



| ID | Overloaded Facility | Worst Contingency | Category | Category Description | Loading (%) | | | | | | | | | | Potential Mitigation Solutions |
|----|---|--|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 1 | 30760 COBURN 230 36075 COBURN 60.0 2 1 | P1-3:A19:8:_COBURN 230/60kV TB 1 | P1 | | <100 | <100 | <100 | <100 | <100 | 135.91 | <100 | <100 | | | Under review |
| 2 | 36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1 | P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P1 | | <100 | <100 | <100 | 151.1 | <100 | <100 | <100 | NConv | | | Generation mitigation |
| 3 | 36354 SAN MIGL 70.0 36356 PSA RBL5 70.0 1 1 | P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P1 | | <100 | NConv | <100 | <100 | NConv | <100 | <100 | NConv | | | Under review |
| 4 | 36254 SN LS OB 115 36266 SNTA MRA 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 227 | <100 | <100 | 223.5 | <100 | <100 | NConv | | | Under review |
| 5 | 36260 SISQUOC 115 36286 PALMR 115 1 1 | P2-3:A20:39:_DIVVIDE - MA 115kV & DIVVIDE-PUR5MAJ1 #1 line | P2 | | <100 | <100 | 112.25 | <100 | <100 | <100 | <100 | <100 | | | Divide and Mesa SPS or consider adding a second 230/115kV bank at Morro Bay and re-conductoring of the Midway-Temblor 115kV path. |
| 6 | 36260 SISQUOC 115 36286 PALMR 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 138.8 | <100 | <100 | 144.7 | <100 | <100 | NConv | | | Under review |
| 7 | 36264 S.YNZ JT 115 36288 ZACA 115 1 1 | P2-3:A20:39:_DIVVIDE - MA 115kV & DIVVIDE-PUR5MAJ1 #1 line | P2 | | <100 | <100 | 101.96 | <100 | <100 | <100 | <100 | <100 | | | Divide and Mesa SPS or consider adding a second 230/115kV bank at Morro Bay and re-conductoring of the Midway-Temblor 115kV path. |
| 8 | 36264 S.YNZ JT 115 36288 ZACA 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 137.8 | <100 | <100 | 142.9 | <100 | <100 | NConv | | | Under review |
| 9 | 36266 SNTA MRA 115 36269 FRWAYTP 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 129.6 | <100 | <100 | 126.6 | <100 | <100 | NConv | | | Under review |
| 10 | 36286 PALMR 115 36287 AECCEORTP 115 1 1 | P2-3:A20:39:_DIVVIDE - MA 115kV & DIVVIDE-PUR5MAJ1 #1 line | P2 | | <100 | <100 | 108.42 | <100 | <100 | <100 | <100 | <100 | | | Divide and Mesa SPS or consider adding a second 230/115kV bank at Morro Bay and re-conductoring of the Midway-Temblor 115kV path. |
| 11 | 36286 PALMR 115 36287 AECCEORTP 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 135.7 | <100 | <100 | 140.8 | <100 | <100 | NConv | | | Under review |
| 12 | 36287 AECCEORTP 115 36288 ZACA 115 1 1 | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | <100 | 123.5 | <100 | <100 | 128.7 | <100 | <100 | NConv | | | Divide and Mesa SPS or consider adding a second 230/115kV bank at Morro Bay and re-conductoring of the Midway-Temblor 115kV path. |
| 13 | 36048 B.VSTA J 60.0 36050 FIRESTNE 60.0 1 1 | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 124.52 | 114.39 | 114.91 | <100 | <100 | <100 | <100 | <100 | | | Under review |
| 14 | 36050 FIRESTNE 60.0 36052 SPNCE J2 60.0 1 1 | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 123.06 | 113.14 | 113.38 | <100 | <100 | <100 | <100 | <100 | | | Under review |
| 15 | 36051 SPNCE J1 60.0 36053 SPENCE 60.0 1 1 | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 184.04 | 171.23 | 171.16 | <100 | <100 | <100 | 126.36 | <100 | | | Under review |



