

Stakeholder Comments Template

Hybrid Resources Initiative: Straw Proposal

This template has been created for submission of stakeholder comments on the **Hybrid Resources Initiative**, **Revised Straw Proposal** that was held on December 17, 2019. The meeting material and other information related to this initiative may be found on the initiative webpage at:

http://www.caiso.com/informed/Pages/StakeholderProcesses/HybridResources.aspx

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on January 14, 2019.

| Submitted by | Organization | Date Submitted |
|--------------------------------|--------------|------------------|
| Rachel McMahon 415-412-7587 | Sunrun, Inc. | January 14, 2020 |

1. Terms and Defintions

Oppose with caveats – for distributed energy resource aggregations (DERAs).

The revised straw proposal states that participating generators must be at least 0.5 MW and the storage component must be at least 0.1 MW. As Sunrun understands this clarification, a solar plus storage hybrid resource must be at least 0.6 MW in total capacity in order to qualify as a hybrid resource. For DERAs, this distinction is not appropriate. Section 4.17.5.1 of CAISO tariff sets the capacity floor of 0.5 MW as specific to the entire DERA resource, irrespective of the resource's individual components. In order to better accommodate aggregations of smaller sizes, Sunrun recommends that a size floor of 0.1 MW for storage resources be applied to the entire DERA resource if the DERA includes distributed storage.

2. Forecasting

Support.

Sunrun supports permitting hybrid resources' scheduling coordinator (SC) to submit the forecast for the variable energy resource component of a hybrid resource as a reasonable accommodation for DERAs.

3. Markets and Systems

Oppose with caveats.

Consistent with prior comments to the CAISO in this initiative, Sunrun strongly recommends that the CAISO explicitly include DERAs as eligible hybrid resources. To that end, the second column of Table 2, labelled "Contracts", should be amended to include the Distributed Energy Resource Provider Agreement (DERPA), as provided in Appendix B.21 of the CAISO tariff.

6. Resource Adequacy-

Oppose with caveats.

The revised straw proposal proposes to adopt the QC counting rules proposed by the CPUC, with clarifications, and for all hybrid resources. At the time of writing, the Public Utilities Commission (CPUC) has proposed an interim methodology to determine the QC of hybrid resources, in a proposed decision pending before the Commission in Rulemaking 17-09-020. As highlighted in comments Sunrun joined on the proposed decision, the "greater of" methodology for hybrid resources operating as a blended resource with a single resource ID ignores the QC value of the solar entirely, thereby significantly undervaluing the resource. The relevant excerpt of those comments follows, and is applied to the revised straw proposal by reference:

"First, using the example of a solar plus storage hybrid system wherein the storage charges from on-site solar, the hybrid system blends the individual and distinct attributes of the two systems to create a higher capacity value. The solar still operates during the daytime hours, either charging the on-site storage system or exporting energy to the wholesale market and thus the QC should be the same whether the storage charges directly from the paired solar system or not. The asset owner will charge the battery from the solar system when the market prices are lower, and will discharge to meet evening ramping capacity needs. The QC should reflect this capability.

Second, while the system may also provide services outside of its must offer obligation, such as intra-hour load following services and frequency regulation, the must offer obligation for the resource will require sufficient battery charge to deliver QC during availability assessment hours. The resource operator must meet those obligations regardless of the provision of other services and is incentivized by market prices to export during the evening ramp when prices are higher.

Third, given the increasing severity of the net load curve, or so-called "duck curve," the Joint Parties assume that the Commission might be concerned with storage discharging

during other periods of the day when it is not needed. The Joint Parties submit that this is highly unlikely, given the lack of economic incentive to do so." 1

Sunrun recommends that the CAISO continue policy development within the hybrid resources initiative, toward a durable hybrid resources methodology that accounts for the concerns noted above.

¹ Joint Comments of Engie Storage, Enel X North America, Inc., Tesla, Inc., Sunrun Inc., Center for Energy Efficiency and Renewable Technologies, California Energy Storage Alliance, California Efficiency + Demand Management Council, and Vote Solar on Proposed Decision Granting Motion Regarding Qualifying Capacity Value of Hybrid Resources with Modifications. Filed in CPUC Rulemaking R.17-09-020. December 20, 2019.