

Overloaded Facility	Contingency Description	Ctg Code	Category Description	2024-HS	2027-HS	2032-HS	2024-SOP	2027-SOP	2032-SOP	2032-WOP	2024-SOP-COI	2024-HS-HighRE	2027-HS-HICEC	2035-HS	Project & Potential Mitigation Solutions
ROUND MT 500.0 - RM_TM_11 500.0 - 1	ROUND MT-RM_DRS #2 500KV LINE	P1 2-1	L-1	95.46%	<95%	95.42%	<95%	<95%	<95%	<95%	115.13%	<95%	95.73%	95.41%	SPS to bypass series cap on remaining Round Mtn-Table Mtn 500KV line on overload.
	DIABLOCNYSNS GENERATOR & ROUND MT-RM_DRS #2 500KV LINE	P3 2-1	G-1/L-1	95.46%	<95%	<95%	<95%	<95%	<95%	<95%	115.13%	<95%	<95%	<95%	
	ROUND MT-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV BA	P6 1 2-43	L-1/T-1	95.54%	<95%	95.58%	<95%	<95%	<95%	<95%	115.55%	<95%	95.81%	95.46%	
	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-80	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.66%	<95%	<95%	<95%	
	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-79	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.81%	<95%	<95%	<95%	
RM_TM_11 500.0 - RM_DRS 500.0 - 1	ROUND MT-RM_DRS #2 500KV LINE & ROUND MT #1 500/230KV	P6 1 2-1	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.06%	<95%	<95%	<95%	SPS to bypass series cap on remaining Round Mtn-Table Mtn 500KV line on overload.
	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-80	L-1/L-1	106.02%	99.66%	105.93%	<95%	<95%	<95%	<95%	128.84%	101.53%	106.49%	105.65%	
	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-79	L-1/L-1	106.18%	99.81%	106.09%	<95%	<95%	<95%	<95%	129.02%	101.67%	106.65%	105.81%	
	ROUND MT-RM_DRS #2 500KV LINE & ROUND MT #1 500/230KV	P6 1 2-1	L-1/T-1	107.57%	101.59%	108.26%	<95%	<95%	<95%	<95%	134.2%	105.39%	108.58%	110.49%	
	ROUND MT-RM_DRS #2 500KV LINE	P1 2-1	L-1	116.4%	109.36%	116.35%	<95%	<95%	<95%	<95%	140.38%	111.36%	116.72%	116.35%	
ROUND MT 500.0 - RM_TM_21 500.0 - 2	DIABLOCNYSNS GENERATOR & ROUND MT-RM_DRS #2 500KV LINE	P3 2-1	G-1/L-1	116.4%	<95%	<95%	<95%	<95%	<95%	<95%	140.38%	111.36%	<95%	<95%	SPS to bypass series cap on remaining Round Mtn-Table Mtn 500KV line on overload.
	ROUND MT-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV BA	P6 1 2-43	L-1/T-1	116.5%	109.42%	116.54%	<95%	<95%	<95%	<95%	140.9%	111.47%	116.82%	116.4%	
	ROUND MT-RM_DRS #1 500KV LINE	P1 2-0	L-1	95.48%	<95%	95.44%	<95%	<95%	<95%	<95%	115.15%	<95%	95.75%	95.44%	
	DIABLOCNYSNS GENERATOR & ROUND MT-RM_DRS #1 500KV LINE	P3 2-0	G-1/L-1	95.48%	<95%	<95%	<95%	<95%	<95%	<95%	115.15%	<95%	<95%	<95%	
	ROUND MT-RM_DRS #1 500KV LINE & RM_DRS #1 500/230KV BA	P6 1 2-42	L-1/T-1	95.56%	<95%	95.6%	<95%	<95%	<95%	<95%	115.58%	<95%	95.83%	95.48%	
RM_TM_21 500.0 - RM_DRS 500.0 - 2	ROUND MT-RM_DRS #1 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-78	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.68%	<95%	<95%	<95%	Reduce local generation
	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT-MALIN #2 500K	P6 1 1-2	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.75%	<95%	<95%	<95%	
	ROUND MT-RM_DRS #1 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-77	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.83%	<95%	<95%	<95%	
	ROUND MT-RM_DRS #1 500KV LINE	P1 2-0	L-1	116.42%	109.39%	116.38%	<95%	<95%	<95%	<95%	140.41%	111.38%	116.75%	116.37%	
	DIABLOCNYSNS GENERATOR & ROUND MT-RM_DRS #1 500KV LINE	P3 2-0	G-1/L-1	116.42%	<95%	<95%	<95%	<95%	<95%	<95%	140.41%	111.38%	<95%	<95%	
CHCGO PK 115.0 - HIGGINS 115.0 - 1	ROUND MT-RM_DRS #1 500KV LINE & RM_DRS #1 500/230KV BA	P6 1 2-42	L-1/T-1	116.52%	109.45%	116.57%	<95%	<95%	<95%	<95%	140.93%	111.49%	116.85%	116.43%	Open 230kv line(s) to prevent loop flow
	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT #1 500/230KV	P6 1 2-0	L-1/T-1	<95%	<95%	95.77%	<95%	<95%	<95%	<95%	120.08%	<95%	96.38%	97.17%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #1	P6 1 1-7	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	100.04%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #2	P6 1 1-8	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	100.06%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-4	L-1/L-1	97.07%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.5%	<95%	
DELEVAN 230.0 - CORTINA 230.0 - 1	TABLE MTN-VACA-DIX #1 500KV LINE	P1 2-2	L-1	97.36%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.5%	<95%	Open 230kv line(s) to prevent loop flow
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN 500KV SHU	P6 1 3-0	L-1/L-1	97.36%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.5%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & VACA-DIX #11 500/23	P6 1 2-13	L-1/L-1	97.83%	95.26%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	109.92%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #1	P6 1 1-7	L-1/L-1	100.37%	96.5%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.63%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #2	P6 1 1-8	L-1/L-1	100.41%	96.52%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.66%	<95%	
MTCALF E 115.0 - PIERCY 115.0 - 1	TABLE MTN-VACA-DIX #1 500KV LINE & VACA-DIX-TESTA #1 5	P6 1 1-22	L-1/L-1	100.42%	98.18%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	117.04%	<95%	Open-end on one side to break excessive flow
	ROUND MT-MALIN #1 500KV LINE & ROUND MT #1 500/230KV B	P6 1 2-2	L-1/T-1	101.12%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.99%	<95%	
	OLINDA-TRACY #1 500KV LINE & OLINDA #1 500/230KV BANK	P6 1 2-37	L-1/T-1	101.78%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	102.11%	<95%	
	OLINDA-CAPTJACK #1 500KV LINE & OLINDA #1 500/230KV BA	P6 1 2-38	L-1/T-1	101.86%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	102.16%	<95%	
	OLINDA-TRACY #1 500KV LINE & OLINDA-CAPTJACK #1 500KV	P6 1 1-72	L-1/L-1	102.0%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	102.32%	<95%	