| ID | Overloaded Facility | Worst Contingency | Category | Category Description | Loading (%) | | | | | | | | | | Potential Mitigation Solutions |
|----|---|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---------------------------------------|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 16 | 36052 SPNCE J2 60.0 36053 SPENCE 60.0 1 1 | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 130.83 | 120.28 | 120.54 | <100 | <100 | <100 | <100 | <100 | | | Under review |
| 17 | 36354 SAN MIGL 70.0 36356 PSA RBL5 70.0 1 1 | P1-1:A20:8:_UNION OL 14kV Gen Unit 1 & P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P3 | | <100 | <100 | <100 | <100 | 176.12 | <100 | <100 | <100 | | | Generation mitigation |
| 18 | 30760 COBURN 230 36075 COBURN 60.0 2 1 | P1-2:A19:54:_King City-Coburn #1 60 kV & P1-3:A19:8:_COBURN 230/60kV TB 1 | P6 | | <100 | <100 | <100 | 104.76 | <100 | 100.01 | <100 | 103.95 | | | Mitigation under review potential SPS |
| 19 | 30900 GATES 230 30905 TEMPLETN 230 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 20 | 30905 TEMPLETN 230 30915 MORROBAY 230 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 21 | 30915 MORROBAY 230 30930 MESA PGE 230 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:35:_Templeton-Atascadero 70kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 22 | 35907 PAUL SWT 115 36218 M 115 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 23 | 35910 CRZY_HRS 115 35913 NTVD SW2 115 1 1 | P1-2:A19:20:_Moss Landing-Salinas #1 115kV Line & P1-2:A19:21:_Moss Landing-Salinas #2 115kV Line | P6 | | <100 | 118.72 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 24 | 35913 NTVD SW2 115 35920 SALINAS 115 1 1 | P1-2:A19:20:_Moss Landing-Salinas #1 115kV Line & P1-2:A19:21:_Moss Landing-Salinas #2 115kV Line | P6 | | <100 | 104.33 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 25 | 36008 GREN VLY 60.0 35901 GRN VLY1 115 1 1 | P1-3:A19:15:_SALINAS 115/60kV TB 2 & P1-3:A19:16:_SALINAS 115/60kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 248.3 | <100 | | | Mitigation under review potential SPS |
| 26 | 36011 CIC JCT 60.0 36013 ERTA JCT 60.0 1 1 | P1-3:A19:15:_SALINAS 115/60kV TB 2 & P1-3:A19:16:_SALINAS 115/60kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 187.6 | <100 | | | Mitigation under review potential SPS |
| 27 | 36012 WTSNVLE 60.0 36014 GRANT JT 60.0 1 1 | P1-3:A19:15:_SALINAS 115/60kV TB 2 & P1-3:A19:16:_SALINAS 115/60kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 237.6 | <100 | | | Mitigation under review potential SPS |
| 28 | 36018 BRIGTANO 60.0 36022 LGNSTAP 60.0 1 1 | P1-3:A19:15:_SALINAS 115/60kV TB 2 & P1-3:A19:16:_SALINAS 115/60kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 234.6 | <100 | | | Mitigation under review potential SPS |
| 29 | 36022 LGNSTAP 60.0 36025 SALINAS2 60.0 1 1 | P1-3:A19:15:_SALINAS 115/60kV TB 2 & P1-3:A19:16:_SALINAS 115/60kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 236.2 | <100 | | | Mitigation under review potential SPS |



