

## Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments in the Energy Storage Interconnection stakeholder initiative.

Submit comments to [EnergyStorage@caiso.com](mailto:EnergyStorage@caiso.com)

[Comments are due April 14, 2014 by 5:00pm](#)

Brookfield appreciates the opportunity to submit comments specific to storage and the interconnection process. Our comments are focused on concerns with the proposed bifurcated treatment of load and generation in the interconnection study process and market pricing.

**[Issues/questions of more immediate concern relating to the submission of interconnection requests in the Cluster 7 application window:](#)**

Brookfield has no comments specific to the Cluster 7 window.

**[Policy issues that may require more comprehensive examination through this initiative:](#)**

Historically the CAISO has treated storage in the interconnection queue like a generator. The CAISO's proposal to separate the analysis of load and generation in the interconnection study process as well as potentially expose the load side of storage to retail rates is problematic for the following reasons:

1) Studies

The CAISO's proposed separation of storage interconnection studies into generation interconnection studies under CAISO direction and load interconnection studies under PTO direction has the potential to complicate and introduce inconsistencies into the interconnection study process. While elements of the studies can be delegate to the PTO's where it makes sense as it is done today, the studies should remain under CAISO direction and tariff for both load and generation. Clearly storage (including pumped storage) has the potential to defer and mitigate transmission upgrades which would be missed if it were looked at as both generation and separately as load.

## 2) Resource Adequacy

Storage can offer a broad range of needed products and services to the electric grid that are key to addressing California's energy challenges post 2020 which was the key purpose behind the recent CPUC Storage Proceeding Decision. If storage charging is dealt with separately as 'load,' then existing rules could require an LSE to procure resource adequacy capacity to cover the load which is counter to the intended function and resulting market benefits provided by transmission-connected storage.

## 3) Pricing

The CAISO stated on the stakeholder call that they could not confirm whether or not the load side of grid connected storage will be charged retail rates. The proposal to pay wholesale prices on the generation side of storage and charging retail rates on the load side of storage is very concerning. This pricing structure would negatively impact the economics of new storage projects and is not consistent with how storage is being priced today in the CAISO markets.

- Pumped storage hydro is charged and paid the applicable LMP at its location and is not exposed to retail rates.
- Pumping load in the CAISO market is appropriately modeled as participating load.
- Storage participating in Regulation Energy Management operates within the CAISO's non-generator resource model which enables energy storage and load resources to participate through both output and consumption operating modes. These resources are paid/charged the 5-minute LMP.

Brookfield understands that pricing topic is out of scope for the interconnection process but it is critical this issue be addressed prior to applicants being required to make larger financial commitments through the interconnection process. Considering the increasing numbers of storage projects that will be contracted and enter into the interconnection queue over the next few years, this should be a high priority issue for the CAISO to address.