RM_TM_22 500.0 - RM_DRS 500.0 - 2	TESLA D #4 500/230KV TRANSFORMER	P1 3-11	L-1	<95%	107.09%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.87%	<95%	
	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT-MALIN #1 500K	P6 1 1-1	L-1/L-1	<95%	107.12%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	123.1%	<95%	
	ROUND MT-RM_DRS #2 500KV LINE & ROUND MT-MALIN #1 500K	P6 1 1-3	L-1/L-1	<95%	107.12%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	123.1%	<95%	
	METCALF-MOSSLAND #1 500KV LINE & MOSSLAND-LOSBANOS #1	P6 1 1-24	L-1/L-1	<95%	107.59%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	
	PATH 26 TRIPLE LINE OUTAGE	P EXT-11	Extreme	<95%	108.99%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	
	TABLE MOUNTAIN 500/230KV & VACA DIXON 500/230KV	P6 2 2-11	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.78%	<95%	
	OLINDA-TRACY #1 500KV LINE & OLINDA-CAPTJACK #1 500KV	P6 1 1-72	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.79%	<95%	
	OLINDA-CAPTJACK #1 500KV LINE	P1 2-19	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.8%	<95%	
	OLINDA-CAPTJACK #1 500KV LINE & OLINDA 500KV SHUNT	P6 1 3-7	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.8%	<95%	
	VACA-DIX #111 500/230KV TRANSFORMER	P1 3-8	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.82%	<95%	
	OLINDA-TRACY #1 500KV LINE & TRACY-TESLA #1 500KV LINE	P6 1 1-73	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.83%	<95%	
	TRACY 500KV SHUNT	P1 4-9	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.84%	<95%	
	VACA-DIX #12 500/230KV TRANSFORMER	P1 3-9	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	122.91%	<95%	
	ROUND MT-MALIN #1 500KV LINE & ROUND MT #1 500/230KV B	P6 1 2-2	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	123.01%	<95%	
	LOSBANOS-GATES #1 500KV LINE & LOSBANOS-MIDWAY #1 500K	P6 1 1-41	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	123.4%	<95%	
	OLINDA-TRACY #1 500KV LINE & TRACY 500KV SHUNT	P6 1 3-8	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	123.44%	<95%	
RM_TM_12 500.0 - RM_DRS 500.0 - 1	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-79	L-1/L-1	104.97%	99.78%	106.06%	<95%	<95%	<95%	<95%	127.64%	100.63%	106.58%	105.82%	SPS to bypass series cap on remaining Rount Mtn-Table Mtn 500KV line on overload.
	ROUND MT-RM_DRS #1 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-77	L-1/L-1	104.99%	99.8%	106.08%	<95%	<95%	<95%	<95%	127.67%	100.65%	106.6%	105.85%	
	TABLE MTN-RM_DRS #1 500KV LINE	P1 2-20	L-1	106.08%	100.82%	107.19%	<95%	<95%	<95%	<95%	128.86%	101.67%	107.67%	106.97%	
	DIABLOCLYNSS GENERATOR & TABLE MTN-RM_DRS #1 500KV LINE	P3 2-20	G-1/L-1	106.08%	<95%	<95%	<95%	<95%	<95%	128.86%	101.67%	<95%	<95%		
	TABLE MTN-RM_DRS #1 500KV LINE & TABLE MTN 500KV SHUNT	P6 1 3-2	L-1/L-1	106.08%	100.82%	107.19%	<95%	<95%	<95%	128.86%	101.67%	107.67%	106.97%		
	TABLE MTN-RM_DRS #1 500KV LINE & RM_DRS #1 500/230KV B	P6 1 2-44	L-1/T-1	106.82%	100.91%	107.38%	<95%	<95%	<95%	130.34%	102.38%	107.84%	107.04%		
	TABLE MTN-RM_DRS #1 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-6	L-1/T-1	108.92%	101.02%	107.29%	<95%	<95%	<95%	135.17%	105.83%	107.88%	107.05%		
	ROUND MT-RM_DRS #2 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-80	L-1/L-1	104.82%	99.63%	105.9%	<95%	<95%	<95%	127.47%	100.48%	106.42%	105.66%		
	ROUND MT-RM_DRS #1 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-78	L-1/L-1	104.84%	99.65%	105.92%	<95%	<95%	<95%	127.49%	100.5%	106.44%	105.68%		
	TABLE MTN-RM_DRS #2 500KV LINE	P1 2-21	L-1	105.92%	100.66%	107.03%	<95%	<95%	<95%	128.67%	101.52%	107.51%	106.8%		
CAYETANO 230.0 - USWP-JRW 230.0 - 1	DIABLOCLYNSS GENERATOR & TABLE MTN-RM_DRS #2 500KV LINE	P3 2-21	G-1/L-1	105.92%	<95%	<95%	<95%	<95%	<95%	128.67%	101.52%	<95%	<95%	Eliminate excessive 230KV loop flow by opening up Lonetree-USWP 230KV line	
	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN 500KV SHUNT	P6 1 3-3	L-1/L-1	105.92%	100.66%	107.03%	<95%	<95%	<95%	128.67%	101.52%	107.51%	106.8%		
	TABLE MTN-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV B	P6 1 2-45	L-1/T-1	106.66%	100.76%	107.22%	<95%	<95%	<95%	130.16%	102.23%	107.68%	106.87%		
	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-7	L-1/T-1	108.77%	100.87%	107.12%	<95%	<95%	<95%	135.0%	105.68%	107.72%	106.89%		
	TRACY-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV LIN	P6 1 1-19	L-1/L-1	95.39%	<95%	97.32%	<95%	<95%	<95%	<95%	<95%	<95%	100.44%		
	TESLA-METCALF #1 500KV LINE & METCALF #11 500/230KV BANK	P2 3-3		95.73%	<95%	97.33%	<95%	<95%	<95%	<95%	<95%	95.22%	100.38%		
	TESLA-METCALF #1 500KV LINE & METCALF #11 500/230KV BA	P6 1 2-15	L-1/T-1	95.73%	<95%	97.33%	<95%	<95%	<95%	<95%	<95%	95.22%	100.38%		
	TABLE MTN-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-14	L-1/L-1	97.29%	95.14%	97.84%	<95%	<95%	<95%	<95%	<95%	95.74%	101.14%		
	TESLA-METCALF #1 500KV LINE & TESLA #2 500/230KV BANK	P2 3-2		97.9%	96.96%	99.51%	<95%	<95%	<95%	<95%	<95%	97.66%	102.87%		
	TESLA-METCALF #1 500KV LINE & TESLA #2 500/230KV BANK	P6 1 2-11	L-1/T-1	97.9%	96.96%	99.51%	<95%	<95%	<95%	<95%	<95%	97.66%	102.87%		
LONETREE 230.0 - USWP-JRW 230.0 - 1	VACA-DIX-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-17	L-1/L-1	101.8%	99.91%	106.79%	<95%	<95%	<95%	<95%	<95%	99.52%	<95%	Eliminate excessive 230KV loop flow by opening up Los Costas - Los Positas 230KV line	
	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	102.34%	100.58%	110.5%	<95%	<95%	<95%	<95%	<95%	104.18%	<95%		
