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 16, 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.

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:

The Center for Renewables Integration team asks the ISO to define use cases where it expects that it will able to reasonable predict, either months, seasons or hours, in which a SATA can participate in markets. In the Straw Proposal, the ISO outlined three possible market participation scenarios: 1) unpredictable; 2) reasonably predictable months; 3) reasonably predictable hours. CRI requests that the ISO describe realistic transmission upgrade use cases where a storage asset could provide the needed transmission service, and explain how the ISO would specify time periods when the SATA could participate in the market, based on the technical performance required for the transmission service or other relevant factors.

CRI strongly supports enabling competition and innovation in transmission planning and operations, and increasing the number of companies that can participate in transmission planning, which is enabled by third party financing. With a few tweaks, we think that Option B (partial rate recovery) could encourage competition, while Option A (full rate recovery) does less so. As the ISO has noted itself, under Option A there are no compelling reasons for regulated PTOs to have a SATA asset participate in markets.

However, as we showed in our matrix submitted in CRI Straw Proposal comments, and repeated below for completeness, we believe that Option B only works when the market participation is reasonably predictable. Allowing third parties to predict when they will be able to participate in markets, or provide services under a bilateral agreement, will be the key to securing third party financing.

Given that it will take a significant amount of work to implement either, or both, Options, CRI asks the ISO to outline the use cases that will allow a SATA to participate in markets in either reasonably predictable months or hours. As evidenced in the comments submitted by some parties, there are those who are under the impression the ISO will never be able to predict, while others see that predictability as a basic premise of this initiative. Only the ISO can set this argument to rest and provide data to stakeholders who are operating under completely divergent sets of assumptions.

CRI Proposal	SATA is the most cost-effective solution at full cost, without market revenues	SATA requires market revenues to be most cost-effective solution
Transmission need allows for predictable market revenues	Case 1: SATA sponsor may choose Option A or B	Case 3: SATA sponsor must use Option B
No opportunity for predictable market revenues	Case 2: SATA sponsor must use Option A	Case 4: SATA solution is not selected

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:

The CRI team commends and thanks the ISO for working to develop a pro-forma SATA contract and agrees with the need to develop a new SATA contract, derived from multiple existing contracts. The pro-forma contract will be a critical deliverable from this stakeholder process and we appreciate the effort the ISO is going through to fast-track the development of a new contract.

CRI strongly disagrees with the premise that a SATA contract must be for a 40-year term and instead suggests a 10-year base contract with options to renew the contract for each of 3 successive 10 year terms. CRI understands that the ISO needs to compare an asset that has a 40-year life with another that has a 10-year life. However, putting the ISO in the position to predict replacement costs for energy storage assets 10, 20 and 30 years into the future, is difficult at best. While, on an NPV basis uncertainties in out-year replacement costs are minimized, the ISO may also want to consider other approaches that may more accurately reflect the cost and benefit of projects with two different life spans, such as the annual net present value or the replacement chain method.

Additionally, as the ISO has eloquently argued itself, at present the ISO finds itself having difficultly predicting future year load growth and expected load profile. In fact, this challenge predicting load growth shines a spotlight on the ISO making 40-year investment decisions and highlights the fact that the ISO should be making shorter-term investment decisions for ratepayers in the face of significant uncertainty. In this environment of load uncertainty, an argument could be made that instead of the

SATA being forced into 40-year contract structure in order to perform an "apples to apples" comparison between SATA and wires-based solution, the wires-based solution should be evaluated on a 10-year NPV.

CRI appreciates that the ISO is concerned about the possibility of a scenario where it has recommended a SATA, and in 10 to 20 years, due to high unpredicted load growth or change in load shape, it finds it needs to add a new transmission line on top of the SATA. CRI suggests that the ISO should be equally concerned about recommending a 40-year transmission line, and committing ratepayer funds, only to find the predicted load growth did not materialize. CRI argues the ISO should be looking for shorter-lived solutions in the present context of rapid industry change to mitigate the risk of stranded long-lived assets.

A 10-year contract with a requirement to renew and possibly renegotiate some terms of the contract 3 times, each time the asset is replaced, gives the ISO the ability to reassess the load growth and load profile, and redefine the reasonable probability during which the SATA will be needed to provide transmission services. Where significant changes in load growth or profile have occurred, the ISO may want to include options that allow it not to renew the contract, or renegotiate the size of the asset.

Simultaneously adding new financial tools, such as annual net present value or the replacement chain method, may also give the ISO better options for comparing short and long project life on an equitable basis.

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:

CRI thanks the ISO for the opportunity to present our ideas at the June workshop, and encourages the ISO to offer both Option A (full cost recovery) and B (partial cost recovery), with adjustments to improve the finance ability of Option B, encourage competition and minimize ratepayer risk. We summarize and reiterate the comments that were submitted previously:

CRI's proposal is designed around four exhaustive scenarios as shown in the table. The table specifies which of the ISO's two cost recovery options should be used in each scenario:

- Option A = guaranteed full cost recovery via ratebase
- Option B = partial cost recovery via ratebase.

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Additional elements of CRI proposal

1. We assume the ISO will provide clear information on the hours (days, months, etc.) when the SATA resource will be needed for transmission services, and when it will be allowed to participate in the ISO markets.
2. Where SATA requires market revenues to be preferred solution (case 3), ISO selects SATA only after TPP Phase 3 competitive solicitation against the transmission solution. In other cases (case 1 and 2) ISO can select SATA over transmission solution in TPP Phase 2. This allows SATA sponsors to determine expected non-TAC revenues, transferring the risk from ratepayers to SATA sponsors.
3. In all cases where market revenues are involved (where Option B is available), the risks of forecasting market revenues should be borne by the SATA sponsor, not by ratepayers.
   a. The SATA sponsor gets to keep all market revenues, with no offset to ratebase compensation.
   b. To obtain project financing, the SATA resource may earn revenues via bilateral contracts outside the ISO markets (e.g., resource adequacy capacity; energy), consistent with fully performing the required transmission services.
4. In all cases the SATA sponsor must commit to a cap on the cost it will recover from ratebase.
5. In a competitive solicitation, prospective SATA sponsors are expected to bid a cost cap as part of their proposal, to which they are contractually bound if selected.
6. A SATA project that is right-sized to meet a transmission need may install other equipment (e.g., solar PV) behind the same ISO meter, at the same POI, without triggering generator interconnection rules, as long as the other equipment does not alter key performance parameters (e.g., maximum power output, maximum power consumption).

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:

[Insert comments here]