Storage as a Transmission Asset

Stakeholder Comment Template

Submitted by	Company	Date Submitted
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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:

No Comments

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:

We have concerns with this proposal. As Calpine understands the proposal, the CAISO is converting a sunk cost (the TRR, which in large part is based on the historic capital cost of the storage device) into a variable cost. As "market bids" are awarded, the CAISO will assess a share of the TRR to the Storage Operator. The theory is that this incremental cost would then flow into energy / discharge bids and allow bid-cost recovery explicitly for fixed costs – an option unavailable for any other resource.

First, we are confused about the redundancy between TRR capital credits (accounting for equipment degradation due to market use) and the ongoing contractual obligations to maintain a full capacity availability requirement – which must certainly be part of the service contract.

More importantly, we are not convinced that this proposal resolves the matter it is designed to address – price suppression. While in theory, a TRR capital credit should influence bids, there is no

explicit requirement to do so, and still no clarification of what a reasonable marginal cost for a storage device might be, nor any discussion of the equivalent of a default energy bid. In fact the identification of these attributes may be intractable problem, especially for a BESS that is collecting a majority of its costs outside the market.

We continue to believe that if BESS is used as a transmission asset and its fixed costs are recovered outside the market, it should administratively bid into the energy market with a floor price and only be used as a last-gasp resource. An administrative floor price should be related to the hierarchy of transmission or ancillary services relaxation prices. One example for discharging might be that the unit would be bid for A/S at the bid cap of $250. If the owner seeks to bid energy, it could submit any price above $250, but below the bid cap/transmission relaxation prices. This proposal meets the intent of the FERC policy statement – allowing participation in markets, but with provisions that protect other market participants from price suppression.

On the other hand, if a BESS owner seeks to participate more broadly in markets, it may do so as an RA resource by successfully bidding into RFO solicitations.

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:

The ISO proposal seems reasonable from an operational standpoint. However, the revenue stream would not be bankable (financeable) and the DA markets may not reserve the BESS for the reliability purpose it was designed to meet.

Banks will generally require a predictable revenue stream that will meet individual project coverage ratios. The absence of transparency of CAISO models (with load bias, RUC adjustments, etc.) along with the "just in time" nature of DA, or DA+2, markets would render the expected revenues highly speculative – so speculative that the banks might conservatively assume it to be zero. Debt financing, if available at all, would be very costly.

More importantly, the DA market models may not preserve the BESS for its designed purpose. NERC transmission planning standards include many contingencies that are not modeled in the DA markets. These "deeper" contingencies (e.g., P-6) could often be the driving need for BESS investment. The ISO would be left with a difficult choice – not model the driving contingencies and run the risk that the BESS is discharged when needed, or model the contingencies, potentially raising the congestion costs for all hours.

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:

Option 2 appears to be not financeable.

Calpine is not convinced that Option 3 is necessary as the market motivations inherent in Option 3 are not required by, or even suggested by FEERC in their Policy Statement. Rather, the policy statement suggests that market participants should be allowed (not necessarily encouraged) to participate in markets for energy and ancillary services.

In addition, if the ratepayer's share of the revenues is less than 50 percent, this proposal could allow for double recovery of the BESS cost-of-service.

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 Comments

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:

See above. Calpine does not believe that the TRR proposal avoids price suppression and there is a chance of double recovery if Option 3 is accepted.

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:

Calpine continues to believe that SATA resources should be required to enter the interconnection queue. We disagree with the conclusion of the Revised Draft Proposal that "the issue is moot because the need for the SATA is determined in the transmission planning process which is in advance of the generation interconnection process."

First, the establishment of "need" in TPP is a non sequitur. The "need" identified in TPP is not a need for a SATA, it is a reliability need that could be met by any of several technologies.

Second, in the vernacular of the day, the TPP process allows storage resources to "front-run" the interconnection process. That is, a similarly situated generation (or storage) proposal must endure the roughly two year interconnection process, whereas a TPP SATA can be proposed and approved in roughly 6 months (from fall to spring).

Third, at its heart, the interconnection process is intended to ensure an orderly process in which newer resources are not allowed to negatively affect the deliverability of previously queued resources. Allowing SATA resources to interconnect without any analysis of the deliverability of previously queued resources is unduly preferential, unjust and unreasonable.

Finally, and most significant, a TPP SATA is by any other name, a capacity resource. Suggesting that it does not qualify for RA is misleading. SATA resources will in fact, reduce the amount of local RA that must be contracted in order to meet local reliability needs. Its full capacity may or may not be deliverable to load absent network upgrades—the kind of upgrades evaluated in the interconnection process, but not TPP.