

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions	
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak			
Birds Landing-CC Sub 230kV Line	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and BIRDS LANDING SW STA-CONTRA COSTA PP 230KV [5830]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	102	< 100	NA	Sensitivity only
	BIRDS LANDING SW STA-CONTRA COSTA PP 230KV [5830] and GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	102	< 100	Diverge	Sensitivity only
Contra Costa-Lonetree 230kV Line	C.COSTAPPE - 2E 230KV & BV1STAWNDC1-DELTAPMP-C.COSTAPPE LINE	P2	43	<100	53	46	46	49	116	4	Diverge	3	0	< 100	51	Diverge		Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
Contra Costa-Las Positas 230kV Line	MOSSLAND-LOS BANOS 500KV and TESLA-METCALF 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	107	< 100	< 100	< 100	< 100	107	Diverge	Continue to monitor
Pittsburg-San Ramon 230kV Line	PITTSBG D 230KV SECTION 1D	P2	33	<100	<100	49	< 100	< 100	5	< 100	< 100	101	47	< 100	< 100	< 100	< 100		Sensitivity only
Pittsburg-TBC 230kV section	DEC STG1 18.00KV & DEC CTG1 18.00KV & DEC CTG2 18.00KV & DEC CTG3 18.00KV GEN UNITS	P1	93	93	100	92	92	94	93	92	Diverge	94	93	93	99	Diverge		Continue to monitor	
	TESLA-METCALF 500KV	P1	81	79	88	50	41	77	44	25	Diverge	57	57	81	103	Diverge		Sensitivity only	
	NEWARK D 230KV SECTION 1D	P2	86	106	108	55	70	91	48	43	134	64	54	109	121	132	Diverge	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.	
	C.COSTAPPE 230KV SECTION 1E	P2	55	76	73	72	72	80	167	8	Diverge	11	15	67	79	Diverge		Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	NEWARK E 230KV - SECTION 1E & 2E	P2	81	83	102	52	52	82	47	28	121	52	53	83	99	94	Diverge	Continue to monitor	
	DEC STG1 18.00KV & DEC CTG1 18.00KV & DEC CTG2 18.00KV & DEC CTG3 18.00KV GEN UNITS and CONTRA COSTA-LAS POSITAS 230KV [4510]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	105	NA		Sensitivity only	
	TESLA-NEWARK #2 230KV [5354] and CONTRA COSTA-LAS POSITAS 230KV [4510]	P6	< 100	< 100	107	< 100	< 100	< 100	< 100	< 100	100	< 100	< 100	< 100	< 100	NA		Continue to monitor	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	102	83	93	53	50	83	49	27	122	59	53	82	93	105	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	7	93	101	63	53	98	57	29	Diverge	63	15	91	94	Diverge		Continue to monitor	
	NEWARK D 230KV SECTION 1D	P2	94	118	86	61	77	75	56	51	105	72	64	122	100	103	Diverge	Project: North Dublin -Vineyard 230 kV Reconducting	
	C.COSTAPPE 230KV SECTION 1E	P2	58	82	56	82	82	65	195	14	Diverge	12	22	72	62	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	C.COSTAPPE 230KV SECTION 2E	P2	58	82	56	82	82	66	195	15	Diverge	12	22	10	62	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE	P2	58	82	56	82	82	65	195	14	Diverge	12	22	72	62	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	C.COSTAPPE - 2E 230KV & BV1STAWNDC1-DELTAPMP-C.COSTAPPE LINE	P2	58	82	56	82	82	66	195	15	Diverge	12	22	10	62	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	88	91	71	61	57	72	57	40	Diverge	66	68	101	79	Diverge		Sensitivity only	
	C.COSTAPPE 230KV - SECTION 1E & 2E	P2	58	82	56	82	82	65	195	14	Diverge	12	22	72	62	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	ROSSMOOR-MORAGA-C.COSTAPPE 230KV [0] and CONTRA COSTA-LAS POSITAS 230KV [4510]	P6	106	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA		Project: North Dublin -Vineyard 230 kV Reconducting	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	114	91	73	61	55	68	57	34	95	66	62	90	74	80	Diverge	Project: North Dublin -Vineyard 230 kV Reconducting	
	Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	22	102	81	72	59	81	66	36	Diverge	71	22	100	75	Diverge		Project: North Dublin -Vineyard 230 kV Reconducting	
	Base Case	P0	NA	NA	101	NA	NA	103	NA	NA	73	NA	NA	NA	103	75		Continue to monitor	
	GRANT 115KV SECTION MD	P2	NA	NA	98	NA	NA	100	NA	NA	< 100	NA	NA	NA	96	< 100		Continue to monitor	
	MORAGA 230KV - SECTION 2D & 2E	P2	NA	NA	99	NA	NA	101	NA	NA	100	NA	NA	NA	99	100		Continue to monitor	
	MORAGA 230KV - SECTION 2D & 1D	P2	NA	NA	103	NA	NA	103	NA	NA	103	NA	NA	NA	104	100		Continue to monitor	
	Grant-Eastshore Nos. 1 & 2 115 KV lines	P7	NA	NA	102	NA	NA	104	NA	NA	Diverge	NA	NA	NA	51	Diverge		Continue to monitor	
	MORAGA.D SECTION 2D & MORAGA.E SECTION 2E 115KV	P2	107	91	109	74	78	113	72	45	141	108	70	109	93	141	Diverge	Project: Moraga 230 kV Bus Upgrade	
	MORAGA 230/115KV TB 2 and MORAGA 230/115KV TB 3	P6	113	108	124	< 100	< 100	128	< 100	< 100	164	113	< 100	125	112	NA		Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	MORAGA 230KV SECTION 2D	P2	104	102	115	73	79	122	69	46	149	97	70	117	103	143	Diverge	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	MORAGA 230KV - SECTION 2D & 2E	P2	NA	100	113	NA	75	114	NA	44	134	NA	NA	115	107	128	Diverge	Project: Moraga 230 kV Bus Upgrade	
	MORAGA 230/115KV TB 1 and MORAGA 230/115KV TB 2	P6	113	107	124	< 100	< 100	128	< 100	< 100	163	113	< 100	125	112	NA		Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	TESLA-NEWARK #2 230KV [5354]	P1	77	73	85	32	30	57	33	21	Diverge	43	53	79	106	Diverge		Sensitivity only	
	NEWARK E 230KV SECTION 2E	P2	106	85	100	42	29	63	43	20	Diverge	66	72	91	119	Diverge		Project: Moraga-Castro Valley 230 kV Line Capacity Increase	
	NEWARK E - 2E 230KV & NEWARK E-TASSAJAR-RESEARCH LINE	P2	106	86	101	42	29	63	43	20	98	67	73	92	119	96	Diverge	Project: Moraga-Castro Valley 230 kV Line Capacity Increase	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	111	72	87	37	26	56	38	14	Diverge	45	61	78	121	Diverge		Project: Moraga-Castro Valley 230 kV Line Capacity Increase	
	PITTSBURG-E 230KV - SECTION 1D & 1E	P2	NA	62	73	NA	25	47	NA	19	Diverge	NA	NA	68	106	Diverge		Sensitivity only	
	PITTSBURG-D SECTION 1D & PITTSBURG-E SECTION 1E 230KV	P2	NA	73	87	NA	30	54	NA	20	Diverge	NA	NA	84	128	Diverge		Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT3 15.00KV GEN UNITS and TESLA-NEWARK #2 230KV [5354]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	115	NA		Sensitivity only	
	TESLA-NEWARK #2 230KV [5354] and TESLA-NEWARK #1 230KV [5720]	P6	< 100	< 100	104	< 100	< 100	< 100	< 100	< 100	106	< 100	< 100	< 100	124	NA		Continue to monitor	
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	123	78	109	35	35	67	37	29	114	56	57	83	124	110	Diverge	Project: Moraga-Castro Valley 230 kV Line Capacity Increase	

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			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	101	79	96	34	34	63	37	24	109	49	54	86	116	122	Project: Moraga-Castro Valley 230 kV Line Capacity Increase	
	Contra Costa-Las Positas 230 KV and North Dublin-Vineyard 230 KV lines	P7	88	66	93	42	34	70	44	26	Diverge	50	68	73	123	Diverge	Sensitivity only	
	Pittsburg-San Mateo 230 KV and Pittsburg-East Shore 230 KV lines	P7	68	65	79	31	26	51	31	20	Diverge	35	51	71	109	Diverge	Sensitivity only	
	Contra Costa - Las Positas 230 KV and Contra Costa-Lonetree 230 KV lines	P7	91	57	94	42	33	69	44	24	Diverge	51	71	63	109	Diverge	Sensitivity only	
San Ramon-Moraga 230KV Line	PITSBG D 230KV SECTION 1D	P2	19	<100	<100	21	<100	<100	21	<100	<100	130	20	<100	<100	<100	Sensitivity only	
Castro Valley-Newark 230KV Line	NEWARK E 230KV SECTION 2E	P2	107	82	92	36	17	54	42	23	Diverge	71	77	89	114	Diverge	Project: Collinsville 500 kV new Station	
	NEWARK E - 2E 230KV & NEWARK E-TASSAJAR-RESEARCH LINE	P2	107	83	92	36	17	54	42	23	Diverge	71	77	89	114	Diverge	Project: Collinsville 500 kV new Station	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	112	65	71	30	13	43	36	17	Diverge	44	63	71	114	Diverge	Project: Collinsville 500 kV new Station	
	PITTSBURG-D SECTION 1D & PITTSBURG-E SECTION 1E 230KV	P2	NA	65	73	NA	18	41	NA	26	Diverge	NA	NA	78	123	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and TESLA-NEWARK #2 230KV [5354]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	106	NA	Sensitivity only	
	CONTRA COSTA-LAS POSITAS 230KV [4510] and TESLA-NEWARK #2 230KV [5354]	P6	113	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	108	NA	Project: Collinsville 500 kV new Station	
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	127	71	99	28	24	57	34	36	Diverge	57	58	77	119	Diverge	Project: Collinsville 500 kV new Station	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	100	72	84	27	23	51	34	30	85	50	55	81	110	90	Sensitivity only	
	Contra Costa-Las Positas 230 KV and North Dublin-Vineyard 230 KV lines	P7	85	58	80	35	22	60	42	32	Diverge	51	71	65	118	Diverge	Sensitivity only	
	Contra Costa-Brentwood 230 KV and Contra Costa-Delta Switching Yard 230 KV lines	P7	56	50	46	24	9	28	27	23	<100	24	104	59	66	<100	Sensitivity only	
Pittsburg-Eastshore 230KV Line	Brentwood-Kelso 230 KV and Contra Costa-Delta Switching Center 230 KV lines	P7	53	46	44	23	9	28	26	23	<100	23	102	56	64	<100	Sensitivity only	
	Contra Costa - Las Positas 230 KV and Contra Costa-Lonetree 230 KV lines	P7	88	46	82	35	22	58	42	31	Diverge	51	75	53	102	Diverge	Sensitivity only	
	Contra Costa - Las Positas 230 KV and Lonetree - Cayetano 230 KV lines	P7	86	58	81	35	22	58	43	32	Diverge	51	75	66	102	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P1	67	77	100	41	55	70	30	20	Diverge	25	40	78	118	Diverge	Continue to monitor	
Eastshore-San Mateo 230KV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and PITTSBURG-SAN MATEO 230KV [5463]	P3	<100	<100	103	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	122	Diverge	Continue to monitor	
	SAN LEANDRO-OAKLND J #1 115KV [3520] and RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P6	<100	<100	105	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	110	Diverge	Continue to monitor	
Tassajara-Newark 230KV Line	NEWARK-RAVENSWOOD 230KV [5936] and TESLA-RAVENSWOOD 230KV [5730]	P6	<100	<100	103	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Continue to monitor	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	100	94	Diverge	69	78	84	38	18	84	47	72	93	91	64	Project: Collinsville 500 kV new Station	
Brentwood-Kelso 230KV Line	PITSBG D 230KV SECTION 2D	P2	84	NA	NA	75	NA	NA	52	NA	NA	48	110	NA	NA	NA	Sensitivity only	
	PITSBG D - 2D 230KV & PITSBG D-TBC PTB1 #1 LINE	P2	84	NA	NA	75	NA	NA	52	NA	NA	48	110	NA	NA	NA	Sensitivity only	
Cayetano-Lone Tree (Lone Tree-USWP) 230KV Line	MORAGA 230KV - SECTION 2D & 1D	P2	76	7	37	31	4	7	24	3	Diverge	22	107	10	18	Diverge	Sensitivity only	
	Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	71	17	16	32	7	17	23	5	Diverge	24	104	23	15	Diverge	Sensitivity only	
	TESLA-METCALF 500KV	P1	94	76	95	45	34	71	43	22	Diverge	62	79	97	101	Diverge	Sensitivity only	
	NEWARK D 230KV SECTION 1D	P2	99	110	119	53	63	89	49	42	137	68	76	132	124	135	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.	
	NEWARK E 230KV SECTION 1E	P2	86	75	92	46	40	72	43	22	Diverge	51	70	95	100	Diverge	Sensitivity only	
	C.COSTAPPE 230KV SECTION 2E	P2	60	72	76	70	68	76	192	8	Diverge	12	7	11	73	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	PITTSBURG-E 230KV SECTION 1E	P2	NA	71	89	NA	36	68	NA	20	Diverge	NA	NA	90	100	Diverge	Sensitivity only	
	C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE	P2	60	72	76	70	68	75	192	8	Diverge	12	7	78	72	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	C.COSTAPPE - 2E 230KV & BVISTAWNDC1-DELTAAMP-C.COSTAPPE LINE	P2	60	72	76	70	68	76	192	8	Diverge	12	7	11	73	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	PITTSBURG-E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	NA	71	89	NA	37	69	NA	20	Diverge	NA	NA	90	100	Diverge	Sensitivity only	
Wind Master - Delta 230 KV Line	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	93	81	98	52	46	85	49	31	Diverge	63	80	110	95	Diverge	Sensitivity only	
	NEWARK E 230KV - SECTION 1E & 2E	P2	94	82	110	48	44	79	47	24	124	57	74	99	95	92	Continue to monitor	
	C.COSTAPPE 230KV - SECTION 1E & 2E	P2	60	72	76	70	68	75	192	8	Diverge	12	7	78	72	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	MORAGA 230KV - SECTION 2E & 1E	P2	NA	79	96	NA	40	78	NA	23	Diverge	NA	NA	97	103	Diverge	Sensitivity only	
	GRNRDG 0.69KV GEN UNIT 1 and CONTRA COSTA-LAS POSITAS 230KV [4510]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	104	NA	Sensitivity only	
	TESLA-NEWARK #2 230KV [5354] and CONTRA COSTA-LAS POSITAS 230KV [4510]	P6	<100	<100	115	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Continue to monitor	
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	13	80	100	53	46	86	51	28	Diverge	72	78	109	92	Diverge	Sensitivity only	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	119	82	100	49	44	79	50	23	124	63	75	98	89	101	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.	
	Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	13	92	110	59	47	97	59	26	Diverge	67	7	108	90	Diverge	Continue to monitor	
	Base Case	C.COSTAPPE 230KV SECTION 1E	P2	132	108	64	82	19	98	64	47	102	60	143	140	109	79	Project: Contra Costa PP 230 kV Line Terminals Reconfiguration Project
C.COSTAPPF 230KV SECTION 2F		P2	52	47	1	60	15	37	56	12	Diverge	28	105	66	35	Diverge	Sensitivity only	
C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE		P2	132	108	65	82	19	98	64	47	103	60	143	140	109	79	Project: Contra Costa PP 230 kV Line Terminals Reconfiguration Project	
C.COSTAPPF - 2F 230KV & CONTRA COSTA-MORAGA #2 LINE		P2	52	47	1	60	15	37	56	12	Diverge	28	105	66	35	Diverge	Sensitivity only	
MORAGA 230KV - SECTION 2D & 1D		P2	144	36	3	66	13	33	65	14	Diverge	3	162	50	25	Diverge	Project: Collinsville 500 kV new Station	
Contra Costa-Las Positas 230 KV and North Dublin-Vineyard 230 KV lines		P7	69	40	27	64	23	57	62	22	Diverge	2	103	53	63	Diverge	Sensitivity only	
Contra Costa-Moraga Nos. 1 & 2 230 KV lines		P7	137	60	25	66	25	63	64	21	Diverge	2	157	69	61	Diverge	Project: Collinsville 500 kV new Station	
Contra Costa - Las Positas 230 KV and Contra Costa-Lonetree 230 KV lines		P7	72	29	30	64	24	55	62	20	Diverge	2	106	42	59	Diverge	Sensitivity only	
Contra Costa - Las Positas 230 KV and Lonetree - Cayetano 230 KV lines		P7	70	38	27	63	23	54	61	21	Diverge	3	105	54	56	Diverge	Sensitivity only	
TABLE MT-TESLA 500KV and VACA-DIX-TESLA 500KV		P6	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	Sensitivity only
NEWARK E 230KV - SECTION 1E & 2E	P2	95	92	94	49	41	99	59	40	96	60	81	98	109	98	Sensitivity only		

