

Storage as a Transmission Asset

Stakeholder Comments 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 initiative Issue Paper that was published on March 30, 2018.



Submit comments to InitiativeComments@CAISO.com

Comments are due April 20, 2018 by 5:00pm

The Issue Paper posted on March 30, 2018, as well as the presentation discussed during the April 6, 2018 stakeholder web conference, may be found on the [Storage as a Transmission Asset](#) webpage.

Please provide your comments on the Issue Paper topics listed below and any additional comments you wish to provide using this template.

Scope of policy examination

The ISO's initial identified scope for this stakeholder process is to enable storage to provide cost-based transmission services and participate in the market and receive market revenues. Specifically, the ISO will focus on (1) transmission-connected storage only and (2) storage resources identified as needed to provide reliability-based transmission services. Please provide comments on the proposed scope. If there are specific items not already identified by the ISO that you believe should be considered, please provide specific rationale for why the ISO should consider it as part of this initiative.

Comments:

SDG&E agrees that the scope of this initiative should be limited to transmission-connected storage that the CAISO determines will meet a reliability-based transmission need. In certain circumstances,

distribution-connected storage could theoretically meet a reliability-based transmission need. However, SDG&E believes including this possibility in the instant initiative will introduce operational and jurisdictional complexities that might be better addressed on a case-by-case basis.

SDG&E also agrees that storage identified by the CAISO in the Transmission Planning Process (TPP) as potentially more economic than transmission solutions for (i) meeting public policy requirements, or (ii) reducing consumer costs associated with, for example, transmission losses, congestion or Local Capacity Requirements (LCRs), should not be subject to the instant initiative. Storage identified in these contexts should be funded through competitive market mechanisms, not via the CAISO's Transmission Access Charge (TAC) mechanism.

Cost recovery mechanism

The ISO has offered two alternative cost recovery mechanisms for discussion as part of the issue paper:

1. Asset in PTO's TAC rate base, and
2. Contractual provision of "cost-based" transmission service without becoming a PTO

Please provide comments on these two options and any other options the ISO has not identified. Additionally, please provide comments on the "wholly in rate base" and "partially in rate base" alternatives discussed within each of the above options.

Comments:

SDG&E believes a contractual approach is likely to be the preferred method for compensating storage devices selected to provide transmission reliability services. This approach would have similarities with the contracts the CAISO currently enters into for black start and primary frequency response.¹ A contractual approach would make it easier to establish and enforce rules designed to ensure that a storage resource is available, and can be operated in accordance with, the particular transmission-reliability service the storage resource was selected to provide. SDG&E suspects it would be a challenge to revise existing Participating Transmission Owner (PTO) agreements to accommodate the wide variety of availability and operational requirements that storage resources might need to adhere to provide different transmission-reliability services. Such requirements may include specification of the dates and times by which the storage device must be charged or discharged; the maximum duration of time that discharge or charging may need to take place; and the specific quantity to be provided during specific events. Additionally, the contract would provide the mechanism by which the revenues and costs derived from the storage resource's participation in wholesale markets are tracked and settled against the TAC.

SDG&E does believe, however, that the contracts need to give the CAISO clear operational control over the storage device during time periods when the storage device may have to operate to provide the

¹ SDG&E continues to support the development of a centralized primary frequency response market operated by the CAISO. If such a market is implemented, primary frequency response would no longer be procured by the CAISO through bilateral contracts.

transmission-reliability service. This is consistent with all other transmission assets that PTOs turn over to the CAISO.

To minimize the cost of providing transmission-reliability services at the regional level (connections above 200 kV), it is important that non-utility storage owners have the opportunity to earn net revenues from wholesale markets. To the extent the owner of a storage resource can earn wholesale market revenues in excess of wholesale market costs, the owner has the ability to submit more competitive offers in the CAISO's competitive procurement process. Utilities competing in this procurement process have similar abilities to submit competitive offers since utility operation of the storage resources are subject to Local Regulatory Authority (LRA) prudence review. Given the risks of prudence review, utilities also have an incentive to maximize net revenues from the storage resource's wholesale market participation. This is option "b" the CAISO's March 30, 2018 issue paper.

Option "b" would permit a storage owner to designate the portion of the storage device's capital cost that is to be recovered through the TAC. Presumably – and the CAISO should confirm this point – the same percentage of net wholesale market revenues (which could be negative) would be used to reduce the TAC. In the case of a non-utility storage owner, the owner would retain the remaining amount of net wholesale market revenues and thereby has an incentive to manage the storage resource as efficiently as possible. In the case of a utility storage owner, the LRA would need to approve recovery of the remaining portion of the storage device's capital cost through generation ratebase; ratepayers would retain the remaining amount of net wholesale market revenues.

SDG&E does not support option "a." Option "a" would recover 100% of the capital costs of storage devices providing transmission-reliability services through the TAC. All net wholesale market revenues (which could be negative) would be used to reduce the TAC. However, since non-utility storage owners would retain none of the net wholesale market revenues, they have little incentive to manage the storage resource efficiently. In contrast, storage resources that utilities would own are subject to LRA prudence review. Option "a" therefore creates an unlevel playing field where non-utility storage owners would be exposed to less risk than utility storage owners.

While SDG&E supports option "b," it will be important for the CAISO to be diligent in selecting qualified, financially stable, storage providers, and to enforce contract terms that hold the entities to a high standard of performance for the duration of the contract.

Allocation to high or low voltage TAC

The ISO has expressed its plans to maintain the current practice of allocating costs to high or low voltage TAC based on the point of interconnection. Please provide comments on this proposal.

Comments:

SDG&E believes it is important to maintain the current practice of allocating costs between the high voltage (regional) and low voltage (local) TAC based on the voltage at the point of interconnection. This practice is consistent with FERC's determination that utilities have the right of first refusal to own

transmission assets that are operated below 200 kV and that a competitive process may be used to select the owners of transmission assets that are operated above 200 kV.

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:

As the CAISO acknowledged on the April 6, 2018 conference call, option “b” has important implications for the CAISO’s TPP. To select a winning storage offer in a competitive solicitation, option “b” will require that the CAISO estimate, for each offer, the amount of net wholesale market revenues that will be used to reduce the TAC. As the March 30, 2018 *Issue Paper* notes:

“Allowing project sponsors to submit projects with varying levels of TAC and market revenue would require the ISO to make numerous complex assessments and assumptions to determine if a project would, in fact, address the identified need and which resource is the more cost effective or efficient resource.”

SDG&E agrees that such determinations will be challenging, however, the CAISO’s TPP is well-suited to making just these sorts of judgements on behalf of consumers.