

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 revised straw proposal that was posted on August 15, 2018.



Submit comments to InitiativeComments@CAISO.com

Comments are due September 4, 2018 by 5:00pm

The revised straw proposal, posted on August 15, 2018, as well as the presentation discussed during the August 21, 2018 stakeholder web conference, may be found on the [Storage as a Transmission Asset](#) webpage.

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

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. Additionally, the ISO has indicated its preference to control SATAs when they operate as transmission assets. Please provide comments on this proposal.

Comments:

The draft list of terms and conditions for CAISO's new Storage as a Transmission Asset (SATA) agreement was a very helpful addition to the revised straw proposal released on August 15. As previously noted,

PG&E believes that contract provisions must include equitable treatment between PTO and non-PTO SATA resources, and the draft list includes a number of appropriate and necessary provisions on this front.

PG&E also believes that additional terms – “SATA Operator,” “Confidential and Data Sharing,” “Change in Law,” and “Permitting” – should be defined and added to the list. Market Revenues may also need to be defined and added separately or explained under the Market participation obligation/restriction term.

PG&E requests that additional details be included under the draft list of terms and conditions before the CAISO Board of Governors (CAISO Board) formally considers the final SATA proposal to ensure that strong contractual language is included and understood by stakeholders and parties impacted by the new agreement. If additional work on the new agreement is envisioned to occur after consideration of the final proposal by the CAISO Board, PG&E requests that stakeholders be invited to help work out remaining details that will need to be incorporated into the final SATA agreement. Areas of suggested special focus include performance, reliability, maintenance, testing and monitoring, cost-of-service recovery, degradation impacts from market participation, safety, emergency dispatch, and credit provisions. Many of these are briefly addressed in Appendix 8.1 of the revised straw proposal, and PG&E welcomes the opportunity, at the appropriate time, to provide additional suggestions to specifically address the details that will be included in the final agreement.

Transmission Revenue Requirement Capital Credit

The ISO has proposed a TRR capital credit to reduce a SATA resource’s capital cost recovery. The objective of this credit is (1) to protect ratepayers from early degradation of SATA resources operational capabilities due to dispatches from ISO market participation and potential for reduced useful lifespan for a SATA resource’s ability to meet the identified transmission need(s), and, (2) to ensure the SATA resource owner considers all marginal costs when bidding into the market. Please provide comments on the ISO’s proposal and any potential alternative the ISO could consider to achieve the same objectives.

Comments:

PG&E believes that CAISO’s new SATA agreement can and should include strong provisions (under appropriate sections such as “performance” and “maintenance”) that clearly articulate expectations, requirements, and penalties for SATA resources. Due to the primacy of the transmission service, PG&E believes the contract should require the SATA owner to be financially responsible for meeting the transmission need for the entire specified period, including protections against degradation accelerated beyond what is expected to deliver the transmission service. While PG&E appreciates CAISO’s appropriate focus on ensuring that market participation doesn’t suppress a SATA resource’s ability to deliver the critical transmission services it’s contractually obliged to provide, it’s unclear if the TRR mechanism will suffice. There is an inherent trade-off between the TAC and benefits that a SATA resource can provide by participating in the market. The difficulty is that TAC includes costs that are not necessarily captured in Energy or Ancillary Service prices. However, this trade-off could be handled contractually rather than through a market design mechanism. Therefore, PG&E encourages CAISO to

eliminate the TRR crediting mechanism and work with stakeholders to develop a contractual mechanism in the SATA agreement that protects ratepayers from early degradation due to market participation, ensures that SATA resource owners consider all appropriate costs incurred as a result of market participation, and that the decisions made under the inherent trade-off between TAC and energy costs are to the benefit of the customers.

Market Participation

The ISO provided two additional options it is currently considering to notify SATA resources when they would be permitted to provide market services and access market revenues: Day-ahead market option and D+2 Option. Please provide comments on these options, including any preference or alternative options.

Comments:

PG&E prefers the D + 2 Option, as it would allow participation in the Day Ahead market in addition to the Real-Time market.

