

Study Area: PG&E Central Coast
Thermal Overloads PG&E Los Padres



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Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)					Project & Potential Mitigation Solutions
				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
Atascadero-Cayucos 70 kV Line (36358 36362)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	19	Add Redundant Relay
Atascadero-Cayucos 70 kV Line (36362 36364)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	19	Add Redundant Relay
Atascadero-San Luis Obispo 70 kV Line (36358 36376)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	12	Add Redundant Relay
Callender Sw. Sta-Mesa 115 kV Line (36256 36280)	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	91	94	19	Project: North Of Mesa Upgrades Short term: Action plan
	MORRO BAY-MESA 230kV [5290] & MORRO BAY-DIABLO 230kV [5260]	P6	N-1-1	140	105	<100	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	148	115	87	93	18	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines	P7	DCTL	142	109	83	89	14	Project: North Of Mesa Upgrades Short term: Action plan
Crazy Horse-Natividad #1 115 kV Line (35910 35914)	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	124	70	82	78	37	Project: RAS Proposed in 2018-2019 In-service date: TBD Short term: Action plan
Crazy Horse-Natividad #1 115 kV Line (35914 35920)	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	119	72	75	81	37	Project: RAS Proposed in 2018-2019 In-service date: TBD Short term: Action plan
Crazy Horse-Soledad 115 kV Line (35910 35913)	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	124	70	82	78	37	Project: RAS Proposed in 2018-2019 In-service date: TBD Short term: Action plan
Crazy Horse-Soledad 115 kV Line (35913 35920)	P7-1:A19:4:_Moss Landing - Salinas #1 and #2 115 kV Lines	P7	DCTL	119	72	75	81	37	Project: RAS Proposed in 2018-2019 In-service date: TBD Short term: Action plan
Green Valley 115/60 Transformer #1 (36008 35901)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	212	209	208	169	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	207	198	191	197	154	Add Redundant Relay
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	36	65	30	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Green Valley-Watsonville 60 kV (36008 36013)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	132	163	164	130	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	164	123	149	155	118	Add Redundant Relay

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				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	27	137	22	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Green Valley-Watsonville 60 kV (36011 36013)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	132	162	162	129	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	161	123	148	153	117	Add Redundant Relay
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	27	139	22	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Green Valley-Watsonville 60 kV (36011 36016)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	132	162	162	129	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	161	123	148	153	117	Add Redundant Relay
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	27	139	22	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Green Valley-Watsonville 60 kV (36012 36016)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	132	161	161	129	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	161	123	147	153	117	Add Redundant Relay
	MOSS LANDING-GREEN VALLEY #2 115kV [2860] & MOSS LANDING-GREEN VALLEY #1 115kV [2850]	P6	N-1-1	NA	NA	<100	132	<100	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	27	140	22	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Lagunitas 60 kV Tap (36022 36025)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	177	207	221	160	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	221	160	185	206	145	Add Redundant Relay
	MOSS LANDING-GREEN VALLEY #1 115kV [2850] & MOSS LANDING-GREEN VALLEY #2 115kV [2860]	P6	N-1-1	NA	NA	<100	245	<100	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	67	255	41	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Mesa-Santa Maria 115 kV Line (36256 36267)	MORROBAY 230/115kV TB 6 & TEMPLETN 230/70kV TB 1	P6	N-1-1	100	<100	<100	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan

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				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
Morro Bay 230/115 Transformer No. 6 (36252 30915)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	32	91	26	Project: North Of Mesa Upgrades Short term: Action plan
	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	74	85	19	Project: North Of Mesa Upgrades Short term: Action plan
	MORRO BAY-DIABLO 230kV [5260] & MORRO BAY-MESA 230kV [5290]	P6	N-1-1	143	112	<100	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	152	118	87	93	26	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines	P7	DCTL	151	118	85	91	25	Project: North Of Mesa Upgrades Short term: Action plan
Oceano-Callender Sw. Sta 115 kV Line (36278 36280)	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	94	93	22	Project: North Of Mesa Upgrades Short term: Action plan
	MORRO BAY-MESA 230kV [5290] & MORRO BAY-DIABLO 230kV [5260]	P6	N-1-1	139	106	<100	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	147	115	90	89	21	Project: North Of Mesa Upgrades Short term: Action plan
	P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines	P7	DCTL	142	109	86	86	18	Project: North Of Mesa Upgrades Short term: Action plan
Salinas-Firestone #1 60 kV Line (36027 36046)	MOSS LANDING-SALINAS #2 115kV [2890] & SALINAS-FIRESTONE #2 60kV [7910] COPY1	P6	N-1-1	101	<100	<100	<100	<100	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
San Luis Obispo-Oceano 115 kV Line (36254 36278)	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	88	81	14	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Oceano 115 kV Line (36254 36278)	MORRO BAY-MESA 230kV [5290] & MORRO BAY-DIABLO 230kV [5260]	P6	N-1-1	139	116	<100	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Oceano 115 kV Line (36254 36278)	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	145	124	85	78	14	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Oceano 115 kV Line (36254 36278)	P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines	P7	DCTL	143	121	82	75	12	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	NA	175	34	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	120	114	24	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	47	Add Redundant Relay
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	MORRO BAY-DIABLO 230kV [5260] & MORRO BAY-MESA 230kV [5290]	P6	N-1-1	183	139	116	<100	<100	Project: North Of Mesa Upgrades Short term: Action plan

2021-2022 ISO Reliability Assessment - Preliminary Study Results

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				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines	P7	DCTL	191	150	116	111	24	Project: North Of Mesa Upgrades Short term: Action plan
San Luis Obispo-Santa Maria 115 kV Line (36254 36266)	P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines	P7	DCTL	188	146	112	107	20	Project: North Of Mesa Upgrades Short term: Action plan
San Miguel-Paso Robles 70 kV Line (36356 36354)	MORRO BAY-TEMPLETON 230kV [5933] & SN LS OB 115/70kV TB 3	P6	N-1-1	<100	<100	<100	<100	132	Sensitivity Only
Santa Maria-Sisquoc 115 kV Line (36266 36269)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	NA	82	7	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez 115 kV (36286 36287)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	NA	83	8	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez 115 kV (36286 36287)	P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines	P7	DCTL	106	102	83	68	17	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez Sw.Sta. 115 kV Line (36260 36286)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	NA	88	5	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez Sw.Sta. 115 kV Line (36260 36286)	P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines	P7	DCTL	111	105	86	71	16	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez Sw.Sta. 115 kV Line (36264 36288)	P2-4:A20:4:_MESA_PGE 115kV - Section 2D & 1D	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	<100	76	<100	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Sisquoc-Santa Ynez Sw.Sta. 115 kV Line (36264 36288)	P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines	P7	DCTL	98	102	<100	57	<100	Project: South Of Mesa Upgrades In-service date: 2027 Short term: Action plan
Temblor-San Luis Obispo 115 kV Line (36254 34796)	P2-4:A20:6:_MORROBAY 230kV - Section 1E & 2E	P2-4	Internal Breaker Fault(Bus Tie Fault)	Diverge	Diverge	100	55	25	Project: North Of Mesa Upgrades Short term: Action plan
Temblor-San Luis Obispo 115 kV Line (36254 34796)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	51	Add Redundant Relay
Templeton 230/70 kV Transformer (36310 30905)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	17	Add Redundant Relay
Templeton-Atascadero 70 kV Line (36310 36316)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	21	Add Redundant Relay
Templeton-Atascadero 70 kV Line (36316 36358)	P5-5:A20:24:_MORRO BAY 230kV Bus (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	Diverge	Diverge	Diverge	21	Add Redundant Relay
	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	183	219	220	175	Add Redundant Relay