	TESLA-METCALF #1 500KV LINE & METCALF-MOSSLAND #1 500K	P6 1 1-23	L-1/L-1	104.21%	101.85%	<95%	<95%	<95%	<95%	<95%	<95%	104.07%	<95%		
	VACA-DIX-TESLA #1 500KV LINE & TESLA #2 500/230KV BANK	P6 1 2-9	L-1/T-1	<95%	<95%	98.87%	<95%	<95%	<95%	<95%	<95%	<95%	100.07%		
	VACA-DIX-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV LI	P6 1 1-16	L-1/L-1	<95%	<95%	99.87%	<95%	<95%	<95%	<95%	<95%	<95%	101.16%		
	VACA-DIX-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-17	L-1/L-1	100.1%	<95%	101.37%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	100.58%	<95%	104.88%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
	TESLA-METCALF #1 500KV LINE & METCALF-MOSSLAND #1 500K	P6 1 1-23	L-1/L-1	102.43%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
	VACA-DIX-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-17	L-1/L-1	96.54%	<95%	100.94%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	97.13%	95.56%	104.69%	<95%	<95%	<95%	<95%	<95%	98.66%	<95%		
LS PSTAS 230.0 - NEWARK D 230.0 - 1	VACA-DIX-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-17	L-1/L-1	102.67%	95.65%	107.22%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	Eliminate excessive 230KV loop flow by opening up Los Costas - Los Positas 230KV line	
	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	103.35%	96.56%	113.56%	<95%	<95%	<95%	<95%	<95%	98.41%	<95%		
	TESLA-METCALF #1 500KV LINE & METCALF-MOSSLAND #1 500K	P6 1 1-23	L-1/L-1	106.0%	98.35%	<95%	<95%	<95%	<95%	<95%	<95%	98.2%	<95%		
	TESLA-METCALF #1 500KV LINE & TESLA-LOSBANOS #1 500KV	P6 1 1-21	L-1/L-1	96.82%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
NEWARK E 230.0 - NWK DIST 230.0 - 1	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	108.11%	97.22%	124.26%	<95%	<95%	104.78%	<95%	<95%	<95%	105.09%	<95%	Redispatch San Jose generation after first contingency
	TESLA-METCALF #1 500KV LINE & METCALF-MOSSLAND #1 500K	P6 1 1-23	L-1/L-1	113.21%	100.97%	<95%	<95%	<95%	<95%	<95%	<95%	104.85%	<95%		
	TESLA-METCALF & MOSSLAND-LOSBANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	105.68%	<95%	119.73%	<95%	<95%	104.39%	<95%	<95%	100.34%	<95%		
NWK DIST 230.0 - LS ESTRS 230.0 - 1	TESLA-METCALF #1 500KV LINE & METCALF-MOSSLAND #1 500K	P6 1 1-23	L-1/L-1	111.26%	96.77%	<95%	<95%	<95%	<95%	<95%	<95%	99.77%	<95%	System redispatch	
	TABLE MTN-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV L	P6 1 1-13	L-1/L-1	102.09%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%		
	METCALF 500.0 - METCALF 230.0 - 13	METCALF #11 & #12 500/230KV BANK	P6_2_2-2	L-1/L-1	125.03%	114.73%	115.94%	118.56%	126.35%	<95%	<95%	112.33%	135.42%		126.85%
STA. E 115.0 - STA. G 115.0 - 1	TABLE MTN-VACA-DIX #1 500KV LINE & VACA-DIX #11 500/23	P6 1 2-13	L-1/L-1	<95%	98.64%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.02%	<95%	Redispatch San Jose generation after first contingency
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-4	L-1/L-1	<95%	98.64%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.01%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE	P1 2-2	L-1	<95%	98.65%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.03%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN 500KV SHU	P6 1 3-0	L-1/L-1	<95%	98.65%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.03%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & VACA-DIX-TESLA #1 5	P6 1 1-22	L-1/L-1	<95%	98.68%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.04%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TABLE MTN-RM_DRS #1 50	P6 1 1-9	L-1/L-1	<95%	98.7%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.9%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TABLE MTN-RM_DRS #2 50	P6 1 1-10	L-1/L-1	<95%	98.71%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.91%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV L	P6 1 1-13	L-1/L-1	<95%	98.73%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.97%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6 1 1-14	L-1/L-1	<95%	98.75%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.95%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TESLA #2 500/230KV BAN	P6 1 2-8	L-1/T-1	<95%	98.76%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.94%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #1	P6 1 1-7	L-1/L-1	<95%	98.82%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.26%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN-RM_DRS #2	P6 1 1-8	L-1/L-1	<95%	98.82%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.26%	<95%	
	ROUND MT-MALIN #1 500KV LINE & ROUND MT #1 500/230KV B	P6 1 2-2	L-1/T-1	<95%	98.82%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.02%	<95%	
	OLINDA-CAPTJACK #1 500KV LINE & OLINDA #1 500/230KV BA	P6 1 2-38	L-1/T-1	<95%	98.99%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.16%	<95%	
	OLINDA-TRACY #1 500KV LINE & OLINDA #1 500/230KV BANK	P6 1 2-37	L-1/T-1	<95%	99.01%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.18%	<95%	
	OLINDA-TRACY #1 500KV LINE & OLINDA-CAPTJACK #1 500KV	P6 1 1-72	L-1/L-1	<95%	99.04%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.22%	<95%	
OLINDA-TRACY #1 500KV LINE & TRACY-TESLA #1 500KV LINE	P6 1 1-73	L-1/L-1	<95%	99.1%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.32%	<95%		
OLINDA-TRACY #1 500KV LINE & TRACY #1 500/230KV BANK	P6 1 2-39	L-1/T-1	<95%	99.15%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.59%	<95%		

