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California Independent System Operator
Board of Governors
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SUBJECT: Energy storage and distributed energy resources default energy bid proposal

Vistra Corporation ("Vistra") appreciates the opportunity to submit comments to the Board of Governors ("Board") on the energy storage and distributed energy resources default energy bid proposal ("storage DEB") on which CAISO management is asking the Board to decide at the December 17, 2020 meeting. This policy item is particularly relevant to Vistra as we provide 1,185 MW thermal generation capacity located in Moss Landing and Oakland and provide retail natural gas products to California consumers. In addition, Vistra is expanding our fleet to include battery energy storage systems at our Moss Landing and Oakland sites. Once these projects reach commercial operations in 2021, this will bring our total battery energy storage capacity to 436.25 MW/1,745 MWh. We continue to explore further battery energy storage expansion opportunities in California.

Our and other storage developers' actions further state progress towards its Assembly Bill 2514 storage mandate of 1,325 MW supporting renewable integration and grid reliability as well as Senate Bill 100 transition to a 100% clean energy by 2045. This effort as well as the separate hybrid resource effort previously brought to the Board are in recognition of the large amounts of additional storage expected to participate in CAISO markets. Over 230 additional projects, both stand alone and hybrid storage, totaling up to 48,559 MW currently are in the CAISO interconnection queue through cluster 12. There are additional storage projects being developed either through independent study processes or through cluster 13. Given the magnitude of the storage development it is essential that as these assets begin commercial operations that they can reflect operational needs through their energy offers and, if Board approves applying mitigation to storage resources, that the mitigated prices reasonably reflect expected cost of this operation.

Vistra is concerned that mitigation applied to storage assets if it results in over mitigation may restrict the ability of storage operators to manage the operational needs of these assets. We can appreciate the drivers behind the CAISO proposing to apply local market power mitigation to storage resources and have reached a point that we can live with CAISO subjecting storage resources to mitigation. However, we do not support Management's policy brought to the Board on December 17th because it would adopt a policy that exempts certain storage resources from exemption but not others and excludes certain costs under the storage DEB option.

In September CAISO updated its proposal to exempt from mitigation certain storage resources, small storage within a net buyer's portfolio. Practically, three months is insufficient to stakeholder a controversial policy item such as this. Further, the proposal does not include any discussion on whether mitigation will apply differently to stand-alone or hybrid storage. Our understanding is that the proposed policy would apply mitigation only to stand-alone storage resources greater than 5 MW if within a net buyer portfolio or stand-alone storage of any size within a net supplier's portfolio – exempting hybrid resources completely and small storage 5 MW or less within a net buyer's portfolio. This policy should be revised to make clear how mitigation would apply to both hybrid and stand-alone storage, including justifying any differential treatment.

We expect this proposal will face an uphill battle at FERC where the CAISO will need to support that its decision to exempt some storage resources and not others is not unduly discriminatory. Based on our experience, we think FERC is going to struggle with the questions this proposal raises, such as:

- Why the same size storage resource whether hybrid or stand-alone is treated differently,
- Why the same size conventional resource and storage resource are treated differently, and
- Why a 6 MW storage resources versus a 5 MW storage resource is treated differently.

CAISO provided the rationale that small resources may not have the ability to exercise market power, and that an inaccurate DEB could potentially be harmful to those resources. The exclusion of certain costs provides a practical example of how the proposal may result in inaccurate DEBs for all storage – not just small storage. We find CAISO's rationale does not sufficiently answer the questions that FERC will need to resolve to approve such a proposal. In fact, we believe these concerns, especially the argument that the storage DEB may not accurately value expected costs, is a signal that this proposal is not ready to be approved by the Board or filed at FERC.

An inaccurate DEB will harm any resource subject to mitigation, large or small, especially if frequently mitigated. Vistra shares the concern that resources if overly or inaccurately mitigated can be harmed and agrees that any approved policy should mitigate these risks to the extent possible for all storage resources regardless of size, owner, or configuration. Exempting certain types of storage, hybrid or small resources, is not an appropriate means to mitigate these risks since it leaves the remainder of storage assets exposed. It also allows for a structural advantage for exempted storage. The proposal raising these concerns indicates that the proposed storage DEB formulation is not sufficient to ensure that an inaccurate DEB will not harm mitigated resources.

