INDEPENDENT ENERGY PRODUCERS

To: **CAISO**

From: **Steven Kelly**
Policy Director

Date: **April 20, 2018**
RE: **Storage as a Transmission Asset: Issue Paper**

The Independent Energy Producers Association (IEP) provides the following comments on the CAISO Issue Paper: Storage as a Transmission Asset (Issue Paper). IEP represents non-utility, independent power producers (thermal, renewables) many of whom are engaged in developing storage assets to serve California. IEP appreciates that the Issue Paper is designed to engender discussion broadly, recognizing that the discussion of the myriad technical and implementation details to implement this vision will be considered in the future as necessary. First, IEP addresses the multiple principles that should guide the CAISO's discussion on this matter. Second, we discuss various policy matters of concern. Finally, we pose the practical question: are the marginal benefits derived from lower wholesale market clearing prices (or, alternatively, lower TPP capacity costs) warranted in light of the inherent design complexities and risks to CAISO independence?

I. Principles To Guide Consideration of Storage as a Transmission Asset

a. Federal Energy Regulatory Commission (FERC) Guiding Principles.

In its recent Policy Statement regarding the utilization of electric storage resources for multiple services, the FERC sought to provide guidance on the extent to which electric storage resources may concurrently recover costs through both cost-based and market-

based rates.[1] The FERC recognizes that an electric storage resource receiving cost-based rate recovery may be technically capable of providing other market-based rate services.[2] Yet, the FERC also made clear that the decision to enable storage resources to access concurrently cost-based and market-based rates is a matter of policy.[3] In effect, ISOs and RTOs have discretion to pursue this path.

If an ISO or RTO pursues this path, the FERC also clarified that the mechanism for enabling resources to concurrently access cost-based and market-based rates must avoid double recovery of costs; it must not inappropriately suppress competitive prices in wholesale markets to the detriment of other competitors; and it must not jeopardize ISO/RTO independence as a function of operational control by the ISO/RTO under a cost-based regime.[4]

The Issue Paper posits an additional guiding principle, namely, that the resource must be competitive with transmission.[5] However, IEP finds no comparable guiding principle in the FERC Policy Statement. Accordingly, while IEP notes that this is a factor in the CAISO's Transmission Planning Process (TPP), whether a storage resource is actually cost-competitive with transmission is not a principled constraint on enabling storage resources to access concurrently cost-based and market-based rates. In the absence of clear mechanisms and evaluation tools for assessing the cost-effectiveness of storage versus transmission assets, imposing a principle such as "cost effectiveness" in the TPP by which the CAISO evaluates storage may be litigious and delay needed infrastructure investment.

Finally, the CAISO remains subject to the general principle of ensuring comparable, non-discriminatory treatment of all resources. In this regard, to the extent that other

[1] *Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Rate Recovery*, 158 FERC 61,051, Issued January 19, 2017.
[2] Ibid, p. 9
[3] Ibid, p. 11 While the Policy Statement was directed toward storage resources technically capable of concurrently receiving cost-based rate recovery as well as market-based rate recovery, presumably this principle will apply to any resource technically capable of doing the same in order to ensure comparable, non-discriminatory treatment.
[4] Ibid, p. 11
[5] Storage as a Transmission Asset, CAISO Issue Paper, (Issued March 30, 2018), p. 7

non-storage resources are technically capable of concurrently providing cost-based and market-based services akin to storage resources, presumably these resources also will be afforded the same treatment as that afforded the storage resources. Certainly, storage is not unique in having the capacity to provide transmission services, resource adequacy (RA) services, and energy services "concurrently" over an hourly, daily, monthly, annual timeframe depending on the definition of "concurrently" and the duration over which it applies.

b. IEP Recommended Additional Principle: Do No Harm.

As the CAISO considers the policy of enabling storage (and comparably situated resources) to concurrently access cost-based and market-based rates, IEP recommends that the CAISO pursue this matter guided by the principle of "do not harm" to existing CAISO markets. While FERC has delegated the policy discretion over this matter to the CAISO, it is noteworthy that the FERC Policy Statement is simply that, i.e. a policy statement providing guidance to ISOs/RTOs regarding the potential treatment of storage resources technically capable of concurrently benefiting from cost-based and market-based rates. The FERC Policy Statement is not a requirement or a mandate. Thus, the potential marginal market benefits of enabling cost-of-service resources to engage concurrently in energy and/or capacity markets alluded to in the Issue Paper must be weighed against market impacts ("adverse market impacts") and non-market impacts: e.g. impacts on CAISO independence, impacts on the *perception of* CAISO independence; and, finally, impacts on non-CAISO wholesale markets (e.g. resource adequacy, Renewable Portfolio Standard, etc.).

II. Policy Issues of Concern

a. CAISO Independence.