California ISO/IOP

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Study Area:

PG&E Bulk

Thermal Overloads



ARCO 230.0 - MIDWAY-E 230.0 - 1	MANNING-MIDWAY #2 500KV LINE & GATES-MIDWAY #1 500KV L	P6 1 1-50	L-1/L-1	<95%	<95%	<95%	<95%	<95%	125.79%	<95%	<95%	<95%	<95%	<95%	
	GATES #11 & #12 500/230KV BANK	P6 2 2-3	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.18%	<95%	<95%	
	GATES-DIABLOCLYNSS #1 500KV LINE & GATES-MIDWAY #1 500	P6 1 1-47	L-1/L-1	<95%	<95%	<95%	120.14%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	System redispatch
	GATES #11 & #12 500/230KV BANK	P6 2 2-3	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.99%	<95%	<95%	
	GATES-DIABLOCLYNSS #1 500KV LINE & GATES-MIDWAY #1 500	P6 1 1-47	L-1/L-1	<95%	<95%	<95%	102.96%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	
MMW_WRLWIND 32 500.0 - WRLWIND 500.0 - 3	MIDWAY-VINCENT #1 500KV LINE & MIDWAY-VINCENT #2 500KV	P6 1 1-66	L-1/L-1	<95%	<95%	<95%	124.07%	137.29%	104.32%	<95%	123.69%	<95%	<95%	<95%	Refer to SCE bulk results
SANDHLWJCT 230.0 - TESLA D 230.0 - 1	VACA-DIX #11 & #12 500/230KV BANK	P6 2 2-1	L-1/L-1	<95%	<95%	<95%	115.9%	<95%	<95%	<95%	100.88%	<95%	<95%	<95%	
	VACA-DIX #11 & #12 500/230KV BANK	P6 2 2-1	L-1/L-1	<95%	<95%	<95%	116.2%	<95%	<95%	<95%	102.7%	100.06%	<95%	<95%	Reduce area load
	TABLE MTN-VACA-DIX #1 500KV LINE & VACA-DIX-TESLA #1 5	P6 1 1-22	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	100.17%	<95%	<95%	
	TABLE MOUNTAIN 500/230KV & TESLA 500/230KV	P6 2 2-12	L-1/L-1	<95%	<95%	<95%	<95%	114.45%	121.73%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN D #5 500/230KV TRANSFORMER	P1 3-6	L-1	<95%	<95%	<95%	<95%	114.65%	120.96%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN #5 500/230KV BANK & TABLE MTN 500KV SHUNT	P6 2 3-0	L-1/L-1	<95%	<95%	<95%	<95%	114.65%	120.96%	<95%	<95%	<95%	<95%	<95%	
	TABLE MOUNTAIN 500/230KV & VACA DIXON 500/230KV	P6 2 2-11	L-1/L-1	<95%	<95%	<95%	<95%	114.74%	121.02%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-8	L-1/L-1	<95%	<95%	<95%	<95%	118.46%	123.1%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TABLE MTN #5 500/230KV	P6 1 2-9	L-1/T-1	<95%	<95%	<95%	<95%	118.5%	124.37%	<95%	<95%	<95%	<95%	<95%	
	ROUND MOUNTAIN 500/230KV & TABLE MOUNTAIN 500/230KV	P6 2 2-10	L-1/L-1	<95%	<95%	<95%	<95%	118.75%	123.78%	<95%	<95%	<95%	<95%	<95%	
	ROUND MT-TABLE MTN #2 500KV LINE & TABLE MTN #5 500/23	P6 1 2-7	L-1/L-1	<95%	<95%	<95%	<95%	118.89%	<95%	<95%	<95%	<95%	<95%	<95%	
	ROUND MT-TABLE MTN #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-6	L-1/L-1	<95%	<95%	<95%	<95%	118.93%	<95%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-7	L-1/T-1	<95%	<95%	<95%	<95%	<95%	119.12%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-RM_DRS #1 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-6	L-1/T-1	<95%	<95%	<95%	<95%	<95%	119.14%	<95%	<95%	<95%	<95%	<95%	
	TABLE MOUNTAIN 500/230KV & TESLA 500/230KV	P6 2 2-12	L-1/L-1	<95%	<95%	<95%	<95%	111.79%	121.04%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN D #5 500/230KV TRANSFORMER	P1 3-6	L-1	<95%	<95%	<95%	<95%	112.07%	120.39%	<95%	<95%	<95%	<95%	<95%	Presently covered by Table Mountain #1 SP5
	TABLE MOUNTAIN 500/230KV & VACA DIXON 500/230KV	P6 2 2-11	L-1/L-1	<95%	<95%	<95%	<95%	112.07%	120.4%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN #5 500/230KV BANK & TABLE MTN 500KV SHUNT	P6 2 3-0	L-1/L-1	<95%	<95%	<95%	<95%	112.07%	120.39%	<95%	<95%	<95%	<95%	<95%	
	ROUND MT-TABLE MTN #2 500KV LINE & TABLE MTN #5 500/23	P6 1 2-7	L-1/L-1	<95%	<95%	<95%	<95%	115.24%	<95%	<95%	<95%	<95%	<95%	<95%	
	ROUND MT-TABLE MTN #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-6	L-1/L-1	<95%	<95%	<95%	<95%	115.28%	<95%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-VACA-DIX #1 500KV LINE & TABLE MTN #5 500/23	P6 1 2-8	L-1/L-1	<95%	<95%	<95%	<95%	115.36%	122.56%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-TESLA #1 500KV LINE & TABLE MTN #5 500/230KV	P6 1 2-9	L-1/T-1	<95%	<95%	<95%	<95%	115.36%	123.4%	<95%	<95%	<95%	<95%	<95%	
	ROUND MOUNTAIN 500/230KV & TABLE MOUNTAIN 500/230KV	P6 2 2-10	L-1/L-1	<95%	<95%	<95%	<95%	115.72%	123.03%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-7	L-1/T-1	<95%	<95%	<95%	<95%	<95%	119.01%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-RM_DRS #1 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-6	L-1/T-1	<95%	<95%	<95%	<95%	<95%	119.03%	<95%	<95%	<95%	<95%	<95%	
TABLE MTN 500.0 - TABLE MTN5M 500.0 - 5	TABLE MTN E #6 500/230KV TRANSFORMER	P1 3-7	L-1	<95%	<95%	<95%	<95%	116.93%	122.88%	<95%	<95%	<95%	<95%	<95%	
TABLE MTN5M 500.0 - TABLE MTN D 230.0 - 5	TABLE MTN E #6 500/230KV TRANSFORMER	P1 3-7	L-1	<95%	<95%	<95%	<95%	111.23%	120.95%	<95%	<95%	<95%	<95%	<95%	
LOSANOS 500.0 - GATES 500.0 - 3	LOSANOS-MANNING #1 500KV LINE & LOSANOS-MANNING #2 5	P6 1 1-43	L-1/L-1	<95%	<95%	<95%	<95%	<95%	110.09%	<95%	<95%	<95%	<95%	<95%	System redispatch
