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 initiative Straw Proposal that was published on May 18, 2018.

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.

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:

SDG&E believes the scope of the SATA initiative needs to be expanded to address two issues: (1) For storage that is selected by the CAISO to provide a transmission service, and which is owned by a CPUCjurisdictional load serving entity, what is the CPUC's role, if any, in evaluating the prudency with which the owner manages the storage device during periods when the device is permitted to participate in the market, and (2) the rationale for excluding from this initiative other types of generating sources that could also provide the CAISO with transmission services.

SDG&E does not support expanding the scope of this initiative to include consideration of storage for economic reasons or for public policy requirements. SDG&E believes the CAISO's existing Transmission Planning Process (TPP) already provides an opportunity for consideration of storage as an alternative to conventional transmission solutions. Additionally, there are numerous legislative mandates and CPUC initiatives (e.g., the Integrated Resource Planning (IRP) proceeding) that provide mechanisms under which storage can be considered, and, if found needed or cost-effective, constructed and compensated.

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:

As indicated by the CAISO, SDG&E believes the TPP is ultimately the appropriate venue for clarifying and determining how the forecast value of a prospective SATA's market participation would be determined by the CAISO. The TPP is also the appropriate venue for determining how this value would be incorporated into the CAISO's cost-effectiveness determinations relative to other potential transmission asset solutions, and for selecting winning SATA's in the CAISO's competitive process (for above 200 kV solutions).

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:

As discussed in SDG&E's initial comments, SDG&E believes creating a separate agreement to describe the rights and responsibilities of SATA is, administratively, the most practical path forward.

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:

CAISO's proposal to identify both the need and the opportunities for energy storage resources to participate in the market, will mean that CAISO will determine when the resource can provide market services and pay/receive market costs/revenues. SDG&E supports CAISO's proposal to notify an SATA that it can provide market services.

CAISO has also proposed that energy storage resources that are selected to address an identified transmission need will proceed as transmission projects and will not be required to go through CAISO's generator interconnection process. According to CAISO, these resources would be "right-sized" and would not have additional capability in excess of that which is needed to address the identified need.

While SDG&E understands that transmission assets are not required to go through the CAISO's generation interconnection process, SATA will, in most cases, be able to participate in CAISO markets during certain time periods. Additionally, SDG&E believes some SATA devices will want to install capacity over and above the "right-sized" amount, and this incremental capacity should be able to participate in CAISO markets. To ensure SATA resources do not create any reliability issues during market periods, SDG&E believes that the full capacity of these resources should go through CAISO's generation interconnection process. (See additional comments under the "Use Cases" heading.)

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:

Based on discussions at the May 24, 2018 stakeholder meeting regarding the limited net market revenues likely available from the market operation of storage resources, and considering the unknowns around the regulatory treatment of the net market revenues earned by storage owners during market periods, SDG&E has changed its initial position (SDG&E's initial position is discussed in its April 24, 2018 comments for this initiative).

SDG&E now believes alternative 1 is the most viable model for SATA. Alternative 1 puts capital cost recovery on equal basis with all other transmission assets; i.e., the asset receives full cost-of-service based cost recovery even though it may not be needed for transmission system reliability in all hours of the year (e.g., a transmission asset owner receives full cost-of-service based cost recovery for a transmission upgrade that mitigates a contingency-based overload that can arise only during the highest load hours of the year).

For FERC- and CPUC-regulated utilities owning SATA, the partial cost-of-service based cost recovery model has unknowns regarding the regulatory treatment of net market revenues earned during market periods. In particular, it is unknown whether, and for how long, the FERC and the CPUC would support utility shareholders retaining all net market revenues, especially if the net market revenues far exceeded what the CAISO assumed in its TPP analysis leading to the selection of the utility-owned SATA.

As has been acknowledged, alternative 1 raises concerns regarding the incentives owners of SATA would have to maximize net market revenues during market periods. SDG&E believes it is worth considering the proposal made at the May 24, 2018 stakeholder meeting by the representative from the California Wind Energy Association (CalWEA). As SDG&E understands the proposal, the owner of SATA would be able to retain 50% of the portion of net market revenues earned during market periods that exceeds what the CAISO assumed in its TPP analysis leading to the selection of the SATA. The remaining net market revenues would be credited against the TAC.

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:

SDG&E supports CAISO's proposal to maintain the current practice of allocating costs to high- or low-voltage TAC, based on the voltage at the point of interconnection.

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:

SDG&E agrees that the straw proposal is consistent with the FERC Policy Statement. The addition of new storage devices under SATA will tend to enhance overall market efficiency by increasing the amount of supply available during high price periods and by increasing the amount of load during low price periods.