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			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak			
Las Positas-Newark 230kV Line	RUSCTYECT1 18.00KV & RUSCTYECT2 15.00KV & RUSCTYECT11 15.00KV GEN UNITS and NORTH DUBLIN-CAYETANO 230KV [4500]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	104	116	NA	Sensitivity only
	TESLA-NEWARK #1 230KV [5720] and TESLA-NEWARK #2 230KV [5354]	P6	< 100	103	115	< 100	< 100	< 100	< 100	< 100	< 100	118	< 100	< 100	113	119	119	NA	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	39	94	100	53	44	96	64	46	Diverge	83	86	97	104	104	Diverge	Sensitivity only	
	Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	44	98	93	62	43	98	74	42	Diverge	77	18	149	98	Diverge	Sensitivity only		
Cayetano-Lone Tree (USWP-Cayetano) 230kV Line	MOSSLAND-LOS BANOS 500KV and TESLA-METCALF 500KV	P6	106	< 100	104	< 100	< 100	114	< 100	< 100	111	< 100	< 100	105	114	111	111	NA	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.
	Base Case	P0	94	96	94	56	42	87	67	33	102	70	97	100	102	98	98	NA	Continue to monitor
	TESLA-METCALF 500KV	P1	94	94	95	54	40	82	59	32	Diverge	73	95	98	107	Diverge	Sensitivity only		
	NEWARK D 230KV SECTION 1D	P2	99	128	119	61	68	100	64	52	147	79	92	133	130	144	144	NA	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.
	NEWARK E 230KV SECTION 1E	P2	86	92	92	55	45	83	59	32	Diverge	62	86	96	106	Diverge	Sensitivity only		
	C.COSTAPPE 230KV SECTION 1E	P2	60	89	76	78	73	86	208	7	Diverge	3	10	79	78	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation		
	C.COSTAPPE 230KV SECTION 2E	P2	60	89	76	78	73	86	208	7	Diverge	3	10	12	78	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation		
	C.COSTAPPD 230KV SECTION 1D	P2	50	46	82	6	84	102	10	8	Diverge	4	10	36	90	Diverge	Continue to monitor		
	PITTSBURG-E 230KV SECTION 1E	P2	NA	88	89	NA	42	79	NA	30	Diverge	NA	NA	92	106	Diverge	Sensitivity only		
	C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE	P2	60	89	76	78	73	86	208	7	Diverge	3	10	79	78	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation		
	C.COSTAPPE - 2E 230KV & BVISTAWNDC1-DELTA PMP-C.COSTAPPE LINE	P2	60	89	76	78	73	86	208	7	Diverge	3	10	12	78	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation		
	C.COSTAPPD - 1D 230KV & MARSHLD1-C.COSTAPPD #1 LINE	P2	50	46	82	6	84	102	10	8	Diverge	4	10	36	90	Diverge	Continue to monitor		
	PITTSBURG-E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	NA	88	89	NA	42	79	NA	30	Diverge	NA	NA	92	107	Diverge	Sensitivity only		
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	93	99	98	60	51	96	65	41	Diverge	74	96	112	101	Diverge	Sensitivity only		
	NEWARK E 230KV - SECTION 1E & 2E	P2	94	100	110	57	49	89	63	34	132	68	90	100	102	100	100	NA	Continue to monitor
	C.COSTAPPE 230KV - SECTION 1E & 2E	P2	60	89	76	78	73	86	208	7	Diverge	3	10	79	78	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation		
	C.COSTAPPD SECTION 1D & C.COSTAPPE SECTION 1E 230KV	P2	99	83	82	60	44	102	64	35	Diverge	79	94	86	90	Diverge	Continue to monitor		
	MORAGA 230KV - SECTION 2E & 1E	P2	NA	97	96	NA	46	89	NA	33	Diverge	NA	NA	98	109	Diverge	Sensitivity only		
	CONTRA COSTA-MORAGA #2 230KV [5453] and ROSSMOOR-MORAGA-C.COSTAPPE 230KV [0]	P6	103	105	101	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	103	110	110	Diverge	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.		
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	14	97	100	61	52	97	67	38	Diverge	84	94	110	98	Diverge	Sensitivity only		
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	119	99	100	58	49	90	65	33	133	75	90	99	95	110	110	NA	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.	
Tesla - Newark No.2 and Newark - Los Esteros 230 KV Lines	P7	90	94	96	57	47	86	62	32	Diverge	68	86	98	100	Diverge	Sensitivity only			
Contra Costa-Moraga Nos. 1 & 2 230 KV lines	P7	14	110	110	68	52	108	75	36	Diverge	79	10	109	96	Diverge	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.			
TABLE MT-TESLA 500KV and VACA-DIX-TESLA 500KV	P6	102	102	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105	107	< 100	< 100	NA	Review Lone Tree – Cayetano – Newark Corridor Series Compensation project model.	
Tesla-Newark #1 230kV Line	TESLA-RAVENSWOOD 230KV [5730] and TESLA-NEWARK #2 230KV [5354]	P6	< 100	< 100	105	< 100	< 100	< 100	< 100	< 100	109	< 100	< 100	< 100	< 100	NA	NA	Continue to monitor	
Newark 230/115 kV Transformer #7	NEWARK E 230/115KV TB 11	P1	81	63	79	48	38	57	38	13	Diverge	60	52	66	102	Diverge	88	Sensitivity only	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	69	67	80	49	44	63	39	20	91	61	52	70	106	88	88	Sensitivity only	
	MEC CTG1 18.00KV & MEC CTG2 18.00KV & MEC STG1 18.00KV Gen Units and NEWARK E 230/115KV TB 11	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	102	NA	NA	Sensitivity only
	NEWARK E-F BUS TIE 230KV [4640] and NEWARK E 230/115KV TB 11	P6	112	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	123	Diverge	123	NA	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition
Newark 230/115kV Transformer #11	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	83	69	Diverge	50	48	64	42	20	Diverge	68	50	71	106	Diverge	106	NA	Sensitivity only
	NEWARK E-F BUS TIE 230KV [4640]	P1	98	70	87	53	36	58	43	14	< 100	70	64	74	111	< 100	< 100	NA	Sensitivity only
	NEWARK-LOS ESTEROS 230KV [2970]	P1	92	64	81	50	32	53	40	11	< 100	64	61	67	105	< 100	< 100	NA	Sensitivity only
	COMPONENT SW-TRIMBLE #1 115KV [0]	P1	NA	58	73	NA	37	55	NA	14	< 100	NA	NA	61	108	< 100	< 100	NA	Sensitivity only
	PIERCY-METCALF 115KV [4318]	P1	NA	63	79	NA	39	57	NA	13	Diverge	NA	NA	65	105	Diverge	Diverge	NA	Sensitivity only
	NEWARK D 230/115KV TB 7	P1	93	72	90	55	43	65	44	14	Diverge	68	60	75	116	Diverge	116	NA	Sensitivity only
	TESLA-METCALF 500KV	P1	90	72	89	46	36	60	36	17	Diverge	70	62	76	107	Diverge	107	NA	Sensitivity only
	SSS-NRIserv SVP 230 kV path	P1	81	64	80	49	40	57	42	18	< 100	61	54	67	101	< 100	< 100	NA	Sensitivity only
	Loss of PST 230 kV Path	P1	81	64	80	49	40	57	42	18	< 100	61	54	67	101	< 100	< 100	NA	Sensitivity only
	NEWARK D 230KV SECTION 1D	P2	93	96	129	55	73	95	44	33	149	67	51	100	148	145	145	NA	Continue to monitor
	NEWARK E 230KV SECTION 1E	P2	128	118	146	61	74	96	50	27	151	79	64	121	163	150	150	NA	Contingency under review
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	130	62	86	71	32	54	59	8	Diverge	89	78	66	102	Diverge	102	NA	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 115KV	P2	95	62	85	50	29	53	40	9	100	65	62	66	137	106	106	NA	Continue to monitor
	NEWARK D 230KV - SECTION 2D & 1D	P2	102	94	120	62	65	91	50	23	138	74	58	99	149	134	134	NA	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition. Long-term: Potential San Jose area transmission upgrade
	MEC CTG1 18.00KV & MEC CTG2 18.00KV & MEC STG1 18.00KV Gen Units and NEWARK D 230/115KV TB 7	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	118	NA	NA	NA	Sensitivity only
	NEWARK E-F BUS TIE 230KV [4640] and NEWARK D 230/115KV TB 7	P6	130	< 100	114	< 100	< 100	< 100	< 100	< 100	116	< 100	< 100	< 100	142	NA	NA	NA	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition. Long-term: Potential San Jose area transmission upgrade
Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	97	80	Diverge	58	54	74	49	23	Diverge	78	58	82	124	Diverge	124	NA	Sensitivity only	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	103	72	92	55	38	61	47	15	Diverge	75	65	75	119	Diverge	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition	
	Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	84	70	88	51	46	64	42	15	Diverge	62	51	73	118	Diverge	Sensitivity only	
	Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	78	61	75	46	36	55	37	11	Diverge	57	50	64	109	Diverge	Sensitivity only	
	Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	75	58	73	45	35	53	36	11	<100	54	49	61	105	<100	Sensitivity only	
METCALF-MOSSLAND 500KV and TESLA-METCALF 500KV		P6	110	<100	113	<100	<100	<100	<100	<100	117	<100	<100	<100	<100	132	Potential San Jose area long-term transmission upgrade	
Newark-Newark Dist 230kV section	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and LOS ESTEROS-METCALF 230KV [5353]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	105	NA	Sensitivity only	
	MOSSLAND-LOSBANOS 500KV and TESLA-METCALF 500KV	P6	120	<100	113	<100	<100	<100	<100	<100	<100	124	<100	<100	<100	<100	Potential San Jose area long-term transmission upgrade	
Newark-Los Esteros 230 kV Line	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and LOS ESTEROS-METCALF 230KV [5353]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	107	NA	Sensitivity only	
	MOSSLAND-LOSBANOS 500KV and TESLA-METCALF 500KV	P6	121	<100	114	<100	<100	<100	<100	<100	<100	128	<100	<100	<100	<100	Potential San Jose area long-term transmission upgrade	
Tesla-Newark #2 230KV Line	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	117	90	96	36	59	61	38	30	110	78	36	91	95	111	Project: Tesla - Newark 230 kV Line No. 2 Reconductoring	
Martin C - Martin S1 230 kV Line	METCALF-MOSSLAND 500KV and TESLA-METCALF 500KV	P6	101	<100	<100	<100	<100	<100	<100	<100	104	<100	<100	<100	<100	109	Continue to monitor	
	POTRERO-TBC_POT1 #1 115KV [0] and JEFFERSN-EGBERTSWSTA 230KV [0]	P6	<100	<100	105	<100	<100	<100	104	<100	<100	100	<100	<100	<100	<100	NA	Continue to monitor
Pittsburg-San Mateo 230KV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and PITTSBURG-EASTSHORE 230KV [5462]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	100	NA	Sensitivity only	
	EASTSHORE-SAN MATEO 230KV [4650] and NEWARK-RAVENSWOOD 230KV [5936]	P6	<100	<100	105	<100	<100	<100	<100	<100	114	<100	<100	<100	105	Diverge	Continue to monitor	
San Mateo 230/115 kV Transformer #5	SANMATEO 230/115KV TB 6 and SANMATEO 230/115KV TB 7	P6	113	111	124	<100	101	121	<100	<100	135	<100	<100	113	109	NA	Mitigation under development.	
San Mateo 230/115kV Transformer #6	SANMATEO 230KV - Section 1D & 1E	P2	105	NA	NA	74	NA	NA	47	NA	NA	63	62	NA	NA	NA	Project: Martin 230 kV Bus Extension	
San Mateo 230/115kV Transformer #7	SANMATEO 230/115KV TB 5 and SANMATEO 230/115KV TB 7	P6	114	111	124	<100	102	121	<100	<100	119	<100	<100	113	109	NA	Mitigation under development.	
San Mateo 230/115kV Transformer #7	SANMATEO 230/115KV TB 5 and SANMATEO 230/115KV TB 6	P6	118	115	129	<100	105	125	<100	<100	109	<100	<100	117	113	NA	Mitigation under development.	
Monta Vista-Saratoga 230 kV Line	MONTA VISTA-COYOTE SW STA 230KV [5090] and HICKS-METCALF 230KV [4910]	P6	<100	<100	<100	<100	<100	<100	<100	<100	120	<100	<100	<100	103	NA	Continue to monitor	
Monta Vista-Hicks 230 kV Line	METCALF 230KV - Section 1D & 1E	P2	87	NA	114	61	NA	101	57	NA	146	83	38	NA	118	151	Continue to monitor	
	METCALF-MONTA VISTA #3 230KV [5091] and MONTA VISTA-COYOTE SW STA 230KV [5090]	P6	<100	<100	112	<100	<100	103	<100	<100	140	<100	<100	<100	115	NA	Continue to monitor	
	Metcalf-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	73	NA	NA	59	NA	NA	57	NA	126	70	44	NA	104	127	Continue to monitor	
Saratoga-Vasona 230 kV Line	MONTAVIS 230KV - Section 1E & 2E	P2	68	73	93	49	64	77	52	42	134	60	41	73	100	127	Continue to monitor	
	METCALF 230KV - Section 2D & 2E	P2	91	64	104	58	52	103	61	42	130	81	41	64	94	136	Continue to monitor	
	MONTA VISTA-COYOTE SW STA 230KV [5090] and HICKS-METCALF 230KV [4910]	P6	<100	<100	115	<100	<100	<100	<100	<100	145	<100	<100	<100	118	NA	Continue to monitor	
	Metcalf-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	72	77	98	51	67	80	54	43	133	64	42	77	106	134	Continue to monitor	
Contra Costa - BDLSWSTA 230 kV Line	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and BIRDS LANDING SW STA-CONTRA COSTA SUB 230KV [6161]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	104	<100	NA	Sensitivity only	
	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and BIRDS LANDING SW STA-CONTRA COSTA SUB 230KV [6161]	P6	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	104	<100	NA	Sensitivity only	
Contra Costa - Wind Master 230 kV line	C.COSTAPPE 230KV SECTION 2E	P2	94	83	70	62	27	86	45	35	104	65	89	104	88	85	Continue to monitor	
	C.COSTAPPE - 2E 230KV & BVISTAWNDC1-DELTA-PMP-C.COSTAPPE LINE	P2	95	83	70	62	27	86	45	35	104	65	89	104	88	85	Continue to monitor	
	CONTRA COSTA-LAS POSITAS 230KV [4510] and CONTRA COSTA-MORAGA #2 230KV [5453]	P6	104	<100	<100	<100	<100	<100	<100	<100	113	<100	<100	<100	<100	NA	Project: Collinsville 500 kv new Station	
Contra Costa-Windmaster 230 kV Line	C.COSTAPPE 230KV SECTION 1E	P2	124	100	62	86	18	94	58	43	99	55	144	133	107	75	Project: Contra Costa PP 230 kV Line Terminals Reconfiguration Project	
Lawrence - Phillips 115 kV line	C.COSTAPPE 230KV SECTION 2F	P2	44	40	5	62	15	33	50	7	Diverge	33	106	59	34	Diverge	Sensitivity only	
Contra Costa-Windmaster 230 kV Line	C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE	P2	124	101	62	86	18	94	58	43	99	55	144	133	107	75	Project: Contra Costa PP 230 kV Line Terminals Reconfiguration Project	
Lawrence - Phillips 115 kV line	C.COSTAPPE - 2F 230KV & CONTRA COSTA-MORAGA #2 LINE	P2	44	40	5	62	15	33	50	7	Diverge	33	107	59	34	Diverge	Sensitivity only	
	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and BIRDS LANDING SW STA-CONTRA COSTA SUB 230KV [6161]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	104	<100	NA	Sensitivity only	
	Contra Costa-Las Positas 230 kV and North Dublin-Vineyard 230 kV lines	P7	61	33	25	66	23	53	56	17	Diverge	8	104	46	61	Diverge	Sensitivity only	
	Contra Costa-Moraga Nos. 1 & 2 230 kV lines	P7	129	53	23	68	25	59	58	17	Diverge	6	158	61	59	Diverge	Project: Lone Tree - Cayetano - Newark Corridor Series Compensation	
	Contra Costa - Las Positas 230 kV and Contra Costa-Lonetree 230 kV lines	P7	64	22	29	66	24	52	56	15	Diverge	8	107	35	58	Diverge	Sensitivity only	
	Contra Costa - Las Positas 230 kV and Lonetree - Cayetano 230 kV lines	P7	61	31	26	66	23	50	54	15	Diverge	9	106	47	54	Diverge	Sensitivity only	
	TABLE MT-TESLA 500KV and VACA-DIX-TESLA 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	130	<100	<100	<100	Sensitivity only
Contra Costa - Rossmoor 230 kV line	CONTRA COSTA-LAS POSITAS 230KV [4510] and ROSSMOOR-MORAGA-C.COSTAPPE 230KV [0]	P6	101	<100	<100	<100	<100	<100	<100	<100	108	<100	<100	<100	<100	NA	Project: Lone Tree - Cayetano - Newark Corridor Series Compensation	
Contra Costa - Brentwood 230 kV line	TABLE MT-TESLA 500KV and VACA-DIX-TESLA 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	105	<100	<100	<100	Sensitivity only	
NEWARKHVDC-NEWARK D #1 230KV [0]	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	121	113	NA	101	102	NA	103	117	NA	NA	116	127	119	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	FMC-SAN JOSE B 115KV [2021]	P1	NA	96	92	NA	78	79	NA	76	Diverge	NA	NA	92	105	Diverge	Sensitivity only	
	KIFER-FMC 115KV [2020]	P1	NA	93	89	NA	75	76	NA	74	Diverge	NA	NA	88	101	Diverge	Sensitivity only	
	LOS ESTEROS-NORTECH 115KV [4032]	P1	NA	98	99	NA	75	83	NA	62	<100	NA	NA	94	113	<100	Sensitivity only	
	NORTECH-NORTHERN RECEIVING STATION 115KV [1551]	P1	NA	93	95	NA	73	80	NA	60	101	NA	NA	89	106	NA	Continue to monitor	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay Area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay Area Summer Peak		
Los Esteros-Silicon Switching Station 230 kV Line	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	119	111	NA	99	100	NA	101	116	NA	NA	113	127	118	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	NEWARK D 230KV SECTION 1D	P2	88	101	100	72	82	84	86	77	Diverge	87	85	96	110	Diverge	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	NA	125	120	NA	104	107	NA	102	118	NA	NA	119	131	117	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	LS ESTRS 115KV - Middle Breaker Bay 1	P2	NA	98	99	NA	75	83	NA	62	<100	NA	NA	94	113	<100	Sensitivity only	
	NEWARK F 115KV - SECTION 2F & 1F	P2	92	89	90	72	66	71	87	62	Diverge	91	88	85	111	Diverge	Sensitivity only	
	NEWARK D 230KV - SECTION 2D & 1D	P2	NA	100	97	NA	79	82	NA	75	Diverge	NA	NA	96	108	Diverge	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	MTCALF E1-25 25.00KV Gen Unit En and NEWARKHVDC-NEWARK D #1 230KV [0]	P3	<100	<100	115	<100	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	122	Diverge	Potential San Jose area long-term transmission upgrade
	NEWARKHVDC-NEWARK D #1 230KV [0] and FMC-SAN JOSE B 115KV [2021]	P6	<100	126	120	<100	107	109	<100	107	110	<100	<100	120	131	NA	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	Newark-Northern Nos. 1 & 2 115 KV Lines	P7	91	87	88	72	64	69	85	60	<100	89	88	83	110	<100	Sensitivity only	
	Trimble - San Jose B & FMC - San Jose B 115 KV Lines	P7	88	98	93	73	79	80	88	78	Diverge	89	86	93	105	Diverge	Sensitivity only	
Newark - Kifer & FMC - Kifer 115 KV Lines	P7	88	94	92	72	75	77	87	71	Diverge	90	85	89	109	Diverge	Sensitivity only		
Newark - Northern #1 & #2 115 KV Lines	P7	91	87	88	72	64	69	85	60	<100	89	88	83	110	<100	Sensitivity only		
Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	86	91	86	70	71	72	85	71	Diverge	85	85	87	103	Diverge	Sensitivity only		
Metcalf 500/230 kV Trans No. 11	MTCALF 500/230KV TB 12 and MTCALF 500/230KV TB 13	P6	131	<100	135	<100	<100	105	<100	<100	162	114	<100	<100	124	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf 500/230 kV Trans No. 12	MTCALF 500/230KV TB 11 and MTCALF 500/230KV TB 13	P6	135	<100	138	<100	<100	108	<100	<100	157	117	<100	<100	127	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf 500/230 kV Trans No. 13	MEC CTG1 18.00KV & MEC CTG2 18.00KV & MEC STG1 18.00KV Gen Units and MTCALF 500/230KV TB 12	P3	<100	<100	100	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Potential San Jose area long-term transmission upgrade	
	MTCALF 500/230KV TB 11 and MTCALF 500/230KV TB 12	P6	137	<100	141	<100	<100	110	<100	<100	160	119	<100	<100	130	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf-Hicks 230 kV Line	MTCALF 230KV - Section 1D & 1E	P2	81	86	112	53	77	90	51	34	151	68	37	87	116	152	Continue to monitor	
	MTCALF-MONTA VISTA #3 230KV [5091] and MONTA VISTA-COYOTE SW STA 230KV [5090]	P6	<100	<100	111	<100	<100	<100	<100	<100	145	<100	<100	<100	114	NA	Continue to monitor	
Los Esteros-Metcalf 230 kV Line	Metcalf-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	70	75	98	51	68	75	51	38	135	58	40	76	105	136	Continue to monitor	
	NEWARK E-F BUS TIE 230KV [4640]	P1	88	73	92	44	55	63	50	31	111	83	37	72	105	115	Continue to monitor	
	NEWARK E 230KV SECTION 1E	P2	89	73	93	45	55	63	50	32	Diverge	84	37	73	106	Diverge	Sensitivity only	
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	95	78	102	48	59	68	53	35	Diverge	90	41	78	116	Diverge	Potential San Jose area long-term transmission upgrade	
	NEWARK E 230KV - SECTION 1E & 2E	P2	97	82	107	48	60	70	53	33	Diverge	89	41	82	124	Diverge	Potential San Jose area long-term transmission upgrade	
	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and NEWARK E-F BUS TIE 230KV [4640]	P3	<100	<100	<100	<100	<100	<100	<100	<100	<100	122	<100	<100	<100	116	124	Potential San Jose area long-term transmission upgrade
	NEWARK E-F BUS TIE 230KV [4640] and NEWARKHVDC-NEWARK D #1 230KV [0]	P6	<100	<100	105	<100	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	117	Diverge	Potential San Jose area long-term transmission upgrade
	Tesla - Newark No.2 and Newark - Los Esteros 230 KV Lines	P7	82	67	90	40	51	60	47	28	Diverge	78	33	67	104	Diverge	Sensitivity only	
	TRACY-LOSBANOS 500kv and TESLA-LOSBANOS 500kv	P6	<100	<100	<100	<100	<100	<100	<100	<100	<100	102	<100	<100	<100	<100	108	Potential San Jose area long-term transmission upgrade
	Metcalf-Moss Landing No.1 230 kV Line	MTCALF-MOSSLAND 500KV	P1	54	45	61	51	67	84	60	35	98	42	10	42	65	103	Continue to monitor
TESLA-MTCALF 500KV and MTCALF-MOSSLAND 500KV		P6	<100	<100	102	<100	<100	109	<100	<100	139	<100	<100	<100	109	141	Continue to monitor	
MTCALF-MOSS LANDING #2 230KV	MTCALF-MOSSLAND 500KV	P1	54	45	61	51	67	84	60	35	98	42	10	42	65	103	Continue to monitor	
	TESLA-MTCALF 500KV and MTCALF-MOSSLAND 500KV	P6	<100	<100	102	<100	<100	109	<100	<100	139	<100	<100	<100	109	141	Continue to monitor	
Moss Landing 500/230KV Transformer #9	TESLA-MTCALF 500KV and MTCALF-MOSSLAND 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	105	<100	<100	<100	<100	109	Continue to monitor	
	MTCALF-MOSSLAND 500KV and TESLA-MTCALF 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	102	<100	<100	<100	<100	113	Continue to monitor	
Moss Landing - Las Aguilas #2 230 kV Line	TESLA-MTCALF 500KV and MOSSLAND-LOSBANOS 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	<100	169	<100	<100	<100	<100	Sensitivity only	
Moss Landing - Las Aguilas #1 230 kV Line	TESLA-MTCALF 500KV and MOSSLAND-LOSBANOS 500KV	P6	<100	<100	123	<100	<100	141	<100	141	131	<100	<100	<100	141	135	Continue to monitor	
Oleum-El Cerrito STA G #1 115KV Line	SOBRANTE-G #1 115KV [3720] and SOBRANTE-G #2 115KV [3730]	P6	117	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	NA	Project: North Tower 115 kV Looping Project	
	SOBRANTE-G Nos. 1 & 2 115 KV Lines	P7	117	NA	54	83	NA	62	71	NA	<100	55	71	NA	50	<100	Project: North Tower 115 kV Looping Project	
Sobrante-El Cerrito STA G #1 115KV Line	CHRISTIE-SOBRANTE 115KV [1260] and SOBRANTE-G #2 115KV [3730]	P6	<100	<100	101	<100	<100	<100	<100	<100	127	<100	<100	<100	<100	101	NA	Continue to monitor
	SOBRANTE 115KV SECTION 1D	P2	72	65	109	52	39	95	57	19	144	52	54	85	109	163	Continue to monitor	
	SOBRANTE - 1D 115KV & SOBRANTE-GRIZZLY-CLAREMONT #1 LINE	P2	72	65	109	52	39	96	57	19	145	52	54	85	110	164	Continue to monitor	
	SOBRANTE - 1D 115KV & SOBRANTE-R #1 LINE	P2	72	65	109	52	39	95	57	19	145	52	54	85	109	164	Continue to monitor	
	SOBRANTE - 1D 115KV & SOBRANTE-SAN PBLD-STD. OIL LINE	P2	73	66	109	52	40	96	57	19	145	52	54	85	110	163	Continue to monitor	
	SOBRANTE - 1D 115KV & SOBRANTE-NRTH TWR LINE	P2	NA	65	109	NA	39	95	NA	19	145	NA	NA	85	109	163	Continue to monitor	
Sobrante-El Cerrito STA G #2 115KV Line	SOBRANTE 115KV - SECTION 1D & 2D	P2	76	67	113	53	41	100	61	18	148	61	57	90	112	163	Continue to monitor	
	CHRISTIE-SOBRANTE 115KV [1260] and SOBRANTE-G #1 115KV [3720]	P6	<100	<100	101	<100	<100	<100	<100	<100	127	<100	<100	<100	<100	102	NA	Continue to monitor
	SOBRANTE-R #2 115KV [3780]	P1	65	70	85	45	57	104	39	20	117	18	39	71	79	121	Continue to monitor	
	RICHMOND 115KV SECTION 1D	P2	65	70	85	45	57	107	39	20	118	18	39	71	80	121	Continue to monitor	
Sobrante-Richmond STA R #1 115KV Line	SOBRANTE 115KV SECTION 2D	P2	65	70	85	45	57	104	39	20	117	18	39	71	79	120	Continue to monitor	
	SOBRANTE - 2D 115KV & SOBRANTE-STANDARD OIL SW STA #1 LINE	P2	65	70	85	45	57	104	39	20	117	18	39	71	79	120	Continue to monitor	
	SOBRANTE 115KV - SECTION 2E & 2D	P2	65	70	85	45	57	104	39	20	116	18	39	71	78	120	Continue to monitor	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Sobrante-Richmond STA R #2 115kV Line	RICHMOND1-25 25.00KV GEN UNIT VS and SOBRANTE-R #2 115KV [3780]	P3	< 100	< 100	< 100	< 100	< 100	106	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Continue to monitor	
	SOBRANTE-R #1 115KV [3770]	P1	66	71	89	58	74	108	39	20	121	18	40	72	82	124	Continue to monitor	
	SOBRANTE-R #1 115KV [3770] (ELCRTJ2-SOBRANTE)	P2	67	73	86	62	76	106	44	30	119	24	44	74	80	122	Continue to monitor	
	SOBRANTE-R #1 115KV [3770] (RICHMOND-ELCRTJ2)	P2	66	71	89	58	74	108	39	20	121	18	40	72	82	124	Continue to monitor	
	SOBRANTE 115KV SECTION 1D	P2	68	73	86	62	77	106	44	30	119	24	44	74	80	123	Continue to monitor	
	SOBRANTE - 1D 115KV & SOBRANTE-R #1 LINE	P2	66	72	89	59	74	108	40	20	121	18	40	73	82	125	Continue to monitor	
	SOBRANTE 115KV - SECTION 1D & 1E	P2	68	NA	90	62	NA	109	44	NA	124	24	44	NA	83	129	Continue to monitor	
Claremont K - Oakland D #1 115kV Cable	RICHMOND1-25 25.00KV GEN UNIT VS and SOBRANTE-R #1 115KV [3770]	P3	< 100	< 100	< 100	< 100	< 100	106	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Continue to monitor	
Claremont K - Oakland D #1 115kV Cable	K-D #2 115KV [9967] and C-X #2 115KV [9962]	P6	< 100	< 100	105	< 100	< 100	105	< 100	< 100	129	< 100	< 100	< 100	105	NA	Potential North Oakland area long-term transmission upgrade	
Claremont K - Oakland D #2 115kV Cable	K-D #1 115KV [9966] and C-X #2 115KV [9962]	P6	< 100	< 100	103	< 100	< 100	102	< 100	< 100	127	< 100	< 100	< 100	104	NA	Potential North Oakland area long-term transmission upgrade	
Oakland D - Oakland L 115kV Cable	OAK C115 115KV SECTION ME	P2	88	92	110	73	87	107	65	62	139	75	65	93	104	158	Potential North Oakland area long-term transmission upgrade	
	MORAGA.D 115KV SECTION 2D	P2	91	106	119	84	106	110	70	83	105	70	67	90	129	94	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	MORAGA.E 115KV SECTION 2E	P2	101	106	123	84	96	116	74	75	154	90	71	100	107	101	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	OAK C115 - ME 115KV & OAKLAND C-MARITIME LINE	P2	88	92	110	73	87	107	65	62	139	75	65	93	104	158	Potential North Oakland area long-term transmission upgrade	
	MORAGA.D 115KV - SECTION 1D & 2D	P2	91	106	119	84	106	110	70	83	105	70	67	90	129	95	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	C-X #2 115KV [9962] and C-X #3 115KV [9925]	P6	126	132	148	< 100	123	145	< 100	< 100	172	113	< 100	133	143	NA	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
Oakland C - Oakland L #1 115kV Cable	CLARMNT 115KV - SECTION 2D & 1D	P2	104	108	127	74	95	123	56	52	162	83	56	110	119	169	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	K-D #1 115KV [9966] and K-D #2 115KV [9967]	P6	103	108	118	< 100	< 100	121	< 100	< 100	150	< 100	< 100	109	111	NA	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
Oakland C - Oakland X #2 115kV Cable	CLARMNT 115KV - SECTION 2D & 1D	P2	118	123	144	93	111	135	80	77	177	101	80	125	136	138	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	SOBRANTE 230KV - SECTION 2D & 1D	P2	75	77	100	61	68	87	56	48	Diverge	68	56	88	90	Diverge	Potential North Oakland area long-term transmission upgrade	
	DEC STG1 18.00KV & DEC CTG1 18.00KV & DEC CTG2 18.00KV & DEC CTG3 18.00KV GEN UNITS and C-X #3 115KV [9925]	P3	< 100	< 100	101	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	101	< 100	Diverge	Potential North Oakland area long-term transmission upgrade	
	C-X #3 115KV [9925] and D-L #1 115KV [9963]	P6	126	132	148	< 100	123	145	< 100	< 100	178	113	< 100	133	143	NA	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
Oakland J - Grant 115kV Line	Grant-Eastshore Nos. 1 & 2 115 KV lines	P7	53	110	102	29	62	107	31	43	84	43	31	110	0	74	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
San Leandro-Oakland J 115kV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MORAGA-OAKLAND J 115KV [2760]	P3	118	< 100	< 100	< 100	< 100	112	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Potential South Oakland area long-term transmission upgrade	
	E. SHORE 230/115KV TB 2 and E. SHORE 230/115KV TB 1	P6	111	117	126	< 100	< 100	108	< 100	< 100	153	< 100	< 100	119	< 100	NA	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Oakland J - Grant 115kV Line	OAKLAND J-GRANT 115KV [3140] (EDESICT2-GRANT)	P2	63	65	96	37	42	106	44	40	116	52	44	66	70	NA	Potential South Oakland area long-term transmission upgrade	
	GRANT 115KV SECTION MD	P2	63	65	95	37	42	106	44	40	117	52	44	66	70	NA	Potential South Oakland area long-term transmission upgrade	
	MORAGA.E 115KV - SECTION 1E & 2E	P2	110	117	133	65	80	134	67	54	Diverge	87	67	119	123	Diverge	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Christie-Franklin #2 60kV Line	Base Case	P0	55	60	99	34	46	102	32	9	163	22	32	61	92	166	Continue to monitor	
	TABLE MT-TESLA 500KV and METCALF-MOSSLAND 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	120	Continue to monitor
Pittsburg 230/115 kV Transformer #12	LMECCT2 18.00KV & LMECCT1 18.00KV & LMECST1 18.00KV GEN UNITS and PITSBG D 230/115KV TB 13	P3	109	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Pittsburg 230/115 kV Transformer Capacity Increase	
Pittsburg 230/115 kV Transformer #13	LMECCT2 18.00KV & LMECCT1 18.00KV & LMECST1 18.00KV GEN UNITS and PITSBG D 230/115KV TB 12	P3	127	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Pittsburg 230/115 kV Transformer Capacity Increase	
	MORAGA-LAKEWOOD 115KV [3741] and PITSBG D 230/115KV TB 12	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	101	< 100	< 100	< 100	NA	Sensitivity only	
Pittsburg-Clayton # 4 115 kV Line	PITTSBURG-CLAYTON #3 115KV [3290] and PITTSBURG-CLAYTON #1 115KV [3280]	P6	105	117	135	< 100	< 100	111	< 100	< 100	182	< 100	< 100	117	136	NA	Pittsburg-Lakewood RAS model under review.	
Pittsburg-Los Medanos #2 115kV [3305]	PITTSBURG-LOS MEDANOS #2 115KV [3305]	P1	100	100	100	100	100	100	60	24	Diverge	30	100	100	127	Diverge	Continue to monitor	



Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions		
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak				
Pittsburg - Los Medanos 115 kV Line	MEC CTG1 18.00KV & MEC CTG2 18.00KV & MEC STG1 18.00KV Gen Units and PITTSBURG-LOS MEDANOS #2 115KV [3305] PITTSBURG-LOS MEDANOS #1 115KV [3304]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	127	NA	Sensitivity only		
Pittsburg - Kirker 115 kV Line	PITTSBURG-CLAYTON #4 115KV [3291] and PITTSBURG-CLAYTON #1 115KV [3280]	P6	< 100	< 100	102	< 100	< 100	< 100	< 100	< 100	< 100	60	24	Diverge	30	100	100	127	Diverge	Continue to monitor
Pittsburg-Clayton #1 115kV Line	PITTSBURG-CLAYTON #4 115KV [3291] and PITTSBURG-CLAYTON #3 115KV [3290]	P6	< 100	103	119	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	104	120	Diverge	Pittsburg-Lakewood RAS model under review.
Pittsburg-Kirker-Columbia Steel #1 115 kV Line	Base Case	P0	103	106	107	28	36	111	51	10	179	70	51	108	108	183				Mitigation under development.
	KIRKER 2-25 25.00KV GEN UNIT E4	P1	NA	NA	112	NA	NA	NA	99	NA	NA	162	NA	NA	NA	113	166			Mitigation under development.
	TESLA-LOS BANOS 500KV and METCALF-MOSSLAND 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	136
Lakewood-Clayton 115kV Line	CLAYTON 115KV SECTION 1D	P2	90	102	124	57	74	109	49	20	159	47	53	102	123	162				Pittsburg-Lakewood RAS model under review.
	CLAYTON - 1D 115KV & PITTSBURG-CLAYTON #3 LINE	P2	90	102	124	57	74	109	49	20	159	47	53	102	123	162				Pittsburg-Lakewood RAS model under review.
Pittsburg-Clayton #3 115 kV Line	PITTSBURG-CLAYTON #4 115KV [3291] and PITTSBURG-CLAYTON #1 115KV [3280]	P6	100	111	128	< 100	< 100	114	< 100	< 100	172	< 100	< 100	111	129	NA				Pittsburg-Lakewood RAS model under review.
Lakewood-Meadow Lane-Clayton 115kV Line	CLAYTON-MEADOW LANE 115KV [1270] and LAKEWOOD-CLAYTON 115KV [2082]	P6	< 100	108	121	< 100	< 100	109	< 100	< 100	156	< 100	< 100	107	122	NA				Pittsburg-Lakewood RAS model under review.
	LAKEWOOD-CLAYTON 115KV [2082]	P1	68	82	102	43	57	89	40	17	128	21	45	81	101	120				Pittsburg-Lakewood RAS model under review.
	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and LAKEWOOD-CLAYTON 115KV [2082]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	101	NA				Pittsburg-Lakewood RAS model under review.
Moraga-Lakewood 115kV Line (Lakewood Reactors)	PITSBG E 230KV SECTION 1E	P2	38	NA	NA	21	NA	NA	31	NA	NA	141	11	NA	NA	NA	NA	NA	NA	Pittsburg-Lakewood RAS model under review.
	CLAYTON 115KV SECTION 2D	P2	62	128	165	17	14	152	38	26	227	82	33	130	81	225				Pittsburg-Lakewood RAS model under review.
	PITSBG D 230KV SECTION 1D	P2	21	NA	NA	43	NA	NA	27	NA	NA	189	36	NA	NA	NA	NA	NA	NA	Pittsburg-Lakewood RAS model under review.
	PITSBG E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	38	NA	NA	21	NA	NA	31	NA	NA	141	11	NA	NA	NA	NA	NA	NA	Pittsburg-Lakewood RAS model under review.
	PITTSBURG-D 115KV - SECTION 2D & 1D	P2	77	57	166	35	21	152	47	21	225	71	49	60	82	224				Pittsburg-Lakewood RAS model under review.
	PITSBG D 230KV - SECTION 2D & 1D	P2	83	NA	NA	4	NA	NA	49	NA	NA	172	8	NA	NA	NA	NA	NA	NA	Pittsburg-Lakewood RAS model under review.
	PITSBG E 230KV - SECTION 1E & 2E	P2	37	NA	NA	21	NA	NA	30	NA	NA	140	10	NA	NA	NA	NA	NA	NA	Pittsburg-Lakewood RAS model under review.
	CLAYTON-LAKEWD-C-MEDW LNE-WALNUTCR 115KV [0] and LAKEWOOD-CLAYTON 115KV [2082]	P6	121	126	141	< 100	< 100	137	< 100	< 100	183	< 100	< 100	128	143	NA				Pittsburg-Lakewood RAS model under review.
	Pittsburg-Clayton Nos. 3 & 4 115 kV lines	P7	51	128	165	10	5	152	32	25	227	76	26	130	81	201				Pittsburg-Lakewood RAS model under review.
	PITSBG E 230KV SECTION 1E	P2	6	NA	NA	28	NA	NA	14	NA	NA	120	28	NA	NA	NA	NA	NA	NA	NA
SOBRANTE 230KV SECTION 1D	P2	50	82	122	38	66	92	25	7	147	17	30	86	111	133				Continue to monitor	
PITSBG D 230KV SECTION 2D	P2	63	NA	NA	87	NA	NA	42	NA	NA	93	102	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG D 230KV SECTION 1D	P2	21	NA	NA	48	NA	NA	8	NA	NA	156	60	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
SOBRANTE - 1D 230KV & IGNACIO-SOBRANTE LINE	P2	49	81	122	37	66	91	24	7	147	18	29	85	111	133				Continue to monitor	
PITSBG D - 2D 230KV & PITTSBG D-TBC PTB1 #1 LINE	P2	63	NA	NA	87	NA	NA	42	NA	NA	93	102	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	6	NA	NA	28	NA	NA	14	NA	NA	120	28	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG D 230KV - SECTION 2D & 1D	P2	41	NA	NA	17	NA	NA	28	NA	NA	139	19	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG E 230KV - SECTION 1E & 2E	P2	8	NA	NA	29	NA	NA	13	NA	NA	115	26	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
SOBRANTE 230KV - SECTION 2D & 1D	P2	43	79	120	36	65	91	18	4	148	25	24	82	109	134				Continue to monitor	
PITSBG D 230/115KV TB 12 and PITSBG D 230/115KV TB 13	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	131	< 100	< 100	< 100	< 100	NA	NA	NA	Sensitivity only
Pittsburg-Tidewater 230 KV and Pittsburg-Tesoro SW STA 230 KV lines	P7	15	56	106	17	50	66	10	36	Diverge	69	3	54	81	Diverge				Continue to monitor	
Pittsburg-Tidewater 230 KV and Tesoro SW STA-Sobante 230 KV lines	P7	12	55	105	15	49	65	13	37	Diverge	70	4	53	80	Diverge				Continue to monitor	
PITSBG E 230KV SECTION 1E	P2	11	NA	NA	43	NA	NA	7	NA	NA	111	45	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
SOBRANTE 230KV SECTION 1D	P2	59	71	115	52	61	84	43	12	123	12	47	85	99	101				Continue to monitor	
PITSBG D 230KV SECTION 2D	P2	71	NA	NA	93	NA	NA	59	NA	NA	86	114	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG D 230KV SECTION 1D	P2	31	NA	NA	59	NA	NA	14	NA	NA	147	75	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
SOBRANTE - 1D 230KV & IGNACIO-SOBRANTE LINE	P2	58	70	115	51	60	83	42	12	123	13	46	84	98	101				Continue to monitor	
PITSBG D - 2D 230KV & PITTSBG D-TBC PTB1 #1 LINE	P2	71	NA	NA	93	NA	NA	59	NA	NA	86	114	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	11	NA	NA	43	NA	NA	7	NA	NA	111	45	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG D 230KV - SECTION 2D & 1D	P2	26	NA	NA	34	NA	NA	6	NA	NA	128	36	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
PITSBG E 230KV - SECTION 1E & 2E	P2	16	NA	NA	44	NA	NA	9	NA	NA	106	43	NA	NA	NA	NA	NA	NA	NA	Sensitivity only
SOBRANTE 230KV - SECTION 2D & 1D	P2	52	67	113	49	60	82	37	7	124	24	42	80	96	102				Continue to monitor	
PITSBG D 230/115KV TB 12 and PITSBG D 230/115KV TB 13	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	122	< 100	< 100	< 100	< 100	NA	NA	NA	Sensitivity only
Sobante-G Nos. 1 & 2 115 KV lines	P7	75	66	102	64	58	88	56	5	128	4	62	79	89	117				Continue to monitor	
Sobante-Grizzly-Claremont #1 115kV Line (Hillside-Grizzly JCT)	SOBRANTE-GRIZZLY-CLAREMONT #2 115KV [3750]	P1	77	88	105	53	68	83	60	79	< 100	60	58	85	100	< 100				Potential North Oakland area long-term transmission upgrade
	SOBRANTE-GRIZZLY-CLAREMONT #2 115KV [3750] (GRIZZLY2-SOBRANTE)	P2	79	92	108	52	72	87	58	81	97	57	56	82	108	NA				Potential North Oakland area long-term transmission upgrade
	SOBRANTE 115KV SECTION 2E	P2	66	76	103	43	60	82	48	71	< 100	48	46	65	102	< 100				Potential North Oakland area long-term transmission upgrade
	CLARMNT - 2D 115KV & SOBRANTE-GRIZZLY-CLAREMONT #2 LINE	P2	84	94	114	57	72	92	65	81	104	65	63	93	107	91				Potential North Oakland area long-term transmission upgrade
	HILLSIDE - 2D 115KV & SOBRANTE-GRIZZLY-CLAREMONT #2 LINE	P2	77	88	105	53	68	83	60	79	< 100	60	58	85	100	< 100				Potential North Oakland area long-term transmission upgrade
	SOBRANTE 115KV - SECTION 2E & 2C	P2	65	76	102	42	59	82	48	71	< 100	51	46	64	102	< 100				Potential North Oakland area long-term transmission upgrade
	MORAGA 230KV - SECTION 2D & 1D	P2	108	82	99	61	57	84	73	61	106	92	74	83	97	111				Project: Moraga 230 kV Bus Upgrade
GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and SOBRANTE-GRIZZLY-CLAREMONT #2 115KV [3750]	P3	< 100	< 100	101	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	104	Diverge				Potential North Oakland area long-term transmission upgrade
MORAGA 230KV - SECTION 2D & 1D	P2	104	71	83	54	48	74	62	46	100	84	62	63	90	102				Project: Moraga 230 kV Bus Upgrade	
SOBRANTE-GRIZZLY-CLAREMONT #1 115KV [3740]	P1	79	91	109	53	71	86	60	81	< 100	59	57	86	106	< 100				Potential North Oakland area long-term transmission upgrade	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Sobrante-Grizzly-Claremont #2 115kV Line (Hillside-Grizzly JCT)	SOBRANTE-GRIZZLY-CLAREMONT #1 115KV [3740] (GRIZZLY1-SOBRANTE)	P2	82	95	112	54	75	90	60	83	101	58	57	84	113	NA	Potential North Oakland area long-term transmission upgrade	
	HILLSIDE - 1D 115KV & SOBRANTE-GRIZZLY-CLAREMONT #1 LINE	P2	80	91	110	53	71	86	59	80	NA	59	57	87	106	NA	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE - 1D 115KV & SOBRANTE-G #1 LINE	P2	68	79	107	45	62	87	51	75	97	49	49	66	110	NA	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE - 1D 115KV & SOBRANTE-SAN PBLO-STD. OIL LINE	P2	70	82	110	47	64	89	52	76	101	51	50	68	112	NA	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE 115KV - SECTION 1D & 2D	P2	79	91	126	52	71	101	58	75	114	57	55	91	121	99	Potential North Oakland area long-term transmission upgrade	
	GATEWAY1 18.00KV & GATEWAY2 18.00KV & GATEWAY3 18.00KV GEN UNITS and SOBRANTE-GRIZZLY-CLAREMONT #1 115KV [3740]	P3	< 100	100	105	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	111	Diverge	Interim: Local generation. Long-term: Potential long term North Oakland area transmission solution.
	SOBRANTE-MORAGA 115KV [3742] and SOBRANTE-GRIZZLY-CLAREMONT #1 115KV [3740]	P6	< 100	102	105	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	120	NA	Interim: Local generation. Long-term: Potential long term North Oakland area transmission solution.	
Martinez-Sobrante 115kV Line	PITSBG E 230KV SECTION 1E	P2	29	NA	NA	19	NA	NA	28	NA	NA	135	16	NA	NA	NA	Sensitivity only	
	PITSBG D 230KV SECTION 1D	P2	12	NA	NA	36	NA	NA	20	NA	NA	170	47	NA	NA	NA	Sensitivity only	
	PITSBG E - 1E 230KV & PITTSBURG-TESLA #1 LINE	P2	29	NA	NA	19	NA	NA	28	NA	NA	135	16	NA	NA	NA	Sensitivity only	
	PITSBG D 230KV - SECTION 2D & 1D	P2	66	NA	NA	9	NA	NA	41	NA	NA	153	7	NA	NA	NA	Sensitivity only	
	PITSBG E 230KV - SECTION 1E & 2E	P2	26	NA	NA	19	NA	NA	28	NA	NA	130	15	NA	NA	NA	Sensitivity only	
Martinez-Oleum 115kV Line	PITSBG D 230/115KV TB 12 and PITSBG D 230/115KV TB 13	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	143	< 100	< 100	< 100	NA	Sensitivity only	
	PITSBG D 230KV SECTION 1D	P2	26	NA	NA	59	NA	NA	12	NA	NA	123	63	NA	NA	NA	Sensitivity only	
	PITSBG D 230KV - SECTION 2D & 1D	P2	22	NA	NA	34	NA	NA	5	NA	NA	108	30	NA	NA	NA	Sensitivity only	
Moraga-Claremont #1 115kV Line	PITSBG D 230/115KV TB 12 and PITSBG D 230/115KV TB 13	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	103	< 100	< 100	< 100	NA	Sensitivity only	
	MORAGA.C 115KV SECTION 2C	P2	99	87	124	81	77	123	69	44	158	82	73	94	102	143	Potential North Oakland area long-term transmission upgrade	
	PITTSBURG-F 230KV - SECTION 2F & 1F	P2	NA	56	104	NA	51	82	NA	12	Diverge	NA	NA	71	73	Diverge	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE 230KV - SECTION 2D & 1D	P2	90	92	128	70	77	113	64	45	146	75	63	112	112	140	Potential North Oakland area long-term transmission upgrade	
	C-X #3 115KV [9925] and C-X #2 115KV [9962]	P6	< 100	< 100	107	< 100	< 100	103	< 100	< 100	Diverge	< 100	< 100	110	< 100	Diverge	Potential North Oakland area long-term transmission upgrade	
Moraga-Claremont #2 115kV Line	Pittsburg-Tidewater 230 KV and Pittsburg-Tesoros SW STA 230 KV lines	P7	50	56	103	41	51	81	28	12	Diverge	19	30	70	73	Diverge	Potential North Oakland area long-term transmission upgrade	
	Pittsburg-Tidewater 230 KV and Tesoro SW STA-Sobrante 230 KV lines	P7	47	55	101	39	50	80	27	13	Diverge	18	28	69	71	Diverge	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE 230KV SECTION 1D	P2	89	91	127	69	77	113	63	43	147	71	62	112	111	141	Potential North Oakland area long-term transmission upgrade	
	MORAGA.E 115KV SECTION 2E	P2	85	83	101	63	66	100	59	39	Diverge	78	59	97	82	Diverge	Potential North Oakland area long-term transmission upgrade	
Sobrante-Moraga 115kV Line	SOBRANTE - 1D 230KV & IGNACIO-SOBRANTE LINE	P2	89	91	127	69	77	113	63	43	147	72	62	112	112	141	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE 230KV - SECTION 2D & 1D	P2	91	92	128	70	77	113	64	45	147	75	63	113	112	140	Potential North Oakland area long-term transmission upgrade	
	SOBRANTE 230KV SECTION 1D	P2	92	86	144	67	63	117	71	32	156	78	69	124	118	165	Project: Moraga-Sobrante 115 kv line reconductoring project (on-hold)	
	SOBRANTE - 1D 230KV & IGNACIO-SOBRANTE LINE	P2	93	86	144	67	63	117	71	NA	156	78	69	124	119	165	Project: Moraga-Sobrante 115 kv line reconductoring project (on-hold)	
Moraga 230/115kV Transformer #2	SOBRANTE 230KV - SECTION 2D & 1D	P2	96	88	146	68	63	118	74	NA	156	86	72	126	120	164	Project: Moraga-Sobrante 115 kv line reconductoring project (on-hold)	
	SOBRANTE 230/115KV TB 2 and SOBRANTE 230/115KV TB 1	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	121	< 100	NA	Sensitivity only	
Moraga-Station X 115 kv #1 Line	MORAGA 230KV - SECTION 2D & 1D	P2	125	NA	74	65	NA	61	71	NA	Diverge	103	72	NA	91	Diverge	Project: Collinsville 500 kv New Station	
	MORAGA 230/115KV TB 1 and MORAGA 230/115KV TB 3	P6	113	108	124	< 100	< 100	128	< 100	< 100	164	113	< 100	125	112	NA	Interim: Local generation and OCEI project. Long-term: Potential long-term North Oakland area transmission solution.	
	MORAGA.E 115KV SECTION 2E	P2	151	56	66	92	45	64	101	29	81	133	99	59	54	71	Project: Moraga-Oakland X line rebuild	
	CLARMNT 115KV - SECTION 2D & 1D	P2	113	42	51	72	37	50	74	23	< 100	90	74	43	48	< 100	Project: Moraga-Oakland X line rebuild	
	K-D #1 115KV [9966] and K-D #2 115KV [9967]	P6	114	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Moraga-Oakland X line rebuild	
Moraga-Station X 115 kv #3 Line	MORAGA.D 115KV SECTION 1D	P2	170	60	72	97	45	72	114	29	94	161	112	68	65	87	Project: Moraga-Oakland X line rebuild	
	MORAGA.E 115KV SECTION 2E	P2	225	84	92	106	58	82	128	42	108	200	118	85	61	103	Project: Moraga-Oakland X line rebuild	
	CLARMNT 115KV - SECTION 2D & 1D	P2	112	42	51	71	36	49	73	23	< 100	89	73	42	48	< 100	Project: Moraga-Oakland X line rebuild	
Moraga - Station X 115 kv Line	K-D #1 115KV [9966] and K-D #2 115KV [9967]	P6	113	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Moraga-Oakland X line rebuild	
	CLARMNT 115KV - SECTION 2D & 1D	P2	112	42	51	71	36	49	73	23	< 100	89	73	42	48	< 100	Project: Moraga-Oakland X line rebuild	
RUSTYECST1 18.00KV & RUSTYECCT2 15.00KV & RUSTYECCT3 15.00KV GEN UNITS	K-D #1 115KV [9966] and K-D #2 115KV [9967]	P6	113	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Moraga-Oakland X line rebuild	
	RUSTYECST1 18.00KV & RUSTYECCT2 15.00KV & RUSTYECCT3 15.00KV GEN UNITS	P1	87	89	153	56	65	90	47	41	Diverge	63	58	92	0	Diverge	Potential South Oakland area long-term transmission upgrade	
	PITTSBURG-EASTSHORE 230KV [5462]	P1	76	79	140	41	53	78	47	46	Diverge	69	41	82	0	Diverge	Potential South Oakland area long-term transmission upgrade	
MORAGA-SAN LEANDRO #1 115KV [2770]	P1	73	101	113	41	50	101	45	44	Diverge	69	41	105	0	NA	Potential South Oakland area long-term transmission upgrade		



Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Moraga-Oakland J 115KV Line	MORAGA-SAN LEANDRO #2 115KV [2780]	P1	73	101	113	41	51	101	45	44	Diverge	69	41	105	0	NA	Potential South Oakland area long-term transmission upgrade	
	MORAGA-SAN LEANDRO #3 115KV [2790]	P1	74	101	113	41	51	101	46	45	Diverge	70	42	105	0	NA	Potential South Oakland area long-term transmission upgrade	
	OAKLAND J-GRANT 115KV [3140] (EDES/ICT2-GRANT)	P2	73	77	274	53	64	302	47	41	358	59	47	79	87	331	Potential South Oakland area long-term transmission upgrade	
	GRANT 115KV SECTION MD	P2	73	77	272	53	64	302	47	41	265	59	47	79	87	238	Potential South Oakland area long-term transmission upgrade	
	NEWARK D 230KV - SECTION 2D & 1D	P2	NA	83	153	NA	55	86	NA	46	Diverge	NA	NA	87	0	Diverge	Potential South Oakland area long-term transmission upgrade	
	PITTSBURG-E 230KV - SECTION 1D & 1E	P2	NA	86	152	NA	57	82	NA	48	Diverge	NA	NA	88	0	Diverge	Potential South Oakland area long-term transmission upgrade	
	PITTSBURG-D SECTION 1D & PITTSBURG-E SECTION 1E 230KV	P2	NA	92	166	NA	61	86	NA	49	Diverge	NA	NA	149	0	Diverge	Potential South Oakland area long-term transmission upgrade	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and DUMBARTON-NEWARK 115KV [1460]	P3	< 100	< 100	162	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Potential South Oakland area long-term transmission upgrade	
	PITTSBURG-EASTSHORE 230KV [5462] and RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P6	104	108	180	< 100	< 100	101	< 100	< 100	Diverge	< 100	< 100	110	< 100	Diverge	Potential South Oakland area long-term transmission upgrade	
	Grant-Eastshore Nos. 1 & 2 115 KV lines	P7	92	402	386	64	274	420	55	59	330	73	55	401	0	309	Potential South Oakland area long-term transmission upgrade	
Moraga-San Leandro #1 115KV Line	Pittsburg-San Mateo 230 KV and Pittsburg-East Shore 230 KV lines	P7	85	88	160	46	59	86	51	48	Diverge	73	45	91	0	Diverge	Potential South Oakland area long-term transmission upgrade	
	Moraga-San Leandro Nos. 1 & 2 115 KV lines	P7	86	101	114	49	66	101	53	51	NA	80	48	105	0	NA	Potential South Oakland area long-term transmission upgrade	
	SN LNDRO 115KV SECTION ME	P2	142	88	55	83	67	62	82	72	104	126	77	47	49	62	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Moraga-San Leandro #2 115KV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MORAGA-SAN LEANDRO #3 115KV [2790]	P3	115	120	< 100	< 100	< 100	111	< 100	< 100	NA	< 100	< 100	122	< 100	NA	Potential South Oakland area long-term transmission upgrade	
	MORAGA-SAN LEANDRO #3 115KV [2790] and MORAGA-SAN LEANDRO #2 115KV [2780]	P6	145	120	129	< 100	< 100	107	< 100	< 100	212	128	< 100	122	< 100	NA	Potential South Oakland area long-term transmission upgrade	
	Moraga-Oakland J 115 KV and Moraga-San Leandro No. 3 115 KV lines	P7	116	60	69	67	45	56	68	61	Diverge	104	63	61	60	Diverge	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
	MORAGA.E 115KV SECTION 1E	P2	137	88	55	80	67	62	80	68	105	123	75	47	49	61	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
	MORAGA.D SECTION 1D & MORAGA.E SECTION 1E 115KV	P2	143	88	55	84	67	62	83	73	104	127	77	47	49	62	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Moraga - San Leandro 115 KV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MORAGA-SAN LEANDRO #3 115KV [2790]	P3	116	121	< 100	< 100	< 100	112	< 100	< 100	NA	< 100	< 100	123	< 100	NA	Potential South Oakland area long-term transmission upgrade	
	DEC STG1 18.00KV & DEC CTG1 18.00KV & DEC CTG2 18.00KV & DEC CTG3 18.00KV GEN UNITS and MORAGA-SAN LEANDRO #3 115KV [2790]	P3	< 100	< 100	103	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Potential South Oakland area long-term transmission upgrade	
	MORAGA-SAN LEANDRO #3 115KV [2790] and MORAGA-SAN LEANDRO #1 115KV [2770]	P6	146	120	129	< 100	< 100	107	< 100	< 100	213	129	< 100	122	< 100	NA	Potential South Oakland area long-term transmission upgrade	
	Moraga-Oakland J 115 KV and Moraga-San Leandro No. 3 115 KV lines	P7	117	60	69	68	46	57	69	62	Diverge	105	64	61	61	Diverge	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Willow Pass-Contra Costa 60KV Line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MORAGA-SAN LEANDRO #2 115KV [2780]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	102	< 100	NA	Sensitivity only	
	MORAGA-SAN LEANDRO #1 115KV [2770] and MORAGA-SAN LEANDRO #2 115KV [2780]	P6	118	< 100	101	< 100	< 100	< 100	< 100	< 100	173	105	< 100	< 100	< 100	NA	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
	Moraga-San Leandro Nos. 1 & 2 115 KV lines	P7	116	96	111	68	72	90	67	59	150	103	63	98	97	165	Interim: Moraga - Oakland J - San Leandro RAS. Long-term: Potential South Oakland long-term transmission upgrade.	
Potrero-Larkin #1 (AY-1) 115KV Cable	Base Case	P0	82	87	130	20	26	39	38	2	205	48	38	89	132	200	Continue to monitor	
	DVRaGT1 13.80KV & DVRbGT2 13.80KV & DVRaST3 13.80KV Gen Units	P1	70	75	112	18	24	34	33	2	Diverge	41	33	76	114	Diverge	Continue to monitor	
	TESLA-METCALF 500KV	P1	70	75	112	18	24	34	33	2	Diverge	41	33	76	114	Diverge	Continue to monitor	
	METCALF-MOSSLAND 500KV	P1	70	75	112	18	24	34	33	2	Diverge	41	33	76	114	Diverge	Continue to monitor	
	TABLE MT-VACA-DIX 500KV	P1	70	75	112	18	24	34	33	2	178	41	33	76	114	180	Continue to monitor	
	TABLE MT-TESLA 500KV	P1	70	75	112	18	24	34	33	2	Diverge	41	33	76	114	Diverge	Continue to monitor	
	Internal breaker fault at Duane Duane-SRS 115 KV and KRS-Duane 115 KV and DVR	P2	70	75	112	18	24	34	33	2	Diverge	41	33	76	114	Diverge	Continue to monitor	
	TESLA-METCALF 500KV and TABLE MT-VACA-DIX 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	144	< 100	< 100	< 100	< 100	< 100	Continue to monitor
Mission-Larkin (XY-1) 115KV Cable	X-Y #1 115KV [9960]	P1	NA	53	75	NA	85	101	NA	49	89	NA	NA	54	74	89	Continue to monitor	
	LARKIN E 115KV Section 1E	P2	88	53	75	60	85	101	48	49	Diverge	83	48	54	74	Diverge	Continue to monitor	
	LARKIN F 115KV Section 1F	P2	88	53	75	60	85	101	48	49	89	83	48	54	74	89	Continue to monitor	
	MISSION 115KV - Middle Breaker Bay 4	P2	NA	53	76	NA	85	101	NA	49	89	NA	NA	54	74	100	Continue to monitor	
	LARKIN E Section 1E & LARKIN F Section 1F 115KV	P2	88	53	75	60	85	101	48	49	89	83	48	54	74	89	Continue to monitor	
Mission-Larkin (XY-1) 115KV Cable	A-Y #1 (UNDERGROUND IDLE) 115KV [9952] and H-Y #1 115KV [9956]	P6	< 100	< 100	< 100	< 100	< 100	103	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Continue to monitor	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)									Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions	
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Potrero-Larkin #2 (AY-2) 115kV Cable	A-X #1 115kV [9951]	P1	NA	78	108	NA	74	106	NA	56	126	NA	NA	79	101	126	Continue to monitor	
	POTRERO 115kV Section 1D	P2	85	69	96	56	70	101	56	53	114	75	55	70	90	111	Continue to monitor	
	POTRERO 115kV Section 2D	P2	93	84	117	65	77	110	66	63	131	78	64	85	108	131	Continue to monitor	
	MISSION 115kV - Middle Breaker Bay 3	P2	NA	73	101	NA	70	102	NA	53	118	NA	NA	74	95	117	Continue to monitor	
	POTRERO - 1D 115kV & A-Y #1 (UNDERGROUND IDLE) line	P2	NA	69	96	NA	70	101	NA	53	114	NA	NA	70	90	111	Continue to monitor	
Potrero-Mission (AX) 115kV Cable	Base Case	P0	89	83	113	71	86	105	60	56	141	74	59	84	106	142	Continue to monitor	
	P-X #1 115kV [9958]	P1	NA	82	110	NA	87	106	NA	53	133	NA	NA	83	105	133	Continue to monitor	
	P-X #2 (UNDERGROUND) 115kV [9959]	P1	NA	81	110	NA	85	105	NA	52	132	NA	NA	82	104	132	Continue to monitor	
	A-P #1 115kV [9932]	P1	NA	82	113	NA	82	102	NA	59	< 100	NA	NA	83	104	< 100	Continue to monitor	
	X-Y #1 115kV [9960]	P1	NA	79	107	NA	69	85	NA	42	Diverge	NA	NA	80	100	Diverge	Continue to monitor	
	A-Y #1 (UNDERGROUND IDLE) 115kV [9952] (LARKIN D-POTRERO)	P2	NA	87	120	NA	96	120	NA	61	Diverge	NA	NA	88	113	Diverge	Continue to monitor	
	LARKIN D 115kV Section 1D	P2	100	87	120	77	96	120	65	61	Diverge	86	64	88	113	Diverge	Continue to monitor	
	POTRERO 115kV Section 2E	P2	93	87	138	49	69	125	50	33	157	48	47	87	124	160	Continue to monitor	
	POTRERO - 2E 115kV & POTRERO-TBC POT1 #1 line	P2	NA	87	138	NA	69	125	NA	33	157	NA	NA	87	124	160	Continue to monitor	
	MARTIN C-25 25.00kV Gen Unit En and A-Y #1 (UNDERGROUND IDLE) 115kV [9952]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Sensitivity only
Martin 115/60kV Transformer #6	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	Continue to monitor
Millbrae-San Mateo #1 115kV [2640] and MARTIN-MILLBRAE #1 115kV [2230]	MILLBRAE-SAN MATEO #1 115kV [2640]	P6	117	128	121	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	Existing reverse power relay.
	MARTIN-MILLBRAE #1 115kV [2230]	P6	224	245	112	< 100	141	< 100	122	< 100	125	171	122	247	< 100	NA	Existing reverse power relay.	
Martin-Sneath Lane 60kV Line	MILLBRAE-SAN MATEO #1 115kV [2640] and MARTIN-MILLBRAE #1 115kV [2230]	P6	224	245	112	< 100	141	< 100	122	< 100	125	171	122	247	< 100	NA	Existing reverse power relay.	
Millbrae-San Mateo #1 115kV Line	SAN MATEO-MARTIN 230kV [9980] and JEFFERSON-EGBERTSWSTA 230kV [0]	P6	< 100	< 100	100	< 100	< 100	106	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Continue to monitor	
San Mateo-Martin #2 115kV Line	MARTIN-EAST GRAND 115kV [2220]	P1	78	81	93	50	68	91	55	52	115	70	55	82	104	115	Continue to monitor	
	MARTIN C 115kV - Middle Breaker Bay 5	P2	NA	81	93	NA	68	91	NA	52	118	NA	NA	82	103	114	Continue to monitor	
	SAN MATEO-MARTIN 230kV [9980] and JEFFERSON-EGBERTSWSTA 230kV [0]	P6	< 100	< 100	112	< 100	< 100	113	< 100	< 100	102	< 100	< 100	< 100	< 100	NA	Continue to monitor	
	Martin-East Grand No. 2 115 kV and San Mateo-Martin No. 3 115 kV lines	P7	78	81	93	50	68	91	55	52	115	70	55	82	104	116	Continue to monitor	
	Martin-East Grand 115 kV and San Mateo-Martin No. 6 115 kV lines	P7	78	81	93	50	68	91	55	52	119	70	55	82	104	115	Continue to monitor	
San Mateo-Bay Meadows #1 115kV Line	RUSCTYECST1 18.00kV & RUSCTYECCT2 15.00kV & RUSCTYECCT1 15.00kV GEN UNITS and SAN MATEO-BAY MEADOWS #2 115kV [3560]	P3	< 100	< 100	106	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	105	Diverge	Continue to monitor	
San Mateo-Bay Meadows #2 115kV Line	RUSCTYECST1 18.00kV & RUSCTYECCT2 15.00kV & RUSCTYECCT1 15.00kV GEN UNITS and SAN MATEO-BAY MEADOWS #1 115kV [3550]	P3	< 100	< 100	106	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	105	Diverge	Continue to monitor	
	RUSCTYECST1 18.00kV & RUSCTYECCT2 15.00kV & RUSCTYECCT1 15.00kV GEN UNITS and SAN MATEO-BAY MEADOWS #2 115kV [3560]	P6	< 100	< 100	106	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	105	NA	Continue to monitor	
San Mateo-Belmont 115kV Line	RAVENSWD 230/115kV TB 1 and RAVENSWD 230/115kV TB 2	P6	< 100	105	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	107	< 100	NA	Project: Redwood City Area 115 kV System Reinforcement	
	Ravenswood-Bair Nos. 1 & 2 115 kV lines	P7	96	103	65	52	63	40	48	25	< 100	70	51	105	57	< 100	Project: Redwood City Area 115 kV System Reinforcement	
Ravenswood-Bair #2 115kV Line	RVNSWD D 115kV Section 1D	P2	NA	NA	100	NA	NA	88	NA	NA	121	NA	NA	NA	87	121	Continue to monitor	
	RVNSWD E Section 1E & RVNSWD D Section 1D 115kV	P2	NA	90	101	NA	59	89	NA	36	121	NA	NA	91	88	119	Continue to monitor	
	SAN MATEO-BELMONT 115kV [3570] and RAVENSWOOD-BAIR #1 115kV [3380]	P6	< 100	< 100	108	< 100	< 100	< 100	< 100	< 100	122	< 100	< 100	< 100	< 100	NA	Continue to monitor	
Ravenswood-Cooly Landing #2 115kV Line	RVNSWD E 115kV Section 1E	P2	56	63	106	32	50	81	33	24	127	53	23	63	82	121	Continue to monitor	
	CLY LND 115kV Section 1D	P2	NA	NA	102	NA	NA	62	NA	NA	128	NA	NA	NA	78	128	Continue to monitor	
	RVNSWD E Section 1E & RVNSWD F Section 1F 115kV	P2	NA	63	106	NA	50	81	NA	24	127	NA	NA	63	82	121	Continue to monitor	
	RVNSWD E Section 1E & RVNSWD D Section 1D 115kV	P2	NA	86	117	NA	63	85	NA	36	146	NA	NA	87	105	146	Continue to monitor	
	RAVENSWOOD-COOLEY LANDING #1 115kV [3390] and RAVENSWOOD-PALO ALTO #1 115kV [3410]	P6	< 100	< 100	107	< 100	< 100	< 100	< 100	< 100	124	< 100	< 100	< 100	< 100	145	Continue to monitor	
Ravenswood-Ames #1 115 kV Line	NEWARK-RAVENSWOOD 230kV [5936] and TESLA-RAVENSWOOD 230kV [5730]	P6	< 100	< 100	122	< 100	< 100	109	< 100	< 100	111	106	< 100	< 100	< 100	NA	Continue to monitor	
	Newark-Ravenswood 230 kV and Tesla-Ravenswood 230 kV lines	P7	92	99	Diverge	52	91	97	59	60	107	111	32	95	99	100	Continue to monitor	
Ravenswood-Ames #2 115kV Line	NEWARK-RAVENSWOOD 230kV [5936] and TESLA-RAVENSWOOD 230kV [5730]	P6	< 100	< 100	122	< 100	< 100	109	< 100	< 100	110	106	< 100	< 100	< 100	NA	Continue to monitor	
	Newark-Ravenswood 230 kV and Tesla-Ravenswood 230 kV lines	P7	92	99	Diverge	52	91	97	59	60	107	110	32	95	99	100	Continue to monitor	
Ravenswood-Palo Alto #1 115kV Line	RVNSWD E 115kV Section 2E	P2	96	103	150	64	84	118	69	59	177	92	60	104	135	175	Potential Ravenswood 115 kV bus upgrade	
	RVNSWD E Section 2E & RVNSWD F Section 2F 115kV	P2	NA	103	150	NA	84	118	NA	59	177	NA	NA	104	135	175	Potential Ravenswood 115 kV bus upgrade	
	RVNSWD E Section 2E & RVNSWD D Section 2D 115kV	P2	NA	101	148	NA	83	116	NA	58	175	NA	NA	102	134	174	Potential Ravenswood 115 kV bus upgrade	
	RAVENSWOOD-PALO ALTO #2 115kV [3420] and COOLEY LANDING-PALO ALTO 115kV [1300]	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	102	< 100	< 100	< 100	115	NA	Continue to monitor	
	Ravenswood-Cooly Landing Nos. 1 & 2 115 kV lines	P7	79	83	108	53	62	78	55	45	124	68	55	84	107	135	Continue to monitor	
Ravenswood-Palo Alto #2 115kV Line	RAVENSWOOD-PALO ALTO #1 115kV [3410] and COOLEY LANDING-PALO ALTO 115kV [1300]	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	102	< 100	< 100	< 100	115	NA	Continue to monitor	
	Ravenswood-Cooly Landing Nos. 1 & 2 115 kV lines	P7	78	83	107	53	62	78	55	45	124	68	54	83	106	134	Continue to monitor	
	Ravenswood-Palo Alto No. 1 115 kV and Cooley Landing-Palo Alto 115 kV lines	P7	83	84	94	73	74	83	80	80	111	83	79	84	120	112	Continue to monitor	
Cooley Landing - Ravenswood 115 kV Line (Tap CLY LND2)	CLY LND 115/60kV TB 1 and RAVENSWOOD-COOLEY LANDING #2 115kV [3400]	P6	< 100	< 100	126	< 100	< 100	< 100	< 100	< 100	145	< 100	< 100	< 100	< 100	Diverge	Continue to monitor	
Cooley Landing-Palo Alto 115kV Line	RAVENSWOOD-COOLEY LANDING #2 115kV [3400] and RAVENSWOOD-COOLEY LANDING #1 115kV [3390]	P6	< 100	< 100	114	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Continue to monitor	
	Ravenswood-Cooly Landing Nos. 1 & 2 115 kV lines	P7	80	88	132	36	51	79	38	16	154	57	37	89	100	168	Continue to monitor	
Ravenswood-Bair #2 115kV Line	Ravenswood-Palo Alto Nos. 1 & 2 115 kV lines	P7	89	91	101	73	74	89	86	86	121	89	85	91	130	122	Continue to monitor	
	Ravenswood-San Mateo 115 kV and Ravenswood-Bair No. 1 115 kV lines	P7	79	79	105	35	54	92	43	30	104	76	38	80	79	136	Continue to monitor	
Ravenswood-Bair #1 115kV Line	BAIR-RVNSWD D-LONESTAR 115kV [0] and SAN MATEO-BELMONT 115kV [3570]	P6	106	112	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	113	< 100	NA	Project: Redwood City Area 115 kV System Reinforcement	
Ravenswood-Cooly Landing #1 115kV Line	RAVENSWOOD-COOLEY LANDING #2 115kV [3400] and RAVENSWOOD-PALO ALTO #1 115kV [3410]	P6	< 100	< 100	107	< 100	< 100	< 100	< 100	< 100	149	< 100	< 100	< 100	< 100	146	Continue to monitor	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)									Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay Area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay Area Summer Peak	
Millbrae-Sneath Lane 60kV Line	MILLBRAE-SAN MATEO #1 115KV [2640] and MARTIN-MILLBRAE #1 115KV [2230]	P6	153	166	<100	<100	<100	<100	<100	<100	NA	130	<100	167	<100	NA	Project: Martin - Millbrae 60 kV Area Reinforcement
	MARTIN-SNEATH LANE 60KV [7210]	P1	91	101	52	44	60	39	40	9	<100	56	40	101	34	<100	Project: Martin - Millbrae 60 kV Area Reinforcement
	MARTIN C 115/60KV TB 6	P1	91	101	52	44	60	39	40	9	<100	56	40	101	33	<100	Project: Martin - Millbrae 60 kV Area Reinforcement
	MARTIN C 115KV - Middle Breaker Bay B	P2	NA	101	52	NA	60	39	NA	9	<100	NA	NA	102	33	<100	Project: Martin - Millbrae 60 kV Area Reinforcement
San Mateo-Hillsdale JCT 60kV Line	MONTAVIS 230KV - Section 1E & 2E	P2	90	97	128	71	96	126	56	35	192	57	55	99	120	175	Continue to monitor
	JEFFERSN 230/60KV TB 1 and JEFFERSN 230/60KV TB 2	P6	168	183	235	<100	169	207	119	<100	Diverge	<100	119	186	232	Diverge	Operating solution.
	Monta Vista-Jefferson Nos. 1 & 2 230 KV lines	P7	79	93	116	61	87	112	47	26	155	46	46	91	108	167	Continue to monitor
	Monta Vista-Jefferson 230 KV Lines No. 1 & 2	P7	79	93	116	61	87	112	47	26	Diverge	46	46	91	108	Diverge	Continue to monitor
San Mateo-Bair 60kV Line	Metcalfe-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	90	97	127	71	96	123	56	35	170	57	55	99	119	174	Continue to monitor
	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	138	153	185	<100	<100	110	<100	<100	205	<100	<100	155	148	Diverge	Operating solution.
San Mateo-Hillsdale JCT 60kV Line (Beresford-Hillsdale)	MONTAVIS 230KV - Section 1E & 2E	P2	98	107	137	77	105	135	60	42	200	66	60	109	128	191	Operating solution.
	JEFFERSN 230/60KV TB 2 and JEFFERSN 230/60KV TB 1	P6	190	207	262	<100	190	232	136	<100	Diverge	110	136	209	260	Diverge	Operating solution.
	Monta Vista-Jefferson Nos. 1 & 2 230 KV lines	P7	87	99	124	65	94	119	50	31	Diverge	52	50	97	114	Diverge	Continue to monitor
	Monta Vista-Jefferson 230 KV Lines No. 1 & 2	P7	87	99	124	65	94	119	50	31	161	52	50	97	114	183	Continue to monitor
San Mateo-Hillsdale JCT 60kV Line (Hillsdale-Hillsdale JCT)	Metcalfe-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	99	107	137	77	105	132	60	42	178	66	60	109	127	191	Operating solution.
	MONTAVIS 230KV - Section 1E & 2E	P2	90	97	122	70	95	119	57	43	167	63	56	99	113	177	Continue to monitor
	JEFFERSN 230/60KV TB 2 and JEFFERSN 230/60KV TB 1	P6	181	197	245	<100	179	217	132	<100	Diverge	108	132	199	242	Diverge	Operating solution.
	Monta Vista-Jefferson Nos. 1 & 2 230 KV lines	P7	79	89	109	58	84	104	46	32	Diverge	50	45	87	100	Diverge	Continue to monitor
Jefferson-Hillsdale JCT 60kV Line	Monta Vista-Jefferson 230 KV Lines No. 1 & 2	P7	79	89	109	58	84	104	46	32	136	50	45	87	100	170	Continue to monitor
	Metcalfe-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	90	97	122	70	95	117	57	43	153	64	56	99	113	177	Continue to monitor
	JEFFERSN 230/60KV TB 2 and JEFFERSN 230/60KV TB 1	P6	153	163	205	<100	123	147	119	<100	Diverge	100	119	165	203	Diverge	Operating solution.
	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	145	161	197	<100	<100	103	<100	<100	<100	<100	<100	163	156	Diverge	Operating solution.
San Mateo-Bair 60kV Line (San Carlos-Bair)	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	<100	<100	101	<100	<100	<100	<100	<100	NA	<100	<100	<100	<100	Diverge	Continue to monitor
	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	160	173	220	<100	123	160	<100	<100	<100	116	<100	175	170	Diverge	Operating solution.
Bair 115/60kV Transformer #1	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	104	115	144	<100	<100	<100	<100	<100	<100	<100	<100	116	113	Diverge	Operating solution.
	CLY LND 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	136	148	179	<100	<100	<100	<100	<100	<100	102	<100	150	128	Diverge	Operating solution.
Bair-Cooley Landing #1 60kV Line	BAIR 115/60KV TB 1	P1	<100	<100	105	<100	<100	62	<100	<100	115	<100	<100	<100	70	114	Continue to monitor
	BAIR 115KV Section 1D	P2	73	78	108	26	46	67	24	14	120	60	21	79	73	118	Continue to monitor
	BAIR - 1D 115KV & BAIR-RVNSWD D-LONESTAR line	P2	NA	NA	108	NA	NA	67	NA	NA	120	NA	NA	NA	73	118	Continue to monitor
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and BAIR 115/60KV TB 1	P3	<100	<100	103	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Continue to monitor
Bair-Cooley Landing #1 60kV Line	Ravenswood-Bair Nos. 1 & 2 115 KV lines	P7	71	75	105	32	48	71	21	21	102	63	17	76	70	123	Continue to monitor
	BAIR-REDWOOD-CLY LNDG 60KV [0]	P1	70	76	103	33	45	64	28	20	120	57	26	77	72	116	Continue to monitor
	BAIR 115/60KV TB 1	P1	<100	<100	103	<100	<100	66	<100	<100	111	<100	<100	<100	75	110	Continue to monitor
	BAIR 115KV Section 1D	P2	73	79	105	33	48	68	30	15	113	59	28	80	76	112	Continue to monitor
Cooley Landing 115/60kV Transformer #2	BAIR - 1D 115KV & BAIR-RVNSWD D-LONESTAR line	P2	NA	NA	105	NA	NA	68	NA	NA	113	NA	NA	NA	76	112	Continue to monitor
	Ravenswood-Bair Nos. 1 & 2 115 KV lines	P7	72	78	103	33	49	70	29	18	103	60	26	79	75	116	Continue to monitor
Cooley Landing 115/60kV Transformer #1	CLY LND 115/60KV TB 1	P1	<100	<100	105	<100	<100	68	<100	<100	126	<100	<100	<100	81	125	Continue to monitor
	CLY LND 115KV Section 1D	P2	NA	NA	103	NA	NA	66	NA	NA	121	NA	NA	NA	80	120	Continue to monitor
Cooley Landing 115/60kV Transformer #1	BAIR 115/60KV TB 1 and CLY LND 115/60KV TB 1	P6	<100	<100	117	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Continue to monitor
	CLY LND 115/60KV TB 2	P1	<100	<100	105	<100	<100	68	<100	<100	126	<100	<100	<100	81	125	Continue to monitor
	CLY LND 115KV Section 1E	P2	NA	NA	103	NA	NA	66	NA	NA	122	NA	NA	NA	79	121	Continue to monitor
Cooley Landing-Stanford 60kV Line (Cooley Landing-SRI)	BAIR 115/60KV TB 1 and CLY LND 115/60KV TB 2	P6	<100	<100	117	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Continue to monitor
	Base Case	P0	61	70	105	30	41	75	33	12	153	26	33	71	89	180	Continue to monitor
Jefferson-Las Pulgas 60kV Line (Jefferson-Woodside)	SRI INTL 9.11KV Gen Unit 1	P1	61	69	100	34	48	73	34	1	<100	29	34	70	85	<100	Continue to monitor
	TESLA-LOS BANOS 500KV and METCALFE-MOSSLAND 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	128	<100	<100	<100	<100	128	Continue to monitor
	Base Case	P0	60	67	106	30	42	75	33	9	171	23	33	68	105	177	Continue to monitor
San Leandro - Edes 115 kV Line	METCALFE-MOSSLAND 500KV and TESLA-LOS BANOS 500KV	P6	<100	<100	<100	<100	<100	<100	<100	<100	129	<100	<100	<100	<100	<100	Continue to monitor
	MEC CTG1 18.00KV & MEC CTG2 18.00KV & MEC STG1 18.00KV Gen Units and RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	102	NA	Sensitivity only
Grant-Eastshore #1 115kV Line	E. SHORE 230/115KV TB 2 and E. SHORE 230/115KV TB 1	P6	111	118	127	<100	<100	108	<100	<100	154	<100	<100	120	<100	NA	Potential South Oakland area long-term transmission upgrade
	GRANT-EASTSHORE #2 115KV [1701] (2)	P1	NA	70	103	NA	67	93	NA	26	153	NA	NA	71	89	144	Potential South Oakland area long-term transmission upgrade
	EASTSHRE 115KV SECTION MD	P2	38	61	118	33	59	84	18	25	147	28	21	62	83	138	Potential South Oakland area long-term transmission upgrade
	STACKSS 115KV - MIDDLE BREAKER BAY 2	P2	NA	70	103	NA	67	93	NA	26	153	NA	NA	71	89	144	Potential South Oakland area long-term transmission upgrade
	MORAGA.E 115KV - SECTION 1E & 2E	P2	90	99	112	63	81	111	53	43	Diverge	71	53	101	103	Diverge	Potential South Oakland area long-term transmission upgrade
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and GRANT-EASTSHORE #2 115KV [1701] (2)	P3	<100	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	173	NA
E. SHORE 230/115KV TB 2	SAN LEANDRO-OAKLND J #1 115KV [3520] and GRANT-EASTSHORE #2 115KV [1701] (2)	P6	<100	162	180	<100	<100	177	<100	<100	131	<100	<100	164	173	NA	Potential South Oakland area long-term transmission upgrade
	Base Case	P0	67	76	113	55	64	76	26	11	135	31	46	78	111	133	Potential South Oakland area long-term transmission upgrade

