



## **Evaluation Report of Load Serving Entities' Compliance with 2018 Local and System Resource Adequacy Requirements (November 13, 2017)**

The ISO has reviewed and evaluated the aggregate 2018 annual Resource Adequacy (RA) Plans of load serving entities (LSEs) received as of November 1, 2017 and to assess compliance with annual Local, System and Flex Resource Adequacy requirements. In addition, the ISO has evaluated the effectiveness of the Resource Adequacy Resources and RMR resources that have been procured by LSEs to assess compliance in Local Capacity Areas with the Local Capacity Technical Study criteria as required by Tariff Sections 43.2.1.1 and 43.2.2. The ISO's evaluation has identified individual LSE and collective capacity deficiencies in several Local Capacity Areas in the PG&E, SCE and SDG&E TAC Areas. The ISO's evaluation shows aggregate compliance with the LCR criteria in the VEA and MWD TAC Areas. A deficiency occurs when the aggregate portfolio of Resource Adequacy Resources that has been procured, including RMR resources, fails to satisfy the adopted reliability criteria in a Local Capacity Area. The tariff provides an opportunity for LSEs to cure individual or collective deficiencies before the ISO can engage in any backstop procurement.

The ISO notes that the deficient LSEs are not required to purchase capacity from specific units, which are identified as being able to satisfy the LCR criteria for purposes of meeting individual deficiencies. LSEs (including those deficient at this time) can purchase capacity from any resources with a local attribute in the TAC Area. However, to the extent that the aggregate LSE showings do not comprise the right mix of resources that meet the LCR criteria and ISO effectiveness needs, a deficiency may exist that would cause the ISO to procure individual and/or collective backstop capacity.

### **System Resource Adequacy requirements**

The ISO's evaluation shows aggregate compliance with the year ahead RA requirement (90% of the monthly resource adequacy requirement) for the five summer months.

### **Flex Resource Adequacy requirements**

The ISO's evaluation shows aggregate compliance with the year ahead flex RA requirement for all months.

### **Local Resource Adequacy requirements**

The LSEs year-ahead RA showings evaluation was performed with the same assumptions as the 2018 LCR report that was used to give LSEs their LCR allocations, namely the LCR report dated May 1, 2017 <http://www.caiso.com/Documents/Final2018LocalCapacityTechnicalReport.pdf>. The LSEs and suppliers are subject to the RA replacement requirement and are subject to ISO capacity procurement mechanism back stop authority as approved by FERC.

### **PG&E TAC Area**

1. Remaining technical need in the PG&E TAC Area totals 1071.76 MW.
2. At this time, individual LSE deficiencies in the PG&E TAC Area total 72.23 MW.
3. At this time, the collective deficiency can only be given as a range (see page 1 paragraph 2 above) from a minimum deficiency of 999.53 MW to a maximum deficiency of 1071.76 MW. If the individual deficient LSE purchase capacity from local resources to fill their shortfall and at the same time those

resources meet the remaining technical need than collective deficiency will be minimized, but if not, then the collective deficiency could reach the maximum.

Need explanation by non-compliant area(s) and sub-area(s):

Sierra Area: an additional 421.93 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The entire remaining technical need is driven by one sub-area:

South of Palermo – with remaining need of 421.93 MW

Stockton Area: an additional 56.36 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The remaining technical need is driven by two sub-areas:

Tesla-Bellota – with remaining need of 54.88 MW  
Lockeford – with remaining need of 1.48 MW

Bay Area: an additional 574.00 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The entire remaining technical need is driven by one sub-area:

South Bay-Moss Landing - with remaining need of 574.00 MW

Fresno Area: an additional 19.46 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The remaining technical need is driven by three sub-areas:

Coalinga – with remaining need of 0.01 MW  
Borden – with remaining need of 8.35 MW  
Reedley – with remaining need of 11.10 MW

Kern Area: an additional 0.01 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The entire remaining technical need is driven by one sub-area:

Kern Oil - with remaining need of 0.01 MW

**SCE TAC Area**

1. Remaining technical need in the SCE TAC Area totals 317.00 MW.
2. At this time, individual LSE deficiencies in the SCE TAC Area total 40.75 MW.
3. At this time, the collective deficiency can only be given as a range (see page 1 paragraph 2 above) from a minimum deficiency of 276.25 MW to a maximum deficiency of 317.00 MW. If the individual deficient LSE purchase capacity from local resources to fill their shortfall and at the same time those resources meet the remaining technical need than collective deficiency will be minimized, but if not, then the collective deficiency could reach the maximum.