	TRACY-TESLA #1 500KV LINE & TESLA-LOSANOS #1 500KV LI	P6 1 1-29	L-1/L-1	<95%	<95%	<95%	<95%	96.42%	101.06%	<95%	<95%	<95%	<95%	<95%	
	TRACY-LOSANOS #1 500KV LINE & MOSSLAND-LOSANOS #1 50	P6 1 1-37	L-1/L-1	<95%	<95%	<95%	<95%	114.42%	123.75%	<95%	<95%	<95%	<95%	<95%	
	TESLA-LOSANOS #1 500KV LINE & MOSSLAND-LOSANOS #1 50	P6 1 1-34	L-1/L-1	<95%	<95%	<95%	<95%	<95%	134.24%	<95%	<95%	<95%	<95%	<95%	
	TRACY-LOSANOS #1 500KV LINE & TESLA-LOSANOS #1 500KV	P6 1 1-29	L-1/L-1	<95%	<95%	<95%	<95%	<95%	158.94%	<95%	<95%	<95%	<95%	<95%	
	TRACY-LOSANOS #1 500KV LINE & MOSSLAND-LOSANOS #1 50	P6 1 1-37	L-1/L-1	<95%	<95%	<95%	<95%	99.58%	118.3%	<95%	<95%	<95%	<95%	<95%	Local generation redispatch
	TESLA-LOSANOS #1 500KV LINE & MOSSLAND-LOSANOS #1 50	P6 1 1-34	L-1/L-1	<95%	<95%	<95%	<95%	<95%	129.14%	<95%	<95%	<95%	<95%	<95%	
	TRACY-LOSANOS #1 500KV LINE & TESLA-LOSANOS #1 500KV	P6 1 1-29	L-1/L-1	<95%	<95%	<95%	<95%	<95%	154.88%	<95%	<95%	<95%	<95%	<95%	
TESLA E 230.0 - WESTLEY 230.0 - 1	TESLA-LOSANOS #1 500KV LINE & MOSSLAND-LOSANOS #1 50	P6 1 1-34	L-1/L-1	<95%	<95%	<95%	<95%	<95%	103.44%	<95%	<95%	<95%	<95%	<95%	
	TRACY-LOSANOS #1 500KV LINE & TESLA-LOSANOS #1 500KV	P6 1 1-29	L-1/L-1	<95%	<95%	<95%	<95%	<95%	111.92%	<95%	<95%	<95%	<95%	<95%	
GATES F 230.0 - ARCO 230.0 - 1	LOSANOS-MIDWAY #1 500KV LINE & GATES-MIDWAY #1 500KV	P6 1 1-57	L-1/L-1	<95%	<95%	<95%	<95%	112.65%	<95%	<95%	<95%	<95%	<95%	<95%	Open line to prevent loop flow
	GATES-DIABLOCLYNSS #1 500KV LINE & GATES-MIDWAY #1 500	P6 1 1-56	L-1/L-1	<95%	<95%	<95%	<95%	117.41%	<95%	<95%	<95%	<95%	<95%	<95%	
	MANNING-MIDWAY #2 500KV LINE & GATES-MIDWAY #1 500KV L	P6 1 1-50	L-1/L-1	<95%	<95%	<95%	<95%	<95%	114.74%	<95%	<95%	<95%	<95%	<95%	
	LOSANOS-MIDWAY #1 500KV LINE & GATES-MIDWAY #1 500KV	P6 1 1-57	L-1/L-1	<95%	<95%	<95%	<95%	100.94%	<95%	<95%	<95%	<95%	<95%	<95%	Open monitored line
	GATES-DIABLOCLYNSS #1 500KV LINE & GATES-MIDWAY #1 500	P6 1 1-56	L-1/L-1	<95%	<95%	<95%	<95%	103.37%	<95%	<95%	<95%	<95%	<95%	<95%	
RIO OSO 230.0 - LOCKFORD 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	<95%	99.7%	122.48%	<95%	<95%	<95%	<95%	
ATLANTC 230.0 - GOLDHILL 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	98.19%	114.19%	<95%	<95%	<95%	<95%	<95%	
GOLDHILL 230.0 - EIGHT MI 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	109.69%	116.32%	<95%	<95%	<95%	<95%	<95%	System redispatch
GOLDHILL 230.0 - LODI 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	110.22%	116.87%	<95%	<95%	<95%	<95%	<95%	
BRIGHTON 230.0 - BELLOTA 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	109.1%	<95%	<95%	<95%	<95%	<95%	<95%	
BELLOTA 230.0 - WEBER 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	104.89%	<95%	<95%	<95%	<95%	<95%	<95%	
HEDGE 230.0 - PROCTER 230.0 - 1	TABLE MTN #5 & #6 500/230KV BANK	P6 2 2-0	L-1/L-1	<95%	<95%	<95%	<95%	103.13%	<95%	<95%	<95%	<95%	<95%	<95%	
	LOSANOS-MANNING #2 500KV LINE & MANNING-MIDWAY #2 500	P6 1 1-88	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.33%	<95%	<95%	<95%	<95%	<95%	
	ROUND MT-MALIN #1 500KV LINE & ROUND MT-MALIN #2 500KV	P6 1 1-5	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.37%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN-RM_DRS #1 500KV LINE & TABLE MTN #5 500/230K	P6 1 2-6	L-1/T-1	<95%	<95%	<95%	<95%	<95%	100.38%	<95%	<95%	<95%	<95%	<95%	
	TABLE MOUNTAIN 500/230KV & VACA DIXON 500/230KV	P6 2 2-11	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.38%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN D #5 500/230KV TRANSFORMER	P1 3-6	L-1	<95%	<95%	<95%	<95%	<95%	100.39%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN #5 500/230KV BANK & TABLE MTN 500KV SHUNT	P6 2 3-0	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.39%	<95%	<95%	<95%	<95%	<95%	
	LOSANOS-MANNING #1 500KV LINE & MANNING-GATES #1 500K	P6 1 1-85	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.45%	<95%	<95%	<95%	<95%	<95%	
	METCALF-MOSSLAND #1 500KV LINE & MOSSLAND-LOSANOS #1	P6 1 1-26	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.46%	<95%	<95%	<95%	<95%	<95%	
	MOSSLAND-LOSANOS #1 500KV LINE	P1 2-12	L-1	<95%	<95%	<95%	<95%	<95%	100.48%	<95%	<95%	<95%	<95%	<95%	
	TABLE MTN E #6 500/230KV TRANSFORMER	P1 3-7	L-1	<95%	<95%	<95%	<95%	<95%	100.48%	<95%	<95%	<95%	<95%	<95%	
	MOSSLAND-LOSANOS #1 500KV LINE & LOSANOS #1 500/230K	P6 1 2-23	L-1/T-1	<95%	<95%	<95%	<95%	<95%	100.5%	<95%	<95%	<95%	<95%	<95%	
	MOSSLAND-LOSANOS #1 500KV LINE & MOSSLAND #9 500/230KV	P2 3-5		<95%	<95%	<95%	<95%	<95%	100.58%	<95%	<95%	<95%	<95%	<95%	
	MOSSLAND-LOSANOS #1 500KV LINE & MOSSLAND #9 500/230K	P6 1 2-19	L-1/T-1	<95%	<95%	<95%	<95%	<95%	100.58%	<95%	<95%	<95%	<95%	<95%	
	TESLA-METCALF & MOSSLAND-LOSANOS #1 500KV LINES	P6 1 1-100	L-1/L-1	<95%	<95%	<95%	<95%	<95%	100.72%	<95%	<95%	<95%	<95%	<95%	
	TRACY-TESLA #1 500KV LINE & TESLA-														

