

**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  
IMERGY POWER SYSTEMS, INC., PRIMUS POWER, ZBB ENERGY  
CORPORATION, ENERVault CORPORATION  
AND UNIENERGY TECHNOLOGIES, LLC  
ON REVISED ENERGY DIVISION PROPOSALS**

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April 25, 2014

**BEFORE THE PUBLIC UTILITIES COMMISSION  
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ON REVISED ENERGY DIVISION PROPOSALS**

Imergy Power Systems, Inc., Primus Power, ZBB Energy Corporation, EnerVault Corporation and UniEnergy Technologies, LLC (the “Joint LDES Parties”) hereby submit this reply to comments filed on the Revised Staff Proposal on Qualifying Capacity and Effective Flexible Capacity Calculation Methodologies for Energy Storage and Supply-Side Demand Response Resources, dated April 9, 2014 (“Revised ES-DR Staff Proposal”), the Staff Proposal on the Implementation of the Flexible Capacity Procurement Framework dated April 9, 2014 (“Flexible Capacity Staff Proposal”) and other materials presented at the workshop on Resource Adequacy (“RA”) staff proposals held in this proceeding on April 9, 2014 (the “April 9<sup>th</sup> Workshop”) pursuant to Administrative Law Judge Gamson’s ruling from the bench at the April 9<sup>th</sup> Workshop. The Joint LDES Parties were each granted party status in this proceeding at the April 9<sup>th</sup> Workshop.

**I. Flexible Capacity is Needed and Should be Mandatory Beginning in 2015**

In D.13-06-024, the Commission found that CAISO demonstrated that there will be need for flexible capacity for years 2015 through 2017 and resolved to commence the mandatory flexible

capacity procurement program in 2015.<sup>1</sup> According to the CAISO in its comments filed in this docket on April 18<sup>th</sup>, “[t]hat was a sound decision then, and it remains the most prudent and appropriate course and timing of action now.”<sup>2</sup> We agree.

In its Decision, the Commission cited the shutdown of once-through cooling plants and the increased interconnection of intermittent renewable resources as factors contributing to the need for “a more complex and flexible fleet of resources” to supply grid needs.<sup>3</sup> CAISO’s “duck chart” continues to demonstrate the grid’s pressing need for flexibility on a daily basis.<sup>4</sup> CAISO has stated that it is “*already* experiencing operational challenges in balancing generation and load during both the morning and evening ramps” and that “[t]hese challenges will only increase in the upcoming years.”<sup>5</sup> According to CAISO’s latest filing, “[g]iven these undeniable circumstances, there is a clear need to set a binding requirement for flexible capacity *now*.”<sup>6</sup>

The Commission should therefore reject the opening comments filed by Shell Energy North America (US), L.P., Marin Clean Energy, the Alliance for Retail Energy Markets and the Office of Ratepayer Advocates arguing that the Commission should backtrack from its decision last June and further delay implementation of the mandatory flexible capacity framework. California’s ramping needs are urgent and are present now, according to the entity responsible for keeping our lights on. Moreover, the state needs to implement a framework now so that flexibility markets are functioning and ready once ramping needs are even greater. California’s investor-owned utilities, the primary entities bearing the burden of procurement of flexible capacity, have not argued that flexible

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<sup>1</sup> D.13-06-024 at 3, 42, 43, 66-77 (Conclusions of Law 7-9, 12), 69 (Ordering Paragraph 5).

<sup>2</sup> California Independent System Operator Corporation Comments on April 9, 2014 Workshop Presentations and Proposals on Flexible Capacity and Resource Adequacy (April 18, 2014) (“CAISO Opening Comments”) at 2.

<sup>3</sup> D.13-06-024 at 12, 41, 62-63 (Findings of Fact 8, 9).

<sup>4</sup> CAISO Opening Comments at 2; CAISO, “What the Duck Curve Tells Us About Managing A Green Grid”, *available at*: [http://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](http://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf).

<sup>5</sup> CAISO Opening Comments at 3 (emphasis added).

<sup>6</sup> CAISO Opening Comments at 2 (emphasis added).

capacity requirements should be postponed for 2015. If the Commission were to reverse its course and delay implementation of this program yet again, California will lose another opportunity to establish the flexible capacity system and work out any kinks before a “serious operational problem arises”.<sup>7</sup> As the Commission rightly stated in its Decision, “it is necessary to take proactive steps now to ensure that system needs are available to ensure safe and reliable service.”<sup>8</sup> Implementation of flexible capacity requirements should be mandatory starting in 2015 and not further postponed.

## **II. Flexible Resources Should be able to Ramp and Sustain Energy Output for a Minimum of Three Consecutive Hours**

The Joint LDES Parties strongly support the opening comments filed by MegaWatt Storage Farms, Inc. (“MegaWatt”) with respect to the required duration of energy storage resources necessary to meet California’s ramping needs. We also share MegaWatt’s concern that CAISO may need to combine storage resources with durations lower than three hours with fossil fuel-based resources in order to overcome the limitations of such short-duration resources.<sup>9</sup> This would run counter to the state’s loading order and the greenhouse gas reduction required under AB 32 of reducing such emissions by 80% from 1990 levels by 2050.

As stated in our opening comments and our previously-filed comments on this issue,<sup>10</sup> the Commission should make clear that, in order to qualify as a flexible resource, a resource must be able to meet System RA requirements by being capable of either charging for a minimum of three

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<sup>7</sup> CAISO Opening Comments at 3.

<sup>8</sup> D.13-06-024 at 42.

<sup>9</sup> See Comments of MegaWatt Storage Farms, Inc. on the April 9, 2014 Workshop Staff Proposals (April 18, 2014) at 5.

<sup>10</sup> Post-Workshop Comments of Imergy Power Systems, Inc., Primus Power, ZBB Energy Corporation, EnerVault Corporation and UniEnergy Technologies, LLC on Revised Energy Division Proposals (April 18, 2014) (“LDES Parties Opening Comments”); Post-Workshop Comments of Imergy Power Systems, Inc., Primus Power, ZBB Energy Corporation, EnerVault Corporation and UniEnergy Technologies, LLC on Revised Energy Division Proposals (February 18, 2014); Reply Comments of Imergy Power Systems, Inc., Primus Power, ZBB Energy Corporation, EnerVault Corporation and UniEnergy Technologies, LLC on Energy Division Proposals (March 3, 2014).

consecutive hours over three consecutive days or discharging for a minimum of three consecutive hours over three consecutive days and that a resource that operates in both the negative and positive ranges cannot aggregate charging hours with discharging hours to meet the three hour minimum required for RA eligibility.

### **III. CONCLUSION**

The Joint LDES Parties appreciate the opportunity to respond to the opening comments filed in response to the materials distributed at the April 9<sup>th</sup> Workshop. The Commission should respond to the urgent grid need as demonstrated by CAISO and adhere to its prior decision by adopting mandatory flexible capacity requirements for 2015 and beyond. The Commission should also be guided by grid needs and the state's greenhouse gas reduction goals and ensure that flexibility resources in establishing the flexibility program rules. We point the Commission to the LDES Parties Opening Comments for our perspectives on the Energy Division's proposals.

Respectfully submitted,

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