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|----|---|--|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--------|--|---------------------------------------|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 30 | 36075 COBURN 60.0 36076 BA FOOD1 60.0 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 31 | 36076 BA FOOD1 60.0 36077 BA FOOD2 60.0 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 32 | 36252 MORRO BY 115 36303 GLDTRJC1 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:28d:_Cabrillo-Santa Ynez Sw. Sta. 115 kV | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 33 | 36252 MORRO BY 115 36304 GLDTRJC2 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:28d:_Cabrillo-Santa Ynez Sw. Sta. 115 kV | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 34 | 36253 FTHILTP1 115 36254 SN LS OB 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:28d:_Cabrillo-Santa Ynez Sw. Sta. 115 kV | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 35 | 36254 SN LS OB 115 34796 CARRIZO 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-3:A20:3:_MORROBAY 230/115kV TB 6 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 36 | 36254 SN LS OB 115 36266 SNTA MRA 115 1 1 | P1-2:A20:14:_DIABLOCN-MESA PGE #1 230kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 189.07 | 140.46 | | Mitigation under review potential SPS |
| 37 | 36254 SN LS OB 115 36266 SNTA MRA 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:33:_Divide-Cabrillo #1 115kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 38 | 36254 SN LS OB 115 36278 OCEANO 115 1 1 | P1-2:A20:14:_DIABLOCN-MESA PGE #1 230kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 144.08 | 105.71 | | Mitigation under review potential SPS |
| 39 | 36254 SN LS OB 115 36278 OCEANO 115 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 40 | 36256 MESA_PGE 115 30930 MESA PGE 230 2 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:35:_Templeton-Atascadero 70kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 41 | 36256 MESA_PGE 115 36268 DIVVIDE 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 42 | 36256 MESA_PGE 115 36280 UNION OL 115 1 1 | P1-2:A20:12:_MORROBAY-DIABLOCN #1 230kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | 148.39 | 123.36 | | Mitigation under review potential SPS |



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|----|--|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---------------------------------------|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 43 | 36256 MESA_PGE 115 36280 UNION OL 115 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-3:A20:9:_SN LS OB 115/70kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 44 | 36260 SISQUOC 115 36286 PALMR 115 1 1 | P1-2:A20:27:_MESA_PGE-DIVVIDE #1 115kV [0] & P1-2:A20:28:_MESA_PGE-DIVVIDE #2 115kV [0] | P6 | | 211.58 | 193.19 | <100 | 158.41 | <100 | <100 | 164.85 | 142.3 | | | Mitigation under review potential SPS |
| 45 | 36264 S.YNZ JT 115 36288 ZACA 115 1 1 | P1-2:A20:27:_MESA_PGE-DIVVIDE #1 115kV [0] & P1-2:A20:28:_MESA_PGE-DIVVIDE #2 115kV [0] | P6 | | 231.55 | 193.8 | <100 | 158.56 | 165.54 | <100 | 180.79 | 140.97 | | | Mitigation under review potential SPS |
| 46 | 36266 SNTA MRA 115 36269 FRWAYTP 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:33:_Divide-Cabrillo #1 115kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 47 | 36268 DIVVIDE 115 36300 PURSMAJ2 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 48 | 36269 FRWAYTP 115 36260 SISQUOC 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 49 | 36278 OCEANO 115 36280 UNION OL 115 1 1 | P1-2:A20:12:_MORROBAY-DIABLOCN #1 230kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 149.22 | 123.18 | | | Mitigation under review potential SPS |
| 50 | 36278 OCEANO 115 36280 UNION OL 115 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-3:A20:9:_SN LS OB 115/70kV TB 3 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 51 | 36286 PALMR 115 36287 AECCEORTP 115 1 1 | P1-2:A20:28:_MESA_PGE-DIVVIDE #2 115kV [0] & P1-2:A20:27:_MESA_PGE-DIVVIDE #1 115kV [0] | P6 | | <100 | 189.03 | <100 | <100 | 160.4 | <100 | <100 | 139.88 | | | Mitigation under review potential SPS |
| 52 | 36286 PALMR 115 36288 ZACA 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-3:A20:3:_MORROBAY 230/115kV TB 6 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 53 | 36286 PALMR 115 36288 ZACA 115 1 1 | P1-2:A20:24:_MESA_PGE-DIVVIDE #1 115kV [0] & P1-2:A20:25:_MESA_PGE-DIVVIDE #2 115kV [0] | P6 | | 207.38 | <100 | <100 | <100 | <100 | <100 | 161.54 | <100 | | | Mitigation under review potential SPS |
| 54 | 36287 AECCEORTP 115 36288 ZACA 115 1 1 | P1-2:A20:27:_MESA_PGE-DIVVIDE #1 115kV [0] & P1-2:A20:28:_MESA_PGE-DIVVIDE #2 115kV [0] | P6 | | <100 | 173.35 | <100 | 142.19 | 148.03 | <100 | <100 | 125.32 | | | Mitigation under review potential SPS |
| 55 | 36310 TEMPLT7 70.0 36316 TEMPL J2 70.0 1 1 | P1-2:A20:11:_TEMPLETN-MORROBAY #1 230kV [0] & P1-2:A20:10:_GATES-TEMPLETN #1 230kV [5934] | P6 | | <100 | <100 | <100 | 132.98 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |



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|----|---|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---------------------------------------|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 56 | 36310 TEMPLT7 70.0 36316 TEMPL J2 70.0 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:26:_Callender Sw Sta Mesa 115kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 57 | 36315 TEMPL J 70.0 36356 PSA RBLS 70.0 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-3:A20:3:_MORROBAY 230/115kV TB 6 | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 58 | 36316 TEMPL J2 70.0 36358 ATASCDRO 70.0 1 1 | P1-2:A20:11:_TEMPLETN-MORROBAY #1 230kV [0] & P1-2:A20:10:_GATES-TEMPLETN #1 230kV [5934] | P6 | | 155.91 | <100 | <100 | 132.79 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 59 | 36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1 | P1-2:A20:18:_Temblor-San Luis Obispo 115 kV & P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | 237.53 | <100 | | | Mitigation under review potential SPS |
| 60 | 36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1 | P1-2:A20:48:_Estrella-Paso Robles 70 kV & P1-3:A20:14:_Estrella 230/70 kV Transformer | P6 | | <100 | <100 | 100.81 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 61 | 36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1 | P1-3:A20:16:_Estrella 230/70 kV Transformer & P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P6 | | <100 | 252.13 | <100 | <100 | <100 | <100 | <100 | 123.92 | | | Mitigation under review potential SPS |
| 62 | 36358 ATASCDRO 70.0 36362 CACOS J2 70.0 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:26:_Callender Sw Sta Mesa 115kV Line | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 63 | 36358 ATASCDRO 70.0 36376 SN LS OB 70.0 1 1 | P1-2:A20:11:_TEMPLETN-MORROBAY #1 230kV [0] & P1-2:A20:10:_GATES-TEMPLETN #1 230kV [5934] | P6 | | 183.03 | <100 | <100 | 159.63 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 64 | 36362 CACOS J2 70.0 36364 CAYUCOS 70.0 1 1 | P1-2:A20:11:_TEMPLETN-MORROBAY #1 230kV [0] & P1-2:A20:10:_GATES-TEMPLETN #1 230kV [5934] | P6 | | 142.68 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review potential SPS |
| 65 | 36364 CAYUCOS 70.0 36370 BAYWOOD 70.0 1 1 | P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] & P1-2:A20:13:_MORROBAY-MESA PGE #1 230kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 66 | 38031 LOMPCJ1 115 36294 CABRILLO 115 1 1 | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:19:_SN LS OB-SNTA MRA #1 115kV [0] | P6 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 67 | 36316 TEMPL J2 70.0 36358 ATASCDRO 70.0 1 1 | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | NConv | NConv | <100 | NConv | <100 | <100 | <100 | <100 | | | Mitigation under review |
| 68 | 36354 SAN MIGL 70.0 34574 COLNGA 1 70.0 1 1 | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | NConv | <100 | <100 | NConv | <100 | <100 | 237.38 | <100 | | | Mitigation under review |
| 69 | 36354 SAN MIGL 70.0 36356 PSA RBLS 70.0 1 1 | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | NConv | <100 | <100 | NConv | <100 | <100 | 176.09 | <100 | | | Mitigation under review |



