

## **APPENDIX A: System Data**

**Intentionally left blank**

# 1 Existing Generation

Table A1-1: Existing generation plants in PG&amp;E planning area

| Planning Area                               | Generating Plant           | Maximum Capacity |
|---|----------------------------|------------------|
| <b>PG&amp;E - Humboldt</b>                  | Humboldt Bay               | 166              |
|   | Kekawaka                   | 4.9              |
|   | LP Samoa                   | 25               |
|   | Fairhaven                  | 17.3             |
|   | Blue Lake                  | 12               |
|   | <b>Humboldt Area Total</b> | <b>225</b>       |
| <b>PG&amp;E - North Coast and North Bay</b> | Santa Fe                   | 160              |
|   | Bear Canyon                | 20               |
|   | Westford Flat              | 30               |
|   | Western Geo                | 38               |
|   | Geysers 5                  | 53               |
|   | Geysers 6                  | 53               |
|   | Geysers 7                  | 53               |
|   | Geysers 8                  | 53               |
|   | Geysers 11                 | 106              |
|   | Geysers 12                 | 106              |
|   | Geysers 13                 | 133              |
|   | Geysers 14                 | 109              |
|   | Geysers 16                 | 118              |
|   | Geysers 17                 | 118              |
|   | Geysers 18                 | 118              |
|   | Geysers 20                 | 118              |
| SMUD Geo                                    | 72                         |                  |

| Planning Area                        | Generating Plant                            | Maximum Capacity |
|--------------------------------------|---|------------------|
|                                      | Potter Valley                               | 11               |
|                                      | Geo Energy                                  | 20               |
|                                      | Indian Valley                               | 3                |
|                                      | Sonoma Landfill                             | 6                |
|                                      | Exxon                                       | 54               |
|                                      | Monticello                                  | 12               |
|                                      | <b>North Coast and North Bay Area Total</b> | <b>1564</b>      |
| <b>PG&amp;E -<br/>North Valley</b>   | Pit River                                   | 752              |
|                                      | Battle Creek                                | 17               |
|                                      | Cow Creek                                   | 5                |
|                                      | North Feather River                         | 736              |
|                                      | South Feather River                         | 123              |
|                                      | West Feather River                          | 26               |
|                                      | Black Butte                                 | 11               |
|                                      | CPV   | 717              |
|                                      | Hatchet Ridge Wind                          | 103              |
|                                      | QFs   | 353              |
|                                      | <b>North Valley Area Total</b>              | <b>2,843</b>     |
| <b>PG&amp;E -<br/>Central Valley</b> | Wadham                                      | 27               |
|                                      | Woodland Biomass                            | 25               |
|                                      | UC Davis Co-Gen                             | 4                |
|                                      | Cal-Peak Vaca Dixon                         | 49               |
|                                      | Wolfskill Energy Center                     | 60               |
|                                      | Lambie, Creed and Goosehaven                | 143              |
|                                      | EnXco                                       | 60               |

| Planning Area | Generating Plant            | Maximum Capacity |
|---------------|-----------------------------|------------------|
|               | Solano                      | 100              |
|               | High Winds                  | 200              |
|               | Shiloh                      | 300              |
|               | Bowman Power House          | 4                |
|               | Camp Far West (SMUD)        | 7                |
|               | Chicago Park Power House    | 40               |
|               | Chili Bar Power House       | 7                |
|               | Colgate Power House         | 294              |
|               | Deer Creek Power House      | 6                |
|               | Drum Power House            | 104              |
|               | Dutch Plat Power House      | 49               |
|               | El Dorado Power House       | 20               |
|               | Feather River Energy Center | 50               |
|               | French Meadow Power House   | 17               |
|               | Green Leaf No. 1            | 73               |
|               | Green Leaf No. 2            | 50               |
|               | Halsey Power House          | 11               |
|               | Haypress Power House        | 15               |
|               | Hellhole Power House        | 1                |
|               | Middle Fork Power House     | 130              |
|               | Narrows Power House         | 66               |
|               | Newcastle Power House       | 14               |
|               | Oxbow Power House           | 6                |
|               | Ralston Power House         | 83               |
|               | Rollins Power House         | 12               |

| Planning Area | Generating Plant                      | Maximum Capacity |
|---------------|---------------------------------------|------------------|
|               | Spaulding Power House                 | 17               |
|               | SPI-Lincoln                           | 18               |
|               | Ultra Rock (Rio Bravo-Rocklin)        | 25               |
|               | Wise Power House                      | 20               |
|               | Yuba City Co-Generation               | 49               |
|               | Yuba City Energy Center               | 61               |
|               | Altamont Co-Generation                | 7                |
|               | Camanche Power House                  | 11               |
|               | Co-generation National POSDEF         | 44               |
|               | Electra Power House                   | 101              |
|               | Flowind Wind Farms                    | 76               |
|               | GWF Tracy Peaking Plant               | 192              |
|               | Ione Energy                           | 18               |
|               | Lodi CT                               | 25               |
|               | Lodi Stigg                            | 57               |
|               | Pardee Power House                    | 29               |
|               | Salt Springs Power House              | 42               |
|               | San Joaquin Co-Generation             | 55               |
|               | Simpson Paper Co-Generation           | 50               |
|               | Stockton Co-Generation (Air Products) | 50               |
|               | Stockton Waste Water Facility         | 2                |
|               | Thermal Energy                        | 21               |
|               | Tiger Creek Power House               | 55               |
|               | US Wind Power Farms                   | 158              |
|               | West Point Power House                | 14               |

