CPUC Staff Response to Comments

On December 12, 2011, CPUC Staff released a draft v ersion of the "Energy This Staff Proposal outlined the Storage Framework Staff Proposal" (Staff Proposal). perspective of CPUC Staff on how to address policie s and barriers as they apply to energy storage in California. The purpose of the S taff Proposal was to outline a framework to meet the requirements of AB 2514, whic h directed the CPUC to consider whether or not to adopt an energy storage procureme nt target. The CPUC Staff Proposal was organized around three main topics: Barriers, Framework, and Next Steps. The Staff Proposal identified nine barriers that are currently limiting the widespread adoption of energy storage in California, and identified a fram ework for addressing those barriers. As part of that framework, the Staff Proposal ident ified 20 "end uses" of energy storage which would guide continued analysis of energy stor age and how to best address any barriers to those end uses. Finally, the Staff Pro posal sought comments from parties on a proposed analytical approach to using the framework and asked for comments on how best to proceed on developing a cost-effectiveness methodology for energy storage.

Initial Comments on the Staff Proposal were due on January 31, 2012, and Reply Comments were due on February 21, 2012. The CPUC r eceived initial comments from 13 parties,¹ and reply comments from 10 parties.² This Staff Response does not address all comments received on the Staff Proposal, but at raised by the parties. Staff Response is divided i not five topics: Framework, Cost-Effectiveness, Procurement Targets, Roadmap, and Barriers.

Framework

Comments received on the end-use Framework can be divided into those that support the Framework and those that do not. Sever al parties support the use of an end-use Framework to help identify costs and benefits in preparation for a cost-effectiveness methodology, as well as enabling a more technology-neutral approach to storage. Additionally, parties suggested that the CPUC Staff should prioritize a specific set of end-uses and applications.

Other parties opposed the end-use Framework, raisi ng concerns that the Framework would lead to a drawn-out review process of storage projects and delay the implementation of energy storage systems in Califor nia. One party also commented that storage itself does not fit within a specific set of end-uses, and attempts to do so will limit the ability of storage projects to respond to opportunities.

¹ Initial Comments were filed by Brookfield Renewable Energy Partners (Brookfield), California Energy Storage Alliance (CESA), California ISO (CAISO), Calpine, Consumer Federation of California (CFC), Division of Ratepayer Advocates (DRA), Jack Ellis, MegaWatt Storage Farms, Pacific Gas &Electric (PG&E), San Diego Gas & Electric (SDG&E), Sierra Club, Southern California Edison (SCE), and Vote Solar.

² Reply Comments were filed by CESA, CFC, DRA, Mark B. Lively, NGK Insulators (NGK), PG&E, SCE, SDG&E, Sierra Club, and Vote Solar.

CPUC Staff continues to support the use of an endidentify potential applications of energy storage, and as a framework that can be used to support a cost-effectiveness methodology. CPUC Staff also agrees with those parties that a set of those end-uses should be prioritized. As such, in the revised Staff Proposal, CPUC Staff identified four basic high-priority scen arios for deploying energy storage systems based on alignment with existing CPUC and s tate policies, with each scenario involving a different combination of multiple end-u ses. These storage scenarios should be the focus of the parties, CPUC Staff and the CPU C going forward. The CPUC Staff's suggested priorities are as follows:

- 1. Renewables Support / Dispatchability
- 2. Distributed Storage
- 3. Demand-side Management
- 4. Ancillary Services

The priorities identified above are preliminary and may be revisited in Phase 2 of the proceeding. CPUC Staff believes that this addresse s the concerns raised by parties that opposed the Framework as too open-ended and will facilitate focused analysis in terms of cost-effectiveness, barriers, and policy options.

<u>Cost-Effectiveness</u>

The Staff Proposal sought comments on the use of t he Standard Practice Manual (SPM) as a tool to measure the cost-effectiveness of energy storage resources. The Staff Proposal also identified the need for a new phase o f the OIR to develop a cost-effectiveness model. CPUC Staff also sought commen ts on how to use the end-use framework in the development of a cost-effectiveness model.