Thermal Overloads

| ID | Overloaded Facility | Worst Contingency | Category | Category Description | Loading (%) | | | | | | | | | | Potential Mitigation Solutions |
|----|---|--|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|--------------------------------|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 70 | 36358 ATASCDRO 70.0 36362 CACOS J2 70.0 1 1 | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | NConv | NConv | <100 | NConv | <100 | <100 | <100 | <100 | | | Mitigation under review |
| 71 | 36362 CACOS J2 70.0 36364 CAYUCOS 70.0 1 1 | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | NConv | NConv | <100 | NConv | <100 | <100 | <100 | <100 | | | Mitigation under review |
| 72 | 36372 MUSTNG J 70.0 36376 SN LS OB 70.0 1 1 | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | NConv | <100 | <100 | NConv | <100 | <100 | <100 | <100 | | | Mitigation under review |
| 73 | 36378 DIVIDE 70.0 36380 VAFB SSA 70.0 1 1 | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | <100 | NConv | <100 | <100 | NConv | <100 | <100 | <100 | | | Mitigation under review |
| 74 | 36378 DIVIDE 70.0 36380 VAFB SSA 70.0 1 1 | P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines | P7 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Mitigation under review |
| 75 | 36380 VAFB SSA 70.0 36384 VAFB A-M | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | <100 | NConv | <100 | <100 | NConv | <100 | <100 | <100 | | | Mitigation under review |
| 76 | 36380 VAFB SSA 70.0 36384 VAFB A-M | P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines | P7 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |
| 77 | 38031 LOMPCJ1 115 36294 CABRILLO 115 1 1 | P7-1:A20:6:_Mesa-Divide #1 and #2 115 kV Lines | P7 | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | | | Sensitivity case |



| ID | Substation | Worst Contingency | Category | Category Description | Voltage (PU) | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|--|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 1 | AGRILINK 60 kV | P1-3:A19:14:_GRN VLY1 115/60kV TB 1 | P1 | | 13.0 | | | 11.6 | | | 10.9 | | | | Under review |
| 2 | BRIGTANO 60 kV | P1-3:A19:14:_GRN VLY1 115/60kV TB 1 | P1 | | 8.7 | | | 7.8 | | | 7.2 | | | | Under review |
| 3 | CIC JCT 60 kV | P1-3:A19:14:_GRN VLY1 115/60kV TB 1 | P1 | | 13.1 | | | 11.8 | | | 11.0 | | | | Under review |
| 4 | PSA RBLS 70 kV | P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P1 | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | | Under review |
| 5 | SAN MIGL 70 kV | P1-2:A20:34:_Templeton-Paso Robles 70kV Line | P1 | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | | Under review |
| 6 | WTSNVILLE 60 kV | P1-3:A19:14:_GRN VLY1 115/60kV TB 1 | P1 | | 12.8 | | | 11.5 | | | 10.8 | | | | Under review |
| 7 | ERTA 60 kV | P2-3:A19:5:_GRN VLY1 - 1D 115kV & GRN VLY1-ROB ROY #1 line | P2 | | 14.1 | | | 12.7 | | | 11.9 | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 8 | FAIRWAY 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 10.6 | | Voltage Collapse | 10.4 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 9 | GAREY 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 9.6 | | Voltage Collapse | 9.5 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 10 | LOMPCJ&1 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 11.7 | | Voltage Collapse | 11.7 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 11 | MANVILLE 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 11.8 | | Voltage Collapse | 11.7 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 12 | PALMR 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 10.0 | | Voltage Collapse | 9.9 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 13 | PURISIMA 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 11.7 | | Voltage Collapse | 11.7 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 14 | S.M.ASSO 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | | 10.1 | | | 10.0 | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |



| ID | Substation | Worst Contingency | Category | Category Description | Voltage (PU) | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 15 | SISQUOC 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 9.6 | | Voltage Collapse | 9.5 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 16 | SNTA YNZ 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 10.8 | | Voltage Collapse | 10.8 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 17 | SNTAMRTP 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 10.5 | | Voltage Collapse | 10.4 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 18 | SURF 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 11.4 | | Voltage Collapse | 11.3 | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 19 | VAFB A-N 70 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 11.9 | | Voltage Collapse | 11.9 | | Voltage Collapse | | | Under review |
| 20 | WTSNVLLE 60 kV | P2-3:A19:5:_GRN VLY1 - 1D 115kV & GRN VLY1-ROB ROY #1 line | P2 | | 13.3 | | | 11.9 | | | 11.1 | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 21 | ZACA 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 10.4 | | Voltage Collapse | 10.3 | | Voltage Collapse | | | Under review |
| 22 | AGRILINK 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | 13.0 | | | 11.7 | | | 10.9 | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 23 | BNA VSTA 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 12.6 | 11.6 | 11.6 | 6.5 | 6.1 | 5.6 | 8.2 | | | | Action Plan. Install shunt capacitor |
| 24 | CIC JCT 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | 13.2 | | | 11.8 | | | 11.0 | | | | Under review |
| 25 | ERTA 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | 13.7 | | | 12.3 | | | 11.5 | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 26 | FIRESTNE 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 10.0 | 9.1 | 9.1 | 5.1 | | | 6.4 | | | | Action Plan. Install shunt capacitor |
| 27 | FRSHXPRS 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 12.8 | 11.7 | 11.7 | 6.6 | 6.2 | 5.7 | 8.3 | | | | Action Plan. Install shunt capacitor |
| 28 | WTSNVLLE 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | 12.9 | | | 11.5 | | | 10.8 | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 29 | ZACA 115 kV | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:33:_Divide-Cabrillo #1 115kV Line | P6 | | | | | | | | | | | | Sensitivity case |



| ID | Substation | Worst Contingency | Category | Category Description | Voltage (PU) | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 30 | ZACA 115 kV | P1-2:A20:25:_MESA_PGE-DIVVIDE #2 115kV [0] & P1-2:A20:24:_MESA_PGE-DIVVIDE #1 115kV [0] | P6 | | 20.3 | 9.8 | | 9.3 | 10.0 | | 14.8 | | | | Under review |
| 31 | PSA RBLS 70 kV | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | | Under review |
| 32 | PURISIMA 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 33 | PURISIMA 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 28.2 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 34 | S.M.ASSO 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 35 | S.M.ASSO 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 27.7 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 36 | S.YNZ JT 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 37 | S.YNZ JT 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 28.6 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 38 | SAN MIGL 70 kV | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | | Under review |
| 39 | SISQUOC 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 40 | SISQUOC 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 27.5 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |



| ID | Substation | Worst Contingency | Category | Category Description | Voltage (PU) | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 41 | SNTAMRTP 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 42 | SNTAMRTP 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 27.5 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 43 | SURF 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 44 | SURF 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 28.7 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 45 | UNION OL 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 46 | UNION OL 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 23.6 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 47 | VAFB A-N 70 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Under review |
| 48 | VAFB A-N 70 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 26.2 | | | | Under review |
| 49 | ZACA 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 50 | ZACA 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 28.4 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |

