

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 THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
ON THE ASSIGNED COMMISSIONER'S RULING PROPOSAL**

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The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Reply Comments on the Assigned Commissioner’s Ruling Proposing Storage Procurement Targets and Mechanisms (ACR). The ACR was issued in Rulemaking (R.) 10-12-007 on June 10, 2013, with an All-Party Meeting with Assigned Commissioner Peterman scheduled and held on June 25, 2013. These Reply Comments are timely filed and served pursuant to the ACR and the Commission’s Rules of Practice and Procedure.

**I.
MULTIPLE PARTIES HAVE EMPHASIZED THE IMPORTANCE OF
DISTINGUISHING BETWEEN STORAGE AND RENEWABLE GENERATION
RESOURCES IN TERMS OF RPS AND LOADING ORDER COMPLIANCE.**

As CEERT made clear in its Opening Comments, CEERT is “very supportive of energy storage that is technically and cost-effectively capable of *furthering* the Loading Order preferred resources, such as renewable generation,” and Renewable Portfolio Standard (RPS) compliance.¹ However, as other parties have also indicated in their Opening Comments on the ACR proposed targeted energy storage procurement, energy storage by itself is not a generation resource nor is it a preferred resource in the Commission’s Loading Order.² These are distinctions with a

¹ CEERT Opening Comments, at p. 3.

² CEERT Opening Comments, at pp. 3-5.

difference that must inform how the Commission decides to proceed to advance energy storage procurement.

Thus, as the Green Power Institute (GPI) states in its Opening Comments, “storage is fundamentally different than generation, and we believe that there are instances in which the optimal policy for encouraging storage can only be identified by allowing storage to be treated differently than generation.”³ Further, the Independent Energy Producers Association (IEP) correctly notes that “[s]torage resources do not create renewable energy”⁴ and:

“To the extent that the Commission authorizes storage uses outside of an RPS procurement mechanism, it is possible, and perhaps likely, that storage resources will simply move system power from one delivery period to another. This type of storage program, not linked to the procurement of renewable energy, will function in parallel to the RPS program, rather than being integrated into the RPS program.”⁵

Both IEP and the Division of Ratepayer Advocates (DRA) have noted, however, that “storage” or “storage capabilities” procured by the IOUs pursuant to “other resource-specific solicitations” or “along with renewables in their RPS programs” can count toward the ACR’s proposed storage targets here.⁶ However, for purposes of a storage “technology” counting toward *RPS compliance*, RPS eligibility is determined by the California Energy Commission. In its most recent version of its governing RPS Eligibility Guidebook, the CEC states the following with respect to energy storage:

“There are a wide variety of energy storage technologies. None of these technologies are inherently renewable as they are not dependent on the use of a renewable energy resource. However, energy storage technologies can be used to store energy from a renewable energy resource to produce electricity at a later

³ GPI Opening Comments, at p. 1.

⁴ IEP Opening Comments, at p. 10.

⁵ IEP Opening Comments, at pp. 10-11.

⁶ IEP Opening Comments, at pp. 10-11; DRA Opening Comments, at p. 8.

time. In such cases the *resulting electricity* may be eligible to produce RECs [renewable energy credits].”⁷

Thus, RPS compliance excludes technologies that “do not generate electricity from a renewable energy resource or directly store energy from a renewable energy resource for delivery of electricity at a later time.”⁸ In fact, the requirement to produce electricity from an eligible renewable energy resource places a premium on pumped hydroelectric, that has long been recognized as a source of RPS-eligible electricity⁹ and certainly should be included among the storage technologies targeted by the ACR’s proposed procurement, as discussed further below.

Finally, while there is value in storage technologies serving to enhance or facilitate RPS or Loading Order compliance, the Commission must recognize that this emerging technology is neither an RPS-eligible electric generation resource nor a Loading Order preferred resource. CEERT, therefore, disagrees with those parties that seem to suggest that energy storage procurement can substitute for reliance on Loading Order preferred resources or can be solicited as part of an RPS procurement plan.¹⁰ CEERT believes that it is important to clarify these points and again urges the Commission to adopt and follow the “guiding principles” recommended by CEERT in its Opening Comments in taking any next steps on the ACR’s storage procurement proposal.¹¹

⁷ CEC RPS Eligibility Guidebook, Seventh Edition (April 2013), CEC-300-2013-005-ED7-CMF, at p. 64; emphasis added. A REC, which is a megawatt-hour of eligible generation reported on a monthly basis that can only be counted once, is the measure used to track and verify RPS compliance. (CEC RPS Eligibility Guidebook, Seventh Edition, at pp. 84-85.)