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Eastshore 230/115kV Transformer #1	E. SHORE 230KV - MIDDLE BREAKER BAY 3	P2	67	76	113	55	64	76	26	11	135	31	46	78	111	132	Potential South Oakland area long-term transmission upgrade	
	EASTSHORE-SAN MATEO 230KV [4650] and E. SHORE 230/115KV TB 2	P6	110	114	122	< 100	104	110	< 100	< 100	133	< 100	< 100	115	124	Diverge	Potential South Oakland area long-term transmission upgrade	
Eastshore 230/115kV Transformer #2	E. SHORE 230/115KV TB 1	P1	67	75	113	54	64	76	26	12	134	30	47	77	111	132	Potential South Oakland area long-term transmission upgrade	
	EASTSHRE 115KV SECTION MD	P2	65	73	114	53	61	71	25	10	133	28	46	74	106	130	Potential South Oakland area long-term transmission upgrade	
	E. SHORE 230KV - MIDDLE BREAKER BAY 2	P2	67	75	113	54	64	76	26	12	134	30	47	77	111	132	Potential South Oakland area long-term transmission upgrade	
	EASTSHORE-SAN MATEO 230KV [4650] and E. SHORE 230/115KV TB 1	P6	109	114	121	< 100	104	109	< 100	< 100	133	< 100	< 100	114	123	Diverge	Potential South Oakland area long-term transmission upgrade	
East Shore - Stack SS 115 kV line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P1	NA	39	72	NA	34	54	NA	27	Diverge	NA	NA	40	101	Diverge	Sensitivity only	
	SAN LEANDRO-OAKLND J #1 115KV [3520]	P1	NA	88	102	NA	57	107	NA	38	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	GRANT-EASTSHORE #1 115KV [1700]	P1	NA	74	105	NA	70	97	NA	31	152	NA	NA	74	92	144	Potential South Oakland area long-term transmission upgrade	
	MORAGA-OAKLAND J 115KV [2760]	P1	NA	88	102	NA	55	107	NA	33	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	SAN LEANDRO-OAKLND J #1 115KV [3520] [STATIN J-EDESICT1]	P2	NA	88	102	NA	57	107	NA	38	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	SN LNDRO 115KV SECTION MD	P2	NA	88	102	NA	57	107	NA	38	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	EASTSHRE 115KV SECTION ME	P2	NA	72	103	NA	66	91	NA	25	148	NA	NA	73	95	140	Potential South Oakland area long-term transmission upgrade	
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	NA	43	102	NA	41	57	NA	22	Diverge	NA	NA	43	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	MORAGA.E 115KV - SECTION 1E & 2E	P2	NA	119	138	NA	100	136	NA	63	Diverge	NA	NA	121	129	Diverge	Potential South Oakland area long-term transmission upgrade	
	MORAGA.D SECTION 1D & MORAGA.E SECTION 1E 115KV	P2	NA	88	101	NA	57	107	NA	32	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	MORAGA.D SECTION 2D & MORAGA.E SECTION 2E 115KV	P2	NA	88	101	NA	63	107	NA	37	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and GRANT-EASTSHORE #1 115KV [1700]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	173	NA	Sensitivity only
	SAN LEANDRO-OAKLND J #1 115KV [3520] and GRANT-EASTSHORE #1 115KV [1700]	P6	< 100	162	180	< 100	< 100	177	< 100	< 100	134	< 100	< 100	164	173	NA	Potential South Oakland area long-term transmission upgrade	
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	NA	45	102	NA	42	59	NA	23	Diverge	NA	NA	46	98	Diverge	Potential South Oakland area long-term transmission upgrade	
	Moraga-Oakland J 115 KV and Moraga-San Leandro No. 3 115 KV lines	P7	NA	88	101	NA	77	107	NA	36	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade	
Moraga-Oakland J 115 KV and San Leandro-Oakland J #1 115 KV lines	P7	NA	88	102	NA	77	107	NA	57	Diverge	NA	NA	89	98	Diverge	Potential South Oakland area long-term transmission upgrade		
Newark 115/60kV Transformer #1	PITTSBURG-SAN RAMON 230KV [5490] and SAN RAMON-MORAGA 230KV [5660]	P6	< 100	< 100	124	< 100	< 100	< 100	< 100	< 100	166	< 100	< 100	< 100	102	NA	Continue to monitor	
Newark-Northern Receiving Station #1 115kV Line	NEWARK E-F BUS TIE 230KV [4640]	P1	97	28	64	32	31	13	32	49	< 100	64	60	30	120	< 100	Sensitivity only	
	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	36	74	NA	30	43	NA	33	98	NA	NA	38	145	115	Sensitivity only	
	SANJOSEHVDC-SANJOSEB #1 115KV [0]	P1	NA	9	50	NA	28	12	NA	43	Diverge	NA	NA	12	112	Diverge	Sensitivity only	
	LOS ESTEROS-NORTECH 115KV [4032]	P1	< 100	6	50	< 100	35	31	< 100	68	< 100	< 100	< 100	24	114	< 100	Sensitivity only	
	SSS 230/230KV TB 1	P1	82	33	67	42	27	34	47	39	< 100	66	60	33	126	< 100	Sensitivity only	
	DVRaGT1 13.80KV & DVRbGT2 13.80KV & DVRAST3 13.80KV Gen Units	P1	62	6	43	30	30	10	31	47	Diverge	46	43	9	102	Diverge	Sensitivity only	
	SSS-NRSriser SVP 230 kV path	P1	82	33	67	42	27	34	47	39	< 100	66	60	33	126	< 100	Sensitivity only	
	Loss of PST 230 kV Path	P1	82	33	67	42	27	34	47	39	< 100	66	60	33	126	< 100	Sensitivity only	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	34	71	NA	26	41	NA	33	Diverge	NA	NA	36	142	Diverge	Sensitivity only	
	LS ESTRS 230KV - Middle Breaker Bay 8	P2	82	33	67	42	27	34	47	39	< 100	66	60	33	126	< 100	Sensitivity only	
	NEWARK D SECTION 1D & NEWARK E SECTION 1E 230KV	P2	102	21	50	35	34	22	33	53	Diverge	65	61	21	105	Diverge	Potential San Jose area long-term transmission upgrade	
	NEWARK E SECTION 1E & NEWARK F SECTION 1F 115KV	P2	72	32	48	35	44	37	34	67	< 100	49	51	30	124	< 100	Sensitivity only	
	NEWARK F 115KV - SECTION 2F & 1F	P2	83	32	52	32	52	36	34	82	Diverge	59	50	29	154	Diverge	Sensitivity only	
	Internal breaker fault at Duane Duane-SRS 115 kV and KRS-Duane 115 kV and DVR	P2	55	6	43	26	30	10	27	47	Diverge	41	36	9	103	Diverge	Sensitivity only	
	LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and NEWARK E-F BUS TIE 230KV [4640]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	140	NA	Sensitivity only
Trimble - San Jose B & FMC - San Jose B 115 KV Lines	P7	59	12	56	31	26	31	32	43	Diverge	47	39	15	122	Diverge	Sensitivity only		
Trimble - San Jose B & Kifer - FMC 115 KV Lines	P7	51	21	48	28	28	14	28	47	Diverge	42	28	9	109	Diverge	Sensitivity only		
Newark - Kifer & FMC - Kifer 115 KV Lines	P7	63	3	51	32	33	12	32	57	Diverge	51	40	6	122	Diverge	Sensitivity only		
Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	137	52	106	49	21	43	53	39	102	102	75	54	175	117	Potential San Jose area long-term transmission upgrade		
Newark-Ames 115 kV Line No. 1	NEWARK-RAVENSWOOD 230KV [5936] and TESLA-RAVENSWOOD 230KV [5730]	P6	< 100	< 100	103	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Continue to monitor	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	83	89	Diverge	56	76	87	53	52	88	82	50	87	80	78	Continue to monitor	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Newark-Ames 115 kV Line No. 3	NEWARK-RAVENSWOOD 230KV [5936] and TESLA-RAVENSWOOD 230KV [5730]	P6	<100	<100	112	<100	<100	107	<100	<100	101	<100	<100	<100	<100	NA	Continue to monitor	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	90	96	Diverge	61	83	95	57	57	95	89	55	94	87	85	Continue to monitor	
Newark-Ames 115 kV Line No. 2	NEWARK-RAVENSWOOD 230KV [5936] and TESLA-RAVENSWOOD 230KV [5730]	P6	<100	<100	115	<100	<100	110	<100	<100	103	<100	<100	<100	<100	NA	Continue to monitor	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	92	99	Diverge	62	84	97	59	58	98	91	56	96	89	87	Continue to monitor	
Newark 230/115kV Transformer #11	NEWARK-RAVENSWOOD 230KV [5936]	P1	84	68	87	51	45	67	42	17	Diverge	65	53	71	102	Diverge	Sensitivity only	
Newark-Lawrence 115 kV Line	Newark-Applied Materials & Lawrence-Monta Vista 115 KV Lines	P7	81	82	81	43	53	68	46	42	109	75	46	83	111	111	Continue to monitor	
	BRITTON-MONTA VISTA 115KV [1170]	P1	76	77	81	48	70	91	43	49	104	69	42	78	138	112	Continue to monitor	
Newark-Applied Materials 115 kV Line	MNTA VSA 115KV - Middle Breaker Bay 2	P2	77	77	82	48	70	91	43	49	103	69	42	78	139	103	Continue to monitor	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and BRITTON-MONTA VISTA 115KV [1170]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	120	NA	Sensitivity only	
	PIERCY-METCALF 115KV [4318] and BRITTON-MONTA VISTA 115KV [1170]	P6	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	120	NA	Sensitivity only	
	Britton-Monta Vista & Lawrence-Monta Vista 115 KV Lines	P7	77	77	81	48	70	91	43	49	Diverge	69	42	78	138	Diverge	Sensitivity only	
Newark-Dixon Landing 115 kV Line	PIERCY-METCALF 115KV [4318]	P1	115	<100	<100	52	<100	<100	56	<100	168	71	56	<100	<100	169	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	MTCALF E 115KV Section 2E	P2	<100	81	109	<100	50	63	<100	15	169	<100	<100	83	171	170	Potential San Jose area long-term transmission upgrade	
	MTCALF D Section 2D & MTCALF E Section 2E 115KV	P2	<100	81	109	<100	50	63	<100	15	170	<100	<100	83	173	170	Potential San Jose area long-term transmission upgrade	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and PIERCY-METCALF 115KV [4318]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	132	NA	Sensitivity only	
	PIERCY-METCALF 115KV [4318] and COMPONENT_SW-TRIMBLE #1 115KV [0]	P6	<100	<100	<100	<100	<100	<100	<100	<100	147	<100	<100	<100	141	NA	Continue to monitor	
Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	115	81	110	52	50	63	56	15	170	71	56	83	179	169	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.		
Newark-Kifer 115 kV Line(Newark-Zinker J2)	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	23	54	NA	17	28	NA	22	85	NA	NA	28	108	101	Sensitivity only	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	22	52	NA	14	27	NA	21	84	NA	NA	26	106	100	Sensitivity only	
	NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	NA	22	58	NA	16	27	NA	20	Diverge	NA	NA	27	113	Diverge	Sensitivity only	
	NRS 400 115 kV bus tie breaker to NRS 300 115 kV bus	P2	227	NA	NA	137	NA	NA	NA	NA	20	209	173	NA	NA	NA	Project: NRS rebuild	
	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and NEWARK E-F BUS TIE 230KV [4640]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	103	NA	Sensitivity only	
	NEWARK E-F BUS TIE 230KV [4640] and LOS ESTEROS-METCALF 230KV [5353]	P6	113	<100	<100	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Potential San Jose area long-term transmission upgrade	
	Newark-Northern Nos. 1 & 2 115 KV lines	P7	61	19	36	25	36	19	30	67	<100	51	37	15	106	<100	Sensitivity only	
	Trimble - San Jose B & FMC - San Jose B 115 KV Lines	P7	51	18	52	29	12	25	35	25	Diverge	51	34	22	103	Diverge	Sensitivity only	
Newark - Northern #1 & #2 115 KV Lines	P7	61	19	36	25	36	19	30	67	<100	51	37	15	106	<100	Sensitivity only		
Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	100	38	82	39	11	31	47	27	94	83	54	43	131	107	Potential San Jose area long-term transmission upgrade		
Newark-Trimble 115 kV Line	COMPONENT_SW-TRIMBLE #1 115KV [0]	P1	NA	25	51	NA	23	50	NA	25	<100	NA	NA	25	310	<100	Sensitivity only	
	TRIMBLE 115KV Section 1F	P2	0	25	51	0	23	50	0	25	<100	0	0	25	307	<100	Sensitivity only	
	COMPONENT_SW 115KV - Middle Breaker Bay 2	P2	NA	25	51	NA	23	50	NA	25	<100	NA	NA	25	310	<100	Sensitivity only	
	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and COMPONENT_SW-TRIMBLE #1 115KV [0]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	211	NA	Sensitivity only	
	NEWARK E-F BUS TIE 230KV [4640] and LOS ESTEROS-METCALF 230KV [5353]	P6	112	<100	<100	<100	<100	<100	<100	<100	Diverge	<100	<100	<100	<100	Diverge	Potential San Jose area long-term transmission upgrade	
Newark-Northern Receiving Station #2 115kV Line	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	96	40	68	25	3	20	32	3	Diverge	75	42	41	126	Diverge	Sensitivity only	
	Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	72	47	60	26	14	31	26	2	82	54	38	49	222	83	Sensitivity only	
	Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	45	24	34	16	15	18	14	22	<100	30	26	25	180	<100	Sensitivity only	
	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	18	54	NA	17	25	NA	27	83	NA	NA	14	109	101	Sensitivity only	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	16	52	NA	14	24	NA	27	82	NA	NA	18	107	100	Sensitivity only	
Newark F - Ringswood 115 kV Line	NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	NA	16	59	NA	17	23	NA	24	Diverge	NA	NA	18	117	Diverge	Sensitivity only	
	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and NEWARK E-F BUS TIE 230KV [4640]	P3	<100	<100	<100	<100	<100	<100	<100	<100	NA	<100	<100	<100	106	NA	Sensitivity only	
	NEWARK E-F BUS TIE 230KV [4640] and LOS ESTEROS-METCALF 230KV [5353]	P6	136	<100	<100	<100	<100	<100	<100	<100	Diverge	113	<100	<100	<100	Diverge	Potential San Jose area long-term transmission upgrade	
	Newark - Kifer & FMC - Kifer 115 KV Lines	P7	47	15	38	18	31	13	23	60	Diverge	45	24	13	101	Diverge	Sensitivity only	
	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	117	36	92	37	10	28	44	36	101	96	51	39	145	115	Potential San Jose area long-term transmission upgrade	
Newark 230/115kV Transformer Bank #7	SWIFT-METCALF 115KV [3900] and NEWARK-MILPITAS #1 115KV [3070] MOAS OPENED ON NEWARK F_BARTRC_J	P6	<100	<100	<100	<100	<100	<100	<100	<100	113	<100	<100	<100	117	NA	Continue to monitor	
	CONTRA COSTA-LAS POSITAS 230KV [4510]	P1	88	42	88	47	48	58	37	19	Diverge	36	53	43	100	Diverge	Sensitivity only	
	LS PSTAS 230/60KV TB 4	P1	82	74	101	47	54	63	38	18	143	42	48	78	106	147	Continue to monitor	
	LS PSTAS 230KV SECTION 1G	P2	82	74	101	47	54	63	38	18	143	42	48	78	106	147	Continue to monitor	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	111	56	72	33	35	36	23	9	Diverge	23	35	57	103	Diverge	Project: Newark 230/115 kV Transformer Bank #7 Circuit Breaker Addition	
LS PSTAS 230KV - SECTION 1F & 1G	P2	85	77	104	50	55	66	40	20	133	44	51	81	110	133	Continue to monitor		
NEWARK E 230KV - SECTION 1E & 2E	P2	62	62	88	32	40	39	22	15	Diverge	20	36	65	110	Diverge	Sensitivity only		

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
San Ramon-Radum 60kV Line	C.COSTAPPD 230KV - SECTION 1D & 2D	P2	83	79	92	46	48	60	36	21	Diverge	41	54	86	105	Diverge	Sensitivity only	
	PITTSBURG-D SECTION 1D & PITTSBURG-E SECTION 1E 230KV	P2	NA	64	81	NA	44	44	NA	9	Diverge	NA	NA	69	111	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and LS PSTAS 230/60KV TB 4	P3	< 100	< 100	101	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	113	Diverge	Continue to monitor
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	107	51	76	26	35	37	19	14	Diverge	20	29	53	88	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	Contra Costa-Las Positas 230 KV and North Dublin-Vineyard 230 KV lines	P7	87	42	97	52	53	66	42	22	Diverge	41	58	43	118	Diverge	Sensitivity only	
	Contra Costa - Las Positas 230 KV and Contra Costa-Lonetree 230 KV lines	P7	88	42	97	52	53	65	42	21	Diverge	41	60	43	109	Diverge	Sensitivity only	
Contra Costa - Las Positas 230 KV and Lonetree - Cayetano 230 KV lines	P7	87	44	96	52	53	65	42	22	Diverge	41	60	45	108	Diverge	Sensitivity only		
Newark-Livermore 60kV Line	LAS POSITAS-NEWARK 230KV [4980] and CONTRA COSTA-LAS POSITAS 230KV [4510]	P6	113	< 100	146	< 100	< 100	< 100	< 100	< 100	207	< 100	< 100	< 100	117	NA	Continue to monitor	
Vineyard-Newark 230kV Line	NEWARK D 230KV SECTION 1D	P2	72	96	86	48	60	86	46	52	92	58	53	100	109	88	Sensitivity only	
	C.COSTAPPE 230KV SECTION 1E	P2	34	57	43	69	65	71	190	9	Diverge	28	35	45	56	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	C.COSTAPPE 230KV SECTION 2E	P2	34	57	43	69	65	72	190	9	Diverge	28	35	30	56	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	C.COSTAPPE - 1E 230KV & ROSSMOOR-MORAGA-C.COSTAPPE LINE	P2	34	57	43	69	65	71	190	9	Diverge	28	35	45	56	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	C.COSTAPPE - 2E 230KV & BVISTAWNDC1-DELTAPMP-C.COSTAPPE LINE	P2	34	57	43	69	65	72	190	9	Diverge	28	35	30	56	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
	C.COSTAPPE 230KV - SECTION 1E & 2E	P2	34	57	43	69	65	71	190	9	Diverge	28	35	45	56	Diverge	Project: Lone Tree – Cayetano – Newark Corridor Series Compensation	
Las Positas 230/60kV Transformer #4	SAN RAMON-MORAGA 230KV [5660] and PITTSBURG-SAN RAMON 230KV [5490]	P6	158	157	207	< 100	106	128	< 100	< 100	272	105	< 100	161	191	NA	Existing reverse power relay.	
Livermore - San Ramon 60 kV Line	LAS POSITAS-NEWARK 230KV [4980] and CONTRA COSTA-LAS POSITAS 230KV [4510]	P6	< 100	< 100	125	< 100	< 100	< 100	< 100	< 100	178	< 100	< 100	< 100	< 100	NA	Continue to monitor	
Newark-Ames Distribution 115 kV Line	NEWARK-RAVENSWOOD 230KV [5936] and TESLA-RAVENSWOOD 230KV [5730]	P6	< 100	< 100	114	< 100	< 100	108	< 100	< 100	102	< 100	< 100	< 100	< 100	NA	Continue to monitor	
Whisman-Monta Vista 115 kV Line	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	91	97	Diverge	61	83	96	58	57	97	90	55	95	88	86	Continue to monitor	
	MINTA VSA 115KV - Middle Breaker Bay 2	P2	74	83	102	51	77	82	65	56	139	97	24	81	119	154	Continue to monitor	
	NEWARK D 230KV - SECTION 2D & 1D	P2	NA	69	96	NA	60	71	NA	40	Diverge	NA	NA	69	102	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MTN VIEW-MONTA VISTA 115KV [2920]	P3	< 100	< 100	101	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	104	Diverge	Continue to monitor	
	MTN VIEW-MONTA VISTA 115KV [2920] and EGBERTSWSTA-JEFFERSN 230KV [0]	P6	< 100	< 100	114	< 100	< 100	< 100	< 100	< 100	163	< 100	< 100	< 100	< 100	NA	Continue to monitor	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	74	79	Diverge	46	70	72	57	48	Diverge	93	25	76	104	Diverge	Sensitivity only	
Mountain View-Monta Vista 115 kV Line	Britton-Monta Vista & Lawrence-Monta Vista 115 KV Lines	P7	67	74	91	44	67	71	55	47	Diverge	85	20	73	110	Diverge	Sensitivity only	
	WHISMAN-MONTA VISTA 115KV [1010]	P1	72	81	101	51	75	79	61	48	156	89	23	80	107	159	Continue to monitor	
	BRITTON-MONTA VISTA 115KV [1170]	P1	66	73	90	45	67	73	52	42	139	77	22	72	103	142	Continue to monitor	
	NEWARK D 230KV SECTION 1D	P2	73	80	110	48	72	85	55	45	156	85	27	80	110	164	Continue to monitor	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	78	70	96	46	60	68	53	35	Diverge	78	26	70	107	Diverge	Sensitivity only	
	NEWARK D 230KV - SECTION 2D & 1D	P2	NA	78	107	NA	67	81	NA	40	Diverge	NA	NA	78	114	Diverge	Continue to monitor	
Monta Vista 230/115 kV Trans No. 2	NEWARK E 230KV - SECTION 1E & 2E	P2	61	71	96	41	64	70	48	38	Diverge	70	21	71	102	Diverge	Sensitivity only	
	MTCALF D Section 2D & MTCALF E Section 2E 115KV	P2	NA	70	89	NA	63	69	NA	35	Diverge	NA	NA	69	101	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and WHISMAN-MONTA VISTA 115KV [1010]	P3	< 100	< 100	108	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	111	Diverge	Continue to monitor	
	WHISMAN-MONTA VISTA 115KV [1010] and JEFFERSN-EGBERTSWSTA 230KV [0]	P6	< 100	102	120	< 100	< 100	< 100	< 100	< 100	171	< 100	< 100	101	< 100	NA	Mitigation under development.	
	Newark-Ravenswood 230 KV and Tesla-Ravenswood 230 KV lines	P7	82	87	Diverge	52	77	82	60	48	Diverge	96	30	84	116	Diverge	Sensitivity only	
	Monta Vista-Jefferson Nos. 1 & 2 230 KV lines	P7	79	87	107	51	81	88	61	47	Diverge	90	27	86	105	Diverge	Continue to monitor	
Monta Vista 230/115 kV Trans No. 3	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	91	81	109	47	72	84	56	46	Diverge	92	27	81	110	Diverge	Continue to monitor	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	83	82	105	47	73	81	57	43	141	87	23	82	111	171	Continue to monitor	
	Britton-Monta Vista & Lawrence-Monta Vista 115 KV Lines	P7	76	82	103	49	74	82	58	47	Diverge	88	25	82	121	Diverge	Continue to monitor	
	Monta Vista-Jefferson 230 KV Lines No. 1 & 2	P7	79	87	107	51	81	88	61	47	Diverge	90	27	86	105	Diverge	Continue to monitor	
	Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	66	75	96	45	68	74	53	40	Diverge	76	22	75	109	Diverge	Sensitivity only	
	MONTAVIS 230/115KV TB 4	P1	63	68	86	49	65	70	45	34	106	60	29	68	101	114	Continue to monitor	
Monta Vista 230/115 kV Trans No. 4	MONTAVIS 230KV - Section 2E & 2D	P2	83	88	118	58	81	87	55	38	135	78	33	88	134	148	Continue to monitor	
	MONTAVIS 230/115KV TB 3 and MONTAVIS 230/115KV TB 4	P6	< 100	102	120	< 100	< 100	104	< 100	< 100	162	< 100	< 100	102	136	NA	Potential new project in the long-term. Operation solution in the interim.	
	MONTAVIS 230KV - Section 1D & 2D	P2	81	86	108	59	79	85	55	38	133	74	35	87	125	145	Continue to monitor	
Monta Vista 230/115 kV Trans No. 3	MONTAVIS 230/115KV TB 4 and MONTAVIS 230/115KV TB 2	P6	< 100	< 100	113	< 100	< 100	< 100	< 100	< 100	148	< 100	< 100	< 100	129	NA	Continue to monitor	
	MONTAVIS 230/115KV TB 2	P1	64	69	86	47	65	70	45	32	107	61	28	69	101	115	Continue to monitor	
Monta Vista 230/115 kV Trans No. 4	MONTAVIS 230/115KV TB 2 and MONTAVIS 230/115KV TB 3	P6	< 100	103	121	< 100	< 100	105	< 100	< 100	152	< 100	< 100	103	138	NA	Potential new project in the long-term. Operation solution in the interim.	
	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	53	68	NA	53	61	NA	34	Diverge	NA	NA	54	109	Diverge	Sensitivity only	
Loss of PST 230 kV Path	SANJOSEHVDC-SANJOSEB #1 115KV [0]	P1	NA	57	67	NA	56	65	NA	37	Diverge	NA	NA	57	106	Diverge	Sensitivity only	
	COMPONENT_SW-TRIMBLE #1 115KV [0]	P1	NA	53	62	NA	53	61	NA	34	< 100	NA	NA	54	109	< 100	Sensitivity only	
	PIERCY-METCALF 115KV [4318]	P1	NA	58	69	NA	57	66	NA	34	Diverge	NA	NA	58	111	Diverge	Sensitivity only	
	NEWARK E 230/115KV TB 11	P1	59	58	67	38	55	66	36	34	Diverge	59	26	58	107	Diverge	Sensitivity only	
	DVRaGT1 13.80kV & DVRBGT2 13.80kV & DVRSST3 13.80kV Gen Units	P1	53	53	62	35	53	61	33	34	Diverge	54	22	54	102	Diverge	Sensitivity only	
	SSS-NRSriser SVP 230 kV path	P1	55	56	64	35	53	61	33	34	< 100	56	22	54	101	< 100	Sensitivity only	
	Loss of PST 230 kV Path	P1	55	56	64	35	53	61	33	34	< 100	56	22	54	101	< 100	Sensitivity only	



Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Britton-Monta Vista 115 kV Line	NEWARK-APPLIED MATERIALS 115KV [2980] (NEWARK F-LCKHD J2)	P2	86	87	89	59	83	104	49	57	116	78	49	88	147	117	Continue to monitor	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and PIERCY-METCALF 115KV [4318]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	105	NA	Sensitivity only	
	MTN VIEW-MONTA VISTA 115KV [2920] and WHISMAN-MONTA VISTA 115KV [1010]	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	114	Diverge	Sensitivity only	
	Tesla-Newark No.1 and Tesla-Ravenswood 230 KV Lines	P7	69	60	73	38	59	69	37	38	Diverge	63	26	60	111	Diverge	Sensitivity only	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV Lines	P7	69	65	77	41	63	73	40	39	103	65	26	65	116	123	Continue to monitor	
	Whisman-Monta Vista & Mountain View-Monta Vista 115 KV Line	P7	68	69	84	44	69	77	45	43	Diverge	73	26	70	122	Diverge	Sensitivity only	
	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	63	61	72	40	59	69	39	38	Diverge	64	26	61	111	Diverge	Sensitivity only	
Newark-Lawrence 115 kV Line	Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	62	64	76	40	62	72	39	37	Diverge	62	26	64	123	Diverge	Sensitivity only	
	Newark-Lawrence 115 KV and Newark-Applied Materials 115 KV Lines	P7	67	67	63	35	40	53	47	44	< 100	67	47	68	111	< 100	Sensitivity only	
Newark-Applied Materials 115 kV Line	LOCKHD 1 115KV Section 1E	P2	64	64	59	32	37	50	43	41	< 100	63	43	64	106	< 100	Sensitivity only	
	LAWRENCE - 1D 115KV & NEWARK F-LAWRENCE-LOCKHD 1 line	P2	63	63	59	32	37	50	43	41	< 100	63	43	64	106	< 100	Sensitivity only	
Loyola-Monta Vista 60 kV Line	LOCKHD 1 - 1E 115KV & NEWARK F-LAWRENCE-LOCKHD 1 line	P2	64	64	59	32	37	50	43	41	< 100	63	43	64	106	< 100	Sensitivity only	
	Base Case	P0	76	83	115	49	66	98	39	9	205	35	38	84	114	204	Continue to monitor	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P1	68	73	100	49	66	87	34	8	Diverge	31	34	75	102	Diverge	Continue to monitor	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	73	100	NA	66	87	NA	8	Diverge	NA	NA	75	102	Diverge	Continue to monitor	
	MONTAVIS 230KV - Section 1D & 2D	P2	68	73	102	49	66	87	34	8	Diverge	31	34	75	105	Diverge	Continue to monitor	
	TABLE MT-VACA-DIX 500KV and VACA-DIX-TESLA 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	149	Continue to monitor	
	PIERCY-METCALF 115KV [4318]	P1	NA	67	97	NA	43	55	NA	8	162	NA	NA	68	176	163	Continue to monitor	
Dixon Landing-McKee 115 kV Line	MTCALF E 115KV Section 2E	P2	NA	67	97	NA	43	55	NA	8	163	NA	NA	68	177	164	Continue to monitor	
	MTCALF D Section 2D & MTCALF E Section 2E 115KV	P2	NA	67	97	NA	43	55	NA	8	164	NA	NA	68	179	164	Continue to monitor	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and PIERCY-METCALF 115KV [4318]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	131	NA	Sensitivity only	
	PIERCY-METCALF 115KV [4318] and NEWARK E 230/115KV TB 11	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	136	< 100	< 100	< 100	138	NA	Continue to monitor	
	Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	64	67	98	32	43	55	31	8	161	33	31	69	185	161	Continue to monitor	
	Northern - Scott #1 and #2 115 KV Lines	P7	101	21	43	54	21	23	63	36	< 100	90	71	19	76	< 100	Potential San Jose area long-term transmission upgrade	
	PGAE lines but internal to SVP - NRS-SRS#2 115 kv and NRS-SRS#1 115 kv	P7	101	21	43	54	21	23	63	36	< 100	90	71	19	76	< 100	Potential San Jose area long-term transmission upgrade	
Zanker - Component SW 115 kV line	COMPONENT_SW-TRIMBLE #1 115KV [0]	P1	NA	25	51	NA	23	50	NA	25	< 100	NA	NA	25	310	< 100	Sensitivity only	
	TRIMBLE 115KV Section 1F	P2	NA	25	51	NA	23	50	NA	25	< 100	NA	NA	25	307	< 100	Sensitivity only	
	COMPONENT_SW 115KV - Middle Breaker Bay 2	P2	NA	25	51	NA	23	50	NA	25	< 100	NA	NA	25	310	< 100	Sensitivity only	
	LECEFGT1 13.80KV & LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and COMPONENT_SW-TRIMBLE #1 115KV [0]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	211	NA	Sensitivity only	
	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	NA	40	68	NA	4	20	NA	3	Diverge	NA	NA	41	126	Diverge	Sensitivity only	
	Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	NA	47	60	NA	14	31	NA	2	82	NA	NA	49	222	83	Sensitivity only	
	Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	NA	25	34	NA	15	18	NA	22	< 100	NA	NA	25	180	< 100	Sensitivity only	
Montague-Trimble 115 kV Line	LOS ESTEROS-TRIMBLE 115KV [2550]	P1	NA	20	23	NA	13	25	NA	6	< 100	NA	NA	21	130	< 100	Sensitivity only	
	TRIMBLE 115KV Section 1D	P2	NA	17	20	NA	12	24	NA	8	< 100	NA	NA	18	125	< 100	Sensitivity only	
	LS ESTRS 115KV - Middle Breaker Bay 4	P2	NA	20	23	NA	13	25	NA	6	< 100	NA	NA	21	130	< 100	Sensitivity only	
	MTCALF E1-25 25.00KV Gen Unit En and LOS ESTEROS-TRIMBLE 115KV [2550]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	120	NA	Sensitivity only	
	LOS ESTEROS-TRIMBLE 115KV [2550] and TRIMBLE-SAN JOSE B 115KV [4030]	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	164	Diverge	Sensitivity only	
Trimble - San Jose B - DG 115 kV line	NEWARK E 230KV - SECTION 1E & 2E	P2	NA	69	78	NA	69	68	NA	79	Diverge	NA	NA	68	112	Diverge	Sensitivity only	
	LS ESTRS1-25 25.00KV Gen Unit En and FMC-SAN JOSE B 115KV [2021]	P3	< 100	< 100	109	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	132	Diverge	Potential San Jose area long-term transmission upgrade	
	FMC-SAN JOSE B 115KV [2021] and LOS ESTEROS-METCALF 230KV [5353]	P6	< 100	104	125	< 100	116	117	< 100	105	Diverge	< 100	< 100	101	145	Diverge	Potential San Jose area long-term transmission upgrade	
	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV Lines	P7	NA	72	83	NA	80	77	NA	83	Diverge	NA	NA	70	108	Diverge	Sensitivity only	
El Patio-San Jose Sta. 'A' 115 kV Line	Newark - Kifer & FMC - Kifer 115 KV Lines	P7	NA	69	86	NA	85	86	NA	87	Diverge	NA	NA	67	113	Diverge	Sensitivity only	
	SANJOSEBHVDC-SANJOSEB #1 115KV [0]	P1	NA	47	65	NA	33	50	NA	22	90	NA	NA	47	102	96	Sensitivity only	
	Metcalf - Evergreen #1 and #2 115 KV Lines	P7	68	34	60	33	25	34	46	44	102	69	30	34	102	108	Potential San Jose area long-term transmission upgrade	
FMC-San Jose 'B' 115 kV Line	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	76	36	65	33	24	35	47	34	92	76	32	36	103	98	Sensitivity only	
	NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus	P2	142	NA	NA	107	NA	NA	120	NA	NA	147	112	NA	NA	NA	Project: NRS rebuild	
San Jose B - FMC 115 kV line	NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus	P2	116	NA	NA	89	NA	NA	101	NA	NA	123	93	NA	NA	NA	Project: NRS rebuild	
	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	67	95	NA	66	79	NA	52	Diverge	NA	NA	67	113	Diverge	Sensitivity only	
	TRIMBLE-SAN JOSE B 115KV [4030]	P1	NA	69	88	NA	71	83	NA	62	< 100	NA	NA	69	102	< 100	Sensitivity only	
	LOS ESTEROS-NORTECH 115KV [4032]	P1	NA	63	88	NA	59	78	NA	33	< 100	NA	NA	64	105	< 100	Sensitivity only	
	SSS 230/230KV TB 1	P1	NA	71	93	NA	66	79	NA	52	124	NA	NA	70	106	NA	Continue to monitor	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	69	95	NA	68	82	NA	55	Diverge	NA	NA	70	114	Diverge	Sensitivity only	
	NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	NA	70	105	NA	68	82	NA	54	134	NA	NA	70	116	141	Potential San Jose area long-term transmission upgrade	
San Jose B - FMC 115 kV line	LS ESTRS 230KV - Middle Breaker Bay 8	P2	NA	71	93	NA	66	79	NA	52	124	NA	NA	70	106	NA	Continue to monitor	
	NEWARK D 230KV - SECTION 2D & 1D	P2	NA	61	85	NA	57	73	NA	41	Diverge	NA	NA	61	105	Diverge	Sensitivity only	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and TRIMBLE-SAN JOSE B 115KV [4030]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	105	NA	Sensitivity only	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
LOS ESTEROS-NORTECH 115KV [4032] and SSS 230/230KV TB 1	P6	< 100	< 100	120	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	136	NA	Potential San Jose area long-term transmission upgrade	
	P7	NA	53	78	NA	50	68	NA	31	< 100	NA	NA	54	103	129	129	Sensitivity only	
	P7	NA	53	78	NA	50	68	NA	31	< 100	NA	NA	54	103	129	129	Sensitivity only	
El Patio-San Jose Sta. 'A' 115 kV Line	P7	NA	69	92	NA	66	80	NA	45	Diverge	NA	NA	69	114	Diverge	Diverge	Sensitivity only	
	P1	NA	24	46	NA	39	30	NA	62	102	NA	NA	24	102	108	108	Continue to monitor	
	P2	95	NA	NA	64	NA	NA	67	NA	NA	101	43	NA	NA	NA	NA	Sensitivity only	
	P2	77	32	63	46	16	33	48	48	Diverge	78	35	32	107	107	Diverge	Sensitivity only	
	P2	80	34	70	46	17	35	48	48	Diverge	77	35	35	115	115	Diverge	Sensitivity only	
	P2	NA	30	51	NA	39	33	NA	60	111	NA	NA	30	108	117	117	Continue to monitor	
	P2	NA	29	50	NA	39	32	NA	60	108	NA	NA	28	107	114	114	Continue to monitor	
	P2	68	31	69	45	26	36	49	46	Diverge	76	25	30	107	107	Diverge	Sensitivity only	
	P2	102	NA	NA	69	NA	NA	74	NA	NA	103	59	NA	NA	NA	NA	Project: NRS rebuild	
	P6	110	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	109	< 100	< 100	< 100	Diverge	Diverge	Potential San Jose area long-term transmission upgrade
	P7	84	39	75	48	40	42	52	48	119	82	29	39	118	129	129	Potential San Jose area long-term transmission upgrade	
	P7	71	36	63	47	40	40	50	49	Diverge	74	30	36	115	Diverge	Diverge	Sensitivity only	
P7	69	31	53	46	17	34	48	18	Diverge	72	32	31	120	120	Diverge	Sensitivity only		
San Jose Sta 'A'- 'B' 115 kV Line	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	132	Diverge	Diverge	Potential San Jose area long-term transmission upgrade	
	P7	NA	71	87	NA	40	57	NA	18	122	NA	NA	72	143	123	123	Potential San Jose area long-term transmission upgrade	
	P7	NA	40	85	NA	22	41	NA	53	121	NA	NA	39	104	128	128	Potential San Jose area long-term transmission upgrade	
	P2	102	NA	NA	63	NA	NA	78	NA	NA	107	61	NA	NA	NA	NA	Project: NRS rebuild	
San Jose 'B'-Stone-Evergreen 115 kV Line	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	136	NA	NA	Sensitivity only	
	P7	NA	23	57	NA	29	31	NA	53	101	NA	NA	23	107	107	107	Potential San Jose area long-term transmission upgrade	
	P7	NA	81	97	NA	44	59	NA	10	153	NA	NA	82	104	155	155	Potential San Jose area long-term transmission upgrade	
Metcalf-El Patio No. 1 115 kV Line	P1	NA	58	77	NA	42	54	NA	20	Diverge	NA	NA	59	106	Diverge	Diverge	Sensitivity only	
	P2	NA	54	64	NA	36	49	NA	29	113	NA	NA	55	104	128	128	Potential San Jose area long-term transmission upgrade	
	P2	NA	54	64	NA	36	49	NA	29	113	NA	NA	55	104	128	128	Potential San Jose area long-term transmission upgrade	
	P2	NA	61	76	NA	40	55	NA	30	129	NA	NA	61	123	135	135	Potential San Jose area long-term transmission upgrade	
	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	102	NA	NA	Sensitivity only	
	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	128	NA	NA	Sensitivity only	
	P7	73	49	70	38	32	43	44	26	Diverge	66	32	49	102	Diverge	Diverge	Sensitivity only	
Metcalf-El Patio No. 2 115 kV Line	P7	78	51	73	38	32	44	45	20	Diverge	71	34	51	102	Diverge	Diverge	Sensitivity only	
	P1	NA	58	77	NA	43	54	NA	20	Diverge	NA	NA	59	106	Diverge	Diverge	Sensitivity only	
	P2	NA	60	74	NA	41	55	NA	28	129	NA	NA	60	111	136	136	Potential San Jose area long-term transmission upgrade	
	P2	NA	60	74	NA	41	55	NA	28	129	NA	NA	60	111	136	136	Potential San Jose area long-term transmission upgrade	
	P2	NA	61	75	NA	42	56	NA	27	130	NA	NA	61	112	138	138	Potential San Jose area long-term transmission upgrade	
	P2	NA	60	74	NA	41	55	NA	28	129	NA	NA	60	111	136	136	Potential San Jose area long-term transmission upgrade	
	P2	NA	66	86	NA	45	61	NA	29	140	NA	NA	67	128	146	146	Potential San Jose area long-term transmission upgrade	
Swift-Metcalf 115 kV Line	P7	73	49	70	39	32	43	44	26	Diverge	66	32	49	102	Diverge	Diverge	Sensitivity only	
	P7	78	51	73	39	33	44	45	20	Diverge	71	34	51	102	Diverge	Diverge	Sensitivity only	
	P1	NA	64	84	NA	53	63	NA	23	Diverge	NA	NA	64	104	Diverge	Diverge	Sensitivity only	
	P2	NA	66	93	NA	54	63	NA	21	Diverge	NA	NA	66	112	Diverge	Diverge	Sensitivity only	
	P2	67	65	85	44	50	60	44	23	128	55	32	65	112	132	132	Continue to monitor	
	P2	101	103	139	55	71	86	54	39	176	66	54	104	227	177	177	Project: Metcalf – Piercy & Swift – Metcalf and Newark – Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	P2	NA	66	94	NA	54	64	NA	21	Diverge	NA	NA	67	114	Diverge	Diverge	Sensitivity only	
	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	103	NA	NA	Sensitivity only	
	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	108	Diverge	Diverge	Sensitivity only	
	P7	79	66	89	45	54	66	46	26	Diverge	66	30	66	104	Diverge	Diverge	Sensitivity only	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines		P7	76	68	90	46	56	67	48	25	130	66	29	69	107	151	Potential San Jose area long-term transmission upgrade	
Trimble - San Jose B & FMC - San Jose B 115 KV Lines		P7	61	65	85	43	55	66	45	28	Diverge	59	25	65	103	Diverge	Sensitivity only	
NEWARK-DIXON LANDING 115KV [2990]		P1	NA	95	127	NA	58	73	NA	19	196	NA	NA	97	134	197	Potential San Jose area long-term transmission upgrade	
NEWARK F 115KV SECTION 2F		P2	NA	95	127	NA	58	73	NA	19	196	NA	NA	97	135	197	Potential San Jose area long-term transmission upgrade	
NEWARK F - 2F 115KV & NEWARK-NUMMI LINE		P2	NA	95	127	NA	58	73	NA	19	196	NA	NA	97	135	197	Potential San Jose area long-term transmission upgrade	
NEWARK F - 2F 115KV & NEWARK F-LOCKHD 2-APP MAT LINE		P2	NA	95	127	NA	58	73	NA	19	197	NA	NA	97	134	198	Potential San Jose area long-term transmission upgrade	
NEWARK F - 2F 115KV & NEWARK F-COMPONENT_SW LINE		P2	NA	95	127	NA	58	73	NA	19	196	NA	NA	97	135	197	Potential San Jose area long-term transmission upgrade	
NEWARK F 115KV - SECTION 2F & 1F		P2	NA	95	129	NA	58	73	NA	19	Diverge	NA	NA	97	146	Diverge	Potential San Jose area long-term transmission upgrade	
RUSCTYECST1 18.00KV & RUSCTYEC22 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and NEWARK-DIXON LANDING 115KV [2990]		P3	< 100	< 100	111	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	113	Diverge	Potential San Jose area long-term transmission upgrade	
NEWARK-DIXON LANDING 115KV [2990] and RUSCTYECST1 18.00KV & RUSCTYEC22 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS		P6	< 100	< 100	111	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	114	Diverge	Potential San Jose area long-term transmission upgrade	
Newark-Dixon Landing 115 KV and Newark-Milpitas No. 1 115 KV lines		P7	NA	95	127	NA	58	73	NA	19	NA	NA	NA	97	134	217	Potential San Jose area long-term transmission upgrade	
Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines		P7	NA	77	103	NA	63	77	NA	28	Diverge	NA	NA	78	105	Diverge	Potential San Jose area long-term transmission upgrade	
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines		P7	NA	81	104	NA	65	78	NA	27	Diverge	NA	NA	81	109	Diverge	Potential San Jose area long-term transmission upgrade	
Trimble - San Jose B & FMC - San Jose B 115 KV Lines		P7	NA	76	98	NA	64	77	NA	31	Diverge	NA	NA	76	104	Diverge	Sensitivity only	
Newark - Dixon Landing & Newark - Milpitas #1 115 KV Lines		P7	NA	95	127	NA	58	73	NA	19	NA	NA	NA	97	134	217	Potential San Jose area long-term transmission upgrade	
MTCALF E 115KV Section 2E		P2	NA	NA	NA	NA	NA	NA	NA	NA	123	NA	NA	NA	108	127	Potential San Jose area long-term transmission upgrade	
MTCALF D Section 2D & MTCALF E Section 2E 115KV		P2	NA	NA	NA	NA	NA	NA	NA	NA	136	NA	NA	NA	120	141	Potential San Jose area long-term transmission upgrade	
EL PATIO-SAN JOSE A 115KV [1520] and EVRGRN 1-MTCALF E #2 115KV [0]		P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	126	< 100	< 100	< 100	111	NA	Potential San Jose area long-term transmission upgrade	
MTCALF D Section 1D & MTCALF E Section 1E 115KV		P2	NA	58	78	NA	37	49	NA	25	119	NA	NA	59	102	124	Potential San Jose area long-term transmission upgrade	
EL PATIO-SAN JOSE A 115KV [1520] and METCALF-EVERGREEN #1 115KV [2520]		P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	127	< 100	< 100	< 100	112	NA	Potential San Jose area long-term transmission upgrade	
Metcalf 230/115 kv Trans No. 1		P6	113	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	104	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf 230/115 kv Trans No. 4		P6	113	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	104	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf-Morgan Hill 115 kv Line		P3	< 100	< 100	110	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Morgan Hill area reinforcement. Under review	
AWSGILROYSS-LLAGAS #1 115KV [0] and GREENVALLEY-MRGN HIL #1 115KV [0]		P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	119	< 100	< 100	< 100	144	NA	Project: Morgan Hill area reinforcement. Under review	
Base Case		P0	89	58	80	36	31	51	54	36	147	82	40	58	118	153	Potential San Jose area long-term transmission upgrade	
NEWARKHVDC-NEWARK D #1 230KV [0]		P1	NA	56	78	NA	32	50	NA	29	Diverge	NA	NA	56	119	Diverge	Sensitivity only	
MTCALF-EL PATIO #1 115KV [2500]		P1	105	67	94	46	37	59	64	68	160	97	47	40	141	171	Project: South Bay Area Limiting Elements Upgrade. Long-term: Potential San Jose area transmission upgrade	
MTCALF-EVERGREEN #1 115KV [2520]		P1	NA	56	79	NA	31	50	NA	34	135	NA	NA	57	117	144	Potential San Jose area long-term transmission upgrade	
EVRGRN 1-MTCALF E #2 115KV [0]		P1	NA	56	79	NA	31	50	NA	34	135	NA	NA	57	117	144	Potential San Jose area long-term transmission upgrade	
DVRaGT1 13.80KV & DVrbGT2 13.80KV & DVraST3 13.80KV Gen Units		P1	82	54	74	37	27	48	51	2	Diverge	76	38	54	110	Diverge	Sensitivity only	
TESLA-LOS BANOS 500KV		P1	78	51	70	34	26	47	47	3	Diverge	72	35	51	104	Diverge	Sensitivity only	
SSS-NRSrser SVP 230 kv path		P1	83	56	76	37	32	49	52	1	< 100	77	39	56	112	< 100	Sensitivity only	
Loss of PST 230 kv Path		P1	83	56	76	37	32	49	52	1	< 100	77	39	56	112	< 100	Sensitivity only	
Internal breaker fault at Duane Duane-SRS 115 kv and KRS-Duane 115 kv and DVR		P2	85	54	74	39	27	48	54	2	Diverge	78	41	54	109	Diverge	Sensitivity only	
NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus		P2	113	NA	NA	52	NA	NA	72	NA	103	61	NA	NA	NA	NA	Project: NRS rebuild	
RUSCTYECST1 18.00KV & RUSCTYEC22 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and SANJOSEHVDC-SANJOSEB #1 115KV [0]		P3	< 100	< 100	111	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	146	Diverge	Potential San Jose area long-term transmission upgrade	
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines		P7	98	65	94	40	36	58	56	0	Diverge	87	38	66	131	Diverge	Sensitivity only	
Swift - Metcalf & Piercy - Metcalf 115 KV Lines		P7	88	62	87	39	35	56	54	2	Diverge	81	39	63	130	Diverge	Sensitivity only	
Los Esteros - Trimble & Los Esteros - Montague 115 KV		P7	87	58	79	39	31	51	53	31	Diverge	79	41	59	137	Diverge	Sensitivity only	
PG&E lines but internal to SVP - NRS-SRS#2 115 kv and NRS-SRS#1 115 kv		P7	87	52	72	39	29	44	55	31	< 100	80	42	52	107	< 100	Sensitivity only	
Metcalf-I laaac 115 kv Line		P3	< 100	< 100	113	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Morgan Hill area reinforcement. Under review	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Metcalf - Llagas 230 kV Line	LLAGAS-GILROY F-GILROYENG-GILROYPK 115KV [0] and MRGN HIL-AWSGILROYSS #1 115KV [0]	P6	< 100	< 100	136	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	115	Diverge	Project: Morgan Hill area reinforcement. Under review
Metcalf 230/115 kV Trans No. 2	METCALF 230KV Section 2D	P2	104	79	97	48	65	69	52	32	115	83	41	80	103	120	Potential San Jose area long-term transmission upgrade	
	METCALF 230KV - Section 1D & 2D	P2	106	82	99	50	68	72	54	32	125	85	42	83	106	127	Potential San Jose area long-term transmission upgrade	
	METCALF 230KV - Section 2D & 2E	P2	106	75	96	49	61	70	53	32	112	84	43	76	99	116	Potential San Jose area long-term transmission upgrade	
	MTCALF E1-2S 25.00KV Gen Unit En and METCALF 230/115KV TB 4	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	104	NA	Sensitivity only	
	METCALF 230/115KV TB 1 and METCALF 230/115KV TB 4	P6	127	< 100	111	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	117	Diverge	Potential San Jose area long-term transmission upgrade	
Metcalf 230/115 kV Trans No. 3	METCALF 230KV Section 2D	P2	101	77	94	47	63	67	51	31	112	80	40	78	100	116	Potential San Jose area long-term transmission upgrade	
	METCALF 230KV - Section 1D & 2D	P2	103	80	96	48	66	70	52	31	121	82	41	81	103	123	Potential San Jose area long-term transmission upgrade	
	METCALF 230KV - Section 2D & 2E	P2	103	73	93	48	59	68	52	31	109	82	41	74	96	113	Potential San Jose area long-term transmission upgrade	
	MTCALF E1-2S 25.00KV Gen Unit En and METCALF 230/115KV TB 4	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	100	NA	Sensitivity only	
	METCALF 230/115KV TB 4 and METCALF 230/115KV TB 2	P6	124	< 100	109	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	115	Diverge	Potential San Jose area long-term transmission upgrade	
Morgan Hill - AWS Gilroy 115 kV Line	GROYPKR1 13.80KV Gen Unit 1 and MTCALF D-LLAGAS 115KV [0]	P3	< 100	< 100	120	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Project: Morgan Hill area reinforcement. Under review	
	LLAGAS-GILROY F-GILROYENG-GILROYPK 115KV [0] and MTCALF D-LLAGAS 115KV [0]	P6	< 100	102	143	< 100	< 100	< 100	< 100	< 100	108	< 100	< 100	103	122	105	Project: Morgan Hill area reinforcement. Under review	
	Metcalf - Morgan Hill & Metcalf - Llagas 115 KV Lines	P7	0	28	158	0	13	63	0	42	NA	0	0	27	16	NA	Project: Morgan Hill area reinforcement. Under review	
Piercy-Metcalf 115 kV Line	Base Case	P0	68	60	77	40	47	56	44	16	139	57	29	60	113	141	Potential San Jose area long-term transmission upgrade	
	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS	P1	72	63	82	44	49	59	44	16	Diverge	57	32	64	121	Diverge	Sensitivity only	
	TESLA-NEWARK #2 230KV [5354]	P1	74	64	83	42	49	60	49	16	Diverge	61	29	64	121	Diverge	Sensitivity only	
	NEWARK-DIXON LANDING 115KV [2990]	P1	106	81	109	49	49	62	50	13	168	65	50	82	150	169	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	COMPONENT_SW-TRIMBLE #1 115KV [0]	P1	NA	60	77	NA	47	56	NA	16	< 100	NA	NA	60	121	< 100	Sensitivity only	
	SWIFT-METCALF 115KV [3900]	P1	NA	66	86	NA	52	62	NA	18	Diverge	NA	NA	66	123	Diverge	Sensitivity only	
	DVRaGT1 13.80kV & DVRbGT2 13.80kV & DVRaST3 13.80kV Gen Units	P1	68	60	77	40	47	56	44	16	Diverge	57	29	60	115	Diverge	Sensitivity only	
	TRACY-LOSBANOS 500kV	P1	68	60	77	40	48	58	44	18	Diverge	57	29	60	113	Diverge	Sensitivity only	
	TESLA-METCALF 500kV	P1	52	48	63	38	47	49	42	12	Diverge	40	17	47	101	Diverge	Sensitivity only	
	TESLA-LOSBANOS 500kV	P1	68	60	77	40	48	59	49	18	Diverge	57	29	60	113	Diverge	Sensitivity only	
	SSS-NRSrser SVP 230 kV path	P1	68	60	77	40	47	56	44	16	< 100	57	29	60	115	< 100	Sensitivity only	
	Loss of PST 230 kV Path	P1	68	60	77	40	47	56	44	16	< 100	57	29	60	115	< 100	Sensitivity only	
	NEWARK F 115KV SECTION 2F	P2	106	81	109	49	49	62	50	13	169	65	50	82	151	169	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	NEWARK F - 2F 115KV & NEWARK-NUMMI LINE	P2	106	81	109	49	49	62	50	13	169	65	50	82	151	169	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	NEWARK F - 2F 115KV & NEWARK F-LOCKHD 2-APP MAT LINE	P2	106	81	109	49	49	62	50	13	169	65	50	82	150	170	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	NEWARK F - 2F 115KV & NEWARK-TRIMBLE LINE	P2	106	NA	NA	49	NA	NA	50	NA	186	65	50	NA	NA	183	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	NEWARK F - 2F 115KV & NEWARK F-COMPONENT_SW LINE	P2	NA	81	109	NA	49	62	NA	13	169	NA	NA	82	151	169	Potential San Jose area long-term transmission upgrade	
NEWARK F 115KV - SECTION 2F & 1F	P2	107	81	111	49	49	62	50	13	Diverge	65	50	83	162	Diverge	Project: Metcalf - Piercy & Swift - Metcalf and Newark - Dixon Landing 115 kV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.		
Internal breaker fault at Duane Duane-SRS 115 kV and KRS-Duane 115 kV and DVR	P2	68	60	77	40	47	56	44	16	Diverge	57	29	60	115	Diverge	Sensitivity only		
RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and NEWARK-DIXON LANDING 115KV [2990]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	132	NA	Sensitivity only		