Study Area: PG&E Central Coast and Los Padres_Baseline

Voltage Deviations



| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 1 | SISQUOC 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 2 | SNTA MRA 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 3 | SURF 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | 0.90 | | Voltage Collapse | 0.89 | | Voltage Collapse | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 4 | VAFB A-N 70 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | | | Voltage Collapse | | | Voltage Collapse | | | Under review |
| 5 | WTSNVLL 60 kV | P2-3:A19:5:_GRN VLY1 - 1D 115kV & GRN VLY1-ROB ROY #1 line | P2 | | | | | | | | | | | | Action Plan. Watsonville 115 kV Voltage Conversion Project |
| 6 | ZACA 115 kV | P2-4:A20:5:_MESA 115 kV CB 102 - Section 2D & 1D | P2 | | | Voltage Collapse | | | | | | Voltage Collapse | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 7 | AGRILINK 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | | | | | | | | | | | |
| 8 | BNA VSTA 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 0.87 | 0.88 | 0.88 | | | | | | | | Under review |
| 9 | ERTA 60 kV | P2-1:A19:28:_GREN VLY-ERTA JCT 60kV [0] No Fault | P2-1 | | | | | | | | | | | | Mitigation under investigation |
| 10 | FIRESTNE 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 0.89 | | 0.90 | | | | | | | | Action Plan. Watsonville UVLS/Watsonville 115 kV Voltage Conversion Project |
| 11 | FREXP JT 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 0.87 | 0.88 | 0.88 | | | | | | | | Load transfer |
| 12 | FRSHXPRS 60 kV | P2-1:A19:33:_SALINAS1-FREXP JT 60kV [0] No Fault | P2-1 | | 0.87 | 0.88 | 0.88 | | | | | | | | Action Plan. Watsonville UVLS/Watsonville 115 kV Voltage Conversion Project |
| 13 | ZACA 115 kV | P1-2:A20:22:_Mesa-Santa Maria 115kV Line & P1-2:A20:33:_Divide-Cabrillo #1 115kV Line | P6 | | | | | | | | | | | | |
| 14 | ZACA 115 kV | P1-2:A20:25:_MESA_PGE-DIVVIDE #2 115kV [0] & P1-2:A20:24:_MESA_PGE-DIVVIDE #1 115kV [0] | P6 | | 0.80 | | | | 0.90 | | 0.86 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 15 | M 115 kV | P1-2:A19:9:_Green Valley-Paul Sweet 115kV Line & P1-4:A19:2:_M | P6 | | | 1.11 | 1.11 | | 1.10 | 1.11 | | | | | Add reactive deice |
| 16 | PAUL SWT 115 kV | P1-2:A19:9:_Green Valley-Paul Sweet 115kV Line & P1-4:A19:2:_M | P6 | | | 1.11 | 1.11 | | 1.10 | 1.11 | | | | | Add reactive deice |

Study Area: PG&E Central Coast and Los Padres_Baseline

Voltage Deviations



| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 17 | BUELLTON 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 18 | BUELLTON 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.73 | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 19 | CABRILLO 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 20 | CABRILLO 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.73 | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 21 | DIABLOCN 230 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | Voltage Collapse | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | 0.83 | | | | Explore potential mitigation |
| 22 | DIVIDE 70 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 23 | DIVIDE 70 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | Voltage Collapse | | | | | 0.76 | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 24 | DIVVIDE 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 25 | DIVVIDE 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.75 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 26 | FAIRWAY 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 27 | FAIRWAY 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | Voltage Collapse | | 0.76 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 28 | FOOTHILL 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | 0.70 | | 0.67 | 0.68 | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 29 | FOOTHILL 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | 0.70 | | | | | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 30 | FRWAYTP 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |



| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|---|----------|----------------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 31 | FRWAYTP 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.76 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 32 | GAREY 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 33 | GAREY 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.75 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 34 | GOLDTREE 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | 0.71 | | 0.67 | 0.68 | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 35 | GOLDTREE 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | 0.71 | | | | | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 36 | LOMPCJ&1 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 37 | LOMPCJ&1 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.74 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 38 | MANVILLE 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | Voltage Collapse | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 39 | MANVILLE 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.74 | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 40 | MESA PGE 230 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Expand Scope of Mesa Undervoltage SPS |
| 41 | MESA PGE 230 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.71 | | | | Expand Scope of Mesa Undervoltage SPS |
| 42 | MESA_PGE 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 43 | MESA_PGE 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.76 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |



| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | | | | | | | | Potential Mitigation Solutions |
|----|-----------------|--|----------|----------------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------------|--|--|---|
| | | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Winter Peak | 2021 Winter Peak | 2026 Winter Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | | | |
| 44 | MORRO BY 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | 0.83 | 0.83 | | 0.79 | 0.80 | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 45 | OCEANO 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan. Estrella 230 kV Project/ Cayucos Project |
| 46 | OCEANO 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.81 | | | | Action Plan. Estrella 230 kV Project/ Cayucos Project |
| 47 | PALMR 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 48 | PALMR 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.75 | | | | Add a second 230/115kV bank at Morro Bay and to re-conductoring of the Midway-Temblor 115kV path. |
| 49 | PSA RBLS 70 kV | P7-1:A20:2:_Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | Voltage Collapse | | | Voltage Collapse | | | 0.15 | | | | Action Plan. Estrella 230 kV Project/ Cayucos Project |
| 50 | PURISIMA 115 kV | P7-1:A20:16:_Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | Voltage Collapse | | Voltage Collapse | Voltage Collapse | | | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |
| 51 | PURISIMA 115 kV | P7-1:A20:17:_Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | Voltage Collapse | | | | | | 0.74 | | | | Action Plan/Divide SPS. Midway-Andrew 230 kV Project |



| ID | Contingency | Category | Category Description | Transient Stability Performance (Number of voltage and frequency violations) | | | | | | | | | | Potential Mitigation Solutions |
|----|--|----------|----------------------|--|------------------|------------------|----------------------|------------------------|----------|----------|----------|----------|----------|--------------------------------|
| | | | | 2018 Summer Peak | 2021 Summer Peak | 2026 Summer Peak | 2018 Spring Off-Peak | 2021 Summer Light Load | Select.. | Select.. | Select.. | Select.. | Select.. | |
| 1 | Salinas 115kV BAAH Bus #2 (failure of non-redundent relay) | P5 | | | | | 89 | | | | | | | Under review with PTO . |
| 2 | Salinas 115kV BAAH Bus #2 (failure of non-redundent relay) | P5 | | 100 | | | | | | | | | | Under review with PTO . |
| 3 | Salinas 115kV BAAH Bus #2 (failure of non-redundent relay) | P5 | | | | | | 90 | | | | | | Under review with PTO . |
| 4 | Salinas 115kV BAAH Bus #2 (failure of non-redundent relay) | P5 | | | 113 | | | | | | | | | Under review with PTO . |
| 5 | Salinas 115kV BAAH Bus #2 (failure of non-redundent relay) | P5 | | | | 39 | | | | | | | | Under review with PTO . |
| 6 | Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | 90 | | | | | | | | | | Under review with PTO . |
| 7 | Mesa-Divide #1 and #2 115 kV Lines | P7 | | 30 | | | | | | | | | | Under review with PTO . |
| 8 | Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | | | | 12 | | | | | | | Under review with PTO . |
| 9 | Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | | | 2 | | | | | | | | Under review with PTO . |
| 10 | Morro Bay-Mesa and Diablo-Mesa 230 kV Lines | P7 | | | 97 | | | | | | | | | Under review with PTO . |
| 11 | Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | | | | | 2 | | | | | | Under review with PTO . |
| 12 | Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | 94 | | | | | | | | | | Under review with PTO . |
| 13 | Templeton-Atascadero & Templeton-Paso Robles 70 kV Lines | P7 | | 14 | | | | | | | | | | Under review with PTO . |
| 14 | Morro Bay-Mesa and Morro Bay-Diablo 230 kV Lines | P7 | | | 101 | | | | | | | | | Under review with PTO . |



Single Contingency Load Drop

| ID | Worst Contingency | Category | Category Description | Amount of Load Drop (MW) | | | | | | | | | | Potential Mitigation Solutions |
|---------|-------------------|----------|----------------------|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------------------|
| | | | | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | |
| X-SLD-1 | | | | | | | | | | | | | | |

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

Study Area: **PG&E Central Coast and Los Padres_Baseline**



Single Source Substation with more than 100 MW Load

| ID | Substation | Load Served (MW) | | | | | | | | | | Potential Mitigation Solutions |
|--------|------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------------------|
| | | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | Select.. | |
| X-SS-1 | | | | | | | | | | | | |

No single source substation with more than 100 MW Load