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				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
Watsonville-Salinas 60 kV (36012 36014)	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	218	171	200	208	159	Add Redundant Relay
	MOSS LANDING-GREEN VALLEY #2 115kV [2860] & MOSS LANDING-GREEN VALLEY #1 115kV [2850]	P6	N-1-1	NA	NA	<100	182	<100	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	46	191	30	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Watsonville-Salinas 60 kV (36018 36014)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	170	186	211	144	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	209	155	166	196	130	Add Redundant Relay
	MOSS LANDING-GREEN VALLEY #2 115kV [2860] & MOSS LANDING-GREEN VALLEY #1 115kV [2850]	P6	N-1-1	NA	NA	<100	228	<100	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	54	238	32	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Watsonville-Salinas 60 kV (36018 36022)	P5-5:A19:2:_Salinas 115kV BAAH Bus #2 (failure of non-redundent relay)	P5	Non-Redundent Relay	Diverge	176	207	221	160	Add Redundant Relay
	P5-5:A19:1:_Salinas 115kV BAAH Bus #1 (failure of non-redundent relay)	P5	Non-Redundent Relay	220	160	185	206	145	Add Redundant Relay
	MOSS LANDING-GREEN VALLEY #2 115kV [2860] & MOSS LANDING-GREEN VALLEY #1 115kV [2850]	P6	N-1-1	NA	NA	<100	247	<100	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
	P7-1:A19:1:_Moss Landing - Green Valley #1 and #2 115 kV Lines	P7	DCTL	Diverge	Diverge	67	257	41	Project: Morgan Hill Area Reinforcement In-service date: 2026 Short term: Action plan
Salinas-Firestone #1 60 kV Line (36048 36050)	P1-2:A19:45:_SALINAS-FIRESTONE #2 60kV [7910] COPY1	P1	N-1	134	73	50	129	46	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
Salinas-Firestone #2 60 kV Line (36050 36052)	P1-2:A19:45:_SALINAS-FIRESTONE #2 60kV [7910] COPY1	P1	N-1	119	63	40	114	35	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
Salinas-Firestone #2 60 kV Line (36051 36053)	P1-2:A19:46:_SALINAS-FIRESTONE #2 60kV [7910] COPY2	P1	N-1	127	68	42	122	38	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan

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				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
Salinas-Firestone #2 60 kV Line (36051 36053)	P1-2:A19:52:_SALINAS1-FIRESTONE 60kV [0]	P1	N-1	136	73	51	131	46	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
Salinas-Firestone #2 60 kV Line (36051 36054)	P1-2:A19:46:_SALINAS-FIRESTONE #2 60kV [7910] COPY2	P1	N-1	127	68	42	122	38	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
	P1-2:A19:52:_SALINAS1-FIRESTONE 60kV [0]	P1	N-1	136	73	51	131	46	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
Salinas-Firestone #2 60 kV Line (36052 36053)	P1-2:A19:45:_SALINAS-FIRESTONE #2 60kV [7910] COPY1	P1	N-1	126	67	42	121	38	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1	P1-3:A20:101:_TEMPLETN 230/70kV TB 1	P1	N-1	102	57	51	53	25	Project: Estrella In-service date: 2026 Short term: Action plan
Salinas-Firestone #1 60 kV Line (36027 36046)	P1-1:A19:6:_DUKMOSS1 18.00kV & DUKMOSS2 18.00kV & DUKMOSS3 18.00kV Gen Units & P1-2:A19:4	P3	G-1/N-1	100.05	<100	<100	91.43	<100	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan

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High/Low Voltages

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Substation	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)		2023 Spring Off-Peak	Voltage PU (Sensitivity Scenarios)		Project & Potential Mitigation Solutions
				2023 Summer Peak	2023 Winter Peak		2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
BNA VSTA 60	P2-1:A19:71:_SALINAS-FIRESTONE #1 60kV [7900] (FREXP JT-B.VSTA J)	P2-1	Line Section w/o Fault	0.85	0.96	0.93	0.85	0.95	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
BNA VSTA 60	P2-1:A19:72:_SALINAS-FIRESTONE #1 60kV [7900] (SALINAS1-FREXP JT)	P2-1	Line Section w/o Fault	0.81	0.94	0.91	0.82	0.93	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
FIRESTNE 60	P2-1:A19:71:_SALINAS-FIRESTONE #1 60kV [7900] (FREXP JT-B.VSTA J)	P2-1	Line Section w/o Fault	0.86	0.97	0.94	0.87	0.96	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
FIRESTNE 60	P2-1:A19:72:_SALINAS-FIRESTONE #1 60kV [7900] (SALINAS1-FREXP JT)	P2-1	Line Section w/o Fault	0.83	0.95	0.93	0.84	0.94	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
FRSHXPRS 60	P2-1:A19:72:_SALINAS-FIRESTONE #1 60kV [7900] (SALINAS1-FREXP JT)	P2-1	Line Section w/o Fault	0.81	0.94	0.91	0.82	0.93	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
SAN MIGL 70	P2-2:A20:21:_PSA RBLS 70kV Section 1D	P2-2	Bus	0.89	0.94	1.02	0.94	1.07	Project: Estrella In-service date: 2026 Short term: Action plan
SAN MIGL 70	P2-3:A20:23:_PSA RBLS - 1D 70kV & PASO ROBLES-TEMPLETON line	P2-3	Non-Bus Tie Breaker	0.89	0.94	1.02	0.94	1.07	Project: Estrella In-service date: 2026 Short term: Action plan
SPENCE 60	P2-1:A19:71:_SALINAS-FIRESTONE #1 60kV [7900] (FREXP JT-B.VSTA J)	P2-1	Line Section w/o Fault	0.87	0.97	0.95	0.87	0.97	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
SPENCE 60	P2-1:A19:72:_SALINAS-FIRESTONE #1 60kV [7900] (SALINAS1-FREXP JT)	P2-1	Line Section w/o Fault	0.85	0.96	0.94	0.85	0.95	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
AGRILINK 60	P1-3:A19:23:_SALINAS 115/60kV TB 2 & P1-3:A19:24:_SALINAS 115/60kV TB 3	P6	N-1-1	0.80	0.80	0.83	0.82	0.89	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
ATASCDRO 70	P1-2:A20:2:_ATASCADERO-SAN LUIS OBISPO 70kV [8490] & P1-2:A20:47:_TEMPLETON-ATASCADERO 70kV [9410]	P6	N-1-1	0.89	>0.9	>0.9	>0.9	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
BAYWOOD 70	P1-3:A20:101:_TEMPLETN 230/70kV TB 1 & P1-2:A20:2:_ATASCADERO-SAN LUIS OBISPO 70kV [8490]	P6	N-1-1	0.80	>0.9	>0.9	>0.9	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
CAMBRIA 70	P1-2:A20:2:_ATASCADERO-SAN LUIS OBISPO 70kV [8490] & P1-3:A20:101:_TEMPLETN 230/70kV TB 1	P6	N-1-1	0.72	>0.9	0.89	>0.9	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
CAYUCOS 70	P1-3:A20:101:_TEMPLETN 230/70kV TB 1 & P1-2:A20:2:_ATASCADERO-SAN LUIS OBISPO 70kV [8490]	P6	N-1-1	0.73	>0.9	0.89	>0.9	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
ERTA 60	P1-3:A19:23:_SALINAS 115/60kV TB 2 & P1-3:A19:24:_SALINAS 115/60kV TB 3	P6	N-1-1	0.85	0.85	0.87	0.86	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
PERRY 70	P1-2:A20:2:_ATASCADERO-SAN LUIS OBISPO 70kV [8490] & P1-3:A20:101:_TEMPLETN 230/70kV TB 1	P6	N-1-1	0.72	>0.9	0.89	>0.9	>0.9	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan

Study Area: PG&E Central Coast
PG&E Los Padres

High/Low Voltages

In accordance with TPL-001-4- Requirement R2.6, this area relies on the past studies for the year 5 and year 10 studies from the 2020-21 Transmission Planning Process.

<http://www.caiso.com/Documents/BoardApproved2020-2021TransmissionPlan.pdf>



Substation	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)			Voltage PU (Sensitivity Scenarios)		Project & Potential Mitigation Solutions
				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
PSA RBLS 70	P1-2:A20:32:_SAN LUIS OBISPO-CAYUCOS 70kV [9090] MOAS OPENED on CAYUCOS_BAYWOOD COPY1 & P1-3:A20:101:_TEMPLETN 230/70kV TB 1	P6	N-1-1	0.90	>0.9	>0.9	>0.9	>0.9	Project: Estrella In-service date: 2026 Short term: Action plan
SAN MIGL 70	P1-2:A20:48:_TEMPLETON-GATES 230kV [5934] & P1-2:A20:37:_SAN MIGUEL-PASO ROBLES 70kV [9390]	P6	N-1-1	0.88	>0.9	>0.9	>0.9	>0.9	Project: Estrella In-service date: 2026 Short term: Action plan
WTSNVLL 60	P1-3:A19:23:_SALINAS 115/60kV TB 2 & P1-3:A19:24:_SALINAS 115/60kV TB 3	P6	N-1-1	0.79	0.80	0.82	0.81	0.88	Project: Salinas- Firestone #1 and #2 reconductor In-service date: 2026 Short term: Action plan
SAN MIGL 70	P1-2:A20:37:_SAN MIGUEL-PASO ROBLES 70kV [9390]	P1	N-1	0.89	0.94	1.02	0.94	1.07	Project: Estrella In-service date: 2026 Short term: Action plan

Study Area: PG&E Central Coast
PG&E Los Padres

Voltage Deviation

In accordance with TPL-001-4- Requirement R2.6, this area relies on the past studies for the year 5 and year 10 studies from the 2020-21 Transmission Planning Process.

<http://www.caiso.com/Documents/BoardApproved2020-2021TransmissionPlan.pdf>



Substation	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)					Project & Potential Mitigation Solutions
				2023 Summer Peak	2023 Winter Peak	2023 Spring Off-Peak	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	
SAN MIGL 70 kV	SAN MIGUEL-PASO ROBLES 70kV [9390]	P1	N-1	11	7	<8	8	<8	Project: Estrella In-service date: 2026 Short term: Action plan

Study Area: PG&E Central Coast
PG&E Los Padres

Transient Stability



Contingency	Category	Category Description	Transient Stability Performance						Potential Mitigation Solutions
			Baseline Scenarios				Sensitivity Scenarios		
			2023 Spring Off-Peak	2026 Summer Peak	2031 Summer Peak	2031 Spring Off-Peak	2026 SP High CEC Forecast	2023 OP Heavy Renewable & Min Gas Gen	

In accordance with TPL-001-4- Requirement R2.6, this area relies on the past studies from the 2020-21 Transmission Planning Process.
<http://www.caiso.com/Documents/BoardApproved2020-2021TransmissionPlan.pdf>

Study Area: PG&E Central Coast
PG&E Los Padres



Single Contingency Load Drop

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)									Potential Mitigation Solutions
			2023 Summer Peak	2026 Summer Peak	2031 Summer Peak	2023 Spring Off-Peak	2026 Spring Off-Peak	2031 Spring Off-Peak	2026 SP High CEC Forecast	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	

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

Study Area: PG&E Central Coast
PG&E Los Padres



Single Source Substation with more than 100 MW Load

Substation	Load Served (MW)									Potential Mitigation Solutions
	2023 Summer Peak	2026 Summer Peak	2031 Summer Peak	2023 Spring Off-Peak	2026 Spring Off-Peak	2031 Spring Off-Peak	2026 SP High CEC Forecast	2023 SP Heavy Renewable & Min Gas Gen	2023 OP Heavy Renewable & Min Gas Gen	

No single source substation with more than 100 MW