

Storage as a Transmission Asset

Stakeholder Comment Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the Storage as a Transmission Asset stakeholder working group meeting that was held on June 29, 2018.



Submit comments to InitiativeComments@CAISO.com

Comments are due July 19, 2018 by 5:00pm

The working group meeting, hosted on June 29, 2018, as well as the presentation materials discussed during the stakeholder web conference, may be found on the [Storage as a Transmission Asset](#) webpage.

Please provide your comments on the Straw Proposal topics listed below, as well as any additional comments you wish to provide using this template.

¹ BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.

Informational discussion

Based on stakeholder comments to the straw proposal, the ISO provided additional information regarding how SATA resources will be considered in the ISO's Transmission Planning Process (TPP). The ISO's working group presentation built on the materials covered through the straw proposal and focused on:

1. Assessments of need and technical requirements
2. Economic evaluation of project alternatives
3. Transmission Asset versus Market Local Resource considerations
4. ISO Operational control of storage assets

Are there additional questions regarding the materials that the ISO provided during the working group process or questions specifically relating to how the ISO will consider SATA resources in the TPP that the ISO has not yet discussed?

Comments:

During the June 29th workshop, in response to questions regarding the SATA resource assessment, the CAISO indicated that it was open to alternative evaluation methodologies and that it is uncertain at this point what source of cost data on which it will rely. BAMx agrees with the CAISO that the Integrated Resource Planning (IRP) process is the appropriate forum to determine economic tradeoffs between retaining existing generation and reducing that need via new transmission or new local resources. It appears that the CAISO will limit the application of CAISO proposed approval of SATA assets appropriately. So, most of the new storage installations can be decided in concert with other resources and state policy goals, through the State's IRP process. In concert with the desire to integrate the CAISO planning process with the State's IRP process, we urge the CAISO to rely on the IRP cost assumptions for base and sensitivity studies for evaluating the storage alternatives.

In explaining the economic assessments of project alternatives to mitigate transmission reliability deficiencies, including transmission and preferred resources², the CAISO acknowledged that SATA is not the only way for storage to move forward and that storage is approved more effectively as part of the procurement process as a competitor among the preferred resources. We appreciate the CAISO's assessment and believe that the emphasis should be on approving storage as a resource as part of the IRP process. In other words, the consideration of resource alternatives to replace the existing generation within an LCR area should primarily be done via the IRP process. We concur with the CAISO's evaluation that approval of a storage device should be determined as SATA only if it is added to the transmission network that supplies to the particular LCR area based upon its ability to "push back" on a limiting flow thereby increasing path flows overall.³

² Slide #15 of the CAISO's June 29th Workshop Presentation.

³ Slide #22 of the CAISO's June 29th Workshop Presentation.

BAMx opposes any further expansion of the scope that was identified in the Issue Paper. In particular, BAMx does not support expanding this initiative to include resources that may provide economic or policy benefits at this time. We support an incremental approach to the development and implementation of the SATA initiative, and believe it would be prudent to focus attention on the reliability needs first. Furthermore, BAMx believes that storage connected to the distribution system should not be considered as a candidate SATA resource under this initiative.

Contractual Arrangement

The ISO proposes to develop a new agreement with SATA resource owners that captures elements from Participating Generator Agreement (PGA), Participating Load Agreement (PLA), Reliability-Must-Run (RMR) and Transmission Control Area (TCA) agreements, among others. At the working group meeting, the ISO provided additional details about this proposed new agreement. Please provide comments on this proposal.

Comments:

BAMx supports the CAISO's plan to develop a new agreement for SATA resources that would combine Transmission Control Agreement (TCA) provisions and provisions that cover how the CAISO would compensate a storage resource and when it can participate in the market, including the impact market revenues have on the total costs to be recovered under the agreement.⁴ Any contractual arrangement needs to address whether the proposed operator of the SATA resource has any ability to unduly influence the market prices and outcomes. This is the same reason why existing FERC policy notes that the CAISO control over the operation of a SATA resource could jeopardize its independence as the market operator.

In our comments dated June 7, 2018, we had raised concerns about the increased frequency of storage cycling for the purposes of market participation, and subsequently, the impacts of the increased cycling of the storage asset on the equipment lifetime and total costs associated with the technology.⁵ We noticed that the CAISO has recognized the need to perform sensitivity analysis to address the risk considerations for storage given its need to replace a significant portion of storage assets in the medium term, unlike the traditional transmission assets.⁶ In addition to the sensitivity analysis, while determining how and when SATA resources would be permitted to provide market services and access market revenues, the CAISO needs to consider that "optimized" operation of a SATA asset to participate in a market could further lead to increased frequency of replacement of the storage asset, therefore, impacting the total costs of the investment. BAMx recommends that CAISO evaluate and consider future costs curves associated with the maturation of energy storage technologies when considering capital costs of replacements over the lifetime of the energy storage system.

⁴ Straw Proposal, pp. 3-4.

⁵ Specifically, these increased costs include fixed overhead costs as well as the associated variable costs related to the operating, repair, and maintenance of the storage asset.

⁶ Slide #16 of the CAISO's June 29th Workshop Presentation.

Cost Recovery Mechanism

The ISO has proposed two alternative cost recovery mechanisms in the straw proposal:

1. Full cost-of-service based cost recovery with energy market crediting
2. Partial cost-of-service based cost recovery with no energy market crediting

At the working group meeting, CRI and SDG&E provided additional ideas for cost recovery. Through the discussion, a third option was proposed: Full cost-of-service with partial cost recovery. This option would mitigate risks associated with option 2 and provide incentives that do not exist under option 1. Please provide comments on the proposal and/or comments provided by CRI and SDG&E along with this third option. In comments, please provide a description of how they compare and contrast to the ISO's first two options, specifically as it pertains the direction provided in the FERC policy statement.

Comments:

BAMx requests further information on how the cost recovery mechanism options will not compromise the reliability need of the transmission asset in the case the storage system will also be utilized to generate market revenue, including applicable operating constraints when cycling (charging and discharging) the storage system based on the time of day, season, and congestion alleviation needs.

Other

Please provide any comments not addressed above, including any comments on process or scope of the Storage as a Transmission Asset initiative, here.

Comments:

BAMx believes that the issues described in this initiative are very complicated, made more so by investigating alternative ways for SATA to interact with the market through its operation. Although BAMx has not commented directly on these issues in these comments, we realize it is a very complicated issue as evidenced through the protracted stakeholder processes and FERC proceedings concerning RMR contracts that took a few years to develop. We encourage the CAISO to provide enough time in this stakeholder process to fully consider these issues and not necessarily concentrate on finishing it to seek CAISO Board approval at its November 14-15, 2018 meeting.