PG&E Bulk

California ISO/IOP

MN_RM_11 500.0 - MN_RM_12 500.0 - 1	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN 500KV SHUNT	P6 1 3-3	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	104.15%	<95%	<95%	<95%
	TABLE MTN-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV B	P6 1 2-45	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.26%	<95%	<95%	<95%
	TABLE MTN-RM_DRS #2 500KV LINE & TABLE MTN #5 500/230KV	P6 1 2-7	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	109.29%	<95%	<95%	<95%
	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT-MALIN #2 500KV	P6 1 1-2	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.19%	<95%	<95%	<95%
	ROUND MT-MALIN #2 500KV LINE	P1 2-27	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.77%	<95%	<95%	<95%
	DIABLOCNYSNS GENERATOR & ROUND MT-MALIN #2 500KV LINE	P3 2-27	G-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.77%	<95%	<95%	<95%
	ROUND MT-RM_DRS #1 500KV LINE & ROUND MT #1 500/230KV	P6 1 2-0	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	112.77%	<95%	<95%	<95%
	ROUND MT-MALIN #2 500KV LINE & ROUND MT #1 500/230KV BAN	P2 3-0		<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	113.45%	<95%	<95%	<95%
	ROUND MT-MALIN #2 500KV LINE & ROUND MT #1 500/230KV B	P6 1 2-3	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	113.45%	<95%	<95%	<95%
	GATES 500/230KV & MIDWAY 11 500/230KV	P6 2 2-24	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	103.74%	<95%	<95%	<95%
BELRDG J 115.0 - MIDWAY 115.0 - 1	GATES-MIDWAY #1 500KV LINE & MIDWAY #11 500/230KV BANK	P6 1 2-31	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	104.08%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & MIDWAY-VINCENT #2 500KV L	P6 1 1-57	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.24%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & MIDWAY-VINCENT #1 500KV L	P6 1 1-56	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.26%	<95%	<95%	<95%
	LOS BANOS-GATES #3 500KV LINE & GATES #11 500/230KV BAN	P6 1 2-26	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.43%	<95%	<95%	<95%
	LOS BANOS-GATES #1 500KV LINE & GATES #11 500/230KV BAN	P6 1 2-27	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.44%	<95%	<95%	<95%
	GATES F #12 500/230KV TRANSFORMER	P1 3-16	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.54%	<95%	<95%	<95%
	DIABLOCNYSNS GENERATOR & GATES F #12 500/230KV TRANSFORM	P3 3-16	G-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.54%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & MIDWAY-WIRLWIND #3 500KV	P6 1 1-58	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.55%	<95%	<95%	<95%
	GATESBK11JCT #11 500/230KV TRANSFORMER	P1 3-15	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.61%	<95%	<95%	<95%
	DIABLOCNYSNS GENERATOR & GATESBK11JCT #11 500/230KV TRAN	P3 3-15	G-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.61%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE	P1 2-16	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.83%	<95%	<95%	<95%
	DIABLOCNYSNS GENERATOR & GATES-MIDWAY #1 500KV LINE	P3 2-16	G-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.83%	<95%	<95%	<95%
	GATES-DIABLOCNYSNS #1 500KV LINE & GATES #11 500/230KV	P6 1 2-28	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.86%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & DIABLOCNYSNS-MIDWAY #3 50	P6 1 1-55	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.25%	<95%	<95%	<95%
	LOS BANOS-GATES #3 500KV LINE & GATES-MIDWAY #1 500KV L	P6 1 1-44	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.45%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & DIABLOCNYSNS-MIDWAY #2 50	P6 1 1-54	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.66%	<95%	<95%	<95%
	LOS BANOS 500/230KV & GATES 500/230KV	P6 2 2-21	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	108.84%	<95%	<95%	<95%
	LOS BANOS-GATES #1 500KV LINE & GATES-MIDWAY #1 500KV LIN	P2 3-9		<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.04%	<95%	<95%	<95%
	LOS BANOS-GATES #1 500KV LINE & GATES-MIDWAY #1 500KV L	P6 1 1-46	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.04%	<95%	<95%	<95%
	GATES-MIDWAY #1 500KV LINE & GATES #11 500/230KV BANK	P6 1 2-29	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	111.8%	<95%	<95%	<95%
MOSSLNSW 230.0 - LASAGUILASS 230.0 - 2	GATES-DIABLOCNYSNS #1 500KV LINE & GATES-MIDWAY #1 500	P6 1 1-47	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	111.91%	<95%	<95%	<95%
	LOS BANOS-MIDWAY #1 500KV LINE & GATES-MIDWAY #1 500KV	P6 1 1-48	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	113.36%	<95%	<95%	<95%
	GATES #11 & #12 500/230KV BANK	P6 2 2-3	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	132.82%	<95%	<95%	<95%
	TESLA-LOS BANOS #1 500KV LINE & MOSSLAND-LOS BANOS #1 50	P6 1 1-32	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.02%	<95%	<95%	<95%
	GATES #11 & #12 500/230KV BANK	P6 2 2-3	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	110.22%	<95%	<95%	<95%
	VACA-DIX-TESLA #1 500KV LINE	P1 2-5	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.29%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV L	P2 3-1		<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.8%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV	P6 1 1-18	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.8%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA #2 500/230KV BANK	P6 1 2-9	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	102.33%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV LI	P6 1 1-16	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	103.18%	<95%
TLCYVACARCTR 230.0 - VACA-DIX 230.0 - BP	COLLSVL #1 & #2 500/230KV BANK	P6 2 2-8	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	100.9%	<95%
	VACA-DIX-TESLA #1 500KV LINE & VACA-DIX #11 500/230KV	P6 1 2-14	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	101.39%	<95%
	VACA-DIX-TESLA #1 500KV LINE	P1 2-5	L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	105.95%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV L	P2 3-1		<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.49%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV	P6 1 1-18	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	106.49%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TESLA #2 500/230KV BANK	P6 1 2-9	L-1/T-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.04%	<95%
	VACA-DIX-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV LI	P6 1 1-16	L-1/L-1	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	<95%	107.94%	<95%

Local reconfiguration

Local reconfiguration

Local reactive support for 2035HS scenario.