| Planning Area                          | Generating Plant                     | Maximum Capacity                 |
|--|--------------------------------------|----------------------------------|
|  | Lodi Energy Center                   | 280                              |
|  | GWF Tracy Expansion                  | 145                              |
|  | Beardsley Power House                | 11                               |
|  | Donnells Power House                 | 68                               |
|  | Fiberboard (Sierra Pacific)          | 6                                |
|  | Melones Power Plant                  | 119                              |
|  | Pacific Ultra Power Chinese Station  | 22                               |
|  | Sand Bar Power House                 | 15                               |
|  | Spring Gap Power House               | 7                                |
|  | Stanislaus Power House               | 83                               |
|  | Stanislaus Waste Co-gen              | 24                               |
|  | Tulloch Power House                  | 17                               |
|  |                                      | <b>Central Valley Area Total</b> |
| <b>PG&amp;E -<br/>Greater Bay Area</b> | Alameda Gas Turbines                 | 51                               |
|  | Calpine Gilroy I                     | 182                              |
|  | Crockett Co-Generation               | 240                              |
|  | Delta Energy Center                  | 965                              |
|  | Marsh Landing                        | 774                              |
|  | Russell City – East Shore EC         | 640                              |
|  | High Winds, LLC                      | 162                              |
|  | Los Esteros Critical Energy Facility | 362                              |
|  | Los Medanos Energy Center            | 678                              |
|  | Mariposa Peaker                      | 200                              |
|  | Metcalf Energy Center                | 575                              |
|  | Oakland C Gas Turbines               | 165                              |

| Planning Area                             | Generating Plant                | Maximum Capacity |
|---|---------------------------------|------------------|
|   | Donald Von Raesfeld Power Plant | 164              |
|   | Shiloh Wind                     | 500              |
|   | Riverview Energy Center         | 61               |
|   | Ox Mountain                     | 13               |
|   | Gateway Generating Station      | 599              |
|   | <b>Greater Bay Area Total</b>   | <b>6331</b>      |
| <b>PG&amp;E -<br/>Greater Fresno Area</b> | Fresno Cogen-Agrico             | 79.9             |
|   | Adams_E                         | 19               |
|   | Adera Solar                     | 20               |
|   | Alpaughn_20S                    | 20               |
|   | Alpaughn_50S                    | 50               |
|   | Atwell                          | 20               |
|   | Avenal                          | 6                |
|   | Balch 1 PH                      | 31               |
|   | Balch 2 PH                      | 107              |
|   | Bulld 12                        | 2.8              |
|   | Blackwell Solar                 | 3                |
|   | Mendota Biomass Power           | 25               |
|   | Cantua                          | 20               |
|   | Chow 2 Peaker Plant             | 52.5             |
|   | Chevron USA (Coalinga)          | 25               |
|   | Chow II Biomass to Energy       | 12.5             |
|   | CID Solar                       | 20               |
|   | Citizen Solar B                 | 5                |
| Coalinga Cogeneration Company             | 46                              |                  |



| Planning Area | Generating Plant            | Maximum Capacity |
|---------------|-----------------------------|------------------|
|               | CalPeak Power – Panoche LLC | 49               |
|               | Crane Valley                | 0.9              |
|               | Corcoran PB                 | 20               |
|               | Corcoran City               | 11               |
|               | Dinuba Generation Project   | 13.5             |
|               | El Nido Biomass to Energy   | 12.5             |
|               | EE Kettleman Land           | 20               |
|               | Exchequer Hydro             | 94.5             |
|               | Fresno Waste Water          | 9                |
|               | Friant Dam                  | 27.3             |
|               | Fresno Solar West & South   | 3                |
|               | GWF Henrietta Peaker Plant  | 109.6            |
|               | Gates_Dist                  | 30               |
|               | Giffen_Dist                 | 10               |
|               | Guernsey_Dist               | 20               |
|               | HEP Peaker Plant Aggregate  | 102              |
|               | Hanford L.P.                | 23               |
|               | Hass PH Unit 1 &2 Aggregate | 146.2            |
|               | Helms Pump-Gen              | 1,212            |
|               | J.R. Wood                   | 10.8             |
|               | Jgbswt                      | 2.9              |
|               | Kansas                      | 40               |
|               | Kent                        | 20               |
|               | Kerkhoff PH1                | 32.8             |
|               | Kerkhoff PH2                | 142              |

