



Stakeholder Comments Template

Energy Storage and Distributed Energy Resources (ESDER) Phase 4

This template has been created for submission of stakeholder comments on the Issue Paper for ESDER Phase 4 that was published on Feb 6, 2019. The paper, stakeholder meeting presentation, and all information related to this initiative is located on the [initiative webpage](#).

Upon completion of this template, please submit it to initiativecomments@caiso.com. **Submissions are requested by close of business Feb 27, 2019.**

Submitted by	Organization	Date Submitted
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Please provide your organization's comments on the following issues and questions.

1. Non-Generator Resource (NGR) model

Please state your organization's position as described in the Issue Paper: (Support / Support with Caveats / Oppose)

Sunrun does not oppose consideration of these topics, but questions the priority of these specific issues given the many known challenges with NGR as documented within the August 9, 2018 California Public Utilities Commission's (CPUC) Multi-Use Application (MUA) Working Group Report.¹ When addressing the issue of which CAISO agreements and models should be used to provide energy and/or ancillary services, the Investor-Owned Utilities (IOUs) recommended that for "any CAISO participating resource that is comprised of retail customers and behind-the-meter (BTM) storage, the CAISO's Demand Response Provider Agreement (DRP-A) should be used rather than the CAISO's Distributed Energy Resource Provider Agreement (DERP-A)." Within the same MUA working group report, CAISO recognizes the regulatory and technical challenges presented by DERP-A and the additional work it would require. While not all parties supported DERP-A as the market participation path

¹ The CPUC, in coordination with the CAISO, developed a Working Group to address issues related to multi-use applications of behind-the-meter energy storage. The Final MUA Working Group includes recommendations from stakeholders on how to address the various issues discussed by the Working Group. The report is available here: [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/0EF9A015334951F8882582E4007ACC53/\\$FILE/R1503011-SCE%20MUA%20Working%20Group%20Report.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/0EF9A015334951F8882582E4007ACC53/$FILE/R1503011-SCE%20MUA%20Working%20Group%20Report.pdf).

for BTM resources, multiple parties supported the position of the IOUs, provided that dispatchable energy exports are included within the participation model.

Given CAISO's acknowledgments within the Working Group Report regarding the regulatory and technical challenges associated with NGR model, we do not believe this issue as presented by CAISO should be considered the primary priority and the CAISO should focus more broadly on improving market participation on a number of its products, rather than limiting its focus to NGR.

If you support with caveat or oppose, please further explain your position and include examples:

Sunrun agrees that expanding DRP-A to include grid exports and additional services is a preferable path. Specific to DRP-A market limitations, we recommend the CAISO address the following areas of key concern which limit the BTM market in ESDER 4:

- BTM NGR resources currently require 24x7 participation
- DRP-A does not currently qualify for Resource Adequacy
- Exporting BTM NGR resources are considered federal jurisdictional for interconnection purposes
- BTM DRP-A resources currently pay twice for energy used to charge the storage system

2. **Bidding requirements for energy storage resources**

Please state your organization's position as described in the Issue Paper: (Support / Support with Caveats / Oppose)

Sunrun does not oppose, but also does not see this as the proximate market issue requiring focus, in light of the many known market participation challenges, which should be addressed in the near term. Thus, we question this issue as being a key priority at this time. Wood Mackenzie (formerly Greentech Media Research) projects that a cumulative ~5 GWh of residential storage will be installed in California through 2023. With rational sizing of batteries per home potentially increasing to 10-20+ kWh, this means that battery capacity would be 2 to 4 times the average coincident load on an average homes during CAISO's must offer hours. This encapsulates the scale of potentially unrealized reliability resource if the full battery capacity cannot be utilized for Resource Adequacy.

If you support with caveats or oppose, please further explain your position and include examples:

As this appears to be a priority for CAISO, we support it, though believe time may be better spent addressing the market participation limitations of distributed storage resources described within our comments.

3. Demand Response resources

Please state your organization's position as described in the Issue Paper: (Support / Support with Caveats / Oppose)

Sunrun does not oppose consideration of these issues, but believes the list should be expanded. Demand response programs currently limit participation based on artificial export restrictions imposed by the CAISO, limiting the use of BTM storage to coincident hourly load even when battery sizing may be far greater than this for exogenous and entirely rational sizing reasons. This export barrier can be removed, for example as ISO New England has addressed this, by creating numerous demand response products for exporting and non-exporting resources.

If you support with caveats or oppose, please further explain your position and include examples:

Sunrun supports expansion of DR issues to address DRP-A export limitations imposed within current rules and baseline methodology.

4. Multiple-Use Applications (MUA)

Please state your organization's position as described in the Issue Paper: (Support / Support with Caveats / Oppose)

Sunrun supports inclusion of MUA's within this working group with specific focus on how barriers can be reduced within DRP-A and DERP-A structures and to ensure the CAISO is not paying for capacity or energy services already paid for within the distribution or transmission domains.

If you support with caveat or oppose, please further explain your position and include examples:

Sunrun supports a MUA working group process where baseline methodologies and program participation rules are assessed to reduce participation barriers by providing participation paths for non-exporting and exporting DRP-A and DERP-A resources.

5. Additional comments

Please offer any other feedback your organization would like to provide on the Draft Final Proposal

CAISO should continue to maximize resource participation and not impose capacity export limitation for BTM resources. Given that the majority of parties within the MUA Working Group align with utilization of DRP-A for exporting and non-exporting resources, the CAISO does not need to address potential double compensation concerns, as this issue is being addressed at the CPUC. Rather, CAISO should align

this ESDER 4 effort to further break down market barriers in anticipation of a final FERC DER aggregation rule. Unless we embrace MUA's in this more holistic manner, there will be significant underutilization of key capacity resources that could be integrated within CAISO markets and contribute to grid reliability.

Thank you for the opportunity to comment. Sunrun looks forward to continued participation and collaboration in ESDER 4.