CC-NPK-V-17	NATIVDAD 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-18	PRUNEDLE 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-19	SNBENITO 115 kV	Base Case	A	Normal	<1.05	1.06	N/A	Under review with PTO
CC-NPK-V-20	WTSNVLLE 115 kV	Base Case	A	Normal	<1.05	1.05	N/A	Under review with PTO

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

Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	

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

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

Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2016 Winter Peak	2019 Winter Peak	2024 Summer Peak	

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

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

Single Contingency Load Drop

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2016 Summer Off-Peak	2019 Summer Light Load	N/A	

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

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

Single Source Substation with more than 100 MW Load

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2016 Summer Peak	2019 Summer Peak	2024 Summer Peak	

No single source substation with more than 100 MW Load

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

Single Source Substation with more than 100 MW Load

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2016 Winter Peak	2019 Winter Peak	2024 Winter Peak	

No single source substation with more than 100 MW Load

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

Single Source Substation with more than 100 MW Load

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2016 Summer Off-Peak	2019 Summer Light Load	N/A	

No single source substation with more than 100 MW Load