| Planning Area | Generating Plant                  | Maximum Capacity |
|---------------|-----------------------------------|------------------|
|               | Kingsburg Cogen                   | 34.5             |
|               | Kings River Hydro                 | 51.5             |
|               | Kings River Conservation District | 112              |
|               | Liberty V Lost Hills              | 20               |
|               | Madera                            | 28.7             |
|               | McCall                            | 2.5              |
|               | McSwain Hydro                     | 10               |
|               | Merced Falls                      | 4                |
|               | Merced Solar                      | 1.5              |
|               | Mission Solar                     | 1.5              |
|               | Morelos Del Sol                   | 15               |
|               | North Star Solar 1                | 60               |
|               | O'Neill Pump-Gen                  | 11               |
|               | Panoche Energy Center             | 410              |
|               | Pine Flat Hydro                   | 189.9            |
|               | Quinto Solar PV                   | 107.6            |
|               | Sanger Cogen                      | 67.5             |
|               | Sandrag                           | 19               |
|               | San Joaquin 2                     | 3.2              |
|               | San Joaquin 3                     | 4.2              |
|               | Schindler                         | 30               |
|               | Starwood Panoche                  | 121.8            |
|               | Stroud                            | 20               |
|               | Stratford                         | 20               |
|               | Suncity                           | 20               |

| Planning Area               | Generating Plant                  | Maximum Capacity   |
|-----------------------------|-----------------------------------|--------------------|
|                             | SUN Harvest Solar                 | 1.5                |
|                             | Rio Bravo Fresno (AKA Ultrapower) | 26.5               |
|                             | Vega Solar                        | 20                 |
|                             | Wellhead Power Gates, LLC         | 49                 |
|                             | Wellhead Power Panoche, LLC       | 49                 |
|                             | Westlands                         | 38                 |
|                             | Westlands Solar Farm              | 18                 |
|                             | Wishon/San Joaquin #1-A Aggregate | 20.4               |
|                             | 2097 Helton                       | 1.5                |
|                             | <b>Greater Fresno Area Total</b>  | <b>4,316</b>       |
|                             | <b>PG&amp;E -<br/>Kern Area</b>   | Badger Creek (PSE) |
| Chalk Cliff                 |                                   | 48                 |
| Cymric Cogen (Chevron)      |                                   | 21                 |
| Cadet (Chev USA)            |                                   | 12                 |
| Dexzel                      |                                   | 33                 |
| Discovery                   |                                   | 44                 |
| Double C (PSE)              |                                   | 45                 |
| Elk Hills                   |                                   | 623                |
| Frito Lay                   |                                   | 8                  |
| Hi Sierra Cogen             |                                   | 49                 |
| Kern                        |                                   | 177                |
| Kern Canyon Power House     |                                   | 11                 |
| Kernfront                   |                                   | 49                 |
| Kern Ridge (South Belridge) |                                   | 76                 |
| La Paloma Generation        | 926                               |                    |

| Planning Area  | Generating Plant                 | Maximum Capacity |
|--|----------------------------------|------------------|
|  | Midsun                           | 25               |
|  | Mt. Poso                         | 56               |
|  | Navy 35R                         | 65               |
|  | Oildale Cogen                    | 40               |
|  | Bear Mountain Cogen (PSE)        | 69               |
|  | Live Oak (PSE)                   | 48               |
|  | McKittrick (PSE)                 | 45               |
|  | Rio Bravo Hydro                  | 11               |
|  | Shell S.E. Kern River            | 27               |
|  | Solar Tannenhill                 | 18               |
|  | Sunset                           | 225              |
|  | North Midway (Texaco)            | 24               |
|  | Sunrise (Texaco)                 | 338              |
|  | Sunset (Texaco)                  | 239              |
|  | Midset (Texaco)                  | 42               |
|  | Lost Hills (Texaco)              | 9                |
|  | University Cogen                 | 36               |
|  | New RPS Units                    | 55               |
|  | <b>Kern Area Total</b>           | <b>3,543</b>     |
| <b>PG&amp;E -<br/>Central Coast and<br/>Los Padres</b> | Moss Landing Power Plant         | 1,020            |
|  | Soledad Energy                   | 10               |
|  | Basic Energy Cogen (King City)   | 133              |
|  | King City Peaker                 | 70               |
|  | Sargent Canyon Cogen (Oilfields) | 45               |
|  | Salinas River Cogen (Oilfields)  | 45               |

| <b>Planning Area</b> | <b>Generating Plant</b>                        | <b>Maximum Capacity</b> |
|----------------------|--|-------------------------|
|                      | Diablo Canyon Power Plant                      | 2,400                   |
|                      | Union Oil (Tosco)                              | 6                       |
|                      | Santa Maria                                    | 8                       |
|                      | Vandenberg Air Force Base                      | 15                      |
|                      | Topaz  | 550                     |
|                      | California Valley Solar                        | 250                     |
|                      | <b>Central Coast and Los Padres Area Total</b> | <b>4,552</b>            |

