## San Diego Area Generation Constraints

The San Diego area is currently defined by the electric system internal to a cut plane that intersects the following transmission lines:

- Five 230 kV South of SONGS transmission lines
- 500 kV Imperial Valley-Miguel #1 line
- 230 kV Tijuana-Otay Mesa #1 line

The following generation constraints currently apply in the San Diego area:

### 1. San Diego Area Unit Commitment Requirements for Voltage Stability[1]

| San Diego Area Daily Peak Load (MW) | Minimum Amount of Dependable Generation Capacity in the San Diego Area Required to be On-Line (MW) | Minimum Output of the Minimum Amount of Dependable Capacity Required to be On-Line (MW) |
|---|---|---|
| 0 to 2600 | 132 | 66 |
| 2601 to 2800 | 235 | 86 |
| 2801 to 3200 | 431 | 129 |
| 3201 to 3400 | 863 | 217 |
| 3401 to 3600 | 781 | 308 |
| 3601 to 3800 | 1003 | 357 |
| 3801 to 4000 | 1216 | 396 |
| 4001 to 4200 | 1353 | 536 |
| 4201 to 4400 | 1568 | 576 |
| 4401 to 5096 | 2246 | 872 |
| Above 5096 | Peak less 2850 | 872 |
| | | |

Note that while the indicated minimum amount of aggregate capacity must be on-line, the actual aggregate power output of generators in the San Diego area can be at any level above the aggregate minimum output level shown in the third column.

### 2. Local San Diego Area 25% Minimum Generation Requirement

The local San Diego area 25% minimum generation requirement was established to ensure that the SDG&E distribution service area does not become a burden on SCE's distribution service area in the event of an under frequency islanding situation.

At all times, the combined output of generators in the San Diego area should be at least equal to: (25% x San Diego area load) - (20% x SONGS output) - Adjustment[2]

[1] From the spreadsheet named "SDGE_Min_Gen_Commitment_Constraint_v4.xls". These values are recommended for planning purposes only. For operational purposes, consult the CAISO's 7810 operating procedure.

[2] Table 6 in the CAISO's 7810 operating procedure shows all generation that can be used to meet the 25% requirement.

The Adjustment represents the combined capacities of a number of small generators within the San Diego area which do not normally participate in the CAISO's day-ahead market and/or for which real-time output is not telemetered to the CAISO (for planning purposes it is recommended that 132 MW be used) plus the output of the Intergen and TDM combined cycle plants (for planning purposes it is recommended that 900 MW be used).