

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

Order Instituting Rulemaking to Develop a Successor
to Existing Net Energy Metering Tariffs Pursuant to
Public Utilities Code Section 2827.1, and to Address
Other Issues Related to Net Energy Metering.

R.14-07-002
Filed July 10, 2014

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
IN RESPONSE TO ADMINISTRATIVE LAW JUDGE'S RULING
SEEKING POST-WORKSHOP COMMENTS**

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The California Energy Storage Alliance (“CESA”)¹ hereby submits these comments pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), and the *Administrative Law Judge’s Ruling Seeking Post-Workshop Comments*, issued by Administrative Law Judge Anne E. Simon on July 10, 2014, as modified by *E-Mail Ruling re: R.14-07-002 NEM Tariff ‘s San Diego Gas & Electric Company’s*

¹ 1 Energy Systems Inc. | A123 Energy Systems | AES Energy Storage | Alton Energy | American Vanadium | Aquion Energy | ARES North America | Beacon Power, LLC | Bosch Energy Storage Solutions Company LLC | Bright Energy Storage Technologies | Brookfield | CALMAC | Chargepoint | Clean Energy Systems | Coda Energy | Consolidated Edison Development, Inc. | Customized Energy Solutions | Demand Energy | DN Tanks | Duke Energy | Eagle Crest Energy Company | EaglePicher Technologies, LLC | East Penn Manufacturing Company | Ecoult | EDF Renewable Energy | Enersys | EnerVault Corporation | EV Grid | FAFCO Thermal Storage Systems | FIAMM Energy Storage Solutions | Flextronics | Foresight Renewable Solutions | GE Energy Storage | Green Charge Networks | Greensmith Energy | Gridscape Solutions | Gridtential Energy, Inc. | Halotechnics | Hitachi Chemical Co. | Hydrogenics | Ice Energy | Imergy Power Systems | ImMODO Energy Services Corporation | Sumitomo Electric Group | Invenergy LLC | K&L Gates | KYOCERA Solar, Inc. | LG Chem | LightSail Energy | LS Power Development, LLC | Mitsubishi International Corporation | NextEra Energy Resources | NRG Solar LLC | OCI Company | OutBack Power Technologies | Panasonic | Parker Hannifin Corporation | PDE Total Energy Solutions | Powertree Services Inc. | Primus Power Corporation | Recurrent Energy | Renewable Energy Systems Americas Inc. | Rosendin Electric | S&C Electric Company | Saft America Inc. | SEEO | Sharp Electronics Corporation | SolarCity | Sovereign Energy Storage LLC | STEM | Stoeel Rives | SunPower | TAS Energy | Tri-Technic | UniEnergy Technologies, LLC | Wellhead Electric. 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. See, <http://storagealliance.org>.

Extension Request, issued by Administrative Law Judge Anne E. Simon on September 24, 2014 (“ALJ’s Ruling”).

I. INTRODUCTION.

CESA is pleased to respond to the specific questions posed in the ALJ’s Ruling seeking post-workshop comments on the Public Tool. The Public Tool, currently in development, is intended to test a variety of different scenarios to inform the NEM successor tariff. It models the costs and benefits of various NEM successor tariff options or rate scenarios while reflecting other on-going policy drivers (e.g. NEM aggregation, Rule 21, and SB 43). CESA appreciates the opportunity to respond to the following questions listed in the ALJ Ruling.

II. RESPONSES TO SPECIFIC QUESTIONS POSED IN THE ALJ’S RULING.

CESA hereby provides responses to a select number of the questions posed in the ALJ’s Ruling:

Question 10: The Public Tool will use data from a variety of sources for the purposes of the analysis. The proposed guiding principle for sourcing data is to use the best publicly available data, though there is some information that is not publicly available that will need to be gathered through CPUC data request to the IOUs. Generally, do you agree with this proposed guiding principle? Why or why not?

CESA’s Response: In principle, of course, CESA agrees with sourcing the best publicly available data for the Public Tool. However, for energy storage systems, we find that the best freely available cost data can be variable and, at times, notably outdated. Past cost trajectories for storage, like those for solar, have consistently shown to be overly conservative when later compared to actual market prices. The Commission should revisit the body of publicly available literature when the Public Tool is completed and begins to run actual test scenarios.

Question 11: There are number of inputs to the analysis. The following table lists those inputs that significantly affect the results of the analysis and the proposed source(s) for each one:

b. If you disagree with any of the data sources, please describe and provide a specific reference for any alternative that provides better publicly available data.

CESA's Response: In the table of model inputs and proposed sources set forth in the ALJ Ruling, at page 10, there are two studies that cite energy storage costs:

1) KEMA Energy Storage Cost-effectiveness Methodology and Preliminary Results (CEC PIER Report).

2) ITRON SGIP Cost-effectiveness Reports for Storage and Fuel.

The cited energy storage costs and range from \$675 to \$1,613 per kilowatt and are limited to lithium-ion (Li-ion) batteries. For additional Li-ion cost estimates and projections, CESA recommends that the Commission review the Rocky Mountain Institute's "The Economics of Grid Defection" (February, 2014) and Morgan Stanley's "Solar Power & Energy Storage" (July 2014).²

Questions 13. The proposed list of technologies to be evaluated in the Public Tool includes solar PV, solar PV coupled with energy storage, wind, and biogas-fueled technologies (including fuel cells).

b. Are there adequate sources of sufficient generation and load profile data to be able to model these technologies?

CESA's Response: In the Commission's Decision regarding NEM eligibility for storage devices paired with NEM generating facilities (D. 14-05-033), the Commission expressed its intention to issue a separate ruling in the R.12-11-005 to describe the process for finalizing a presumed generation profile for small NEM-eligible generating facilities. CESA welcomes issuance of this

² http://www.rmi.org/electricity_grid_defection#economics_of_grid_defection,
<http://energystorage.org/resources/morgan-stanley-blue-paper-solar-power-energy-storage-policy-factors-vs-improving-economics>.

ruling and sees it as a promising avenue by which a suitable generation profile could be estimated for NEM-eligible facilities sized at 10kW or smaller. As this relates to NEM-eligible generating facilities paired with energy storage, the value proposition for energy storage is highly application-specific and each application will determine the specific charge/discharge profile. Therefore, it is imperative that the Commission ensures that the Public Tool reflect the most up-to-date performance characteristics of all commercially available energy storage technologies.

III. CONCLUSION.

CESA appreciates this opportunity to comment on the ALJ's Ruling, and looks forward to working with the Commission and stakeholders in this proceeding.

Respectfully submitted,



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