High/Low Voltages

Substation	Contingency (All and Worst P6)	Category	Category Description	High/Low Voltage	Voltage PU (Baseline Scenarios)							Voltage PU (Sensitivity Scenarios)			Project & Potential Mitigation Solutions
					2024 Summer Peak	2027 Summer Peak	2032 Summer Peak	2024 Spring Off-Peak	2027 Spring Off-Peak	2032 Spring Off-Peak	2032 Winter Off-Peak	2024 SP Heavy Renewable & Min Gas Gen	2024 Spring Off-Peak COI	2027 SP High CEC Forecast	
DIABLO 500 kV	Normal Conditions	P0	normal		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	system adjustments after the first
	Two Statcoms on Gates	P6	S-1/S-1		N/A	1.100	within limits	within limits	within limits	within limits	within limits	N/A	N/A	1.100	
	Two Statcoms on Round Mountain	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
GATES 500 kV	Normal Conditions	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
GATES 500 kV	Two Statcoms on Gates	P6	S-1/S-1		N/A	within limits	within limits	within limits	within limits	within limits	within limits	N/A	N/A	within limits	
GATES 500 kV	Two Statcoms on Round Mountain	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
MIDWAY 500 kV	Normal Conditions	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
MIDWAY 500 kV	Two Statcoms on Gates	P6	S-1/S-1		N/A	within limits	within limits	within limits	within limits	within limits	within limits	N/A	N/A	within limits	
MIDWAY 500 kV	Two Statcoms on Round Mountain	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
Round Mountain 500 kV	Normal Conditions	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
Round Mountain 500 kV	Two Statcoms on Gates	P6	S-1/S-1		N/A	within limits	within limits	within limits	within limits	within limits	within limits	N/A	N/A	within limits	
Round Mountain 500 kV	Two Statcoms on Round Mountain	P6	S-1/S-1		within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	within limits	
Low voltages in the Las Aguilas-Moss Landing area	Mosslanding-Los Banos 500 kV & Tesla-Metcalf 500 kV	P6	L-1/L-1		insufficient reactive margin	No Issue	No Issue	No Issue	No Issue	No Issue	No Issue	insufficient reactive margin	No Issue	No Issue	

Study Area: PG&E Bulk

Voltage Deviation



Substation	Contingency (All and Worst PG&E)	Category	Category Description	Voltage PU (Baseline Scenarios)							Voltage PU (Sensitivity Scenarios)			Project & Potential Mitigation Solutions
				2023 Summer Peak	2026 Summer Peak	2031 Summer Peak	2023 Spring Off- Peak	2026 Spring Off- Peak	2031 Spring Off- Peak	2031 Winter Off- Peak	2023 SP Heavy Renewable & Min Gas Gen	2026 SP High CEC Forecast	2033 SpOP Hi Renew & Min Gas Gen	
NONE over 8%														

Study Area:

PG&E Bulk

Transient Stability



Contingency	Category	Category Description	2024-SOP	2027-HS	2032-HS	2032-SOP	2027-HS-HICEC	2024-SOP-COI	Potential Mitigation Solutions/Comments
P1_2-0. ROUND MT-RM_DRS #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Re-evaluate with increased pre-contingency var support at Monta Vista 230kV in 2032 scenarios
P1_2-1. ROUND MT-RM_DRS #2 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Re-evaluate with increased pre-contingency var support at Monta Vista 230kV in 2032 scenarios
P1_2-2. TABLE MTN-VACA-DIX #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Re-evaluate with increased pre-contingency var support at Monta Vista 230kV in 2032 scenarios
P1_2-3. TABLE MTN-TESLA #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Significant # voltage dips in 2032-SOP case. Lesser # for 2032 HS. Area modeling to be investigated
P1_2-4. OLINDA-TRACY #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Dip in Tesla 500kV voltage in 2032-SOP warrants investigation
P1_2-5. VACA-DIX-TESLA #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Voltage dips at Olinda, Tesla, Collinsville & Tracy 500kV suggests wider area concerns in 2032 SOP. Re-evaluation of var equipment settings and re-run required.
P1_2-6. TRACY-TESLA #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	Re-evaluate with increased pre-contingency var support at Montavis 230kV
P1_2-7. TRACY-LOSBANOS #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Excessive # of voltage dips >30 cycles seen for 2023SOP. Modeling and pre-contingency var settings to be re-evaluated
P1_2-8. TESLA-METCALF #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Significant # of voltage dips for 230kV and lower buses seen for 2032SOP.
P1_2-9. TESLA-LOSBANOS #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Excessive # of voltage dips >30 cycles seen for 2023SOP. Modeling and pre-contingency var settings to be re-evaluated
P1_2-10. METCALF-MOSSLAND #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips seen primarily at 60kV and lower buses for 2032SOP and 2032HS cases
P1_2-12. LOSBANOS-GATES #3 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Re-evaluate with increased pre-contingency var support at Montavis 230kV
P1_2-13. LOSBANOS-GATES #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips at Tesla 500kV and Collinsville, Pittsburgh and adjacent 230kV buses seen in 2032SOP. Possible var support required in Bay Area.
P1_2-14. LOSBANOS-MIDWAY #1 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips at Tesla 500kV and Collinsville, Pittsburgh and adjacent 230kV buses seen in 2032SOP. Possible var support required in Bay Area.
P1_2-15. GATES-DIABLOCNYNSS #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Voltage dips at Tesla 500kV and Collinsville, Pittsburgh and adjacent 230kV buses seen in 2032SOP. Possible var support required in Bay Area.
P1_2-16. GATES-MIDWAY #1 500KV LINE	P1	L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Voltage dips at Tesla 500kV and Collinsville, Pittsburgh and adjacent 230kV buses seen in 2032SOP. Possible var support required in Bay Area.
P1_2-17. DIABLOCNYNSS-MIDWAY #2 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dip at Tesla 500kV may be acceptable for 2032SP and 2032HS.
P1_2-18. DIABLOCNYNSS-MIDWAY #3 500KV LINE	P1	L-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips of concern seen only at 230kV buses and below for 2032SP and 2032HS scenarios
P1_2-19. MIDWAY-VINCENT #1 500KV LINE	P1	L-1	Potential WECC/NERC criteria violation	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Potential WECC/NERC criteria violation	Re-evaluate with increased pre-contingency var support at Monta Visa, Saratoga, etc at 230kV
P1_2-20. MIDWAY-VINCENT #2 500KV LINE	P1	L-1	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	no issues	Potential WECC/NERC criteria violation	Variance with P1_2-19 requires investigation
P1_2-21. MIDWAY-WIRLWIND #3 500KV LINE	P1	L-1	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	no issues	Potential WECC/NERC criteria violation	Comparable results as P1_2-20
P1_3-5. VACA-DIX #11 500/230KV TRANSFORMER	P1	T-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips at Vaca Dixon, Collinsville, Tracy, Tesla 500kV noted for 2032SOP
P1_3-6. VACA-DIX #12 500/230KV TRANSFORMER	P1	T-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Comparable results as P1_3-5
P1_3-8. TESLA D #4 500/230KV TRANSFORMER	P1	T-1	no issues	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Voltage dips at Vaca Dixon, Collinsville, Tracy, Tesla 500kV noted for 2032SOP
P1_3-9. TESLA C #6 500/230KV TRANSFORMER	P1	T-1	no issues	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Comparable results as P1_3-8
P1_3-10. METCALF #11 500/230KV TRANSFORMER	P1	T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Voltage dips seen on Table Mtn, Vaca-Dixon, Collinsville, Tracey 500kV for 2032SOP.
P1_3-12. METCALF #13 500/230KV TRANSFORMER	P1	T-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	Comparable results as P1_3-10
P1_3-14. LOSBANOS #1 500/230KV TRANSFORMER	P1	T-1	no issues	no issues	N/A	Potential WECC/NERC criteria violation	no issues	no issues	Voltage dips seen on Table Mtn, Vaca-Dixon, Collinsville, Tracey 500kV for 2032SOP
P6_1_1-12. TABLE MTN-TESLA #1 500KV LINE & VACA-DIX-TESLA #1 500KV	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	May need additional dynamic reactive support in the Bay Area
P6_1_1-13. TABLE MTN-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV L	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	May need additional dynamic reactive support in the Bay Area
P6_1_1-14. TABLE MTN-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	May need additional dynamic reactive support in the Bay Area

