Study Area: PG&E Greater Bay Area: East Bay Sensitivity

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)															Potential Mitigation Solutions
					2018 SP All Local Gen OFF	2021 SP All Local Gen OFF	2026 SP All Local Gen OFF	2021 SP All Local Gen OFF, No AAEE	2026 SP All Local Gen OFF, No BTM-PV	2018 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF	2026 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF, No AAEE	2026 SP Oakland Gen ON, Alameda Gen OFF, No BTM-PV	2018 SP All Local Gen ON	2021 SP All Local Gen ON	2026 SP All Local Gen ON	2021 SP All Local Gen ON, No AAEE	2026 SP All Local Gen ON, No BTM-PV	
GBA-EBS-T-1	Oakland D - Oakland L 115kV Cable	STATIN X 115kV - Section 2D & 1D	P2	Bus-tie breaker	113	107	104	117	110	29	24	22	31	27	20	21	23	17	21	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-2	Oakland C - Oakland L #1 115kV Cable	CLARMNT 115kV Section 1D	P2	Bus	100	92	91	99	98	98	90	89	96	96	97	90	95	96	99	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-3	Oakland C - Oakland X #2 115kV Cable	CLARMNT - 1D 115kV & SOBRANTE-GRIZZLY-CLAREMONT #2 line	P2	Non-bus-tie breaker	101	95	93	102	100	48	42	41	49	48	30	24	23	31	29	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-4	Grant-Oakland J 115 kV Line	MORAGA 115kV - Section 1E & 2E	P2	Bus-tie breaker	NA	98	98	106	106	NA	98	98	106	106	NA	98	98	106	106	Upgrade conductor : East Shore-Oakland J 115 kV Reconductoring Project
GBA-EBS-T-5	Moraga-Claremont #1 115kV Line	STATIN X 115kV - Section 2D & 1D	P2	Bus-tie breaker	114	104	109	116	117	71	59	64	71	73	56	44	50	57	58	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-6	Moraga-Claremont #2 115kV Line	STATIN X 115kV - Section 2D & 1D	P2	Bus-tie breaker	114	104	109	117	118	71	59	64	72	73	56	45	50	57	58	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-7	Moraga-Oakland X #1 115kV Line	CLARMNT 115kV - Section 1D & 2D	P2	Bus-tie breaker	103	95	95	103	103	57	50	50	57	57	41	34	34	41	41	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-8	Moraga-Oakland X #2 115kV Line	MORAGA 115kV - Section 1D & 1E	P2	Bus-tie breaker	109	101	105	112	114	63	54	57	64	66	48	39	43	49	51	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-9	Moraga-Oakland X #3 115kV Line	MORAGA 115kV - Section 1D & 2D	P2	Bus-tie breaker	133	129	138	147	151	85	76	84	92	96	69	60	69	76	80	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-10	Moraga-Oakland X #4 115kV Line	MORAGA 115kV - Section 1D & 2D	P2	Bus-tie breaker	133	129	138	147	151	85	76	84	92	96	69	60	69	76	80	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-11	Moraga-Oakland J 115kV Line	SN LNDRO 115kV - Section 1E & 2E	P2	Bus-tie breaker	101	78	78	85	82	100	84	84	91	88	100	86	86	92	90	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-12	Oakland D - Oakland L 115kV Cable	C-X #2 115kV [9962] & C-X #3 115kV [9925]	P6	N-1/N-1	114	107	104	117	110	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation, preferred resources or bus upgrade
GBA-EBS-T-13	Oakland C - Oakland L #1 115kV Cable	K-D #1 115kV [9966] & PITTSBURG-LOS MEDANOS #2 115kV [9993]	P6	N-1/N-1	100	0	0	99	98	98	<95	<95	97	96	98	<95	<95	96	96	Existing local generation or preferred resources
GBA-EBS-T-14	Oakland C - Oakland X #2 115kV Cable	C-X #3 115kV [9925] & D-L #1 115kV [9963]	P6	N-1/N-1	114	107	104	117	110	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation, preferred resources or SPS for load drop of small amount following the first contingency

Study Area: PG&E Greater Bay Area: East Bay Sensitivity

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)															Potential Mitigation Solutions
					2018 SP All Local Gen OFF	2021 SP All Local Gen OFF	2026 SP All Local Gen OFF	2021 SP All Local Gen OFF, No AAEE	2026 SP All Local Gen OFF, No BTM-PV	2018 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF	2026 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF, No AAEE	2026 SP Oakland Gen ON, Alameda Gen OFF, No BTM-PV	2018 SP All Local Gen ON	2021 SP All Local Gen ON	2026 SP All Local Gen ON	2021 SP All Local Gen ON, No AAEE	2026 SP All Local Gen ON, No BTM-PV	
GBA-EBS-T-15	Moraga-Claremont #1 115kV Line	C-X #2 115kV [9962] & C-X #3 115kV [9925]	P6	N-1/N-1	111	101	106	113	112	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation, preferred resources or SPS for load drop of small amount following the first contingency
GBA-EBS-T-16	Moraga-Claremont #1 115kV Line	MORAGA-CLAREMONT #2 115kV [2710] & C-L #1 115kV [9961]	P6	N-1/N-1	98	<95	99	100	101	106	103	112	112	121	110	107	116	116	125	Reduce local generation following the first contingency
GBA-EBS-T-17	Moraga-Claremont #2 115kV Line	C-X #2 115kV [9962] & C-X #3 115kV [9925]	P6	N-1/N-1	111	101	106	114	112	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation, preferred resources or SPS for load drop of small amount following the first contingency
GBA-EBS-T-18	Moraga-Claremont #2 115kV Line	MORAGA-CLAREMONT #1 115kV [2700] & C-L #1 115kV [9961]	P6	N-1/N-1	98	<95	99	100	101	106	104	112	112	121	110	107	116	116	125	Reduce local generation following the first contingency
GBA-EBS-T-19	Moraga-Oakland X #1 115kV Line	D-L #1 115kV [9963] & MORAGA-OAKLAND #2 115kV [2730]	P6	N-1/N-1	106	100	99	107	106	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation or preferred resources
GBA-EBS-T-20	Moraga-Oakland X #2 115kV Line	D-L #1 115kV [9963] & MORAGA-OAKLAND #1 115kV [2720]	P6	N-1/N-1	106	100	99	107	106	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation or preferred resources
GBA-EBS-T-21	Moraga-Oakland X #3 115kV Line	D-L #1 115kV [9963] & MORAGA-OAKLAND #1 115kV [2720]	P6	N-1/N-1	106	100	99	107	106	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation or preferred resources
GBA-EBS-T-22	Moraga-Oakland X #4 115kV Line	D-L #1 115kV [9963] & MORAGA-OAKLAND #1 115kV [2720]	P6	N-1/N-1	106	100	99	107	106	<95	<95	<95	<95	<95	<95	<95	<95	<95	<95	Existing local generation or preferred resources

Study Area: PG&E Greater Bay Area: East Bay Sensitivity

Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %															Potential Mitigation Solutions
					2018 SP All Local Gen OFF	2021 SP All Local Gen OFF	2026 SP All Local Gen OFF	2021 SP All Local Gen OFF, No AAEE	2026 SP All Local Gen OFF, No BTM-PV	2018 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF	2026 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF, No AAEE	2026 SP Oakland Gen ON, Alameda Gen OFF, No BTM-PV	2018 SP All Local Gen ON	2021 SP All Local Gen ON	2026 SP All Local Gen ON	2021 SP All Local Gen ON, No AAEE	2026 SP All Local Gen ON, No BTM-PV	
	No violations.																			

Study Area: PG&E Greater Bay Area: East Bay Sensitivity

High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)															Potential Mitigation Solutions
					2018 SP All Local Gen OFF	2021 SP All Local Gen OFF	2026 SP All Local Gen OFF	2021 SP All Local Gen OFF, No AAEE	2026 SP All Local Gen OFF, No BTM-PV	2018 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF	2026 SP Oakland Gen ON, Alameda Gen OFF	2021 SP Oakland Gen ON, Alameda Gen OFF, No AAEE	2026 SP Oakland Gen ON, Alameda Gen OFF, No BTM-PV	2018 SP All Local Gen ON	2021 SP All Local Gen ON	2026 SP All Local Gen ON	2021 SP All Local Gen ON, No AAEE	2026 SP All Local Gen ON, No BTM-PV	
	No violations.																			