Need explanation by non-compliant area(s) and sub-area(s):

Big Creek-Ventura Area<sup>1</sup>: an additional 317.00 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The remaining technical need is driven by two sub-areas:

Santa Clara – with remaining need of 79.00 MW  
Moorpark – with remaining need of 317.00 MW

Santa Clara sub-area is fully encompassed within the Moorpark sub-area, therefore any purchased MWs in the Santa Clara sub-area will also apply towards meeting the need in the Moorpark sub-area.

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<sup>1</sup> GOLETA\_6\_EXGEN is assumed unavailable due to gas pipeline rupture in the area.

### **SDG&E TAC Area**

1. Remaining technical need in the SDG&E TAC Area totals 560.00 MW.
2. At this time, individual LSE deficiencies in the SDG&E TAC Area total 474.29 MW.
3. At this time, the collective deficiency is estimated at 85.71 MW.

Need explanation by non-compliant area(s) and sub-area(s):

San Diego-Imperial Valley Area: an additional 560.00 MW is needed, from the relevant resources listed in Appendix A, in order to satisfy the LCR criteria. The entire remaining technical need is driven by the main San Diego-Imperial Valley area constraint and not by sub-area constraints.

### **Process for curing a Collective Deficiency:**

For purposes of curing a collective deficiency, a Scheduling Coordinator for an LSE may submit a revised annual Resource Adequacy Plan by **December 14, 2017**, to demonstrate the procurement of additional Local Capacity Area Resources consistent with this notice in order to resolve the collective deficiency as provided by Tariff Section 43.2.2.1. Any Scheduling Coordinator for an LSE that provides such additional Local Capacity Area Resources consistent with this market notice shall have its share of any backstop procurement costs reduced on a proportionate basis in accordance with the Tariff. If the full quantity of capacity in the deficient Local Capacity Areas is not reported to the ISO under revised annual Resource Adequacy Plans, the ISO may engage in backstop procurement sufficient to alleviate the collective deficiency.

Scheduling Coordinators for LSEs are further reminded of the ISO BPM Appeals Committee's Decision on Appeal of PRR 854:

*"While this stakeholder process is underway, the ISO will continue to conduct its Local Capacity Technical Study as required by Section 40.3.1.1 of its tariff, but the ISO will use its discretion not to exercise its Capacity Procurement Mechanism authority to address annual resource deficiencies that are directly attributable to a discrepancy between a local regulatory authority's resource adequacy counting rules for demand response resources and ISO's Local Capacity Technical Study."*

Appendix A - List of physical resources by TAC area, local area, sub-area and market ID

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<b>TAC Area</b>	<b>Mkt./Physical Res. ID</b>	<b>Physical Resource Name</b>	<b>NQC (MW)</b>	<b>Available (MW)</b>	<b>Local Area</b>	<b>LCR Need</b>
PG&E	<u>CONTAN_1_UNIT</u>	<u>Graphic Packaging Cogen</u>	27.70	27.70	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>DUANE_1_PL1X3</u>	<u>Donald Von Raesfeld Project</u>	147.80	46.60	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>GILROY_1_UNIT</u>	<u>Gilroy Cogen Aggregate</u>	105.00	13.00	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>MLPTAS_7_QFUNTS</u>	<u>MLPTAS_7_QFUNTS</u>	0.04	0.01	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>MOSSLD_2_PSP1</u>	<u>Moss Landing Power Block 1</u>	510.00	510.00	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>MOSSLD_2_PSP2</u>	<u>Moss Landing Power Block 2</u>	510.00	64.00	<u>Bay Area</u>	<u>South Bay-Moss Landing</u>
PG&E	<u>CRNEVL_6_CRNVA</u>	<u>Crane Valley</u>	0.90	0.90	<u>Fresno</u>	<u>Borden</u>
PG&E	<u>CRNEVL_6_SJQN_2</u>	<u>San Joaquin 2</u>	3.20	3.20	<u>Fresno</u>	<u>Borden</u>
PG&E	<u>CRNEVL_6_SJQN_3</u>	<u>San Joaquin 3</u>	4.20	4.20	<u>Fresno</u>	<u>Borden</u>
PG&E	<u>WISHON_6_UNITS</u>	<u>Wishon/San Joaquin #1-A</u>	18.40	18.40	<u>Fresno</u>	<u>Borden</u>
PG&E	<u>CHEVCO_6_UNIT_1</u>	<u>Chevron USA (Coalinga)</u>	1.70	0.01	<u>Fresno</u>	<u>Coalinga</u>
PG&E	<u>DINUBA_6_UNIT</u>	<u>Dinuba Generation Project</u>	7.59	7.59	<u>Fresno</u>	<u>Reedley</u>
PG&E	<u>KINGRV_7_UNIT_1</u>	<u>Kings River Hydro Unit 1</u>	51.20	43.30	<u>Fresno</u>	<u>Reedley</u>
PG&E	<u>DEXZEL_1_UNIT</u>	<u>Western Power and Steam</u>	17.15	0.01	<u>Kern</u>	<u>Kern Oil</u>
PG&E	<u>BELDEN_7_UNIT_1</u>	<u>Belden Hydro</u>	119.00	1.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>BOWMN_6_UNIT</u>	<u>Bowman</u>	1.98	1.98	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>BUCKCK_2_HYDRO</u>	<u>Lassen Station Hydro</u>	0.29	0.01	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>BUCKCK_7_OAKFLT</u>	<u>Oak Flat</u>	1.30	0.30	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>CHICPK_7_UNIT_1</u>	<u>Chicago Park 1, Bear River CA</u>	42.00	12.80	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DAVIS_1_SOLAR1</u>	<u>Grasslands 3</u>	0.41	0.41	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DAVIS_1_SOLAR2</u>	<u>Grasslands 4</u>	0.41	0.41	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DAVIS_7_MNMETH</u>	<u>MM Yolo Power LLC</u>	1.80	1.80	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DEERCR_6_UNIT_1</u>	<u>Deer Creek</u>	7.00	3.10	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DRUM_7_PL1X2</u>	<u>Drum PH 1 Units 1 &amp; 2 Ag.</u>	26.00	18.70	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DRUM_7_PL3X4</u>	<u>Drum PH 1 Units 3 &amp; 4 Ag.</u>	28.90	16.60	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DRUM_7_UNIT_5</u>	<u>Drum PH 2 Unit 5</u>	50.00	0.90	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>DUTCH1_7_UNIT_1</u>	<u>Dutch Flat 1 PH</u>	22.00	0.10	<u>Sierra</u>	<u>South of Palermo</u>