Table A1-2: Existing generation plants in SCE planning area

| Planning Area   | Generating Plant    | Maximum Capacity |
|---|---------------------|------------------|
| <b>SCE -<br/>Tehachapi and Big<br/>Creek Corridor</b> | Big Creek 1-1 Gen 1 | 19.9             |
|   | Big Creek 1-1 Gen 2 | 21.6             |
|   | Big Creek 1-2 Gen 3 | 21.6             |
|   | Big Creek 1-2 Gen 4 | 31.2             |
|   | Big Creek 2-1 Gen 1 | 50.8             |
|   | Big Creek 2-1 Gen 2 | 52.0             |
|   | Big Creek 2-2 Gen 3 | 18.7             |
|   | Big Creek 2-2 Gen 4 | 19.7             |
|   | Big Creek 2-3 Gen 5 | 17.0             |
|   | Big Creek 2-3 Gen 6 | 18.5             |
|   | Big Creek 3-1 Gen 1 | 35.0             |
|   | Big Creek 3-1 Gen 2 | 35.0             |
|   | Big Creek 3-2 Gen 3 | 35.0             |
|   | Big Creek 3-2 Gen 4 | 41.0             |
|   | Big Creek 3-3 Gen 5 | 39.0             |
|   | Big Creek 4 Gen 41  | 50.4             |
|   | Big Creek 4 Gen 41  | 50.6             |
|   | Big Creek 8 Gen 81  | 24.4             |
|   | Big Creek 8 Gen 81  | 44.0             |
|   | Eastwood            | 207.0            |
|   | Mammoth 1G          | 93.5             |
|   | Mammoth 2G          | 93.5             |
| Portal  | 9.6                 |                  |
| Warne 1   | 38.0                |                  |

| Planning Area | Generating Plant                    | Maximum Capacity |
|---------------|-------------------------------------|------------------|
|               | Warne 2                             | 38.0             |
|               | Pandol 1                            | 56.0             |
|               | Pandol 2                            | 56.0             |
|               | Ultragen                            | 41.0             |
|               | Omar 1G                             | 90.8             |
|               | Omar 2G                             | 90.8             |
|               | Omar 3G                             | 90.8             |
|               | Omar 4G                             | 90.8             |
|               | SYCCYN 1G                           | 75.0             |
|               | SYCCYN 2G                           | 75.0             |
|               | SYCCYN 3G                           | 75.0             |
|               | SYCCYN 4G                           | 75.0             |
|               | Pastoria Energy Facility            | 770.0            |
|               | Manzana Wind Project                | 189.0            |
|               | Pacific Wind Project                | 140.0            |
|               | Coram Brodie Wind Project Expansion | 51.0             |
|               | Coram Brodie Wind Project Phase 2   | 51.0             |
|               | Alta 2012                           | 720.0            |
|               | CPC Alta Wind 4-5 (fka CPC East)    | 420.0            |
|               | CPC Alta Wind 1-3 (fka CPC West)    | 600.0            |
|               | Windstar I Alternate                | 120.0            |
|               | Eastwind                            | 60.0             |
|               | Westwind                            | 21.0             |
|               | Tehachap                            | 114.4            |
|               | WNDT167                             | 120.0            |

| Planning Area | Generating Plant      | Maximum Capacity |
|---------------|-----------------------|------------------|
|               | North Sky River Wind  | 170.0            |
|               | Sky River             | 76.9             |
|               | Catalina Solar        | 150.0            |
|               | KR 3-1                | 22.8             |
|               | KR 3-2                | 21.5             |
|               | LakeGen               | 18.0             |
|               | Wellhead Power Delano | 49.9             |
|               | Kawgen                | 18.0             |
|               | Avenue                | 310.0            |
|               | Kingsbird             | 270.0            |
|               | AV Solar 1            | 249.0            |
|               | Arbwind               | 21.8             |
|               | Canwind               | 65.0             |
|               | Enwind                | 47.1             |
|               | Encawind              | 112.9            |
|               | Flowind               | 40.8             |
|               | Dutchwind             | 14.0             |
|               | Northwind             | 19.4             |
|               | Oakwind               | 21.1             |
|               | Southwind             | 13.4             |
|               | Zondwind              | 26.0             |
|               | Breeze                | 12.5             |
|               | Midwind               | 18.0             |
|               | Morwind               | 56.0             |
|               | Kern River            | 24.0             |



| Planning Area                  | Generating Plant                              | Maximum Capacity        |
|--------------------------------|---|-------------------------|
|                                | Borel   | 10.0                    |
|                                | Alta Vista Suntower Generating Station        | 66.0                    |
|                                | Antelope Power Plant                          | 20.0                    |
|                                | Down  | 20.0                    |
|                                | Twilight                                      | 20.0                    |
|                                | Antelope Valley PV1                           | 318.5                   |
|                                | Antelope Valley PV2                           | 285.0                   |
|                                | Rising Tree                                   | 198.8                   |
|                                | Western Antelope Blue Sky Ranch A             | 20.0                    |
|                                | First Solar North Rosamond                    | 100.8                   |
|                                | AV Solar Ranch 2-A                            | 20.4                    |
|                                | AV Solar Ranch 2-B                            | 20.4                    |
|                                | RE Astoria                                    | 181.1                   |
|                                | RE Camelot                                    | 45.0                    |
|                                | RE Columbia                                   | 15.0                    |
|                                | TA Acacia                                     | 20.0                    |
|                                | SGS Antelope Valley                           | 300.0                   |
|                                | North Rosamond                                | 156.2                   |
|                                | <b>Tehachapi and Big Creek Corridor Total</b> | <b>8,410.9</b>          |
|                                | <b>SCE -<br/>East of Lugo Area</b>            | Desert Star Energy Star |
| Mountain Pass - Ivanpah Solar  |   | 392                     |
| Copper Mountain Solar I        |   | 58                      |
| Copper Mountain Solar II       |   | 155                     |
| <b>East of Lugo Area Total</b> |   | <b>1,111</b>            |

