

Storage as a Transmission Asset

Stakeholder Comment Template

Submitted by	Company	Date Submitted
Eric Eisenman eric.eisenman@pge.com	Pacific Gas & Electric	6/7/2018

Please use this template to provide your comments on the Storage as a Transmission Asset stakeholder initiative Straw Proposal that was published on May 18, 2018.



California ISO

Submit comments to InitiativeComments@CAISO.com

Comments are due June 7, 2018 by 5:00pm

The straw proposal, posted on May 18, 2018, as well as the presentation discussed during the May 24, 2018 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.

PG&E supports the CAISO's launching this important initiative, and looks forward to working with stakeholders to explore the potential to maximize benefits of energy storage.

Scope of policy examination

The ISO has modified its initial identified scope for this stakeholder process. The scope of this initiative will focus on: If storage is selected for cost-of-service-based transmission service, how could that resource also provide market services to reduce costs to end-use consumers? Please provide comments on this proposed scope (including those issues identified as out-of-scope). If there is a specific item not already identified by the ISO that you believe should be considered, please provide the specific rationale for why the ISO should consider it as part of this initiative.

Comments:

Given the CAISO's proposal to exclude planning assumptions in the scope of this initiative, PG&E requests feedback on plans to address optimization methodologies elsewhere. The CAISO's straw proposal recognizes the complex interaction between the planning activities and the approval processes for preferred solutions. Enabling storage facilities to provide transmission services under a cost-of-service framework without considering the assessment methodologies and assumptions may result in the CAISO selecting a sub-optimal solution to meet the reliability need. To make a conscious decision that identifies the most cost-effective solution, the planning assumptions for resources needed to meet local reliability should be considered in this initiative. Including the TPP evaluation methodologies within the scope would recognize the critical interaction between transmission capacity, generation resources, and preferred solutions, ensuring selection of the optimal solution to meet identified reliability needs at least cost.

Background and the ISO's Transmission Planning Process ("TPP")

The ISO has provided a discussion on how certain stakeholder comments could be addressed within the current Transmission Planning Process (TPP) framework – on a case-by-case basis. Please provide any additional questions or clarifications regarding how the ISO's TPP might incorporate the market participation by SATA resources.

Comments:

The CAISO should provide additional clarity on the interconnection process for storage resources providing transmission services, to identify any effects on resource deliverability that has gone through a different interconnection process. The local capacity process uses an established approach for resources that have obtained deliverability through a specific generator interconnection process. Generation that is increased to reduce the flow on the limiting constraint becomes part of the local capacity need, but only capacity resources with deliverability are considered for this dispatch. Taking storage into account without a comparable deliverability process could affect resources that have gone through a different

interconnection process. The CAISO should consider the implications of allowing storage providing transmission reliability services to be taken into account when determining local capacity area needs.

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) agreement and Transmission Control Agreement (TCA). Additionally, the ISO has indicated its preference to control SATAs when they operate as transmission assets. Please provide comments on this proposal.

Comments:

The CAISO should require that any entity contracting for SATA resources be or become a PTO to be able to participate. PG&E appreciates the CAISO's intent to ensure that strong rules and protections are in place for new storage resources that would be counted on for identified reliability needs by relying on appropriate elements from various agreements that currently exist. However, contractual obligations are not a sufficient substitute for utility service obligations.

In addition, SATA resources should have provisions that would allow emergency dispatch beyond the transmission service. The CAISO's straw proposal recognizes that emergency conditions can arise at any hour and would like to reserve the right to call the storage resource to provide the transmission service. The SATA resource providing transmission services should also have additional provisions to dispatch the facility for system emergencies or managing congestion on non-competitive paths.

Market Participation

The ISO provided additional details regarding how and when SATA resources would be permitted to provide market services and access market revenues. Please provide comments on this proposal.

Comments:

PG&E agrees that "right-sized" SATA projects approved during the CAISO Transmission Planning Process (TPP) should be allowed to provide market services without completing the ISO's generator interconnection process. Any sponsor proposing excess capacity beyond the "right-sized" reliability project identified during the TPP should be formally studied and enter into a PGA as part of the ISO's generation interconnection process prior to providing market services.

To delineate the common facilities cost difference between the portion of the facility used for transmission services and the portion used for additional market participation by excess capacity, the CAISO should determine, as part of the TPP, a baseline facilities cost assuming a "right-sized" asset that meets only the reliability need and assumed energy-only market services during reasonably predictable months and/or hours. The incremental capital cost, interconnection facilities, reliability network upgrades, local delivery network upgrades and other incremental facilities costs triggered by the excess capacity would be determined during ISO's generation interconnection process.

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

Please provide comments on these two options and any other options the ISO has not identified. Please include how the ISO might incentivize or compel SATAs to participate in the markets competitively and efficiently where they would receive full cost-based recovery.

Comments:**Allocation to High- or Low-Voltage TAC**

The ISO proposes to maintain the current practice of allocating costs to high- or low- voltage TAC, based on the point of interconnection, and consistent with other transmission asset classifications to regional (high voltage) or local (low voltage) TAC. Please provide comments on this proposal.

Comments:

PG&E understands that the CAISO's current method of dividing a PTO's transmission revenue requirement (TRR) to high or low voltage TAC (see Appendix F, Schedule 3, Section 12 of the CAISO Tariff) is based largely on the voltage ratings of the PTOs transmission assets. However, allocating the costs of a SATA to high or low voltage TAC by the voltage of its point of interconnection may not be the best method for allocating costs to users of the CAISO grid. Another criterion for cost allocation may rely on the transmission need that the storage is addressing. This method is consistent with the general rate recovery principle of cost causation recovery. Grid users that benefit from a service should bear the cost of providing the service that they receive. It is possible, under today's rules, that high voltage-only users of the CAISO grid might escape cost allocation of a SATA that is selected to resolve a high voltage transmission need simply because it is interconnected at voltages lower than 200 kV.

The CAISO may be called upon to choose between multiple project proposals to alleviate a transmission need – one solution may be a traditional transmission upgrade (that would be allocated as described in Appendix F, Schedule 3, Section 12 of the CAISO Tariff), another might be a SATA resource. The selection criteria for the optimal solution should not be distorted by having different cost recovery mechanisms between the project proposals. To illustrate this point, consider the selection of a 230 kV reconductoring project versus a SATA connected at an adjacent point of interconnection below 200 kV. In the first instance, the costs of the reconductoring project would be shared among all users of the CAISO grid and in the second instance the costs would be allocated only to the customers of the PTO because the SATA is connected at low voltage. This would result in a cost shift.

Consistent with FERC Policy Statement

The ISO believes the straw proposal is consistent with the FERC Policy Statement. Specifically, that the straw proposal does not inappropriately suppress market prices, impact ISO independence, nor result in double recovery of costs. Please provide comments on the whether you agree or disagree with the ISO. If you disagree, please clarify why and how the ISO might address this issue.

Comments:

Use Cases

Stakeholders raised numerous scenarios involving a storage device being used as a transmission asset, and with having additional storage or other generation capacity at the same site. The ISO provided feedback on how some, but not all, of these concerns expressed at the stakeholder session could be addressed. The ISO seeks stakeholder feedback on issues or concerns that would need to be addressed, as well as possible mechanisms to address such concerns.

Comments:

EIM classification

The ISO believes this initiative falls outside the scope of the Energy Imbalance Market (EIM) Governing Body's advisory role. The ISO seeks stakeholder feedback on this proposed decisional classification for the initiative.

Comments:

[PG&E agrees that the SATA initiative falls outside the scope of the Energy Imbalance Market \(EIM\) Governing Body's advisory role.](#)

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: