

Storage as a Transmission Asset

Stakeholder Comment Template

Submitted by	Company	Date Submitted
Sandeep Arora (sarora@lspower.com)	LS Power	6-7-18

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.

LS Power supports CAISO's efforts in starting this new initiative in response to FERC policy statement. CAISO's Straw Proposal provides a good starting point for policy discussion on this topic. LS Power has some specific comments on the Straw Proposal as outlined below.

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:

LS Power suggests that the following should be added to the scope:

Storage resources that are currently in the interconnection queue, under construction or in operation should not be excluded from the scope for this initiative. Unless these resources are already fully contracted with a Load Serving Entity these may or may not be available for CAISO use. These resources can be just as effective in resolving reliability issues as a new resource and hence should be considered as a solution which could be selected for cost-of-service-based transmission service.

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:

LS Power understands CAISO’s concern about including distribution connected resources in this initiative. We completely support the fact that if a resource isn’t visible and can’t be controlled by CAISO this should not be considered as a SATA resource. We recommend CAISO to develop criteria to help define which Distribution connected resources can provide SATA services to CAISO.

Criteria may include all of the following: (a) Resource to sign Participating Generator & Load Agreements with CAISO, or similar SATA agreement as to be developed under this initiative (b) Resource has to be WDAT interconnection, cannot be Rule 21 (c) Resource can’t sell any portion of its product as retail, all of it has to be sold as wholesale into CAISO markets (d) resources that electrically connect on distribution or sub transmission side of the same substation where CAISO transmission jurisdiction starts and (e) resources above a certain MW threshold, such as 20 MW.

By allowing a subset of distribution resources into the mix while still addressing CAISO’s visibility and controllability concern will offer more competitive solution to CAISO and will avoid unintentionally discriminating against these resources.

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:

LS Power agrees with CAISO’s proposed approach in developing a new agreement for SATA resources. On the issue of operation of SATA resources by CAISO, we recommend CAISO provide clarification on the following items:

- (1) When CAISO is dispatching a storage resource for reliability reasons, this will have impact on markets and LMPs – how will CAISO notify market? Will CAISO require the Resource Owner to have bids in Day Ahead market & Real Time markets? Will CAISO’s dispatch be “out of market”? How will CAISO compensate generators impacted by “out of market” SATA dispatches?
- (2) Will CAISO only dispatch SATA for reliability? CAISO should define what is considered a reliability condition – can CAISO dispatch SATA resource to resolve any over generation issues? Can CAISO dispatch SATA resource to stay within Area Control Error (ACE)?

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:

LS Power supports Option 2 for Cost Recovery, as described in the next section. Comments below on Market Participation are based on the assumption that CAISO moves forward with Option 2. Market Participation for SATA resources is a key component of this Straw Proposal and is of utmost importance for Cost recovery Option 2. In general, LS Power believes CAISO should allow full market participation for SATA resources to the extent this doesn’t interfere with transmission asset functionality, and these resources should only be pulled out of market if CAISO sees a reliability need. Allowing more market participation will help meet the following objectives:

- (1) Keep the ratepayer costs down by allowing resources to generate more revenue from markets which would reduce the ratepayer TAC burden for SATA resources
- (2) Allow CAISO to maintain its “independence” and minimize the impact on markets by CAISO’s dispatch of SATA resources. The market revenue use case for these resources should be generally in line with CAISO grid reliability needs. As long as the CAISO market correctly captures the reliability constraints in terms of contingencies, nomograms and System Operating Limits, SATA resources should be optimized with all other resources and pre-dispatched in such a way that they can effectively resolve potential reliability constraints should a contingency occur. Allowing CAISO markets to make dispatch decisions for SATA resources will minimize the price impacts and allow CAISO to maintain independence.
- (3) Rather than prescribing hours/days ahead of time during which CAISO will control the output of SATA resources, CAISO should consider creating obligations for these resources to be available and have economic bids into the markets, similar to Must Offer Obligations that Resource Adequacy resources have in place today. Of course, CAISO should still keep the recall provisions, i.e. have ability to pull a resource off market and follow CAISO’s dispatch instructions should a reliability event require that. This is similar to how CAISO issues out of market instructions to Participating Generators as and when it sees the need.

Several issues that should be discussed in next iteration of this proposal:

- 1) Will there be a stated contract term, or length of time, the SATA will be expected to provide services (10 years, 20 years, etc.)?
- 2) If market participation shortens the useful life of the SATA and additional investment is required, such as to augment batteries etc., how will those investments be funded and recovered?
- 3) When the CAISO pulls a SATA resource out of market, will there be any settlement implications on SATA resources and if so, how will the resources be compensated for those?

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:

As CAISO describes, under Option 1 there are no incentives to SATA resource owners to generate market revenue if a resource is already guaranteed 100% cost recovery through TAC. While incentives could be potentially created under which a SATA resource gets a base return (equivalent to 100% TAC recovery) and an additional return (preferred return) if the project earns market revenues; implementation of an incentive rate structure will be challenging. Option 1 may also encourage gaming where a SATA resource proposal makes an assumption for higher market revenue and less reliance on TAC for the purpose of getting approval, but would have no obligation to earn the projected market revenues. Due to these concerns, at this time LS Power does not support Option 1.

Under Option 2, a SATA resource can only collect part of its cost recovery from TAC. For the other part, resource will need to rely on market revenues. While predicting market revenues will be challenging this can be managed as long as CAISO can develop some ground rules on estimating when a resource is available to operate in the market and when that resource has obligations to holdback energy for reliability purposes. Clear determination at the time of signing an agreement in regards to duration, frequency, time of day/month a SATA resource will be restricted from CAISO markets will help accurately project market revenues. This option will encourage more competition, incent the resource owners to actively participate in markets and earn revenues, as well as address the gaming concerns of Option 1. It will also lower cost to the ratepayers. LS Power supports Option 2 and encourages CAISO to have more discussion regarding rules for this option at the upcoming stakeholder meetings.

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:

LS Power disagrees with CAISO's proposal to use 200 kV as threshold to decide whether a SATA resource will go through Competitive Solicitation or not. A SATA resource may be connected below 200 kV but if it is resolving a transmission grid reliability need for the system 200 kV and above it should be sent for Competitive solicitation. Not doing so will discourage competition which will potentially cost the ratepayers. As an example, consider a reliability need that can be resolved by a 230 kV transmission project. By CAISO's current tariff rules, unless proposed project constitutes an upgrade to an existing transmission facility (which Incumbent PTOs are responsible for building), project goes for competitive solicitation. If a SATA resource connected to a voltage level below 200 kV can effectively resolve the reliability issue then this resource should be allowed to compete.

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:

LS Power generally agrees but would like to see more details on market participation rules and its impacts on the resource and the rest of the market.

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:

CAISO should clarify that it will allow oversizing of a storage project as long as separate CAISO Resource IDs can be created to meter SATA portion of a project from other uses. Consider a Resource owner developing a 300 MW storage project. If CAISO TPP makes a determination that 200 MW of storage at this location is an effective solution then the Resource Owner should be able to meter this 200 MW

separately from the remaining 100 MW and use it as a SATA resource, while the Resource Owner could market the other 100 MW separately.

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:

LS Power agrees.

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:

CAISO should clarify if SATA resources need to go through an Interconnection Study? If Generation Interconnection study is not required, will these projects need to go through Transmission Interconnection Study with the interconnecting utility? If SATA has already completed CAISO Generation Interconnection Study, can this be used in lieu of transmission interconnection study?