

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

Order Instituting Rulemaking to Continue  
Implementation and Administration, and  
Consider Further Development, of California  
Renewable Portfolio Standards Program.

Rulemaking 15-02-020  
(Filed February 26, 2016)

**REPLY COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE  
ON THE ADMINISTRATIVE LAW JUDGE'S RULING ACCEPTING INTO THE  
RECORD ENERGY DIVISION STAFF PAPER ON LEAST-COST BEST-FIT  
REFORM FOR RENEWABLE PORTFOLIO STANDARD  
PROCUREMENT AND REQUESTING COMMENT**

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”)<sup>1</sup> hereby submits these comments on the *Administrative Law Judge’s Ruling Accepting Into the Record Energy Division Staff Paper on Least-Cost Best-Fit Reform for Renewable Portfolio Standard Procurement and Requesting Comment*, issued on June 22, 2016 (“Ruling”).

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<sup>1</sup> 1 Energy Systems Inc., Adara Power, Advanced Microgrid Solutions, AES Energy Storage, Amber Kinetics, Aquion Energy, Bright Energy Storage Technologies, Brookfield, California Environmental Associates, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, Electric Motor Werks, Inc., ElectrIQ Power, ELSYS Inc., Enphase Energy, GE Energy Storage, Geli, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, Johnson Controls, K&L Gates, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mercedes-Benz Research & Development North America, Nature & PeopleFirst, NEC Energy Solutions, Inc., NextEra Energy Resources, NGK Insulators, Ltd., NRG Energy LLC, OutBack Power Technologies, Parker Hannifin Corporation, Powertree Services Inc., Qnovo, Recurrent Energy, RES Americas Inc., Saft America Inc., Samsung SDI, Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunPower Corporation, Sunrun, Swell Energy, Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, Younicos. The views expressed in these Reply Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (<http://storagealliance.org>).

## I. REPLY COMMENTS.

CESA appreciates the opportunity to submit reply comment on the Ruling, which accepts into the record an Energy Division Staff Paper on potential key reforms to the Least-Cost Best-Fit (“LCBF”) methodology for Renewable Portfolio Standard (“RPS”) procurement (“Staff Paper”). The focus of the Staff Paper is on key questions related to reforms on capacity prices, time-of-delivery (“TOD”) factors, and valuation of energy-only deliverability status in RPS procurements. In these reply comments, CESA will narrowly address parties’ comments on TOD factors.

As a principle, CESA supports price signals that provide incentives for developers to generate (or shift) electricity to times of grid need – *i.e.*, to help accommodate the increasingly low net load levels in the early afternoon and steep ramp up of net load in the evenings. Such a tool may highlight roles for energy storage as an economical alternative to curtailment or as a necessary tool needed to capture renewable energy so that RPS goals are met. Both TOD and time-of-use (“TOU”) rates can serve in this regard. TOD approaches, in particular, may promote the procurement of energy storage.

While TOD protocols for LCBF methodologies may thus be helpful, they should not unduly impede resource contracting and evaluation. In particular, the idea of changing TOD periods at various points in the life of the contract raises the variability of the resource and may hinder project financing. Several parties<sup>2</sup> commented that the use of TOD factors is ineffective because renewable generators responding to compensation tied to TOD factors would no longer reflect real-time grid needs. They added that it would not be beneficial for renewable developers

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<sup>2</sup> Calpine Corporation (“Calpine”) Comments at p. 5; Independent Energy Producers Association (“IEP”) Comments at p. 7; Ormat Technologies, LLC (“Ormat”) Comments at p. 4; Southern California Edison Company (“SCE”) Comments at pp. 9, 11; and San Diego Gas & Electric Company (“SDG&E”) Comments at pp. 10, 13.

to have TOD factors in long-term contracts at all or have them subject to change because it would complicate and increase the costs for long-term financing that depends on reliable revenue streams. Additionally, the changing of deliverability estimates based on potentially ‘refreshing’ TOD rates adds significant complexity and uncertainty.<sup>3</sup> Rather than eliminating TOD factors altogether as some of these parties have suggested, however, CESA believes that a simple TOD approach can support RPS procurement goals. There is no need to update TOD factors for existing contracts and TOD factors should remain fixed for the length of a contract, even as grid conditions change. Even if generators opt to deviate from contracted TOD factors as Calpine<sup>4</sup> and SCE<sup>5</sup> state in their comments, the generator would in effect be ‘adjusting’ its TOD factors by responding to more lucrative spot market prices and responding to grid needs, while the utility would no longer be paying higher prices as the generator shifts price production away from high TOD factors. Ultimately, adjustments in the TOD factors should be reflected instead in the next RPS procurement cycle, which accounts for the utilities’ generation portfolio (including previously signed RPS contracts, and their TOD-driven operational profiles) as well as projected changes to the energy-supply mix (including forecasted overgeneration). For these reasons, CESA recommends a simple TOD approach, within reason.

TOD factors may also reduce the need to anticipate or assess curtailment in LCBF analysis. Curtailment will occur at times, but the frequency or extent of curtailment will depend on many factors, including the availability of resources to responding to grid needs, weather conditions, transmission system outages, exports, the flexibility of the operating fleet, etc.

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<sup>3</sup> The Commission cited that SCE found the value of deliverability status became somewhat distorted by differentiating TOD factors by deliverability status.

<sup>4</sup> Calpine Comments at p. 5.

<sup>5</sup> SCE Comments at p. 11.

For all of these reasons, CESA recommends, within reason, a generally simpler and more static TOD factor as part of LCBF analysis in RPS procurement. TOD is not an ‘end-all be-all’ solution but allows utilities to reasonably indicate the more desirable TOD periods. If this TOD factor construct becomes an impediment to RPS contracting and deployment, rather than a supporting tool, it should be simplified.

## **II. CONCLUSION.**

CESA appreciates the opportunity to submit these reply comments on the Ruling and looks forward to reviewing the Joint IOU Proposal on September 8, 2016 for a standardized methodology and set of inputs and assumptions for estimating future capacity prices.

Respectfully submitted,



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