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)									Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions	
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Newark-Dixon Landing 115 KV and Newark-Milpitas No. 1 115 KV lines	P7		106	81	109	49	49	62	50	13	NA	65	50	82	150	184	Project: Metcalf – Piercy & Swift – Metcalf and Newark – Dixon Landing 115 KV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	P7		88	68	91	45	53	65	49	21	Diverge	69	34	68	128	128	Sensitivity only	
	P7		86	70	92	46	54	66	51	20	Diverge	69	32	71	131	131	Diverge	
	P7		72	67	87	44	54	65	48	23	Diverge	63	29	67	127	127	Diverge	
Newark - Dixon Landing & Newark - Milpitas #1 115 KV Lines	P7		106	81	109	49	49	62	50	13	NA	65	50	82	150	184	Project: Metcalf – Piercy & Swift – Metcalf and Newark – Dixon Landing 115 KV Upgrade. Potential rescope as part of the San Jose long-term transmission solution.	
	P6		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	120	< 100	< 100	< 100	< 100	< 100	Potential San Jose area long-term transmission upgrade	
LECEF Outage	P2		NA	82	6	NA	80	81	NA	41	98	NA	NA	82	101	99	Sensitivity only	
	P2		NA	34	84	NA	16	28	NA	26	77	NA	NA	38	114	81	Sensitivity only	
Los Esteros 230/115 KV Trans No. 3	P3		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	121	NA	Sensitivity only	
	P6		115	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	126	126	Potential San Jose area long-term transmission upgrade	
Los Esteros 230/115 KV Trans No. 4	P3		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	121	NA	Sensitivity only	
	P6		115	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	126	126	Potential San Jose area long-term transmission upgrade	
Los Esteros-Montague 115 KV Line	P1		NA	47	51	NA	24	39	NA	12	86	NA	NA	49	136	86	Sensitivity only	
	P2		NA	45	48	NA	23	37	NA	11	83	NA	NA	46	133	82	Sensitivity only	
	P2		NA	47	51	NA	24	39	NA	12	86	NA	NA	49	136	86	Sensitivity only	
	P3		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	126	NA	Sensitivity only	
	P6		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	163	163	Potential San Jose area long-term transmission upgrade
Los Esteros-Trimble 115 KV Line	P0		37	37	41	25	18	33	24	9	82	29	30	38	114	81	Sensitivity only	
	P1		NA	45	52	NA	31	41	NA	19	Diverge	NA	NA	46	129	129	Diverge	
	P1		NA	31	36	NA	16	31	NA	9	< 100	NA	NA	30	131	< 100	Sensitivity only	
	P1		NA	44	50	NA	33	43	NA	24	< 100	NA	NA	45	124	< 100	Sensitivity only	
	P1		NA	52	56	NA	29	43	NA	12	96	NA	NA	53	154	96	Sensitivity only	
	P1		NA	39	48	NA	22	38	NA	2	< 100	NA	NA	41	122	< 100	Sensitivity only	
	P1		33	33	36	25	18	29	21	8	Diverge	25	27	34	107	107	Diverge	
	P1		39	38	43	25	18	32	21	7	Diverge	31	32	40	111	111	Diverge	
	P1		36	35	42	27	20	31	23	9	Diverge	29	29	36	112	112	Diverge	
	P1		36	35	42	27	20	31	23	9	Diverge	29	29	36	112	112	Diverge	
	P2		48	47	51	35	26	41	31	11	< 100	37	38	49	149	< 100	Sensitivity only	
	P2		NA	52	56	NA	29	43	NA	12	96	NA	NA	53	154	96	Sensitivity only	
	P2		35	36	39	30	20	34	25	9	< 100	25	32	37	137	< 100	Sensitivity only	
	P2		42	42	46	33	23	39	28	10	< 100	32	35	43	144	< 100	Sensitivity only	
	P2		36	33	36	28	18	29	24	8	Diverge	28	30	34	107	107	Diverge	
	P3		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	146	NA	Sensitivity only
	P6		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	106	< 100	< 100	< 100	177	NA	Potential San Jose area long-term transmission upgrade
	P7		35	36	39	30	20	34	25	9	< 100	25	32	37	137	< 100	Sensitivity only	
	P7		30	43	49	21	32	41	19	23	Diverge	27	19	43	128	128	Diverge	
	P7		30	43	49	21	32	41	19	23	Diverge	27	20	44	127	127	Diverge	
P7		43	38	44	30	22	34	27	8	Diverge	35	30	40	119	119	Diverge		
P7		39	38	43	28	21	33	25	8	Diverge	31	29	39	117	117	Diverge		
Los Esteros - Nortech 115 KV line	P0		59	41	76	45	19	61	53	46	116	60	52	45	132	124	Potential San Jose area long-term transmission upgrade	
	P3		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	113	113	Diverge	
	P6		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	135	135	Diverge	
	P6		< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103	103
Nortech-NRS 115 KV Line	P1		80	68	81	83	47	84	88	18	118	81	87	69	105	120	Potential San Jose area long-term transmission upgrade	
	P1		80	68	81	83	47	84	88	18	124	81	87	69	105	120	Potential San Jose area long-term transmission upgrade	
	P1		80	68	81	83	47	84	88	18	118	81	87	69	105	120	Potential San Jose area long-term transmission upgrade	
	P2		NA	54	78	NA	42	81	NA	25	126	NA	NA	59	101	129	Potential San Jose area long-term transmission upgrade	
	P2		80	68	81	83	47	84	88	18	118	81	87	69	105	120	Potential San Jose area long-term transmission upgrade	

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Evergreen 115/60 kV Transformer #1	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and SSS 230/230KV TB 1	P3	< 100	< 100	102	< 100	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	111	Diverge	Potential San Jose area long-term transmission upgrade
	SSS 230/230KV TB 1 and NEWARKHVDC-NEWARK D #1 230KV [0]	P6	< 100	115	120	< 100	< 100	122	< 100	< 100	Diverge	< 100	< 100	116	135	Diverge	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.	
	Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	63	45	78	62	26	65	55	48	Diverge	59	59	49	125	Diverge	Sensitivity only	
	Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	49	32	64	57	21	58	49	55	108	46	52	36	112	NA	Potential San Jose area long-term transmission upgrade	
Evergreen-Almaden 60 kV Line	MONTA VISTA-LOS GATOS 60KV [7610]	P1	NA	73	107	NA	51	61	NA	8	140	NA	NA	74	110	141	Continue to monitor	
	MONTA VISTA-LOS GATOS 60KV [7610]	P1	106	112	168	54	75	94	49	14	237	57	49	114	177	238	Disable automatics.	
Green Valley - Morgan Hill 115 kV line	RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and MONTA VISTA-LOS GATOS 60KV [7610]	P3	< 100	< 100	143	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	145	Diverge	Continue to monitor	
	TRACY-LOS BANOS 500KV and VACA-DIX-TESLA 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	119	< 100	< 100	< 100	< 100	< 100	Continue to monitor	
	TESLA-METCALF 500KV and METCALF-MOSSLAND 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	115	< 100	< 100	< 100	< 100	115	Continue to monitor	
Moss Landing-Green Valley #1 115 kV Line	Metcalf - Morgan Hill & Metcalf - Llagas 115 KV Lines	P7	NA	18	122	NA	26	6	NA	26	NA	NA	NA	19	32	NA	Continue to monitor	
Moss Landing-Green Valley #2 115 kV Line	Metcalf - Morgan Hill & Metcalf - Llagas 115 KV Lines	P7	28	42	117	27	55	34	18	13	NA	8	18	44	57	NA	Continue to monitor	
Ringwood - Milpitas 115 kV Line	TESLA-METCALF 500KV and METCALF-MOSSLAND 500KV	P6	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	112	< 100	< 100	< 100	< 100	113	Continue to monitor	
Llagas - AWS Gilroy 115 kV line	NEWARK F 115KV - SECTION 2F & 1F	P2	18	49	54	15	42	46	17	45	Diverge	18	17	49	136	Diverge	Sensitivity only	
Trimble - Component SW 115 kV line	LLAGAS-GILROY F-GILROYENG-GILROYPK 115KV [0] and METCALF D-LLAGAS 115KV [0]	P6	< 100	< 100	122	< 100	< 100	< 100	< 100	< 100	Diverge	< 100	< 100	< 100	< 100	Diverge	Project: Morgan Hill area reinforcement. Under review	
	NEWARK F-COMPONENT SW 115KV [0]	P1	NA	25	50	NA	23	49	NA	25	< 100	NA	NA	25	231	< 100	Sensitivity only	
	COMPONENT_SW-NEWARK F 115KV [0]	P1	NA	25	50	NA	23	49	NA	25	< 100	NA	NA	25	231	< 100	Sensitivity only	
	DVRaGT1 13.80KV & DVRbGT2 13.80KV & DVRaST3 13.80KV Gen Units	P1	NA	27	40	NA	37	57	NA	34	Diverge	NA	NA	26	184	Diverge	Sensitivity only	
	SSS-NRSrser SVP 230 kV path	P1	NA	29	46	NA	39	60	NA	36	< 100	NA	NA	28	187	< 100	Sensitivity only	
	Loss of PST 230 kV Path	P1	NA	29	46	NA	39	60	NA	36	< 100	NA	NA	28	187	< 100	Sensitivity only	
	NRS T2 Spare	P1	NA	29	43	NA	39	60	NA	36	< 100	NA	NA	28	184	< 100	Sensitivity only	
	NEWARK F 115KV SECTION 2F	P2	NA	25	50	NA	22	48	NA	24	< 100	NA	NA	25	231	< 100	Sensitivity only	
	NEWARK F - 2F 115KV & NEWARK-NUMMI LINE	P2	NA	25	50	NA	22	48	NA	24	< 100	NA	NA	25	231	< 100	Sensitivity only	
	NEWARK F - 2F 115KV & NEWARK F-COMPONENT_SW LINE	P2	NA	25	50	NA	23	49	NA	25	< 100	NA	NA	25	231	< 100	Sensitivity only	
	NEWARK F 115KV - SECTION 2F & 1F	P2	NA	25	50	NA	22	48	NA	25	Diverge	NA	NA	25	237	Diverge	Sensitivity only	
	Internal breaker fault at Duane Duane-SRS 115 kV and KRS-Duane 115 kV and DVR	P2	NA	27	40	NA	38	57	NA	34	Diverge	NA	NA	26	184	Diverge	Sensitivity only	
	LECEFGT1 13.80KV & LECEFGT2 13.80KV & LECEFGT3 13.80KV & LECEFGT4 13.80KV Gen Units and COMPONENT_SW-NEWARK F 115KV [0]	P3	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	211	NA	Sensitivity only	
	Metcalf-Monta Vista No. 3 & Monta Vista-Coyote Sw. Sta. 230 KV Line	P7	NA	34	50	NA	44	63	NA	38	Diverge	NA	NA	34	192	Diverge	Sensitivity only	
McKee - Piercy & Milpitas - Swift 115 KV Lines	P7	NA	39	55	NA	48	70	NA	41	Diverge	NA	NA	38	198	Diverge	Sensitivity only		
Kifer-FMC 115 kV Line	NEWARKHVDC-NEWARK D #1 230KV [0]	P1	NA	67	110	NA	81	91	NA	61	Diverge	NA	NA	67	136	Diverge	Potential San Jose area long-term transmission upgrade	
	COMPONENT_SW-TRIMBLE #1 115KV [0]	P1	NA	54	80	NA	67	79	NA	47	< 100	NA	NA	53	119	< 100	Sensitivity only	
	TRIMBLE-SAN JOSE B 115KV [4030]	P1	NA	72	100	NA	90	98	NA	75	< 100	NA	NA	71	121	< 100	Potential San Jose area long-term transmission upgrade	
	LOS ESTEROS-NORTECH 115KV [4032]	P1	NA	61	99	NA	69	91	NA	34	< 100	NA	NA	63	126	< 100	Sensitivity only	
	SSS 230/230KV TB 1	P1	33	74	108	43	81	92	46	60	148	58	30	72	127	NA	Potential San Jose area long-term transmission upgrade	
	DVRaGT1 13.80KV & DVRbGT2 13.80KV & DVRaST3 13.80KV Gen Units	P1	22	61	90	38	75	86	38	55	Diverge	47	12	61	111	Diverge	Sensitivity only	
	SSS-NRSrser SVP 230 kV path	P1	33	74	108	43	81	92	46	60	Diverge	58	30	72	127	Diverge	Potential San Jose area long-term transmission upgrade	
	Loss of PST 230 kV Path	P1	33	74	108	43	81	92	46	60	Diverge	58	30	72	127	Diverge	Potential San Jose area long-term transmission upgrade	
	NRSHVDC-NRS 230KV [0] No Fault	P2	NA	71	110	NA	85	96	NA	65	Diverge	NA	NA	71	137	Diverge	Potential San Jose area long-term transmission upgrade	
	NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	NA	72	125	NA	84	96	NA	64	157	NA	NA	72	141	168	Potential San Jose area long-term transmission upgrade	
	SANJOSEB 115KV - Middle Breaker Bay 1	P2	NA	77	106	NA	94	103	NA	78	< 100	NA	NA	76	127	155	Potential San Jose area long-term transmission upgrade	
	LS ESTRS 230KV - Middle Breaker Bay 8	P2	33	74	108	43	81	92	46	60	148	58	30	72	127	NA	Potential San Jose area long-term transmission upgrade	
	NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	32	61	97	34	68	83	33	45	Diverge	46	7	61	129	Diverge	Sensitivity only	
	NEWARK E 230KV - SECTION 1E & 2E	P2	26	66	103	32	71	86	31	47	Diverge	45	21	67	117	Diverge	Potential San Jose area long-term transmission upgrade	
Internal breaker fault at Duane Duane-SRS 115 kV and KRS-Duane 115 kV and DVR	P2	39	60	88	49	74	84	51	56	Diverge	59	35	60	108	Diverge	Sensitivity only		
RUSCTYECST1 18.00KV & RUSCTYECCT2 15.00KV & RUSCTYECCT1 15.00KV GEN UNITS and TRIMBLE-SAN JOSE B 115KV [4030]	P3	< 100	< 100	108	< 100	< 100	101	< 100	< 100	Diverge	< 100	< 100	< 100	127	Diverge	Potential San Jose area long-term transmission upgrade		
SSS 230/230KV TB 1 and LOS ESTEROS-NORTECH 115KV [4032]	P6	< 100	109	< 100	< 100	103	130	< 100	< 100	NA	< 100	< 100	109	< 100	NA	Interim: Operating solution (PST and HVDC setpoints adjustment). Long-term: Potential San Jose area long-term transmission upgrade.		
Newark-Northern Nos. 1 & 2 115 KV lines	P7	22	46	83	35	53	71	32	30	< 100	43	27	47	122	155	Sensitivity only		
Tesla-Newark No.1 and Tesla-Ravenswood 230 KV lines	P7	36	64	103	33	75	90	33	52	Diverge	51	5	64	117	Diverge	Potential San Jose area long-term transmission upgrade		



Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	Tesla - Newark No.2 and Metcalf - Los Esteros 230 KV lines	P7	37	74	110	36	82	96	37	53	146	54	4	74	122	176	Potential San Jose area long-term transmission upgrade	
	Newark - Northern #1 & #2 115 KV Lines	P7	22	46	83	35	53	71	32	30	< 100	43	27	47	122	155	Sensitivity only	
	Newark - Los Esteros & Los Esteros - Metcalf 230 KV Lines	P7	42	79	115	37	82	98	39	55	Diverge	63	21	78	130	165	Potential San Jose area long-term transmission upgrade	
	Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	26	71	107	37	81	94	38	50	151	49	5	71	139	165	Potential San Jose area long-term transmission upgrade	
	PGAE lines but internal to SVP - NRS-SRS#2 115 kv and NRS-SRS#1 115 kv	P7	62	60	89	64	70	82	66	47	< 100	81	51	60	105	< 100	Potential San Jose area long-term transmission upgrade	
NRS-Scott No. 1 115 KV Line	new SVP 115KV line - NRS-KRS 115 kv	P1	NA	NA	82	NA	NA	65	NA	NA	97	NA	NA	NA	105	106	Potential San Jose area long-term transmission upgrade	
	NRS 300 115 kv bus	P2	116	NA	NA	82	NA	NA	94	NA	NA	106	103	NA	NA	NA	Project: NRS rebuild	
NRS 115/60 kv Bank #1	Base Case	P0	65	45	82	53	37	67	56	22	92	64	57	45	110	93	Sensitivity only	
	SANJOSEBHVDC-SANJOSEB #1 115KV [0]	P1	NA	40	73	NA	33	60	NA	19	Diverge	NA	NA	40	100	Diverge	Sensitivity only	
	FMC-SAN JOSE B 115KV [2021]	P1	NA	40	76	NA	33	62	NA	19	Diverge	NA	NA	40	101	Diverge	Sensitivity only	
	KIFER-FMC 115KV [2020]	P1	NA	40	75	NA	33	60	NA	19	Diverge	NA	NA	40	100	Diverge	Sensitivity only	
	Kifer BESS Gen Unit	P1	67	40	75	55	33	62	58	19	Diverge	66	59	40	100	Diverge	Continue to monitor	
	PGAE lines but internal to SVP - NRS-SRS#1 115 kv	P1	71	42	76	58	33	62	61	19	88	70	63	42	102	94	Sensitivity only	
	PGAE lines but internal to P - NRS-SRS#2 115 kv	P1	71	42	76	58	33	62	61	19	< 100	70	62	42	102	< 100	Continue to monitor	
	new SVP 115KV line - NRS-KRS 115 kv	P1	NA	NA	78	NA	NA	63	NA	NA	90	NA	NA	NA	104	96	Sensitivity only	
	KIFER-FMC 115KV [2020] [FMC-FMC JCT]	P2	NA	40	75	NA	33	60	NA	19	Diverge	NA	NA	40	100	Diverge	Sensitivity only	
	FMC 115KV Section 1E	P2	NA	40	76	NA	33	62	NA	19	Diverge	NA	NA	40	101	Diverge	Sensitivity only	
	SANJOSEB 115KV - Middle Breaker Bay 2	P2	NA	40	76	NA	33	62	NA	19	Diverge	NA	NA	40	101	Diverge	Sensitivity only	
	NEWARK F 115KV - SECTION 2F & 1F	P2	67	40	73	53	33	60	56	19	Diverge	64	57	40	100	Diverge	Sensitivity only	
	Trimble - San Jose B & FMC - San Jose B 115 KV Lines	P7	67	40	76	55	33	62	57	19	Diverge	67	57	40	101	Diverge	Sensitivity only	
	Newark - Kifer & FMC - Kifer 115 KV Lines	P7	68	40	76	53	33	62	56	19	88	68	57	40	102	94	Sensitivity only	
	Los Esteros - Trimble & Los Esteros - Montague 115 kv	P7	65	40	73	53	33	60	56	19	Diverge	64	57	40	101	Diverge	Sensitivity only	
Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	65	40	73	53	33	60	56	19	< 100	64	57	40	100	< 100	Sensitivity only		
SRS 115/60 kv Bank #1 (SVP)	NRS 300 115 kv bus	P2	105	NA	NA	86	NA	NA	89	NA	NA	105	88	NA	NA	NA	Project: NRS rebuild	
	NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus	P2	118	NA	NA	95	NA	NA	99	NA	NA	118	99	NA	NA	NA	Project: NRS rebuild	
SRS 115/60 kv Bank #2 (SVP)	NRS 300 115 kv bus	P2	105	NA	NA	86	NA	NA	89	NA	NA	105	88	NA	NA	NA	Project: NRS rebuild	
	NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus	P2	118	NA	NA	95	NA	NA	99	NA	NA	118	99	NA	NA	NA	Project: NRS rebuild	
NRS-Scott No. 2 115 KV Line	new SVP 115KV line - NRS-KRS 115 kv	P1	NA	NA	82	NA	NA	66	NA	NA	98	NA	NA	105	107	Potential San Jose area long-term transmission upgrade		
Scott-Duane 115 KV Line	NRS 400 115 kv bus tie breaker to NRS 300 115 kv bus	P2	131	NA	NA	96	NA	NA	101	NA	NA	129	101	NA	NA	NA	Project: NRS rebuild	
NRS 230/115kv TB 1	LS ESTRS 230/115KV TB 3 and LS ESTRS 230/115KV TB 4	P6	107	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NA	< 100	< 100	< 100	< 100	NA	Potential San Jose area long-term transmission upgrade	
KRS - Laurelwood 60 kv line	LECFST1 13.80KV & LCEFGT1 13.80KV & LCEFGT2 13.80KV & LCEFGT3 13.80KV & LCEFGT4 13.80KV Gen Units	P1	NA	NA	80	NA	NA	68	NA	NA	Diverge	NA	NA	NA	102	Diverge	Sensitivity only	
	SANJOSEBHVDC-SANJOSEB #1 115KV [0]	P1	NA	56	80	NA	48	68	NA	35	Diverge	NA	NA	56	104	Diverge	Sensitivity only	
	PIERCY-METCALF 115KV [4318]	P1	NA	56	80	NA	48	68	NA	35	Diverge	NA	NA	56	101	Diverge	Sensitivity only	
	DVRaGT1 13.80KV & DVRbGT2 13.80KV & DVRaST3 13.80kv Gen Units	P1	40	56	80	34	48	68	35	35	Diverge	40	35	56	101	Diverge	Sensitivity only	
	Kifer BESS Gen Unit	P1	42	56	80	34	48	68	35	35	Diverge	40	35	56	101	Diverge	Sensitivity only	
	Internal breaker fault at Duane - Duane-SRS 115 kv and KRS-Duane 115 kv and DVR	P2	36	56	80	30	48	68	31	35	Diverge	37	30	56	102	Diverge	Sensitivity only	
Trimble - San Jose B & Kifer - FMC 115 KV Lines	P7	40	56	80	34	48	68	35	35	Diverge	40	35	56	102	Diverge	Sensitivity only		
Multiple facility overloads. Highest loadings reported for each scenario.	APPLIED MATERIALS 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	67	67	63	99	35	40	53	47	44	47	67	68	110	99	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	BAIR 115 KV (FAILURE OF NON-REDUNDANT RELAY)	P5	73	79	108	120	33	48	68	30	15	28	60	80	76	118	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	C. COSTA SUB 230-115-60KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	105	111	173	233	38	45	62	62	20	62	67	113	173	229	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	C.COSTAPP 230KV BUS 1&2(FAILURE OF NON-REDUNDANT RELAY)	P5	Diverge	Diverge	111	Diverge	49	66	101	52	58	61	98	99	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	CLAREMONT (OAKLAND K) 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	118	123	144	177	93	111	135	80	77	80	101	125	136	169	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	CONTRA COSTA PP 230KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	Diverge	80	106	Diverge	49	66	87	50	39	59	97	96	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	EAST PORTAL 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	77	89	107	99	51	69	84	58	78	55	57	84	103	99	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	EAST SHORE 115 KV (FAILURE OF NON-REDUNDANT RELAY)	P5	92	402	387	332	73	274	420	55	59	78	73	401	101	310	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	EASTSHORE 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	92	271	387	332	73	78	420	55	45	78	73	282	101	310	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	EASTSHORE 230KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	103	215	282	Diverge	73	88	223	63	55	76	80	220	275	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	FMC 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	65	84	99	103	53	98	99	56	98	57	64	82	126	115	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	JEFFERSON 230 KV BAAH BUS (FAILURE OF NON-REDUNDANT RELAY)	P5	288	310	352	Diverge	170	228	349	162	84	161	158	313	353	Diverge	Install redundant battery supply	

Thermal Overloads

Overloaded Facility	Contingency (All and Worst P6)	Category	Loading % (Baseline Scenarios)										Loading % (Sensitivity Scenarios)					Project & Potential Mitigation Solutions
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay HI-load	2039 Greater Bay area Summer Peak		
Multiple facility overloads. Highest loadings reported for each scenario.	LARKIN (SF Y) 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	85	82	111	133	65	79	91	63	52	62	60	83	105	130	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	LAWRENCE 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	63	63	59	99	32	37	50	43	41	43	63	64	106	99	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	LOS ESTEROS 115KV BAAH BUS (FAILURE OF NON-REDUNDANT RELAY)	P5	104	103	108	Diverge	82	75	86	94	68	95	100	99	250	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	LOS ESTEROS 230 KV BAAH BUS #1&2 (FAILURE OF NON-REDUNDANT RELAY)	P5	142	88	121	Diverge	56	91	105	62	64	83	108	87	179	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	LOS ESTEROS 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	141	91	108	Diverge	86	99	118	94	59	112	120	89	307	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MARTIN (SF H) 230-115-60KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	93	Diverge	Diverge	Diverge	44	Diverge	Diverge	41	50	41	56	Diverge	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MARTIN 115KV BAAH (FAILURE OF NON-REDUNDANT RELAY)	P5	101	103	116	Diverge	76	101	119	59	52	59	88	104	113	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MARTIN 230 KV BAAH (FAILURE OF NON-REDUNDANT RELAY)	P5	103	76	90	Diverge	62	72	93	48	32	48	83	77	80	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	METCALF 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	123	103	158	Diverge	87	90	99	92	87	90	97	98	227	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	METCALF 500-230KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	Diverge	Diverge	Diverge	Diverge	95	107	184	95	74	109	Diverge	Diverge	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MISSION (SF X) 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	88	53	74	91	61	85	101	48	50	48	83	54	72	90	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MONTA VISTA 115KV BAAH (FAILURE OF NON-REDUNDANT RELAY)	P5	77	82	103	Diverge	48	70	91	42	49	42	69	82	141	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MONTA VISTA 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	95	94	126	Diverge	65	94	128	59	59	49	90	96	146	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MONTAGUE 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	35	36	39	99	30	20	34	25	9	32	25	37	137	99	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MORAGA 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	220	224	266	Diverge	148	195	251	129	132	164	165	216	274	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MORAGA 230KV BUS #1 &2(FAILURE OF NON-REDUNDANT RELAY)	P5	144	118	142	Diverge	75	82	136	78	73	162	103	158	148	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MITCALF 115KV BUS (FAILURE OF NON-REDUNDANT RELAY)	P5	139	103	158	Diverge	87	90	99	92	87	90	101	98	227	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	MITCALF 230KV BUS (FAILURE OF NON-REDUNDANT RELAY)	P5	Diverge	Diverge	Diverge	Diverge	95	93	186	95	75	108	Diverge	Diverge	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	NEWARK 230KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	114	155	Diverge	Diverge	69	76	167	83	74	78	105	162	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	NEWARK E&F 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	106	103	139	231	72	77	87	87	61	87	91	104	242	233	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	NORTECH 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	92	94	96	102	79	73	80	92	60	92	92	90	107	103	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	Newark 115 KV (FAILURE OF NON-REDUNDANT RELAY)	P5	107	103	139	Diverge	76	83	103	90	91	93	97	105	232	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	OAKLAND X 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	109	113	135	173	90	105	126	95	93	95	96	115	128	132	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	PITTSBURG PP 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	79	82	147	Diverge	34	49	76	47	52	33	77	85	NA	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	PITTSBURG PP 230KV (FAILURE OF NON-REDUNDANT RELAY)	P5	84	74	131	Diverge	33	55	81	48	31	33	171	79	93	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	POTRERO (SF A) 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	240	112	203	Diverge	122	234	253	98	100	98	227	115	198	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	POTRERO 115KV (FAILURE OF NON-REDUNDANT RELAY)	P5	95	75	115	134	66	91	116	53	47	53	83	77	103	134	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	RAVENSWOOD 115 (FAILURE OF NON-REDUNDANT RELAY)	P5	415	424	430	Diverge	292	335	388	299	204	299	357	425	410	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	RAVENSWOOD 230 KV BAAH BUS (FAILURE OF NON-REDUNDANT RELAY)	P5	98	94	Diverge	Diverge	70	92	97	62	61	65	105	97	114	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	RAVENSWOOD 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	405	415	Diverge	Diverge	291	331	303	297	203	296	333	414	370	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	SAN JOSE B 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	88	98	93	Diverge	73	80	81	88	78	86	89	93	128	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	SAN LEANDRO (OAK U) 115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	NA	88	102	Diverge	NA	56	107	NA	38	NA	NA	89	98	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	SAN MATEO 230-115-60KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	Diverge	Diverge	Diverge	Diverge	88	Diverge	Diverge	61	52	57	118	Diverge	Diverge	Diverge	Install redundant battery supply	
Multiple facility overloads. Highest loadings reported for each scenario.	SOBRANTE 230-115KV BATT(FAILURE OF NON-REDUNDANT BATT)	P5	181	150	284	Diverge	140	107	224	149	29	149	105	198	267	Diverge	Install redundant battery supply	







Substation	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)										Voltage PU (Sensitivity Scenarios)					Project & Potential Mitigation Solutions	
				2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay Hi-load	2039 Greater Bay area Summer Peak			
SWIFT 115.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.82	> 0.9	> 0.9	> 0.9	> 0.9	0.81	Continue to monitor	
SWIFT 115.0 kV	P1-2-A18:45: SWIFT-METCALF 115KV [3900]	P1	N-1	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.87	> 0.9	> 0.9	> 0.9	> 0.9	0.89	0.87	Continue to monitor
SWIFT 115.0 kV	P2-2-A18:41: MTCALF E 115KV Section 1E	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	> 0.9	> 0.9	> 0.9	> 0.9	0.88	0.85	Continue to monitor
SWIFT 115.0 kV	P2-3-A18:36: MTCALF E - 1E 115KV & METCALF-COYOTE PUMPING PLANT line	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	> 0.9	> 0.9	> 0.9	> 0.9	0.88	0.85	Continue to monitor
SWIFT 115.0 kV	P2-4-A16:26: NEWARK F 115KV - SECTION 2F & 1F	P2	Bus/Breaker	> 0.9	> 0.9	0.89	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.71	> 0.9	Continue to monitor
SWIFT 115.0 kV	P2-4-A18:24: MTCALF D Section 1D & MTCALF E Section 1E 115KV	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	> 0.9	> 0.9	> 0.9	> 0.9	0.88	0.85	Continue to monitor
SWIFT 115.0 kV	P7-1-A18:6: Swift - Metcalf & Piercy - Metcalf 115 KV Lines	P7	DCTL	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	> 0.9	Sensitivity only (High Load in the South Bay)
TESORO 230.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.84	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.83	Continue to monitor
TESORO 230.0 kV	P2-4-A8:55: PITTSBURG-F 230KV - SECTION 2F & 1F	P2	Bus/Breaker	> 0.9	> 0.9	0.90	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	Continue to monitor
TRIMBLE 115.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.84	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.82	Continue to monitor
TRIMBLE 115.0 kV	P1-2-A16:70: NEWARKHVDC-NEWARK D #1 230KV [0]	P1	N-1	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.87	> 0.9	> 0.9	> 0.9	> 0.9	0.88	0.87	Continue to monitor
TRIMBLE 115.0 kV	P1-2-A18:13: SANJOSEHVDC-SANJOSE #1 115KV [0]	P1	N-1	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.90	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	P2-3-A16:41: NEWARK D - 2D 230KV & NEWARKHVDC-NEWARK D #1 LINE	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.89	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	P2-4-A16:23: NEWARK D SECTION 2D & NEWARK E SECTION 2E 230KV	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.89	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	P2-4-A16:27: NEWARK D 230KV - SECTION 2D & 1D	P2	Bus/Breaker	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.89	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	SANJOSEHVDC-SANJOSE #1 115KV [0] & LS ESTRS 115/25KV TB 1	P6	N-1-1	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.55	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	P7-1-A18:8: Los Esteros - Trimble & Los Esteros - Montague 115 KV	P7	DCTL	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.80	> 0.9	Sensitivity only (High Load in the South Bay)
TRIMBLE 115.0 kV	P7-1-A18:9: Los Esteros - Trimble & Montague - Trimble 115 KV Line	P7	DCTL	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	> 0.9	Sensitivity only (High Load in the South Bay)
VASONA 230.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.83	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.83	Continue to monitor
VINEYARD 230.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.86	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.85	Continue to monitor
VLYVWTP1 115.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.84	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.83	Continue to monitor
WHISMAN 115.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.81	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.81	Continue to monitor
WOLFE 115.0 kV	Base Case	P0	Base Case	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.82	> 0.9	> 0.9	> 0.9	> 0.9	> 0.9	0.82	Continue to monitor





Contingency	Category	Category Description	Transient Stability Performance					Potential Mitigation Solutions
			Baseline Scenarios			Sensitivity Scenarios		
			2026 Spring Off-Peak	2029 Summer Peak	2034 Summer Peak	2026 OP Sensitivity	2029 SP High CEC Forecast	
P1-1 - Gen CRCKTCOG 18 kV unit 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-2 - Line TESLA E to NEWARK D 230 kV ckt 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-2 - Line TESLA E to RAVENSWD 230 kV ckt 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-3 - Tran METCALF 500-230 kV bk 13	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-3 - Tran MORAGA 230-115 kV bk 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-4 - NEWARK E 230 kV SVC id v	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-4 - POT_SVC 115 kV SVC id v	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-5 - DC line TransBay Cable (Pittsburg-Potrero) fault at TBC_POT1 115	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-5 - DC line TransBay Cable (Pittsburg-Potrero) fault at TBC_PT1 230	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-2 - Cable Embarcadero - Potrero 230 kV ckt 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P1-2 - Line NEWARK E to NWK DIST 230 kV ckt 1	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P2-2 - Bus Fault at NEWARK D 230 kV (Sec 1D)	P2	Bus	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P2-2 - Bus Fault at RAVENSWD 230 kV	P2	Bus	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P2-3 - Internal fault at non-Bus-tie Breaker 262 at METCALF 230 kV Bus D (Metcalf-Los Esteros)	P2	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P2-3 - Internal fault at non-Bus-tie Breaker 940 at NWK DIST 230 kV (Newark-Los Esteros)	P2	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P2-4 - Internal fault at Bus-tie Breaker 312 at METCALF 230 kV (Sec 1D and 1E)	P2	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-1 - Gen CRCKTCOG 18 kV unit 1 and ChevGen1 13.8 unit 1	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-2 - Gen RUSELCTY (4 units) and Line TESLA E to RAVENSWD 230 kV ckt 1	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-3 - Gen AGNEWCOGEN 13.8 kV unit 1 and Tran METCALF 500-230 kV bk 13	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-3 - Gen CRCKTCOG 18 kV unit 1 and Tran MORAGA 230-115 kV bk 1	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-4 - Gen LMEC (1 unit) and SVD MONTAVIS 230 kV id v	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P3-5 - Gen CRCKTCOG 18 kV unit 1 and DC line TransBay Cable (Pittsburg-Potrero)	P3	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-1 - Stuck Breaker 232 protecting Gen CRCKTCOG 18 kV unit 1	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-3 - Stuck Breaker Ravenswood CB 262 protecting Tran RAVENSWD-RVNSWD D 230-115 kV bk 2 (special)	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-4 - Stuck Breaker 890 protecting NEWARK E 230 kV SVC id v	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-6 - Stuck Bus-tie Breaker 202 protecting Substation Bus MONTAVIS 230 kV Bus 1	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-6 - Stuck Bus-tie Breaker 202 protecting Substation Bus SANMATEO 230 kV Section 1D	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P4-6 - Stuck Bus-tie Breaker 202 protecting Substation Bus SOBRANTE 230 kV Bus 1	P4	Breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-1 - Failure of non-redundant relay on Los Esteros 115 kV CB 582 protecting Gens at LECEF	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-1d - Failure of Pittsburg 230 kV CB 412 control circuits due to non-redundant DC panel with fault for Gens at DEC (ALL 230 kV clears remotely)	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-2 - Failure of non-redundant relay on Metcalf CB 232 protecting Line METCALF to MOSSLNSW 230 kV	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-2d - Failure of Ravenswood 230 kV CB 202 control circuits due to non-redundant DC panel with fault (not close in) for Line RAVENSWD to TESLA E 230 kV ckt 1 (ALL 230 kV clears remotely)	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required

Contingency	Category	Category Description	Transient Stability Performance					Potential Mitigation Solutions
			Baseline Scenarios			Sensitivity Scenarios		
			2026 Spring Off-Peak	2029 Summer Peak	2034 Summer Peak	2026 OP Sensitivity	2029 SP High CEC Forecast	
P5-3d - Failure of Newark 115 kV CB 750 control circuits due to non-redundant DC panel with fault for Tran NEWARK D 230/115 kV bk 9 (ALL 115 kV clears remotely)	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-3d - Failure of San Mateo 230 kV CB 372 control circuits due to non-redundant DC panel with fault for Tran SANMATEO 230 / 115 kV bk 7 (ALL 230 kV clears remotely)	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5a - Failure of a non-redundant relay protecting substation MTCALF D 115 Kv	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5a - Failure of non-redundant relay protecting Substation Bus EAST SHORE 230 KV BAAH BUS #1 (ALL 230 kV elements clear remotely)	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5b - Failure of non-redundant DC battery supplying LAS POSITAS 230 and 60KV Buses	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5c - Failure of non-redundant Station DC Battery Supply JEFFERSON 230-60kV Batt	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5c - Failure of non-redundant Station DC battery Supply RAVENSWD 230 kV non-redundancy failure with fault	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P5-5c - Failure of non-redundant Station DC Battery Supplying Moraga 230kV and 115kV Buses	P5	Non-Redundant Battery/Relay	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-1 - Fault on Cable San Mateo - Martin 230 kV ckt 1 with Loss of Cable Jefferson - Egbert 230 kV ckt 1	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-1 - Fault on Line Tesla - Metcalf 500 kV ckt 1 with Loss of Line Moss Landing - Los Banos 500 kV	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-2 - Fault on Tran Metcalf 500-230 kV bk 11 with Loss of Tran Metcalf 500-230 kV bk 13	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-2 - Fault on Tran Newark 230-115 kV bk 7 with Loss of Tran Newark 230-115 kV bk 9	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-2 - Fault on Tran Ravenswood 230-115 kV bk 1 with Loss of Tran Ravenswood 230-115 kV bk 2	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-4 - Fault at Martin on Cable San Mateo - Martin 230 kV ckt 1 with Loss of HVDC Line TransBay Cable	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P6-4 - Fault on Line East Shore - San Mateo 230 kV ckt 1 with Loss of HVDC Line TransBay Cable	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P7-1_RF - Fault on Line Pittsburg* - Tesla 230 kV ckt 1 and Line Pittsburg* - Tesla 230 kV ckt 2 (HSR Failure)	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P7-1_RF - Fault on Line Tesla - Newark* 230 kV ckt 2 and Line Newark Dist* - Los Esteros 230 kV ckt 1 (HSR Failure)	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P7-1_RS - Fault on Line Pittsburg* - Tesla 230 kV ckt 1 and Line Pittsburg* - Tesla 230 kV ckt 2 (HSR Success)	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required
P7-1_RS - Fault on Line Tesla-Ravenswood* 230 kV ckt 1 and Line Newark-Ravenswood* 230 kV ckt 1 (HSR Success)	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No mitigation required

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)														Potential Mitigation Solutions	
			2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay Hi-load		2039 Greater Bay area Summer Peak

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

Substation															Potential Mitigation Solutions
	2026 Summer Peak	2029 Summer Peak	2034 Summer Peak	2026 Winter Peak	2029 Winter Peak	2034 Winter Peak	2026 Spring Off-Peak	2029 Spring Off-Peak	2039 Greater Bay area Summer Peak	2026 SP Heavy Renewable & Min Gas Gen	2026 OP Sensitivity	2029 SP High CEC Forecast	2034 South Bay Hi-load	2039 Greater Bay area Summer Peak	
Kirker 115 kV	105	109	124	41	53	112	52	4	177	66	52	111	126	177	Removing limiting elements on the Pittsburg - Kirker 115 kV line

No single source substation with more than 100 MW