The comments were nearly unanimous that the SPM wa s not a proper tool to measure cost-effectiveness of a storage system. Sp ecifically, the SPM was designed for customer or behind-the-meter applications; therefor e, the SPM may not accurately account for the benefits from the various identifie d end-uses of storage, such as benefits to the grid. One party advocated for the use of th e Permanent Load Shifting (PLS) test that was developed in the recent Demand Response applications. Although the SPM may not be the appropriate test for cost-effectiveness, several parties argued that a costeffectiveness methodology should be a priority for this proceeding. Finally, several parties stated that no cost-effectiveness test was needed, and that the market should determine the cost-effectiveness of a storage resource.

CPUC Staff agrees with the parties that the SPM ap proach may not be suitable for storage and that determining a cost-effectiveness m ethodology appropriate for storage is an important and a valuable outcome of this proceed ing. As noted in the Framework discussion above, by prioritizing a specific set of storage deployment scenarios, CPUC Staff believes that the development of a cost-effec tiveness methodology can be accelerated.

Procurement Targets

The Staff Proposal did not state a position on dev energy storage resources; nevertheless, since this 2514, which directed the CPUC to investigate the ad procurement targets, parties did file comments on w needed.

Several parties commented that procurement targets are unnecessary, will undermine markets, will not lead to an efficient se lection of energy storage projects, and will increase costs for ratepayers.

On the opposite side, other parties argued that pr to move the storage market forward more expeditiously, allow utility and system planners to develop experience with energy storage resources , and to support the various environmental goals of the state. Parties also state that issues around storage should be decided in this proceeding, and then have other proceedings implement the decisions made in this proceeding. Additionally, some partie s suggested that discussion of targets should be determined in the Long-Term Procurement Proceeding.

The Staff Proposal remains silent on the determin procurement targets are necessary. It is CPUC Staf work to be done on addressing barriers, end-use's a Staff can make a recommendation on whether storage appropriate. CPUC Staff expects to coordinate with Adequacy, Long-Term Procurement, and activities at the CAISO to ensure that storage is being considered in those efforts.

<u>Roadmap</u>

The Staff Proposal sought comments on the development of a roadmap with goals or milestones and key enablers to reach the goals and how best the CPUC and parties can encourage the development of energy storage resources.

Comments were generally supportive to the use of a roadmap to guide the next steps and goals of the proceeding. One party developed a set of goals and milestones and a timeline necessary to realize those goals. Sever al parties identified an end-goal as allowing storage to actively and fairly participate in competitive markets and procurement solicitations. Parties also identified the need to prioritize issues that should be dealt with sooner.

CPUC Staff has revised roadmap section of the Staf f Proposal to reflect parties feedback.

Barriers

The Staff Proposal identified nine regulatory/poli cy barriers that limit the ability of storage to participate in retail and wholesale m arkets. The comments generally agreed that those are appropriate barriers at this time. Some parties suggested that some barriers should be prioritized over others. Several comment s discussed the impact of specific barriers on the adoption of energy storage. One party provided a revised matrix. Several parties also commented that the CPUC and the CAISO should work in closer cooperation to lower barriers at both the retail and wholesale levels. Finally, one party suggested that a definition of storage would be useful to ensure a common understanding going forward.

The revised Staff Proposal now includes a definiti on of energy storage system from AB 2514. CPUC Staff has also revised the matrix in response to comments.

Conclusion

CPUC Staff very much appreciates the thoughts and efforts that went into the comments filed on the draft Staff Proposal. CPUC S taff reviewed all comments filed on the Staff Proposal and revised the Staff Proposal i n response to several comments, although not every comment is explicitly addressed here or in the revised Staff Proposal. The revisions made to the Staff Proposal reflect se veral common themes raised by the parties and help to make this document more useful to the CPUC and parties. It is CPUC Staff's recommendation that this proceeding move ex peditiously into Phase 2 without an additional round of comments on the revised Staff Proposal.