In regards to the CAISO adopting a policy enabling any resource, including storage, to concurrently access cost-based and market-based rates, the CAISO must avoid the perception of a conflict of interest. The obvious risk is that the CAISO will be procuring resources through its Transmission Planning Process (TPP) that directly impact business decisions and market outcomes. If the resources procured by the CAISO fall under the operational control of the CAISO, then the CAISO is an active market participant not only in its own markets but potentially in secondary markets including bilateral markets. As noted in the Issue Paper,[6] it is not immediately clear how this will be accomplished such that the CAISO retains the perception and reality of market independence. Irrespective of whether adoption of this proposal undermines CAISO independence as defined, the CAISO must also consider the extent to which CAISO procurement and operational control undermines the perception of CAISO independence among policymakers and stakeholders. At the end of the day, the perception of CAISO independence may be more important than the actual fact of independence.

b. Impact on Markets (CAISO Markets, Bilateral Capacity Markets)

While the FERC Policy Statement recognized that in some circumstances storage resources exhibit the technical capabilities to recover costs concurrently through cost-based and market-based rates, the FERC did so with the proviso that cost-recovery through cost-based rates may not suppress competitive prices in the wholesale markets inappropriately.[7] It is hard to envision a situation in which a resource that is receiving cost recovery in whole or in part from cost-based rates under the CAISO proposal would not suppress competitive prices in any wholesale markets in which it engages, including bilateral capacity markets.

---

[6] Ibid, p. 13

[7] *Utilization of Electric Storage Resources*…., (FERC), p. 11

Finally, The CAISO needs to address what would constitute an appropriate level of price suppression in competitive markets. Certainly, the risk exists that resources afforded cost-based rates via TPP procurement will be positioned to suppress competitive prices in wholesale markets absent any market protections. Similarly, the risk exists that these entities will be positioned to "game" bids in otherwise competitive wholesale markets. The FERC Policy Statement necessitates that the CAISO address this risk and what, if any, remediation would be imposed to mitigate the occurrence of price suppression in competitive wholesale markets.

c. Impact on Existing State Planning/Procurement Model.

Some of the transmission services contemplated to be procured via the TPP includes voltage support, thermal overload protection, etc. To what extent are these resources in competition with the bilateral capacity markets that service resource adequacy requirements in California? The CAISO proposal should address the impact of the CAISO proposal on competitive, bilateral capacity markets that are the foundation for ensuring resource adequacy in California.

III. Risks Weighted Against Marginal Economic Value

The CAISO proposal to enable cost-based transmission assets to concurrently participate in competitive wholesale energy markets raises a host of complexities and risks as noted in the Issue Paper. Among the known complexities and risks, IEP highlights the following:

- **Rules and policies to determine how to reconcile multiple revenue streams against the cost of the storage resource ("revenue netting") (Issue Paper, p. 10).**
- **Rules to Ensure "no negative consequences to CAISO markets" (Issue Paper, p. 10).**
- **Clear delineation between transmission and generation assets. (Issue Paper, p. 11)**

- **Assessment of resource participation in competitive markets and assessing financial risks. (Issue Paper, p. 12)**

As FERC indicated in its Policy Statement, it is not sufficient that the CAISO show that resources such as storage are technically capable of recovering their revenues concurrently through cost-based and market-based rates; rather, the CAISO must also address the impact of the proposal in light of a number of potential adverse market impacts including reasonable independence of ISO/RTOs from market participants.[8] Each of the issues presented above requires special consideration as the CAISO proposal evolves. Each question goes to the perception of transparency, comparable non-discriminatory treatment, and independent system operation. The existing CAISO Tariff has been deemed just and reasonable. Changes will need to pass a similar test of just and reasonableness in light of all the guiding principles established by the FERC.

In summary, as the old adage goes: "Just because you can, doesn't mean you should." In light of the very real risk of undermining the perception (if not actual) CAISO independence, is there a compelling need to change the CAISO tariff to enable resources the opportunity to receive cost-based rate recovery concurrently with market-based rate recovery if they are technically capable of doing so? As noted by the CAISO, the 2017-2018 TPP is evidence that storage resources are viable when competing against transmission in the TPP as it exists today. Moreover, the evidence suggests that the California Public Utility Commission (CPUC) storage program is incenting at least 1800 MWs of storage outside of the TPP planning/development process.

IEP supports the proper deployment of storage resources. Yet, as noted in the Issue Paper and in IEP's comments above, the proposal to enable storage resources to

[8] Ibid, Summary, p. 1

concurrently receive cost-based rates and market-based rates raises a host of complexities, risks, and associated concerns. Accordingly, IEP urges the CAISO to first consider the value-added of such change (i.e. the marginal utility of the proposal) in light of the down-side risk; and, if the determination is that there is marginal utility in moving forward, then delve much more deeply into the specific details to address the known complexities.

IEP also recommends that the CAISO conduct its review of the merits of its proposal with a focus on the evaluation process the CAISO employs in the TPP to determine new transmission investment. It may be the case that energy storage can provide unique services that are not properly valued in the modeling within the existing tariff. For example, the ability to integrate both load and generation from one resource and have that resource respond directly to the capability of the transmission systems available capacity seems to be a huge benefit for the system. Similarly, a transmission line may be fully loaded for only a few hours of the day but by using energy storage that line can safely be managed well below its rated capacity resulting in greater resiliency and better use of existing resources. Stakeholders will need to understand better how the CAISO does its analysis to determine which projects, storage or otherwise, would be eligible to receive cost-based rate recovery and/or market-based rate recovery.