| Planning Area                  | Generating Plant        | Maximum Capacity |
|--------------------------------|-------------------------|------------------|
| <b>SCE -<br/>North of Lugo</b> | ALBAG1                  | 140              |
|                                | BLM E7G                 | 24               |
|                                | BLM E8G                 | 24               |
|                                | BLM W9G                 | 19.5             |
|                                | BORAX I                 | 22               |
|                                | BSPHYD26                | 14.18            |
|                                | BSPHYD34                | 15.9             |
|                                | BLM E7G                 | 24               |
|                                | CALGEN                  | 92.2             |
|                                | CSA DIABLO 1            | 15               |
|                                | CSA DIABLO 2            | 10               |
|                                | High Desert Power Plant | 854.9            |
|                                | KERRMGEE                | 15               |
|                                | LUNDY                   | 3                |
|                                | LUZ (8 & 9)             | 160              |
|                                | NAVYII4G                | 22.5             |
|                                | NAVYII5G                | 22.5             |
|                                | NAVYII6G                | 22.5             |
|                                | OCASOG2                 | 140              |
|                                | OXBOW G1                | 49.8             |
|                                | POOLE                   | 10.9             |
|                                | RUSH                    | 11.5             |
|                                | SEGS 1G                 | 14.2             |
| SEGS 2G                        | 43.8                    |                  |

| Planning Area                 | Generating Plant                | Maximum Capacity |
|-------------------------------|---------------------------------|------------------|
|                               | SUNGEN                          | 150              |
|                               | <b>North of Lugo Area Total</b> | <b>1,897</b>     |
| <b>SCE -<br/>Eastern Area</b> | Blythe Energy Center            | 520              |
|                               | Indigo Peaker                   | 136              |
|                               | Cabazon Wind                    | 42.6             |
|                               | Mountainview IV Wind            | 42               |
|                               | Wintec 5 Wind                   | 3.7              |
|                               | Wintec 6 Wind                   | 45               |
|                               | Pacificorp Wind                 | 2.1              |
|                               | FPLE Green 1 Wind               | 8.7              |
|                               | FPLE Green 2 Wind               | 3.0              |
|                               | FPLE Green 3 Wind               | 6.8              |
|                               | Wintec 2 Wind                   | 16.5             |
|                               | Wintec 3 Wind                   | 11.6             |
|                               | Wintec 4 Wind                   | 16.5             |
|                               | Seawest 1 Wind                  | 44.4             |
|                               | Seawest 2 Wind                  | 22.2             |
|                               | Seawest 3 Wind                  | 22.4             |
|                               | Renwind Wind                    | 9.0              |
|                               | Whitewater Wind                 | 66               |
|                               | Altamesa 4 Wind                 | 40               |
|                               | Painted Hills Wind              | 16.9             |
|                               | Altwind QF 1                    | 32.9             |
| Altwind QF 2                  | 15.1                            |                  |
| Buchwind QF                   | 17                              |                  |

| Planning Area         | Generating Plant                        | Maximum Capacity |
|-----------------------|---|------------------|
|                       | Capwind QF                              | 20               |
|                       | Garnet QF Wind                          | 101.4            |
|                       | Panaero Wind                            | 30               |
|                       | Renwind QF 1                            | 6.3              |
|                       | Renwind QF 2                            | 6.6              |
|                       | Sanwind QF 1                            | 3.0              |
|                       | Sanwind QF 2                            | 28.0             |
|                       | Seawind QF                              | 27               |
|                       | Terawind QF                             | 22.5             |
|                       | Transwind QF                            | 40.0             |
|                       | Venwind QF 1                            | 25.5             |
|                       | Venwind QF 2                            | 19.3             |
|                       | CPV Sentinel Peaker                     | 850              |
|                       | Genesis Solar Energy Project            | 250              |
|                       | Desert Sunlight PV Project              | 550              |
|                       | McCoy Photovoltaic Project <sup>1</sup> | 126.16           |
|                       | Windustries                             | 9.8              |
|                       | Edom Hills Wind Farm                    | 20               |
|                       | Karen Avenue Wind Farm                  | 11.7             |
|                       | <b>Eastern Area Total</b>               | <b>3,287.66</b>  |
| <b>SCE Metro Area</b> | Agua Mansa Generating Facility          | 43               |
|                       | Alamitos                                | 2,010            |
|                       | Anaheim CT                              | 41               |

<sup>1</sup> This project is partially operational at 126.16 MW, with a total capacity of 250 MW

| Planning Area | Generating Plant                             | Maximum Capacity |
|---------------|--|------------------|
|               | AP North Lake Solar                          | 20               |
|               | Barre Peaker                                 | 45               |
|               | Berry Petroleum Placerita                    | 37               |
|               | BP West Coast Products                       | 21               |
|               | Broadway 3                                   | 65               |
|               | Calabasas Gas-to-Energy Facility             | 7                |
|               | Canyon Power Plant                           | 195              |
|               | Carson Cogeneration Company                  | 47               |
|               | Center Area Lumped Units                     | 18               |
|               | Center Peaker                                | 45               |
|               | Century                                      | 36               |
|               | Chevron CIC                                  | 170.7            |
|               | Chiquita Canyon Landfill Generating Facility | 7                |
|               | City Of Long Beach                           | 28               |
|               | Clearwater Power Plant                       | 28               |
|               | Corona Energy Partners, Ltd.                 | 30               |
|               | County Of Los Angeles (Pitchess Honor Ranch) | 19               |
|               | Coyote Canyon                                | 6                |
|               | Devil Canyon                                 | 235              |
|               | Drews  | 36               |
|               | E. F. Oxnard, Incorporated                   | 34               |
|               | El Segundo Energy Center                     | 570              |
|               | Ellwood Generating Station                   | 54               |
|               | Etiwanda Hydro Recovery Plant                | 10               |

