

Thermal Overloads

| ID | Overloaded Facility | Worst Contingency | Category | Category Description | Loading (%) | | | Potential Mitigation Solutions |
|---------|---|---|----------|----------------------|------------------|----------------------|------------------|---|
| | | | | | 2014 Summer Peak | 2017 Summer Off-Peak | 2022 Summer Peak | |
| EOP-T-8 | PAHRUMP_1 230 kV---PAHRUMP 138 kV Bank #2 | Tran ELDORDO 500.0 to ELDORDO2 230.0 Ckt 1_Tran PAHRUMP_1 230.00 to PAHRUMP 138.00 bank #1 0.00 | C | T-1/T-1 | 93% | 103% | 117% | Notice VEA. Modify Ivanpah-Eldorado SPS identified in GIP |
| EOP-T-9 | PAHRUMP_1 230 kV---PAHRUMP 138 kV Bank #1 | Tran ELDORDO 500.0 to ELDORDO2 230.0 Ckt 1_Tran PAHRUMP_1 230.00 to PAHRUMP 138.00 bank #2 0.00 | C | T-1/T-1 | 93% | 105% | 117% | |

Voltage Deviations

| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | Potential Mitigation Solutions |
|------------|----------------------|---|----------|----------------------|--------------------------------|------------------|------------------|---|
| | | | | | 2014 Summer Peak | 2017 Summer Peak | 2022 Summer Peak | |
| VEA-VD-297 | BOB TAP 230 kV Bus | Tran ELDORDO 500.0 to ELDORDO2 230.0 Ckt 1_Line MEAD S 230.0 to BOB TAP 230.0 Ckt 1 | C | L-1/L-1 | -2.66% | -11.31% | -11.55% | Notice VEA. Modify Ivanpah-Eldorado SPS identified in GIP, or apply congestion management to curtail generation after first contingency |
| VEA-VD-298 | ELDORDO2 230 kV Bus | | C | L-1/L-1 | 0.00% | -11.14% | -11.47% | |
| VEA-VD-299 | PAHRUMP_1 230 kV Bus | | C | L-1/L-1 | -1.65% | -10.44% | -10.19% | |

2012/2013 ISO Reliability Assessment - Final Study Results

Study Area: **SCE East of Lugo - Summer Peak without Renewables**



High/Low Voltage

| ID | Substation | Worst Contingency | Category | Category Description | Voltage (PU) | | | Potential Mitigation Solutions |
|-----------|------------------------|---|----------|----------------------|------------------|------------------|------------------|---|
| | | | | | 2014 Summer Peak | 2017 Summer Peak | 2022 Summer Peak | |
| VEA-V-267 | CRAZY EYE TP230 kV Bus | Tran ELDORDO 500.0 to ELDORDO2 230.0 Ckt 1_Line MEAD S 230.0 to BOB TAP 230.0 Ckt 1 | C | T-1/L-1 | 0.98 | 0.89 | 0.89 | Notice VEA. Modify Ivanpah-Eldorado SPS identified in GIP, or apply congestion management to curtail generation after first contingency |
| VEA-V-268 | PAHRUMP_1 230 kV Bus | | C | T-1/L-1 | 0.98 | 0.90 | 0.90 | |



Transient Stability

| ID | Contingency | Category | Category Description | Transient Stability Performance | | | Potential Mitigation Solutions |
|----|-------------|----------|----------------------|---------------------------------|------------------|------------------|--------------------------------|
| | | | | 2014 Summer Peak | 2017 Summer Peak | 2022 Summer Peak | |
| | | | | | | | |

No transient stability issues identified.



Post-Transient Thermal Overloads

| ID | Overloaded Facility | Worst Contingency | Category | Category Description | Loading (%) | | | Potential Mitigation Solutions |
|----|---------------------|-------------------|----------|----------------------|------------------|------------------|------------------|--------------------------------|
| | | | | | 2014 Summer Peak | 2017 Summer Peak | 2022 Summer Peak | |
| | | | | | | | | |

No post-transient thermal overloads identified.

Post-Transient Voltage Deviations

| ID | Substation | Worst Contingency | Category | Category Description | Post Cont. Voltage Deviation % | | | Potential Mitigation Solutions |
|----|------------|-------------------|----------|----------------------|--------------------------------|------------------|------------------|--------------------------------|
| | | | | | 2014 Summer Peak | 2017 Summer Peak | 2022 Summer Peak | |
| | | | | | | | | |

No post-transient voltage deviations identified.

2012/2013 ISO Reliability Assessment - Final Study Results

Study Area: **SCE East of Lugo - without Renewables**



Single Contingency Load Drop

| ID | Worst Contingency | Category | Category Description | Amount of Load Drop (MW) | | | Potential Mitigation Solutions |
|----|-------------------|----------|----------------------|--------------------------|------|------|--------------------------------|
| | | | | 2014 | 2017 | 2022 | |
| | | | | | | | |

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

2012/2013 ISO Reliability Assessment - Final Study Results

Study Area: **SCE East of Lugo - without Renewables**

Single Source Substation with more than 100 MW Load



| ID | Substation | Load Served (MW) | | | Potential Mitigation Solutions |
|----|------------|------------------|------|------|--------------------------------|
| | | 2014 | 2017 | 2022 | |
| | | | | | |

No single source substation with more than 100 MW Load