

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Introduction

Thank you for considering these comments.

Many of the issues CPUC staff recommend here as first- and second-tier priorities for action in ESDER 3 are rooted in CPUC action plans and decisions, including ones involving extensive collaboration with CAISO. For example, the CPUC’s proposed decision on storage multi-use applications adopts a joint CPUC-CAISO staff proposal, and the CPUC’s Distributed Energy Resources Action Plan identifies several joint CAISO-CPUC initiatives related to demand response. In Decision 17-10-017 the CPUC took action to further transition demand response to support grid needs, including working groups to remove remaining barriers to demand response integration into wholesale markets and advance new models, such as load shift demand response. Staff believes the ultimate effectiveness of these CPUC actions will depend on timely and coordinated action by CAISO to address related issues in its stakeholder initiative process. We appreciate that CAISO has similar resource and staffing restraints as the CPUC and therefore must prioritize its workload. Since the CPUC’s and CAISO demand response work is intertwined the staffs must continue to work together continually ensure sufficient resources are dedicated to these projects.

Summary of Recommendations

The CPUC's Energy Division staff recommends the following items as Tier 1 priorities, for Resolution in 2018:

1. Demand Response – Load Shift Product (for storage)
2. Demand Response – Removing the single LSE requirement/DLA discussion
3. Demand Response – Demand Response Modeling Limitations
4. Multiple Use Applications – Relaxation of the 24x7 settlement requirement of DERs
5. Multiple Use Applications – Implementation of Joint Framework Multiple Use Applications for Energy Storage, for CAISO-jurisdictional services and practices

The CPUC Energy Division recommends the following items as Tier 2 priorities, for Resolution in 2019 unless otherwise noted:

1. Demand Response – Load Shift Product (for load)
2. Demand Response – Weather sensitive demand response – we recommend this topic be taken up in 2018 if timely resolved in the CPUC's resource adequacy proceeding.
3. Demand Response – Recognition of a behind the meter resource in load curtailment
4. Multiple Use Applications – Continued discussion on use cases

Demand Response – Tier 1 Priorities (Resolve in 2018)

1. **Load shift product** - Develop a load shift capability for behind the meter storage.
Justification: The development of wholesale load shifting and possibly load consuming products to address future grid needs for flexible resources and renewable integration is a high priority for the CPUC. The development of this product would enable customer-sited storage resources to contribute more effectively to the both objectives. On-line capacity of behind-the-meter storage resources will increase significantly in 2018, highlighting the importance of prioritizing this product.
2. **Removing the single LSE requirement/ DLA discussion** - Remove the requirement of a single LSE for DR and modify use of default load adjustment (DLA).
Justification: Challenges relating to the requirement of a single LSE are becoming increasingly urgent with the increase in CCAs.

- 3. Demand response modeling limitations** - Evaluate current resource constraint options and propose solutions utilizing current or establishing new model options (including min/max run time) to appropriately represent resource capabilities and resolve issue leading to infeasible 5-minute dispatches when committed in RUC.

Justification: This is a basic, foundational problem for PDRs that must be addressed.

Demand Response – Tier 2 Priorities (Defer to 2019)

The DR issues indicated below can only be taken up by the CAISO. The CPUC proposes that DR items we have not listed as priorities be taken up by the CPUC Supply Side Working Group.

- 1. Load Shift Product** – Consider expanding the scope of this product beyond storage to include thermal (HVAC pre-cooling) and other traditional demand response end uses that can shift load.; and Adding to the load shift effort a product that only consumes load.

Justification: The development of wholesale load shifting and possibly load consuming products to address future grid needs for flexible resources and renewable integration is a high priority for the CPUC, for demand response as well as storage. This objective is an outgrowth of the 2025 Demand Response Potential Study, which showed that a primary role for Demand Response in the future will be to shift load to consume renewables excess supply, and address ramps. As a result, CPUC Decision 17-10-017 directed the investor owned utilities to form a stakeholder working group – the Load Shift Working Group - to immediately address this need from the retail perspective. We encourage the CAISO to pursue a parallel effort in ESDER III, and look forward to close coordination of the two working groups. Development of this product or products will also support Integrated Resource Planning.

- 2. Weather sensitive demand response** - Explore bidding/model options (similar to VERS) that could be utilized to reflect weather sensitive DR. Include changes needed in NQC valuation, MOO and RAAIM. This should be addressed in 2018 if the CPUC RA working group process completes its work by mid-year.

Justification: This is a foundational problem for weather-sensitive PDRs, which include all AC-based DR.

3. **Demand response modeling limitations** - Explore development of an option similar to Intertie bidding, introduced at the October 4 Joint ISO and CPUC workshop.

Justification: This could help resolve 20 minute dispatch conflicts for PDRs, but is a lower priority for the CPUC than addressing the foundational DR challenges above.

4. **Recognition of a behind the meter resource in load curtailment** - Extend the meter generator output (MGO) model to electric vehicle station equipment (EVSE) and evaluate its applicability to other devices.

Justification: Electric vehicles (EVs), if aggregated, can provide load curtailment, but customers may be wary of participating in demand response programs if the EV load is not separated from their other electric consumption needs. Many electric vehicles include an embedded submeter that could directly measure and control EV charging load separately from the facility load. If recognized as MGO resources, these EVSE submeters could be used to develop a baseline for and to directly measure EV load curtailment performance.

Multiple-Use Applications – Tier 1 Priorities (Resolve in 2018)

1. **Relaxation of the 24x7 settlement requirement of DERs** - Create option for NGRs to opt out of ISO market participation and settlement in some intervals in order to provide services to other entities.

Justification: Without the ability to opt out of 24x7 settlement requirements these DERs are precluded from pursuing MUA opportunities and improving their economic value.

2. **Continued discussion on use-cases for MUA**

Justification: Robust discussion of the application of multiple use applications and rules are necessary in 2018.

We recommend that this item be recrafted to focus on possible modifications to the CAISO tariff, business practice manual, and any other practices, to enable multiple use applications for energy storage resources. The CPUC and CAISO staffs jointly developed an initial framework of rules to guide multiple use applications, held a joint workshop and took comments. A revised proposal, by both the CPUC and CAISO staff, was released on November 3, 2017 in a proposed decision in Rulemaking (R.) 15-03-011. This proposed decision adopts rules that the revised report recommends, requires the three large investor

owned utilities to apply those rules in their 2018 storage procurement applications, and establishes a working group process to focus on further refinement of rules and modifications to CPUC-jurisdictional rules to enable MUA. There is not currently a similar pathway to examine existing rules at the CAISO.

We recommend that the CAISO either establish its own stakeholder working group, or actively engage with and rely upon the working group that would be established by the CPUC decision, to evaluate the multiple use application framework and application of rules to CAISO-jurisdictional services. The WG would then make recommendations to the CAISO for resolution in ESDER or another process.

Multiple Use Applications – Tier 2 Priority (Defer to 2019)

- 1. Continued discussion on use-cases for MUA** - Determining participation models for new technologies such as micro-grids through use-case scenarios.

Justification: This topic should be deferred to a subsequent phase of ESDER. The other topics listed are far more urgent than developing a new participation model for projects of a specific type that do not currently exist in wide scale.