| Planning Area | Generating Plant                                    | Maximum Capacity |
|---------------|---|------------------|
|               | Foothill Hydro Recovery Plant                       | 8                |
|               | Glen Arm Power Plant                                | 132              |
|               | Grapeland Peaker                                    | 43               |
|               | H. Gonzales Gas Turbine                             | 12               |
|               | Harbor Cogen Combined Cycle                         | 100              |
|               | Houweling Nurseries Oxnard CHP                      | 13.2             |
|               | Huntington Beach 1 & 2                              | 452              |
|               | Inland Empire Energy Center                         | 670              |
|               | L.A. County Sanitation District #2 (Puente Hills B) | 47               |
|               | Long Beach 1 – 4                                    | 260              |
|               | Malburg Generating Facility                         | 134              |
|               | Mira Loma Peaker                                    | 43               |
|               | MM West Coast Covina, LLC                           | 6                |
|               | Mojave Siphon PH                                    | 18               |
|               | Mountainview Power Plant                            | 969              |
|               | MWD Perris Hydroelectric Recovery Plant             | 8                |
|               | O.L.S. Energy Company- Chino-Mens Inst.             | 25               |
|               | Ormond Beach  | 1,516            |
|               | Procter & Gamble Paper Prod. (Oxnard II)            | 46               |
|               | Redondo   | 1,356            |
|               | Ripon Cogeneration                                  | 27               |
|               | Riverside Energy Resource Center (RERC)             | 194              |
|               | San Dimas Hydro Recovery Plant                      | 8                |
|               | Springs Generation Plant                            | 36               |

| Planning Area | Generating Plant  | Maximum Capacity |
|---------------|---|------------------|
|               | SPVP044   | 8                |
|               | Sunshine Gas Producers, L.L.C.                            | 20               |
|               | Tequesquite Landfill Solar Project                        | 7.5              |
|               | Walnut Creek Energy Park                                  | 500              |
|               | Watson Cogeneration                                       | 406              |
|               | Weyerhaeuser Company (Formerly<br>Williamette Industries) | 13               |
|               | Multiple smaller facilities                               | 85.5             |
|               | <b>Metro Area Total</b>                                   | <b>11,021</b>    |

Table A1-3: Existing generation plants in SDG&amp;E planning area

| Planning Area               | Generating Plant  | Maximum Capacity |
|-----------------------------|-------------------|------------------|
| SDG&E                       | Otay Mesa GT1     | 185.1            |
|                             | Otay Mesa GT2     | 185.1            |
|                             | Otay Mesa ST1     | 233.5            |
|                             | Larkspur Border 1 | 46.0             |
|                             | Larkspur Border 2 | 46.0             |
|                             | Cabrillo          | 3.1              |
|                             | Capistrano        | 5.3              |
|                             | Carlton Hills     | 1.6              |
|                             | Carlton Hills     | 0.3              |
|                             | Chicarita         | 3.7              |
|                             | Border/Calpeak    | 48.0             |
|                             | El Cajon/Calpeak  | 45.4             |
|                             | Escondido/Calpeak | 48.0             |
|                             | DIVSON_6_NSQF     | 41.7             |
|                             | East Gate         | 0.3              |
|                             | Encina 2          | 104.0            |
|                             | Encina 3          | 110.0            |
|                             | Encina 5          | 300.0            |
|                             | Encina 4          | 330.0            |
|                             | Encina GT         | 14.5             |
| MMC-Electrovest (Escondido) | 49.5              |                  |
| Palomar_CT1                 | 162.4             |                  |



| Planning Area | Generating Plant             | Maximum Capacity |
|---------------|------------------------------|------------------|
|               | Palomar_CT2                  | 162.4            |
|               | Palomar_ST                   | 240.8            |
|               | Goalline                     | 38.4             |
|               | Mesa Heights                 | 3.6              |
|               | Miramar 1                    | 48.0             |
|               | Miramar 2                    | 47.9             |
|               | Mission                      | 0.7              |
|               | North Island                 | 36.4             |
|               | Otay Landfill I              | 2.8              |
|               | Otay Landfill II             | 2.6              |
|               | Covanta Otay 3               | 3.5              |
|               | MMC-Electrovest (Otay)       | 35.5             |
|               | Orange Grove 1               | 50.0             |
|               | Orange Grove 2               | 50.0             |
|               | NTC Point Loma Steam turbine | 2.0              |
|               | NTC Point Loma               | 19.4             |
|               | Sampson                      | 1.0              |
|               | San Marcos Landfill          | 0.7              |
|               | El Cajon Energy Center       | 48.1             |
|               | Lake Hodges Pumped Storage 1 | 20.0             |
|               | Lake Hodges Pumped Storage 2 | 20.0             |
|               | BREGGO SOLAR (NQC)           | 26.0             |
|               | Kumeyaay                     | 50.0             |

