

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Oversee the
Resource Adequacy Program, Consider
Program Refinements, and Establish Annual
Local Procurement Obligations.

R.11-10-023
Filed October 20, 2011

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON PROPOSED DECISION ADOPTING LOCAL PROCUREMENT
AND FLEXIBLE CAPACITY PROCUREMENT OBLIGATIONS FOR 2015,
AND FURTHER REFINING THE RESOURCE ADEQUACY PROGRAM**

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In accordance with the provisions of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)¹ hereby submits these reply comments on the *Proposed Decision Adopting Local Procurement and Flexible Capacity Obligations for 2015, and Further Refining the Resource Adequacy Program* issued on May 27, 2014 (“Proposed Decision”).

¹ The California Energy Storage Alliance consists of 1 Energy Systems, A123 Systems, AES Energy Storage, Alton Energy, American Vanadium, Aquion Energy, ARES, North America, Beacon Power, Bosch Energy Storage Solutions, Bright Energy Storage Technologies, Brookfield Renewable Energy Group, CALMAC, ChargePoint, Clean Energy Systems, CODA Energy, Consolidated Edison Development, Customized Energy Solutions, DN Tanks, Duke Energy, Eagle Crest Energy Company, EaglePicher Technologies, East Penn Manufacturing Company, EDF Renewable Energy, EnerSys, EnerVault, EV Grid, FAFCO Thermal Storage Systems, FIAMM Group, FIAMM Energy Storage Solutions, Flextronics, Foresight Renewable Solutions, GE Energy Storage, Green Charge Networks, Greensmith, Gridscape Solutions, Gridtential, Halotechnics, Hitachi Chemical Co., Hydrogenics, Ice Energy, Imergy Power Systems, ImMODO Energy Services Corporation, Innovation Core SEI, Invenergy, K&L Gates, KYOCERA Solar, LG Chem, LightSail Energy, LS Power, Mitsubishi International Corporation, NextEra Energy Resources, NRG, OCI, OutBack Power Technologies, Panasonic, Parker Hannifin, PDE, Powertree, Primus Power, RES Americas, Rosendin Electric, S&C Electric Company, Saft, SeaWave Battery, SEEO, Sharp Labs of America, SolarCity, Sovereign Energy Storage, STEM, Stoel Rives, SunPower, TAS Energy, Tri-Technic, UniEnergy Technologies, and Wellhead. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. <http://storagealliance.org>.

I. INTRODUCTION.

CESA commends the Commission for the considerable progress that has been made, in collaboration with the California System Operator (“CAISO”) this year, and submits only very limited reply comments here.

II. THE COMMISSION SHOULD REJECT THE EFFECTIVE FLEXIBLE CAPACITY METHODOLOGY ESPOUSED BY SAN DIEGO GAS & ELECTRIC COMPANY,

In its Opening Comments, San Diego Gas & Electric Company (“SDG&E”) incorrectly asserts that under the Proposed Decision’s effective flexible capacity (“EFC”) methodology, an example 100 MW, 100 MWh bi-directional energy storage resource could be rated at up to 200 MW of its EFC, assuming no other limiting resource characteristics. Utilizing the Proposed Decision’s EFC methodology set forth in Appendix B, the correct EFC calculation for this energy storage example would be as follows:²

“EFC shall incorporate dispatchable load and charging (for DR and storage, respectively) because these operational modes can address ramping needs. Qualifying capacity, because it solely aims to address capacity shortfalls, will not incorporate these operational modes. This difference will frequently result in EFC being greater than QC. While EFC has previously been limited to be less than or equal to NQC, **we hereby modify that rule and instead EFC to the greater of NQC and (NQC – PminRA)**, where PminRA is the minimum sustainable operating level of a facility, as defined in more detail below. If a facility is capable of dispatchable charging (in the case of storage) or load increase (in the case of DR), its PminRA will be negative.” [Bold Added for Emphasis].

Based on the methodology stated above in the Proposed Decision, CESA interprets the EFC to be 125MW using SDG&E’s example energy storage resource.

Furthermore, SDG&E incorrectly asserts that under the CAISO’s Flexible Resource Adequacy Capacity Must Offer Obligation (“FRAC-MOO”) tariff proposal, the EFC would be

² Proposed Decision Appendix B (p. B-10)

rated at 33 MW.³ According to the CAISO's FRAQ-MOO proposal, an energy storage resource with the same characteristics as the example above would have an EFC calculated as follows:

“[F]or an energy storage resource that provides Flexible RA Capacity but not Regulation Energy Management, the Effective Flexible Capacity value will be the MW output range **the resource can provide over three hours of charge/discharge while constantly ramping upward increasing Ramp Rate.**” [Bold Added for Emphasis].

Utilizing the CAISO's proposed tariff provision quoted above, CESA interprets the energy storage example's EFC to be 200 MW.

SDG&E's calculations lead to an incorrect conclusion that the difference between the Commission Staff's methodology and the CAISO's proposed EFC methodology for energy storage could trigger unnecessary backstop procurement. This conclusion is contradicted by the CAISO's Opening Comments to the Proposed Decision, which aligns with the correct calculations of EFC under the Commission staff's methodology and the CAISO's methodology discussed in its Opening Comments:⁴

“The proposed decision recommends capping the effective flexible capacity for the discharging capability of the resource at the net qualifying capacity. **While this differs from the ISO's flexible resource adequacy criteria and must offer obligation proposal, that difference should not lead to inconsistencies in resource adequacy showings.** For example, the ISO and CPUC propose similar treatment for charging capabilities of an energy storage resource. Therefore, the CPUC's proposed treatment of the discharge capabilities means **the CPUC's calculation of the resource's effective flexible capacity should always be less than or equal to the ISO's calculated effective flexible capacity.**” [Bold Added for Emphasis].

³ CAISO FRAQ-MOO Draft Tariff Language Section 40.10.4.2(d)
(http://www.caiso.com/Documents/DraftTariffLanguage_FRAC-MOO.doc)

⁴ CAISO's Comments on the Proposed Decision (pp. 6-7)

III. CONCLUSION.

CESA appreciates the opportunity to submit these reply comments on the Proposed Decision.

Respectfully submitted,



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