Study Area:

PG&E Bulk

Transient Stability



P6_1_1-15. TABLE MTN-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500K	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	May need additional dynamic reactive support in the Bay Area
P6_1_1-16. VACA-DIX-TESLA #1 500KV LINE & TRACY-TESLA #1 500KV LI	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-17. VACA-DIX-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-18. VACA-DIX-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-19. TRACY-TESLA #1 500KV LINE & TESLA-METCALF #1 500KV LIN	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-20. TRACY-TESLA #1 500KV LINE & TESLA-LOS BANOS #1 500KV LI	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-21. TESLA-METCALF #1 500KV LINE & TESLA-LOS BANOS #1 500KV	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-74. OLINDA-TRACY #1 500KV LINE & TRACY-LOS BANOS #1 500KV L	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_1-75. TRACY-TESLA #1 500KV LINE & TRACY-LOS BANOS #1 500KV LI	P6	L-1/L-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-8. TABLE MTN-TESLA #1 500KV LINE & TESLA #2 500/230KV BAN	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	May need additional dynamic reactive support in the Bay Area
P6_1_2-9. VACA-DIX-TESLA #1 500KV LINE & TESLA #2 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	N/A	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-11. TESLA-METCALF #1 500KV LINE & TESLA #2 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-12. TESLA-LOS BANOS #1 500KV LINE & TESLA #2 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-15. TESLA-METCALF #1 500KV LINE & METCALF #11 500/230KV BA	P6	L-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-39. OLINDA-TRACY #1 500KV LINE & TRACY #1 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-40. TRACY-TESLA #1 500KV LINE & TRACY #1 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-41. TRACY-LOS BANOS #1 500KV LINE & TRACY #1 500/230KV BANK	P6	L-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_1_2-42. ROUND MT-RM_DRS #1 500KV LINE & RM_DRS #1 500/230KV BA	P6	L-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_1_2-43. ROUND MT-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV BA	P6	L-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_1_2-44. TABLE MTN-RM_DRS #1 500KV LINE & RM_DRS #1 500/230KV B	P6	L-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_1_2-45. TABLE MTN-RM_DRS #2 500KV LINE & RM_DRS #1 500/230KV B	P6	L-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_2_2-0. TESLA #2 & #4 500/230KV BANK	P6	T-1/T-1	no issues	no issues	no issues	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_2_2-5. TRACY #1 & #2 500/230KV BANK	P6	T-1/T-1	no issues	Potential WECC/NERC criteria violation	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	May need additional dynamic reactive support in the Bay Area
P6_2_2-10. ROUND MOUNTAIN 500/230KV & TABLE MOUNTAIN 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_2_2-11. TABLE MOUNTAIN 500/230KV & VACA DIXON 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	Review of 2032 base case and var support requirements
P6_2_2-12. TABLE MOUNTAIN 500/230KV & TESLA 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	Review of 2032 base case and var support requirements
P6_2_2-13. VACA DIXON 500/230KV & TESLA 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	Potential WECC/NERC criteria violation	no issues	Review of 2032 base case and var support requirements
P6_2_2-19. METCALF 500/230KV & MOSS LANDING 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_2_2-20. MOSS LANDING 500/230KV & LOS BANOS 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_2_2-21. LOS BANOS 500/230KV & GATES 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements
P6_2_2-22. LOS BANOS 500/230KV & MIDWAY 11 500/230KV	P6	T-1/T-1	no issues	no issues	Potential WECC/NERC criteria violation	N/A	no issues	no issues	Review of 2032 base case and var support requirements

Study Area: PG&E Bulk



Single Contingency Load Drop

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)												Potential Mitigation Solutions
			2024 Summer Peak	2027 Summer Peak	2032 Summer Peak	2024 Winter Peak	2027 Winter Peak	2032 Winter Peak	2024 Spring Off-Peak	2027 Spring Off-Peak	2032 Spring Off-Peak	2027 SP High CEC Forecast	2024 SP Heavy Renewable & Min Gas Gen	2024 OP Sensitivity	

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

Study Area: PG&E Bulk



Single Source Substation with more than 100 MW Load

Substation	Load Served (MW)													Potential Mitigation Solutions
	2024 Summer Peak	2027 Summer Peak	2032 Summer Peak	2024 Winter Peak	2027 Winter Peak	2032 Winter Peak	2024 Spring Off-Peak	2027 Spring Off-Peak	2032 Spring Off-Peak	2027 SP High CEC Forecast	2024 SP Heavy Renewable & Min Gas Gen	2024 OP Sensitivity	2032 SP with Additional Transportation Electrification	

No single source substation with more than 100 MW