As was noted during the May 24, 2018 stakeholder meeting, the CAISO already engages in many actions which have an effect on market results; i.e., "ISO independence" is not an absolute concept. For example, the substitution of the CAISO's forecast of loads in the Residual Unit Commitment (RUC) process for loads bid-in by Scheduling Coordinators, has a direct impact on market clearing prices. Likewise, CAISO public directives to cancel planned maintenance of generation and transmission facilities under certain condition s, can result in different market clearing prices than would be present were the maintenance carried out as planned.

Given the reality that CAISO actions do impact the market, and that the FERC has, so far, not found these actions to unduly compromise “ISO independence,” SDG&E does not believe CAISO control over SATA during defined reliability periods will give rise to serious “ISO independence” issues. It should be recognized, however, that CAISO control over SATA during defined reliability periods will impact market clearing prices, in both the charging mode and discharging mode. There was discussion at the May 24, 2018 stakeholder meeting whether the CAISO should make public its decisions to charge and discharge SATA during reliability periods. There are circumstances where the CAISO publicizes its market interventions, e.g., when it issues public directives to cancel planned maintenance of generation and transmission facilities under certain conditions. There are other circumstances where the CAISO does not make its interventions public, e.g., scheduling powers flow on the underwater DC bay cable, switching capacitor banks in or out of service in a particular area. SDG&E requests that the CAISO consider whether its decisions to charge and discharge SATA during reliability periods should be made public in time for market participants to respond to these decisions.

SDG&E also requests that the CAISO explain how it proposes to include in the CAISO market software, the CAISO decisions to charge and discharge SATA during reliability periods. Because charging and discharging adds load and supply at different times, and will affect grid power flows and therefore losses and potentially congestion, it is important that the CAISO’s decisions be reflected in the market software. One possibility is that the CAISO “self-schedules” the charging and discharging. The resulting settlements (charges and payments) would be debited/credited to the TAC.

At the May 24, 2018 stakeholder meeting the representative from Rosario Consulting Group indicated that similar actions by the CAISO today – CAISO dispatch of Reliability Must Run (RMR) – is given market effect by reducing the CAISO’s forecast of loads for the area. SDG&E believes this approach for dispatching SATA during reliability periods could produce inefficient prices.

<u>Use Cases</u>

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:

SDG&E believes it is likely that there will be instances where a prospective storage owner would want to size its facility larger than what the CAISO’s identified reliability need requires. Sizing a storage facility in excess of what is needed for grid reliability should be allowed. As stakeholders have observed, such sizing creates issues around the Generation Interconnection (GI) process within Appendix DD of the CAISO's Conformed Tariff, also known as the Generator Interconnection and Deliverability Allocation Procedures (GIDAP).

Additionally, interconnection of SATA could create reliability concerns during periods when the SATA is allowed to participate in the market. For these reasons, SDG&E suggests that a prospective storage owner that desires to size its facility larger than what the CAISO's identified reliability need requires, or which could be operating during non-reliability periods (which is likely most SATA facilities), be obligated to enter the CAISO queue for the entire amount of its installed capacity. However, the prospective storage owner would only be allowed to request Full Capacity Deliverability Status (FCDS) for the amount of installed capacity, if any, that exceeds what the CAISO's identified reliability need requires.

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:

SDG&E agrees that this initiative falls outside of the scope of the 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:

CESA submitted initial comments in this initiative on May 23, 2018. In its initial comments, CESA proposes to "settle" energy related to the operation of the storage asset during reliability periods as increased or decreased "energy losses." In effect, CESA proposes that there be no direct settlement with the CAISO of the charging and discharging energy needed to operate a SATA during reliability periods.

SDG&E does not support this proposal. The costs and revenues associated with the CAISO's operation of SATA during reliability periods should be explicit and transparent. This will provide an incentive for the CAISO to manage its charging and discharging activities efficiently.

SDG&E notes that the Transmission Access Charge (TAC) debiting/crediting mechanism contemplated by this initiative will require (i) that SATA owners record in FERC accounts the costs paid and revenues received for operation of the storage device during market periods, and (ii) that the CAISO similarly records in FERC accounts the costs paid and revenues received for operation of the SATA device during reliability periods. SDG&E believes this will require FERC to create new accounts in order that the high voltage and low voltage TAC appropriately reflect the variable operating costs and market revenues associated with operating SATA devices during market periods and reliability periods. SDG&E recommends that the CAISO work with the utilities and other stakeholders to identify the necessary accounting practices, and to seek approval thereto from the FERC.