| Planning Area | Generating Plant  | Maximum Capacity            |              |
|---------------|-------------------|-----------------------------|--------------|
|               | East County       | 155.0                       |              |
|               | Ocotillo Express  | 265.0                       |              |
|               | Miramar GT 1      | 17.0                        |              |
|               | Miramar GT 2      | 16.0                        |              |
|               | Naval Station     | 47.0                        |              |
|               | El Cajon GT       | 13.0                        |              |
|               | Ash               | 0.9                         |              |
|               | Rancho Santa Fe 1 | 0.4                         |              |
|               | Rancho Santa Fe 2 | 0.3                         |              |
|               | Murray            | 0.2                         |              |
|               | Kyocera           | 0.1                         |              |
|               |                   | <b>SDG&amp;E Area Total</b> | <b>3,388</b> |

Table A1-4: Existing generation plants in VEA planning area

| <b>Planning Area</b> | <b>Generating Plant</b> | <b>Maximum Capacity</b> |
|----------------------|-------------------------|-------------------------|
| <b>VEA</b>           | Community Solar (WDAT)  | 15                      |
|                      | <b>VEA Area Total</b>   | <b>15</b>               |

## 2 Retired Generation (non-OTC)

Table A2-1: Generation plants projected to be retired in planning horizon

| <b>PTO Area</b> | <b>Project</b>       | <b>Capacity (MW)</b> | <b>First Year to be retired</b> |
|-----------------|----------------------|----------------------|---------------------------------|
| <b>SCE</b>      | Etiwanda 3 & 4       | 640                  | 2018                            |
| <b>SCE</b>      | Mandalay Units 1,2,3 | 560                  | 2018                            |
| <b>SCE</b>      | Ellwood              | 54                   | 2021                            |

### 3 Planned Generation

Table A3-1: Planned Generation

| PTO Area | Project   | Capacity (MW) | First Year to be Modeled |
|----------|---|---------------|--------------------------|
| PG&E     | -   | -             | -                        |
| SCE      | Huntington Beach Energy Project Unit 6 (CCGT) * | 644           | 2020                     |
|          | Alamitos Energy Center Unit 8 (CCGT) *          | 640           | 2020                     |
|          | Stanton Energy Center*                          | 98            | 2020                     |
| SDG&E    | Carlsbad Peakers*                               | 500           | 2019                     |

**Notes:**

\*These projects have received PPTA approvals from the CPUC as part of Long Term Procurement Plan (LTPP) process.

## 4 Reactive Resources

Table A4-1: Summary of key existing reactive modeled in ISO reliability assessments

| <b>Substation</b>        | <b>Capacity (Mvar)</b>         |
|--------------------------|--------------------------------|
| Gates                    | 225                            |
| Los Banos                | 225                            |
| Gregg                    | 150                            |
| McCall                   | 132                            |
| Mesa                     | 100                            |
| Metcalf                  | 350                            |
| Olinda                   | 200                            |
| Table Mountain           | 454                            |
| Devers                   | 156 & 605 (dynamic capability) |
| Rector                   | 200                            |
| Santiago                 | 243                            |
| Sunrise San Luis Rey     | 63                             |
| Southbay / Bay Boulevard | 100                            |
| Miraloma                 | 158                            |
| Suncrest                 | 126                            |
| Penasquitos              | 126                            |

## 5 Special Protection Schemes

Table A5-1: Existing Special Protection Schemes in the PG&amp;E area

| PTO            | Area                                   | SPS Name   |
|----------------|--|--|
| PG&E           | Central Coast / Los Padres             | Mesa and Santa Maria Undervoltage SPS              |
|                | Central Coast / Los Padres             | Divide Undervoltage SPS                            |
|                | Central Coast / Los Padres             | Temblor-San Luis Obispo 115 kV Overload Scheme     |
|                | Bulk                                   | COI RAS  |
|                | Bulk                                   | Colusa SPS   |
|                | Bulk                                   | Diablo Canyon SPS                                  |
|                | Bulk                                   | Gates 500/230 kV Bank #11 SPS                      |
|                | Bulk                                   | Midway 500/230 kV Transformer Overload SPS         |
|                | Bulk                                   | Path 15 IRAS                                       |
|                | Bulk                                   | Path 26 RAS North to South                         |
|                | Bulk                                   | Path 26 RAS South to North                         |
|                | Bulk                                   | Table Mt 500/230 kV Bank #1 SPS                    |
|                | Central Valley                         | Drum (Sierra Pacific) Overload Scheme (Path 24)    |
|                | Central Valley                         | Stanislaus – Manteca 115 kV Line Load Limit Scheme |
|                | Central Valley                         | Vaca-Suisun 115 kV Lines Thermal Overload Scheme   |
| Central Valley | West Sacramento 115 kV Overload Scheme |  |