PG&E requests additional clarity on the possibility of a situation where a SATA resource participates in the Day Ahead market and makes a commitment to buy or sell and is then is called to serve a transmission need. Since the SATA resource would still be obligated to meet these commitments, would the SATA resource be compensated for these costs associated with its market unavailability through the TAC?

Cost Recovery Mechanism

The ISO has proposed three 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
3. Full cost-of-service based cost recovery with partial market revenue sharing between owner and ratepayer

Please provide comments on these three options and any other options the ISO has not identified. Please provide specific comments on (a) if the ISO should maintain option 2, above, and (b) why, if any, specific market profit threshold must be reached before the SATA resource would be permitted to retain some portion of profits and how such threshold should be determined.

Comments:

PG&E firmly supports Option 1 as the most effective cost recovery option for SATA resources approved to meet critical transmission reliability needs.

PG&E joins other stakeholders in opposition to Option 2 and believes that it's prudent for CAISO to eliminate Option 2 from further consideration, especially given the appropriate determination by CAISO

that necessary long-term certainty cannot be assured for specific time periods when a SATA resource could provide market services.

Option 3 has merit, but PG&E has not taken a formal position on the mechanism.

Options in the event of insufficient qualified project sponsors

The ISO has proposed potential options for addressing SATA projects when there is insufficient qualified project sponsors. Please provide comments on these options, including preferences and/or additional alternatives that should be considered.

Comments:

No comment at this time.

Consistent with FERC Policy Statement

The ISO believes the revised 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:

No comment at this time.

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:

Deliverability Rules

The CAISO should clarify if SATA resources will reduce the system Resource Adequacy requirement along with the local capacity requirement and how it will handle SATA resources approved for contingency needs that do not coincide with the contingency that establishes the local capacity requirement.

During the stakeholder meeting on August 21, CAISO confirmed that SATA resources do not qualify for Resource Adequacy but will reduce the local capacity requirement. This again raises a concern regarding the interconnection process for SATA assets, and whether it would disregard the impact to deliverability of market resources that have 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. Storage without a comparable deliverability process could impact market 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.

Additionally, all resources that contribute to or reduce the local capacity requirement have a must offer obligation such as Capacity Procurement Mechanism (CPM) designations. Allowing a SATA resource to reduce the local capacity requirement in a similar way as a deliverable resource without a must offer obligation, assumes that the reliability need of the SATA resource will coincide with the same contingency event that establishes the minimum local capacity requirement. PG&E requests that the CAISO clarify how it will address this potential gap.

Finally, the CAISO should clarify how it will differentiate between resource solutions submitted within its request window process. The current structure would allow for the submission of a SATA resource and generation alternatives to transmission reliability issues. The CAISO notes in the request window that generation submissions will not establish a Generator Interconnection Procedure (GIP) queue position and must still submit an interconnection within that process. The CAISO should clarify how it will distinguish between a storage resource submitted as a SATA alternative and a storage resource submitted as a generation alternative to meet the reliability need.

Allocation to High or Low Voltage TAC

PG&E also notes CAISO's stated intent to maintain the current practice of allocating costs to high- or low-voltage TAC based on the point of interconnection. PG&E respectfully disagrees, as stated in previously filed comments, and again states that cost allocation based on the transmission need being addressed could be a better method for allocating costs.

TPP Planning Cycle and Cost Projecting

The relatively recent cost decline of energy storage technology has enabled energy companies and ISOs to consider novel applications of battery storage to defer or replace traditional transmission upgrades. PG&E agrees that long-term forecasting of maintenance and operation costs for SATA facilities is relatively difficult compared to traditional transmission and power generation assets. However, battery system integrators and manufacturers have been engaged in long-term contracts, in excess of 10 years, to ensure long-term performance and reliability of battery energy storage systems. When proposing SATA solutions as alternatives to traditional transmission upgrades, project sponsors must act prudently and engage with suppliers who are willing to provide SATA owners with upfront, Long-term Performance and Maintenance Agreements that include transparent cost terms and renewable service term lengths in alignment with an asset owner's obligation to provide reliable transmission, as required by the need.