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PG&E	<u>DUTCH2_7_UNIT_1</u>	<u>Dutch Flat 2 PH</u>	26.00	10.80	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>FMEADO_6_HELLHL</u>	<u>FMEADO_6_HELLHL</u>	0.32	0.32	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>FMEADO_7_UNIT</u>	<u>French Meadows Hydro</u>	16.00	16.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>GOLDHL_1_QF</u>	<u>Small QF Agg. – Placerville</u>	0.33	0.33	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>HALSEY_6_UNIT</u>	<u>Halsey Hydro</u>	13.50	13.50	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>HIGGNS_7_QFUNTS</u>	<u>HIGGNS_7_QFUNTS</u>	0.23	0.23	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>LODIEC_2_PL1X2</u>	<u>Lodi Energy Center</u>	280.00	51.88	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>MDFKRL_2_PROJCT</u>	<u>Middle Fork &amp; Ralston PSP</u>	210.00	210.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>NWCSTL_7_UNIT_1</u>	<u>Newcastle Hydro</u>	12.00	12.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>OXBOW_6_DRUM</u>	<u>Oxbow Hydro</u>	6.00	6.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>ROLLIN_6_UNIT</u>	<u>Rollins Hydro</u>	13.50	8.20	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>SPAULD_6_UNIT_3</u>	<u>Spaulding Hydro PH 3 Unit</u>	6.50	1.40	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>SPAULD_6_UNIT12</u>	<u>Spaulding Hydro PH 1 &amp; 2 Ag.</u>	11.40	4.90	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>STIGCT_2_LODI</u>	<u>Lodi STIG</u>	49.50	18.06	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>WISE_1_UNIT_1</u>	<u>Wise Hydro Unit 1</u>	14.50	7.00	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>WISE_1_UNIT_2</u>	<u>Wise Hydro Unit 2</u>	3.20	3.20	<u>Sierra</u>	<u>South of Palermo</u>
PG&E	<u>LODI25_2_UNIT_1</u>	<u>Lodi Gas Turbine</u>	23.80	1.48	<u>Stockton</u>	<u>Lockeford</u>
PG&E	<u>LOCKFD_1_BEARCK</u>	<u>Bear Creek Solar</u>	0.62	0.62	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>LOCKFD_1_KSOLAR</u>	<u>Kettleman Solar</u>	0.41	0.41	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>PEORIA_1_SOLAR</u>	<u>Sonora 1</u>	0.62	0.01	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>SPRGAP_1_UNIT_1</u>	<u>Spring Gap Hydro</u>	7.00	0.70	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>STANIS_7_UNIT_1</u>	<u>Stanislaus Hydro</u>	91.00	33.30	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>STNRES_1_UNIT</u>	<u>Covanta Stanislaus</u>	19.27	19.27	<u>Stockton</u>	<u>Tesla-Bellota</u>
PG&E	<u>MLYHOM_7_SSJID</u>	<u>Woodward Power Plant</u>	0.57	0.57	<u>Stockton</u>	<u>Tesla-Bellota</u>
SCE	<u>MOORPK_2_CALABS</u>	<u>Calabasas Gas-to-Energy</u>	5.40	0.40	<u>Big Creek/Ventura</u>	<u>Moorpark</u>
SCE	<u>ORMOND_7_UNIT_1</u>	<u>Ormond Beach Gen Unit 1</u>	741.27	741.27	<u>Big Creek/Ventura</u>	<u>Moorpark</u>
SCE	<u>ORMOND_7_UNIT_2</u>	<u>Ormond Beach Gen Unit 2</u>	775.00	775.00	<u>Big Creek/Ventura</u>	<u>Moorpark</u>
SCE	<u>GOLETA_6_ELLWOD</u>	<u>Ellwood Energy Support</u>	54.00	54.00	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>
SCE	<u>GOLETA_6_GAVOTA</u>	<u>Point Arguello Pipeline Co.</u>	0.26	0.26	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>
SCE	<u>MNDALY_7_UNIT_1</u>	<u>Mandalay Gen Sta. Unit 1</u>	215.00	215.00	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>
SCE	<u>MNDALY_7_UNIT_2</u>	<u>Mandalay Gen Sta. Unit 2</u>	215.29	215.29	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>