| PTO | Area                | SPS Name  |
|-----|---------------------|---|
|     | Central Valley      | West Sacramento Double Line Outage Load Shedding SPS Scheme |
|     | Greater Fresno Area | Ashlan SPS  |
|     | Greater Fresno Area | Atwater SPS   |
|     | Greater Fresno Area | Gates Bank 11 SPS   |
|     | Greater Fresno Area | Helms HTT RAS   |
|     | Greater Fresno Area | Helms RAS   |
|     | Greater Fresno Area | Henrietta RAS   |
|     | Greater Fresno Area | Herndon-Bullard SPS   |
|     | Greater Fresno Area | Kerckhoff 2 RAS   |
|     | Greater Fresno Area | Reedley SPS   |
|     | Greater Bay Area    | Metcalf SPS   |
|     | Greater Bay Area    | SF RAS  |
|     | Greater Bay Area    | South of San Mateo SPS                                      |
|     | Greater Bay Area    | Metcalf-Monta Vista 230kV OL SPS                            |
|     | Greater Bay Area    | San Mateo-Bay Meadows 115kV line OL                         |
|     | Greater Bay Area    | Moraga-Oakland J 115kV line OL RAS                          |
|     | Greater Bay Area    | Grant 115kV OL SPS  |
|     | Greater Bay Area    | Oakland 115 kV C-X Cable OL RAS                             |
|     | Greater Bay Area    | Oakland 115kV D-L Cable OL RAS                              |
|     | Greater Bay Area    | Sobrante-Standard Oil #1 & #2-115kV line                    |
|     | Greater Bay Area    | Gilroy SPS  |
|     | Greater Bay Area    | Transbay Cable Run Back Scheme                              |
|     | Humboldt            | Humboldt – Trinity 115kV Thermal Overload Scheme            |
|     | North Valley        | Caribou Generation 230 kV SPS Scheme #1                     |



---

| PTO | Area         | SPS Name                                |
|-----|--------------|---|
|     | North Valley | Caribou Generation 230 kV SPS Scheme #2 |
|     | North Valley | Cascade Thermal Overload Scheme         |
|     | North Valley | Hatchet Ridge Thermal Overload Scheme   |
|     | North Valley | Coleman Thermal Overload Scheme         |

Table A5-2: Existing Special Protection Schemes in SCE area

| PTO        | Area                                  | SPS Name  |
|------------|---------------------------------------|---|
| SCE        | Antelope-Bailey                       | Antelope-RAS  |
|            | Big Creek Corridor                    | Big Creek / San Joaquin Valley RAS                  |
|            | North of Lugo                         | Bishop RAS  |
|            | North of Lugo                         | High Desert Power Project RAS                       |
|            | North of Lugo                         | Kramer RAS  |
|            | Antelope-Bailey                       | Midway-Vincent RAS                                  |
|            | Antelope-Bailey                       | Lancaster N-2 Line Loss Tripping Scheme             |
|            | Antelope-Bailey                       | Palmdale N-2 Line Loss Tripping Scheme              |
|            | Antelope-Bailey                       | Pastoria Energy Facility Existing RAS               |
|            | North of Lugo                         | Reliant Energy Cool Water Stability Tripping Scheme |
|            | Eastern Area                          | West-of-Devers Remedial Action Scheme               |
|            | Eastern Area                          | Blythe Energy RAS                                   |
|            | Eastern Area                          | Eagle Mountain Thermal Overload Scheme              |
|            | Metro Area                            | El Nido N-2 Remedial Action Scheme                  |
|            | Metro Area                            | Mountain view Power Project Remedial Action Scheme  |
|            | Metro Area                            | South of Lugo N-2 Remedial Action Scheme            |
|            | Metro Area                            | Mira Loma Low Voltage Load Shedding                 |
|            | Metro Area                            | Santiago N-2 Remedial Action Scheme                 |
|            | Metro Area                            | Valley Direct Load Trip Remedial Action Scheme      |
| Metro Area | El Segundo N-2 Remedial Action Scheme |   |

Table A5-3: Existing Special Protection Schemes in the SDG&E

| PTO   | Area                              | SPS Name   |
|-------|-----------------------------------|--|
| SDG&E | SDG&E                             | TL695A at Talega SPS   |
|       | SDG&E                             | TL682/TL685 SPS  |
|       | SDG&E                             | TL633 At Rancho Carmel SPS   |
|       | SDG&E                             | TL687 at Borrego SPS   |
|       | SDG&E                             | TL13816 SPS  |
|       | SDG&E                             | TL13835 SPS  |
|       | SDG&E                             | Border TL649 Overload SPS  |
|       | SDG&E                             | Crestwood TL626 at DE SPS for Kumeyaay Wind Generation   |
|       | SDG&E                             | Crestwood TL629 at CN SPS for Kumeyaay Wind Generation   |
|       | SDG&E                             | Crestwood TL629 at DE SPS for Kumeyaay Wind Generation   |
|       | SDG&E                             | 230kV TL 23040 Otay Mesa – Tijuana SPS (currently disabled and will not be enabled until its need is reevaluated with CFE) |
|       | SDG&E                             | 230kV Otay Mesa Energy Center Generation SPS   |
|       | SDG&E                             | ML (Miguel) Bank 80/81 Overload SPS  |
|       | SDG&E                             | CFE SPS to protect lines from La Rosita to Tijuana   |
| SDG&E | TL 50001 IV Generator SPS         |  |
| SDG&E | Path 44 South of SONGS Safety Net |  |