

# 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 second revised straw proposal that was posted on October 16, 2018.



Submit comments to [InitiativeComments@CAISO.com](mailto:InitiativeComments@CAISO.com)

**Comments are due November 6, 2018 by 5:00pm**

The second revised straw proposal, posted on October 16, 2018, as well as the presentation discussed during the October 23, 2018 stakeholder meeting, may be found on the [Storage as a Transmission Asset](#) webpage.

Please provide your comments on the second revised straw proposal topics listed below, as well as any additional comments you wish to provide using this template.

The San Diego County Water Authority (Water Authority) and City of San Diego (City) appreciate the opportunity to provide comments and thank CAISO for its continued stakeholder engagement on Storage as a Transmission Asset (SATA).

### **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

Additionally, the ISO envisions two potential scenarios for option 1: Direct assigned SATA projects and 2) when the project sponsor bids into TPP phase 3 competitive solicitation process, selecting this option. The ISO has proposed the rules governing SATA bidding and cost recovery eligibility would differ slightly between these two scenarios. Please provide comments on these three options, including the two scenarios under option 1 and any other options the ISO has not identified.

**Comments:**

The view of the City with regard to the Second Revised Straw Proposal is informed by the City's public interest mission. In this case, the City's interest is to advance deployment of bulk energy storage technologies that will be needed in large and rapidly growing volumes in the coming decade as the State moves to a much higher fraction of renewable power.

The Water Authority and City are both public agencies that own and operate water assets, such as reservoirs. Maximizing the use of these water assets by exploring revenue-earning opportunities for energy storage projects, such as pumped energy storage, potentially helps public agencies like ours to lower water rates for ratepayers and at the same time help California meet its ambitious renewable energy goals. The ability to advance large-scale pumped energy storage projects from a public agency perspective is that public agencies need the ability to shift risk to the private sector to invest in these needed resources, so that rates for the public don't increase due to public funds being invested.

To help stabilize energy and water rates, the Water Authority and City encourage CAISO to create SATA incentives for the emergence of robust markets for the services that will be needed to ensure a reliable and affordable grid—an incentive that will exist only if there are opportunities for crediting and sharing of energy market revenues during periods when SATA projects are not providing essential transmission services. Revenues earned in those markets and shared with ratepayers will be beneficial to ratepayers and to public agencies that are already struggling to pay high fixed costs for the grid—a topic that will become increasingly important as Community Choice Aggregators (CCAs) and other new entities play a larger role in the California electricity system. Finally, the Water Authority and City as public agencies are interested in ensuring that there is a diversity of energy storage technologies—a diversity in battery chemistries, pumped energy storage and other bulk storage options—because many of the storage options, except for pumped energy storage, have not been deployed at sufficient scale and duration to understand their long-term viability.

Mindful of these public interest goals, the Water Authority and City strongly support Option 3: Full cost-of-service based cost recovery with partial market revenue sharing between the owner and ratepayers. The Water Authority and City also recommend planning approaches where CAISO could estimate plausible market revenues in the project evaluation and selection—crediting these estimated revenues towards overall project revenue requirements.

The Water Authority and City also want to stress that Option 2 will create an uneven playing field and should not be selected. This option will fail to create incentives for the robust development of energy markets because it includes no crediting. Additionally, incomplete cost-recovery will disadvantage large capital-intensive storage options, such as pumped energy storage.

Option 1, while it includes energy market crediting, does not envision a revenue sharing mechanism and will hinder market forces that encourage investors and public agencies to explore new strategies that can maximize future market revenues.

The Water Authority and City disagree with CAISO's statement that SATA resources interconnecting at less than 200 kV must be developed by the incumbent Participating Transmission Operator without consideration for competitive forces (Second Revised Straw Proposal at p. 15). The Water Authority and City believe that only the particulars of a potential SATA project, whose assessed transmission (reliability, economic and policy-based) benefits have been shown to outweigh its cost, may allow it to be developed without competition.

The Water Authority and City have no objections to CAISO's proposal to allow all of the project's market revenue to be subject to sharing with the project owner. However, the Water Authority and City believe that the project owner's share of the total market revenue (in percentage of market revenue) should be specified by the owner at the time of project proposal, within a CAISO pre-specified range.

The Water Authority and City also disagree with only allowing Option 2 projects to have their Transmission Revenue Requirement (TRR) adjusted based on their specified market revenue. The Water Authority and City suggest that both Option 1 and Option 3 projects should also be evaluated based on their TRR adjusted by market revenues, as estimated by CAISO, to maintain a level playing field. Failing to do so would unfairly disadvantage large-scale projects that require Option 1 or Option 3 by underestimating their ratepayer benefits.

### **Options in the event of insufficient qualified project sponsors**

The ISO proposal would require all SATA projects sponsors to also submit a full cost-of-service bid as described in option 1, above. This bid would to be used in instances when there is fewer than three qualified project sponsors.

Please state your organization's position as described in the Second Revised Straw Proposal (support, support with caveats or oppose). If you support with caveat or oppose, please further explain your position and include examples.

#### **Comments:**

The Water Authority and City do not believe that requiring three project sponsors will be beneficial to SATA resources because many projects due to their geography and complexity of organization will have just one project sponsor. The Water Authority and City think that if the right cost-recovery and market revenue sharing mechanisms are in place (Option 3) along with the right provisions

to ensure that market services are not bid below marginal cost, that requirements for minimum numbers of qualified project sponsors will not be needed and ratepayers' interests will be protected.

### **Contractual Arrangement**

The ISO proposes to establish defined three contract durations: 10, 20, and 40 years. Additionally, the ISO has eliminated its previously proposed TRR capital credit in favor of contractual requirements for maintenance of the resources.

Please provide comments on these two modifications to the ISO's proposal, stating your organization's position as described in the Second Revised Straw Proposal (support, support with caveats or oppose). If you support with caveat or oppose, please further explain your position and include examples.

#### **Comments:**

The Water Authority and City support the three defined contract durations of 10, 20, and 40 years because as stated by CAISO in the Second Revised Straw Proposal, these can be tailored to different technologies. In addition, the Water Authority and City support contractual arrangements for maintenance of SATA resources. Those arrangements for maintenance should reflect the reality that some bulk energy storage technologies have uncertain degradation at scale and thus require, until there is extensive operational experience by which to make assumptions, additional maintenance and reliability requirements.

The Water Authority and City also respectfully request that CAISO better clarify its methodology for side-by-side comparison and selection of SATA projects with different technologies and contract terms. It was unclear at the October 23, 2018 stakeholder meeting as to why CAISO wanted to reserve complete flexibility when selecting SATA resources. This approach could hinder the market, which seeks more certainty, and create an unnecessary reliance upon single anointed technologies. The Water Authority and City would like a better understanding of CAISO's broad approach for comparison and selection of SATA resources with diverse characteristics.

The Water Authority and City also suggest that CAISO use the projects' net benefit (calculated as NPV of gross benefit less market revenue adjusted revenue) requirement for the life of the project when comparing and selecting SATA projects with different technologies and contract terms.

### **Market Participation**

The ISO has proposed that a SATA resource will be provided notification regarding its ability to participate in the market prior to real-time market runs, but after the day-ahead market closes. The ISO will conduct a Load based SATA notification test to determine a SATA resource's eligibility to participate in the real-time market.

Please state your organization's position as described in the Second Revised Straw Proposal (support, support with caveats or oppose), including any alternative proposals. If you support with caveat or oppose, please further explain your position and include examples (please note that any alternative proposals should be specific and detailed).

**Comments:**

The Water Authority and City support CAISO's proposal to use the straightforward load level indicator for determining whether a SATA resource can participate in the market. However, the Water Authority and City disagree that this determination be made after the Day-Ahead market closes, because it will severely restrict a SATA resource's ability to generate market revenue and make it infeasible for a SATA resource to effectively offer its capability in providing both market or reliability services. The latter concern is relevant for pumped energy storage which may need a longer duration, depending on the system condition in the Day-Ahead timeframe, to get fully charged (or discharged) and be ready to provide reliability or market services. That longer duration should not be penalized since it creates storage options that will be beneficial as California shifts to more renewables, which will require larger and longer duration storage capabilities.

At the same time the Water Authority and City believe that short-term load forecasting is advanced sufficiently to allow an accurate load level forecast several hours before the Day-Ahead market closes. However, if CAISO is still concerned with the accuracy of load forecast before the Day-Ahead market close, it could add a safety margin to the forecasted load level when determining whether a SATA project can participate in the market.

**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 state your organization's position as described in the Second Revised Straw Proposal (support, support with caveats or oppose). If you support with caveat or oppose, please further explain your position and include examples. If you oppose, please clarify why and how the ISO might address this issue.

**Comments:**

The Water Authority and City agree that the Second Revised Straw Proposal is consistent with the FERC Policy Statement because it provides conformance on market participation while receiving rate-based cost recovery. The Water Authority and City believe that a mechanism for full cost recovery with partial market crediting, as outlined in Option 3, and that modifications to the Second Revised Straw Proposal as suggested in these comments, will keep the solution broadly consistent with the FERC Policy Statement; including avoidance of double recovery.

**Draft final proposal meeting or phone call**

The stakeholder meeting for the second revised straw lasted approximately 2.5 hours. As a result, the ISO requests stakeholder feedback regarding whether an in-person meeting is necessary for draft final

proposal or if a stakeholder phone call will allow the ISO to adequately address the remaining issues in the draft final proposal.

Please state your organization’s position as described in the Second Revised Straw Proposal (support, support with caveats or oppose). If you support with caveat or oppose, please further explain your position and include examples.

**Comments:**

The Water Authority and City support a stakeholder phone call to address the remaining issues in the draft final proposal.

**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:**

The Water Authority and City thank CAISO for its forward-thinking approach throughout this stakeholder process and look forward to continued engagement.