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<u>SCE</u>	<u>MNDALY_7_UNIT3</u>	<u>Mandalay Gen Sta. Unit 3</u>	130.00	130.00	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>
<u>SCE</u>	<u>MOORPK_6_QF</u>	<u>Moorpark QFs</u>	26.42	25.92	<u>Big Creek/Ventura</u>	<u>Moorpark, Santa Clara</u>
<u>SDG&amp;E</u>	<u>CBRLLO_6_PLSTP1</u>	<u>Point Loma Treatment Plant</u>	2.72	2.72	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>CCRITA_7_RPPCHF</u>	<u>Rancho Penasquitos Hydro</u>	2.00	2.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>CRSTWD_6_KUMYAY</u>	<u>Kumeyaay Wind Farm</u>	13.25	13.25	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>DIVSON_6_NSQF</u>	<u>Division Naval Station Cogen</u>	44.23	44.23	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>ENCINA_7_EA2</u>	<u>Encina Unit 2</u>	104.00	104.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>ENCINA_7_EA3</u>	<u>Encina Unit 3</u>	110.00	110.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>ENCINA_7_EA4</u>	<u>Encina Unit 4</u>	300.00	300.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>ENCINA_7_EA5</u>	<u>Encina Unit 5</u>	330.00	330.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>ENCINA_7_GT1</u>	<u>Encina Gas Turbine Unit 1</u>	14.50	14.50	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>KEARNY_7_KY3</u>	<u>Kearny GT3 Aggregate</u>	61.00	61.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>LARO1_2_UNITA1</u>	<u>La Rosita Unit 1<sup>2</sup></u>	165.00	165.00	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>NIMTG_6_NIQF</u>	<u>North Island QF</u>	36.15	36.15	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>OCTILO_5_WIND</u>	<u>Ocotillo Wind Energy Facility</u>	70.23	0.01	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>PIOPIC_2_CTG1</u>	<u>Pio Pico Unit 1</u>	106.00	3.33	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>PIOPIC_2_CTG2</u>	<u>Pio Pico Unit 2</u>	106.00	3.33	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>PIOPIC_2_CTG3</u>	<u>Pio Pico Unit 3</u>	106.00	3.33	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>PTLOMA_6_NTCCGN</u>	<u>AEI MCRD Steam Turbine</u>	2.12	2.12	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>PTLOMA_6_NTCQF</u>	<u>NTC/MCRD Cogeneration</u>	19.76	19.76	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>SAMPSN_6_KELCO1</u>	<u>KELCO Qualifying Facility</u>	3.27	0.01	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>VLCNTR_6_VCSLR</u>	<u>Cole Grade</u>	0.96	0.01	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>
<u>SDG&amp;E</u>	<u>VLCNTR_6_VCCLR1</u>	<u>Valley Center 1</u>	1.03	0.01	<u>San Diego/Imperial Valley</u>	<u>San Diego/Imperial Valley</u>

<sup>2</sup> Resource normally operates in the CFE control area during summer months.