

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Pursuant to Assembly Bill
2514 to Consider the Adoption of Procurement Targets
for Viable and Cost-Effective Energy Storage Systems.

R. 10-12-007
(Filed December 16, 2010)

**REPLY COMMENTS OF CALPINE
CORPORATION ON ASSIGNED COMMISSIONER'S
RULING PROPOSING STORAGE PROCUREMENT TARGETS**

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Pursuant to the *Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting* issued on June 10, 2013 ("ACR"), Calpine Corporation ("Calpine") provides the following reply to opening comments addressing storage procurement issues outlined in the ACR. For the reasons discussed below and in Calpine's opening comments, the Commission should *not* mandate specific procurement targets or include storage in the state's Energy Loading Order.

I. STORAGE PROCUREMENT MANDATES ARE NOT JUSTIFIED

The opening comments of the California Energy Storage Association ("CESA"),¹ the Sierra Club California and the California Environmental Justice Alliance ("Sierra Club/CEJA"),² and Megawatt Storage Farms ("MegaWatt")³ recommend procurement mandates for storage that are higher than the targets proposed in the ACR. As Calpine explained in its opening comments, procurement mandates that, at a minimum, do not include appropriate "off ramps" in instances where storage is shown not to be cost-effective are inconsistent with state law and established least-cost/best-fit procurement practices.

¹ CESA Opening Comments at 6.

² Sierra Club/CEJA Opening Comments at 12.

³ MegaWatt Comments at 6.

Storage should be procured only when it is determined to be the least-cost/best-fit solution to a well-defined need, such as the needs identified in the Long-Term Planning and Procurement proceedings. Given that storage has not yet proven to be cost-effective, Calpine agrees with the Division of Ratepayers Advocates (“DRA”) that, to ensure least-cost/best-fit procurement takes place, storage must be compared to other resource options either in all-source solicitations or through participation in competitive wholesale markets:

The Commission should not adopt targets without further analysis of whether storage is the only option that can serve certain identified grid functions, as the ACR appears to assume. Certainly, there is no determination that the ACR’s targets are “appropriate.” Further, it is unclear why the ACR finds that storage should be involved in an auction that does not include other options, rather than in an all-source Request for Offers (RFO) that allows storage to compete on an equal footing with other energy sources and grid support. The RFOs would be based on need, location and purpose as determined in the Long Term Procurement (LTPP) and Resource Adequacy (RA) proceedings. There appears to be no provision in the ACR that will ensure that the right types of storage are procured in areas where they are necessary or needed.⁴

Similarly, Calpine shares the reservations noted by California Wind Energy Association (“CalWEA”) regarding storage procurement mandates in the absence of compelling need:

[T]here is currently no identified need for services that storage could address in the 2020 timeframe (for which procurement has not already been authorized) that would justify the potentially significant cost of 1,300 MW of emerging storage technologies, for which cost-effectiveness models are still being developed.⁵

Given cost-effectiveness concerns and the lack of any identifiable need, a storage procurement mandate is simply not justified.

⁴ DRA Opening Comments at 1-2.

⁵ CalWEA Comments at 3.

II. STORAGE SHOULD NOT BE INCLUDED IN THE STATE’S LOADING ORDER

A number of parties renew their calls for inclusion of storage in the Loading Order.⁶

Such assertions, however, mistakenly presuppose that the procurement of storage should be a goal in and of itself without regard to need, cost-effectiveness, or compelling policy justification.

Accordingly, Calpine agrees with the Center for Energy Efficiency and Renewable Technologies (“CEERT”) that the inclusion of storage in the Loading Order is unwarranted:

[T]he fundamentals of the [ACR] certainly appear to be less rigorous than required for Loading Order resources, for which procurement does not take place *unless* the resource meets specific eligibility criteria and is cost-effective or cost-competitive. CEERT notes, in particular, that the “guiding principles” that have been used, as an example, for RPS procurement mechanisms *including* Renewable Auction Mechanism (RAM), which is used as a basis for the Proposal here, follow that very approach. Namely, “guiding principles” start with requiring the resource to be subject to cost limitations and to provide “maximum value” to ratepayers and the utility.⁷

Instead, storage should be considered as one of many potential tools to be used to help meet state policy goals, such as integrating renewables. As CalWEA states:

[V]arious tools have historically been called upon, and remain available, to increase the efficiency of grid operations and enable greater use of variable generation, including shifting power from periods of low to high demand, providing flexible response and load-following capability that base load plants are unable to provide, and providing ancillary services. These other tools include power markets, reserve sharing pools, conventional power plants including pumped hydro storage, limited curtailment of certain renewable resources, demand-response resources, and improved load forecasting The cost of storage needs to be compared to the alternatives, including the efficiency losses in the storage process that may be avoided by using other enabling resources.⁸

⁶ See e.g., CESA Opening Comments at 4, MegaWatt Opening Comments at 7.

⁷ CEERT Opening Comments at 4 (emphasis in original)(footnote omitted).

⁸ CalWEA Opening Comments at 7.

Without a demonstration that storage is cost-effective and has benefits above and beyond those associated with facilitating other state policy goals, such as broader deployment of renewables, the Commission should not include storage in the Loading Order.

Respectfully submitted,

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