

## Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your written comments on the ESDER Phase 3 stakeholder initiative workshop held on January 16, 2018.

Submit comments to [InitiativeComments@CAISO.com](mailto:InitiativeComments@CAISO.com)

**Comments are due January 26, 2018 by 5:00pm**

### About the Western Power Trading Forum:

The Western Power Trading Forum (WPTF) is a California nonprofit, public benefit corporation. It is a broad-based membership organization dedicated to enhancing competition in Western electric markets while maintaining the current high level of system reliability. WPTF supports uniform rules and transparency in order to facilitate transactions among market participants. The membership of WPTF includes load serving entities, energy service providers, scheduling coordinators, generators, power marketers, financial institutions, and public utilities, all of which participate actively in the California market, and other such markets in the West and across the country.

### Comments:

WPTF appreciates the CAISO putting together such a comprehensive list and seeking input into the CAISO's prioritization. This is a transparent and comprehensive way for the CAISO to determine how to move forward and WPTF is appreciative of the additional effort of policy staff to level-set prior to moving on to the draft straw proposal phase. WPTF also agrees with the majority of the CAISO's prioritization.

That said, WPTF supports working on issues that allow effective participation by resources prior to creating new products or expanding functionality. The NGR model in particular still seems to be perceived as having some modeling and bidding challenges that could prevent resources from fully reflecting their marginal costs. While much of this simply could be the need for education, it seems like some further market enhancements may be necessary to address state of charge and excessive cycling issues. Additionally, WPTF strongly supports the CAISO evaluating the efficacy of the regulation product. The disconnect between a resource's AGC dispatch and their underlying energy offer and the energy price has always been an issue. WPTF believes the advancement of storage could finally be a good enough reason to reevaluate the regulation product's market design.

The CAISO asked for specific reasons as to why items should be prioritized. We provide an explanation after each item below that we request be moved to the "green" category and therefore be prioritized in the ESDER 3 scope. WPTF does not oppose any other issue's prioritization.

#### **From Yellow to Green:**

- 1. Use-limitation status for NGRs** – Exploring the option to allow NGRs to qualify as a use-limited resource. What constitutes use-limited status for NGR resources (i.e. batteries)?
- 2. Bidding Costs** – What bidding costs need to be captured for NGRs? (i.e. cost based offers)

The first two items imply that changes are needed to allow NRG resources to reflect their marginal costs into the market and for the CAISO to efficiently optimize the resources. It is WPTF's understanding that these items have more to do with the market rules than modeling functionality and that the CAISO already has rules in place that allow at least relatively efficient bidding by NGRs. Absent additional evidence of an issue, WPTF agrees with the CAISO that these are likely a matter of education and outreach so that participants (like WPTF members) fully understand the rules and how they are applicable to their resource type. WPTF therefore supports the CAISO prioritizing a transparent assessment of NGR bidding and use-limitation issues, with the expectation that documentation and training (and maybe some small BPM changes) rather than full-fledged market design changes will be needed.

- 3. Establishing throughput limitations** – Creating bidding options to manage excessive cycling of NGRs.

It seems reasonable that there should be some sort of mechanism that addresses storages' unique ability to ramp more quickly than ever intended by the regulation model or energy market model. WPTF does not support necessarily prioritizing new *bidding* structures without additional consideration, but does support the CAISO addressing the above issue in some

manner. This item should be prioritized because all storage resources with near infinite ramping coming into the market will have the same concerns and the bulk of the expected revenue from many storage resources is through the regulation market, which is the market most likely to lead to excessive cycling.

While the energy market is only capable of fully cycling a storage resource every 10 minutes, technically the regulation market can do this within 8 seconds. There is no way to reflect the costs of excessive cycling or manage excessive cycling through regulation or mileage offers because it is unknowable whether the cycling will occur and changing the regulation or mileage offer price will not change how the CAISO cycles the resource. While the CAISO proposes that the storage resource could lower their ramp rate, this seems both contrary to the CAISO's rules that physical characteristics be registered in the Masterfile and like an inefficient solution without further nuance around the idea.<sup>1</sup> Therefore, WPTF believes that there are both bidding and model fixes that could potentially address excessive cycling and that the CAISO should prioritize the issue overall.

**4. Management of State of Charge (SOC) –** Considering options for the management of SOC such as a multi-stacked ancillary service bid.

If WPTF understands the issue paper correctly, the CAISO believes that the only reason participants are asking that the CAISO for better ability to manage their state-of-charge is so that the resources can provide services outside the CAISO wholesale market.<sup>2</sup> However, this seems contracted by PG&E's presentation<sup>3</sup> that appeared to illustrate adverse settlement impacts with a non-REM resources inability to manage SOC. In either event, WPTF believes the CAISO should move forward with clearly articulating the issue and providing feedback as to whether this issue is limiting multiple revenue streams (not a high priority in WPTF's mind) or adversely and unfairly impacting storages ability to efficiently participate in the wholesale market (a high priority).

[Other comments](#)

Please provide any additional comments not associated with the topics above.

WPTF requests that the AGC, accuracy score, and ramping transparency issues as presented by Dr. Blake Rector and Mr. Mike McGuffin on January 16 be investigated by the CAISO and added to the above list as high priority items as needed. While some of the CAISO staff seemed

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<sup>1</sup> It is WPTF's understanding the previous daily ramp rate bid functionality is no longer active; however, bidding in a ramp rate hourly may be an easier solution.

<sup>2</sup> "If an NGR modeled storage resource is given the ability to provide services outside of the CAISO market, stakeholders believe a resource owner lacks visibility and the ability to control the resource's SOC at the end of a CAISO dispatch." Issue paper page 13

<sup>3</sup> <http://www.caiso.com/Documents/Presentation-AlvaSvobodaPG-E.pdf>

surprised to learn that storage resources we receiving infeasible and persistent AGC dispatches as well as confusing accuracy scores and ramping ratings, these have been longstanding issues that should be prioritized. WPTF would be pleased to work with the CAISO to provide additional examples of generators with persistent and infeasible AGC dispatches if needed.

Underlying the AGC issues in particular is the concern that any regulation dispatch could be being settled at a price that causes the resource to actually pay to provide regulation. This becomes more likely if a resource has a long, persistent AGC dispatch that seems decoupled from CAISO need and energy prices. This has been a long identified inefficiency of the market and could disproportionately impact storage because many storage resources derive, or plan to derive, a larger subset of their revenues from the regulation market than conventional resources. WPTF supports the CAISO considering within this initiative whether the time is right for regulation product reform.