

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:

National Grid supports and agrees with the overall proposed scope of this process. The proposed scope described in Section 5.1.1 of the Straw Proposal included three specific items for inclusion in the scope of this policy examination. National Grid comments in each area are as follows:

- 1) The contractual relationship with the SATA resource and the ISO. This deliverable is one of the most important products that can result from this review. National Grid believes that the relationship must also be expanded to include the relationship between the SATA resource, the ISO and a clear understanding of how the STA resource will interact with the marketplace
- 2) The determination of how the SATA resource can access the marketplace. In this area the SATA resource and CAISO market must be able to transparently work together to avoid double counting while allowing the SATA resource to capture market revenues to lower costs to ratepayers and provide market opportunities for project owners. At a minimum this mechanism must include protections to avoid double counting. To provide full transparency recommends a reporting structure similar to the outage management process when SATA resources are available for market operations.
- 3) The cost recovery mechanism. This area is critical to allow SATA resources to obtain financing and bring new facilities on line. The cost recovery mechanism must allocate costs to all beneficiaries of the SATA resource; and contractual arrangements must be in place to allocate any market revenues between the project owner/operator and those customers paying cost-of-service rates.

National Grid recommends establishment of a feedback loop with the TPP process to ensure that all of the economic benefits derived from this process are included in the TPP economic evaluation process. The Straw Proposal states in Section 5.1.2 that TPP evaluation methodologies are outside the scope of this proceeding. National Grid disagrees with this statement and, as stated above, believes that the rate base mechanisms with market credit are a new element to the economic review process for TPP and therefore should be included to ensure all of the economic benefits that result from the SATA process are included in the TPP economic evaluation. When market access is included in the TPP economic analysis the SATA project operator should have contract incentives to capture market revenue and pass them onto the ratepayer. To the extent that market revenue exceeds the revenue requirement established in the rate case, contractual provisions should allocate those revenues in excess of the

SATA's economic requirements. The SATA operator, likewise, should bear a portion of the burden of poor market performance.

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:

In Section 4.2.2, the Straw Proposal notes the CAISO has not included market revenue in its economic analysis in the TPP analysis process. National Grid recommends that after completion of this process the CAISO make adjustments in the TPP economic review to include market revenue forecasts and the potential to reimburse ratepayers the cost of these transmission assets. While the CAISO must be careful in considering potential market revenues in its planning decisions, failing to consider potential cost reduction mechanisms associated with SATA projects will skew the analysis towards new transmission line solutions to solve congestion and expose ratepayers to higher costs than necessary. To the extent that market forecasts are included in a SATA contract, the contracting mechanism must also provide incentives to the project owner to participate in the market to fully realize the cost-effective solution valued in the TPP process. The Straw Proposal notes that, to date, two projects have been approved for inclusion as SATA projects. National Grid agrees with previous comments that energy storage will become an increasingly important mechanism for California going forward as renewable energy goals increase with a corresponding decrease in reliance on fossil fuel assets.

National Grid recommends that as the California grid becomes increasingly reliant on regional transmission assets and regional support to provide reliability services, the TPP should consider regional SATA resources that can provide transmission reliability services to support CAISO grid reliability. Several projects in neighboring states that are interconnected with the CAISO grid may be well situated to provide transmission asset services even though they may not be geographically located within California's borders. The CAISO is currently performing a special study on how to increase capacity into California from the Pacific Northwest into the TPP process. This study should also include potential new SATA projects that can help CAISO achieve their goals.

National Grid believes that modern, off-stream, pumped storage projects will become an important replacement for the loss of conventional generation. To this end, TPP modeling should be reviewed and updated to reflect the full capability of new technology of this new generation of Pumped Storage and its potential for inclusion as SATA.

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:

National Grid agrees that a new agreement to cover SATA resources is required and that many elements of the listed existing agreement should be included in any new contractual agreement. The following areas should be included in new SATA contracts:

1. As stated above the primary role of the contract is for transmission services and as such provision of these services should be the primary function of the asset.
2. Participation in markets when the asset is not required should be allowed providing benefit to both the participant and the ratepayer by sharing revenue from market operations.
3. Performance requirements that reflect the economic evaluation process from the TPP.
4. Maintenance requirement standards to reflect the reliability needs for a transmission asset.
5. Transparency on dispatch by the CAISO for transmission purposes.
6. Accounting standards to ensure no double recovery and conformance with FERC policy on market participation while receiving rate base cost recovery.

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:

National Grid agrees with the CAISO that the transmission function for an approved SATA project must take priority over any market function. That said, the market function of the SATA resource should be a part of the full economic analysis in the TPP process as stated earlier and provide benefit to both the ratepayer and project owner. The potential for market revenue as a credit to the ratepayer should be an important part of the TPP economic analysis. The contract for any SATA project that includes market revenue in the economic analysis must also provide an incentive to the project owner to capture those market revenues and credit them back to the ratepayer if granted rate base cost recovery. This market operation must be transparent and the status of all SATA resources must be made clear to all market participants prior to market operations similar to the current outage management reporting.

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:

National Grid supports Option 1 - full cost-of-service cost recovery with energy market crediting. National Grid believes this approach would be best suited to allow for financing large, capital intensive, and long-lived assets like Pumped Storage projects. Providing a market credit mechanism that could lower the cost to provide transmission services to the ratepayer is clearly an important consideration in the evaluation of these projects for selection as a SATA project.

National Grid recommends that when market credits are included in the TPP economic analysis, these revenues should be included in the agreement between the SATA and CAISO. The project operator should be expected to participate in the market when the asset is not required by the ISO and those revenues credited to the ratepayers. Unreasonable market losses should not be included in the cost-of-service rates, however prudent market operations and operation at the direction of the CAISO should be included in the cost-of-service rate. To the extent that market revenue exceeds the modeled assumptions in the TPP analysis, those excess revenues should flow back to the project owner.

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:

National Grid believes that the overall policy for SATA resources should apply equally regardless of interconnection voltage.

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:

SATA resources will need to enter the market to provide services either during discharge or charging operation. Since it is unlikely that there will be a large number of these types of resources markets are unlikely to be affected by these operations. Nevertheless, because SATA resources will be market

participants, the governing rules will need to be clear on how SATA resources will participate in markets while responding to ISO dispatch for transmission services and during times when the SATA resource is not operational as a transmission asset. These rules should clearly describe how and when SATA resources can operate in markets; and these costs should be included in the rate base return for the SATA resource.

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:

Several hypothetical scenarios and configurations were discussed during the May 24 meeting, including configurations where only a portion of a larger project might be designated as a SATA resource. Where a SATA resource is part of a larger project that will share common facilities, the portion of the project not identified as a SATA resource should be able to independently operate in the market. National Grid supports this clarification. Pumped Storage projects are likely to have only a portion designated as SATA while the remainder of the project will be free to participate in capacity and energy markets. As more assets with common facilities are identified and placed into operation it will be important to establish parameters and expectations for the two separate operations.

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:

National Grid agrees that EIM is not part of this scope.

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: