Comments of the California Energy Storage Alliance (CESA) On Storage as a Transmission Asset (SATA) Straw Proposal

Submitted by	Company	Date Submitted
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CESA appreciates the opportunity to submit comments on the Straw Proposal for the Storage as Transmission Asset (SATA) Initiative. CESA provides brief stand-alone comments as well as responses to the CAISO Comments-Response Template below.

I. CESA's Comments

A. CESA supports the direction and scope of the SATA proposal

CESA commends the California Independent System Operator (CAISO) for proactively responding to the Policy Statement issued by the Federal Energy Regulatory Commission (FERC) that affirmed that energy storage assets providing cost-based transmission services can also provide market-based services. This SATA thought-work sets CAISO up for reasonable implementation of SATA solutions with clear accounting treatment. In CESA's view, the CAISO is continuing its market and policy leadership in the nation and the world in effectuating FERC's policy guidance.

Overall, CESA believes that creating a framework to enable this dual utilization of an energy storage asset can generate efficient market outcomes and related ratepayer benefits by reducing the cost of transmission investments. To do so, the CAISO appropriately recognizes the non-zero value of market revenues that could be generated from an energy storage as transmission asset in this initiative.

B. <u>The Transmission Planning Process (TPP) should be realistic about costs of resources – it should reasonably estimate and include how market revenues of SATA resources reduce transmission cost-recovery amounts.</u>

Planning efforts are rarely perfect, but such processes should seek to reflect known or expect information where reasonable. Accordingly, a no-regrets enhancement to the CAISO's TPP is to include and update the cost-inputs for SATA resources by considering and reasonably forecasting market revenues. To always assume $0 in TAC reductions for SATA resources seems unrealistic, flawed, and inaccurate. In some cases, revenue projections can be made, even if conservatively, to inform TPP decisions. CESA strongly recommends the CAISO enhance the TPP to ensure ratepayer costs through the TAC are minimized. *Post nubes lux.*

C. <u>SATA approaches should liken periods of market participation from SATA resources to approved storage outages, e.g. these periods can be pre-approved and are *de rigeur.*</u>

SATA resources are beneficial in that they can reduce the TAC recovery amounts, reducing ratepayer costs while improving utilization of grid resources. CESA supports transmission agreements to broadly delineate terms and conditions for SATA resources. That said, SATA resources should not be unduly impaired, distrusted, or restricted to a degree that is unreasonable, based only on hypothetical conjecture, or that is counter-productive to rate-payer interests. CESA observes the special concern emerging about how SATA resources may *potentially choose* to abandon their transmission obligations and *potentially choose* to violate contract law and contracts that are valuable cost-of-service contracts.

CESA suggest a more neutral approach to exploring the operations and decisions of SATA resources. Specifically, the main issue at hand is that of 'unavailability' for transmission service. This issue, it turns out, is quite common amongst all transmission resources. It also must have come up through Reliability-Must Run (RMR) contracts. To fit the discussion of SATA resources with that of all transmission resources, CESA suggests the CAISO frame the market-participation periods as somewhat akin to 'outages'. Outages are *de riguer* with many transmission resources operating today and can be managed without risks to reliability in many cases.

CESA supports this type of framing so as to avoid overly restrictive approaches to SATAs, which may in fact stem from a sense of unease with transmission resources that may, at times, be slated to provide other purposes.

The outage angle isn't a perfect fit. CESA of course understands that outage planning is unique to traditional transmission resources and may not always align with the time-frames of some SATA decisions. That said, the long-standing practice of outages for transmission should ease any concerns that SATA resources could create reliability risks, etc.

D. <u>The TPP and SATA protocols should allow for any storage resources where appropriate, including existing resources, to serve as transmission and to have some TAC cost-recovery, so long as that resources is not providing RA.</u>

In some cases, already built energy storage may be well-suited and most cost-effective for providing transmission service. So long as a resource is clearly not providing RA, it makes sense for the TPP and SATA protocols to apply to these resources. This may be in the best interests to ratepayers. In some cases, CESA recognizes of course that the operations of existing energy storage systems are already reflected in TPP studies. However, the role of non-RA resources are uncertain, and, if appropriate, inexpensive transmission solutions could be pursued through contracts.

E. CESA supports application of SATA rules to any type of transmission project (reliability, economic, or policy), even if unlikely for some types.

CESA applauds the CAISO's willingness to expand SATA protocols to both economic and policy energy storage projects selected by the TPP. This regulatory approach is supported by the FERC policy statement. While CAISO sees the low likelihood of SATA storage solutions for some categories of transmission projects, the CAISO should avoid pre-exclusions which may lead to sub-optimal outcomes.

F. Oversizing of energy storage resources beyond the transmission need should be allowed, but rules should direct that the oversized capacity honor the interconnection queue line and study structure.

It is important to leverage the benefits of storage as transmission while also preserving functioning in the interconnection queue practices which are a core aspect of competitive practices for new generation development. Generally, generation resources should move through the queue process and resources should not unduly or unreasonably 'side-step' the queue if operating mainly as a generation resource. Storage developers invest much time and money in crafting projects, and these efforts rely on a level of predictability to CAISO interconnection processes. As such, SATA policies should not destabilize the queue-cluster approaches that are well developed.

Notwithstanding the above, CESA believes storage as transmission does not require participation in the queue, as it should be treated akin to other transmission resources which, while studied, have their own pathway for construction, energizing, and operations.