Vistra agrees with the concerns raised that there is a risk of inaccurate storage DEB being applied. We raised in stakeholder comments on the storage DEB proposal that there are key components left out of the proposed formulation. We were disappointed CAISO did not address what we believe to be uncontroversial policy questions, such as not excluding certain costs under its storage DEB option. Specifically, the proposal excludes eligibility for adders available on top of the variable cost option under CAISO current Tariff and excludes Grid Management Charges from the storage DEB formulation.

First, CAISO proposal failed to propose a change to allow resources that elect storage DEB option to pursue an opportunity cost adder to the storage DEB for use-limitations longer than a day. The ability for use-limited resources to seek to establish an opportunity cost adder was approved by the Board in its March 2016 decision on commitment cost bidding improvements[1]. Importantly, the Board approved its revised motion on the commitment cost bidding improvements proposal in part based on Management's commitment to design an opportunity cost (or equivalent) methodology for commitment costs for demand response and storage through an ongoing stakeholder process. While the project focused on commitment costs for storage because only the commitment costs for storage-backed demand response are mitigate, under this proposal the mitigation is applied only to the energy offers. The policy approved also allowed for variable energy opportunity costs to be reflected in the mitigated bid as an adder to the variable cost option. For storage-backed demand response, Management fulfilled its commitment to allow storage under that participation model to pursue an opportunity cost adder for long-term use limitations. CAISO staff has not incorporated our feedback to include in its storage DEB policy changes to its rules to allow storage resources under the non-generator resource participation model that elect the storage DEB option to seek to establish an opportunity cost adder for long-term use limitations consistent with the intent of the Board approval in March 2016. If a non-generator resource can successfully meet the CAISO requirements for registering as use limited and the CAISO can calculate an opportunity cost for that registered limitation it would be inappropriate to exclude the adder from the storage DEB option.

Second, CAISO proposal failed to include necessary changes to allow resources electing the storage DEB that meets criteria for a Frequently Mitigated Unit to have its mitigated bid include the Frequently Mitigated Unit (FMU) adder approved by the Board in October 2005[2]. The FMU adder is currently eligible for frequently mitigated units that elect the variable cost option to address over-mitigation concerns and risks of mitigation to inaccurate DEBs. By adopting a policy that includes the ability to also have a Frequently Mitigated Unit adder on top of the storage DEB, the CAISO can ensure that all frequently mitigated storage resources can have access to

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[1] http://www.caiso.com/Documents/Decision_CommitmentCostBiddingImprovementsProposal-RevisedMotion-Mar2016.pdf

[2] https://www.caiso.com/Documents/N-1-October12_2005MemorandumonMRTUIssuesResolutionfromAnjaliSheffrinandLorenzoKristov-CAISOBoard-Governors.pdf

this existing risk tool. By extending eligibility to include a FMU adder on top of the storage DEB, the CAISO can alleviate concerns with over-mitigating, including through inaccurate DEBs, small storage. Similarly, it would be inappropriate to exclude the adder from the storage DEB option.

Third, the CAISO failed to include in the storage DEB formulation CAISO Grid Management Charges that both CAISO and the market participant know with certainty to be incurred by storage resources. These charges are the direct result of market participation and are expected to be incurred when both charging and discharging. It would also be inappropriate to exclude these costs from the storage DEB formulation.

The exclusions of these uncontroversial, previously approved components to the mitigated bid as well as failure to provide sufficient justification for exempting certain resources highlight that the proposal has not been sufficiently developed or stakeholdered. We believe this signals that the proposal is not ready for approval. Effectively integrating storage resources to support California's environmental and clean energy goals is vital to the success of storage deployment. However, prematurely adopting a policy that could result in undervaluing these resources would undermine this success.

Vistra respectfully urges the Board of Governors to delay its decision on energy storage and distributed energy resources default energy bid proposal to allow CAISO to continue developing the proposal, including responding to and addressing stakeholder concerns. Vistra appreciates the Board's time and consideration.

Sincerely,

Cathleen Colbert

Director, CAISO Market Policy