For over-sized resources that are capacity-differentiated to serve transmission and market functions, different resource IDs should be established for the Transmission component of the resource versus from the market component. The CPUC's ongoing multi-use applications workshop is developing protocols for differentiating station power and auxiliary loads for market versus for other functions.[1] The CAISO will need to apply such or similar protocols to other costs responsibilities for a capacity-differentiated resources. For the SATA resource component, the CAISO should also explore how to allocate costs between market and transmission domains.

[1] CAISO Tariff directs for the application of locally-determined auxiliary power protocols, including in Multi-use Applications.

II. CESA Responses to CAISO Comments-Response 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:

CESA supports this scope.

As part of this initiative, CESA supports an approach that seeks to provide opportunities through ratepayer savings (through SATAs) sooner rather than later. As such, CESA supports the application of these SATA protocols to not only reliability projects, but also to economic or policy projects where applicable. CESA also supports competition among storage solutions and so recommends a scope that supports both transmission-connected and distribution connected storage, where applicable. In the case of distribution-connected storage resources providing transmission service with cost-recovery through the TAC, CESA supports their eligibility for SATA protocols and recommends that these projects be presumed eligible so long as criteria, e.g. ISO visibility, are met. If allowing for participation paths for all types of storage ends up being problematic to the point of delaying SATA efforts, CESA suggests a phased approach, e.g. focus first on > 200 kV interconnected projects.

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 CESA understands it, the ISO's TPP does not factor in any expected revenues in a SATA resource evaluation. This initiative should therefore provide direction to the TPP in the form of estimating costs of storage resources. Specifically, this initiative should direct the TPP to evolve its approaches for estimating the costs of transmission solutions to estimate those costs *net of market revenues*. To do otherwise would be to potentially disadvantage certain resources to the detriment of ratepayers.

The CAISO should detail a schedule for developing and implementing this estimation process, likely focusing on 2018 timing. This matter is urgent. CESA recommends these estimation protocols be developed very soon so that participants in Storage as transmission and SATA projects can factor this information.

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:

The CAISO should pursue the most efficient path by which to have a viable agreement to stipulate terms of service for transmission resources. If a new agreement is developed, it should leverage contents from existing agreements in order to speed the process. Alternatively, if this process proves lengthy, the CAISO should leverage existing agreements near-term and could 'phase in' a new agreement later on, e.g. in a Phase 2 of this initiative. This phased approach ensures the benefits of SATA can manifest for ratepayers sooner rather than later.

With respect to a 'supremacy clause' to direct prioritization of transmission service, CESA recommends a review of the outage approval and planning process. As this extant process seems sufficient for determining and authorizing transmission to be unavailable, it may provide a helpful precedent for clarifying when resources can reasonably operate in the generation domain, rather than as transmission resources subject to ISO control.

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:

CESA appreciates the three types of transmissions needs and how such categorization informs the SATA status. CESA looks forward to further development of how such categories are defined – a critical exercise which should be prioritized in the next Straw Proposal. In cases where transmission needs reasonably preclude a resource being unavailable, CESA understands that the pursuit of market revenues may be unlikely. Again CESA seeks to understand how such resources are authorized for outages or maintenance, and to apply reasonably similar criteria if applicable to SATAs.

The CAISO should also endeavor to only update or change SATA operational periods with pre-determined frequency in most cases. Excessive and or overly frequent updates could render the partial

cost-of-service pathway as unworkable, ultimately eliminating the ratepayer benefits of SATAs. The CAISO should detail this process in this initiative too.

It may instead be helpful to think of the ability to change operations from a storage transmission resource as *an option* that other transmission resources don't have. Compare a SATA to a more traditional resource. In the case of a tradition resource, it is unable to change operations even as transmission system needs change over time, yet such a resource still receives a rate of return regardless of how grid conditions amplify or reduce the need for the resource. SATAs, by contrast, can provide *optionality* to evolve operations to meet needs. As such, this option value could be priced and potentially incorporated into the cost-recovery amount, or it may be plausible to not value the option but, in turn, to provide none or infrequent updates to the periods of transmission service.

Finally, CESA supports the selection of least-cost transmission solutions, even if such resources operate as 'transmission' for relatively brief periods of time. In some cases, this may be likely because transmission needs can be acute for predictable periods. The CAISO should not preclude least-cost solutions and should let the TPP select for least-cost solutions.

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.

CESA supports the development of both these paths. Each path has benefits and may be appropriate in some circumstance.

As a general principle, CESA supports competition and market designs that provide incentives for useful behavior, as such, it may be prudent to explore how Alternative 1 above can still include some incentive structure to drive profit-seeking behavior in periods of market participation. Additionally, subjecting all transmission projects to competition (where appropriate) is another approach by which the benefits of competition can be brought to bear.

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:

This seems appropriate.

It is also worth noting that some storage resources may be able to provide transmission service at both high and low voltages in some cases via a single project. As CESA understands it, transmission at higher voltage levels is eligible for competitive solicitations via FERC Order 1000 rules. Thus, where appropriate, CESA supports the application of high-voltage TAC structures to projects that may be serving in both high and low voltage needs so that competition (and its benefits) can be brought to bear to benefit ratepayers.

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:

CESA agrees that key aspects of FERC's policy statement are being met by the proposal.

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:

It is reasonable and efficient for multiple resources to use or share an interconnection point. The SATA protocols should accommodate this as well as cases where a storage transmission resource is oversized to act as a generation resource, a.k.a. a capacity-differentiated storage multi-use application. In the latter case, a reasonable share of connection costs should be directed towards the generation resource. The interconnection queue should inform the timing of activation of this part of the resource since this queue is important to the developer community and developer practices.

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:

No comment at this time

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:

No comment at this time.