⁸ *Id.*, at p. 64.

⁹ *Id.*, at pp. v., 64, 124, and B-9.

¹⁰ See, e.g., TAS Energy Opening Comments, at p. 5; Sierra Club/California Environmental Justice Alliance Opening Comments, at p. 29; SDG&E Opening Comments, at p. 16.

¹¹ CEERT Opening Comments, at pp. 4-5.

II. VIABILITY AND COST-EFFECTIVENESS ARE KEY ELIGIBILITY CRITERIA.

In its Opening Comments, CEERT noted the importance of ensuring that the ACR’s procurement targets are met by viable, cost-effective technologies.¹² This point was also made in the Opening Comments of other parties, including DRA, GPI, and IEP, especially where “procurement targets” are not required by law, are not tied to specific criteria (e.g., the “only option that can serve certain identified grid functions”), and may not be appropriate “given the emerging nature” of the technology.¹³

III. MULTIPLE PARTIES HAVE EMPHASIZED THE SHORTCOMINGS OF THE RAM.

A wide spectrum of parties commenting on the ACR – from CEERT, GPI, Pacific Gas & Electric (PG&E), BrightSource Energy (BrightSource), IEP, California Energy Storage Alliance (CESA), Large-Scale Solar Association/Solar Energy Industry Association (Joint Parties) to SolarReserve, LLC, just to name a few – are opposed to the ACR’s proposal to use the reverse auction mechanism (RAM) for meeting the energy storage procurement targets.¹⁴ As IEP states, a RAM, “designed for commercially ‘shovel ready’ projects, is unlikely work well for some storage projects based on emerging technologies.”¹⁵ Instead, CEERT joins those parties that have recommended relying on a competitive Request for Offers (RFO) or all-source solicitation, instead of the RAM.¹⁶

¹² CEERT Opening Comments, at pp. 6-8.

¹³ DRA Opening Comments, at pp. 1-2; GPI Opening Comments, at p. 4; IEP Opening Comments, at p. 4.

¹⁴ CEERT Opening Comments, at p. 6. See, e.g.: GPI Opening Comments, at pp. 6-8; PG&E Opening Comments, at pp. 2 and 13; BrightSource Opening Comments, at pp. 4-5; IEP Opening Comments, at pp. 5-6; CESA Opening Comments, at p. 9; Joint Parties Opening Comments, at p. 3; SolarReserve Opening Comments, at p. 5.

¹⁵ IEP Opening Comments, at pp. 5-6.

¹⁶ CEERT Opening Comments, at p. 6; BrightSource Opening Comments, at pp. 4-5; CESA Opening Comments, at p. 9; Joint Parties Opening Comments, at p. 3; SolarReserve, LLC Opening Comments, at p. 5.

IV. MULTIPLE PARTIES URGE INCLUSION OF PUMPED HYDRO TECHNOLOGIES IN THE ACR'S PROPOSED PROGRAM.

In its Opening Comments, CEERT recommended that the ACR proposal “include ... pumped storage,”¹⁷ in order to lead to a diverse and reliable portfolio and especially given its recognized role in generating RPS-eligible electricity, as discussed above. This same view has been expressed in the Opening Comments of multiple parties, including EDF Renewable Energy, Alton Energy, Brookfield Renewable Energy Partners (Brookfield), CESA, Pacific Gas and Electric Company, Shell Energy, IEP, and the Nevada Hydro Company (Nevada Hydro).¹⁸

Both EDF Renewable Energy and Nevada Hydro specifically note that pumped storage hydro is an eligible facility under AB 2514, and, in fact, Nevada Hydro further states that it was “surprised and disappointed” by the exclusion of pumped storage, which it views as “the most efficient form of storage,” from the ACR’s proposed storage procurement targets.¹⁹ EDF Renewables further emphasizes that “the Legislature’s intent was to include technologies such as pumped storage hydro within the definition of storage systems that are eligible for procurement targets under the statute”²⁰ and, in turn, recommends “that the Commission recognize both the contribution that pumped hydro can make to the future California electric grid as well as the market barriers that exist for third-party pumped hydro developers.”²¹ These positions provide further sound reasons for including pumped storage in the ACR’s energy storage procurement proposal.

¹⁷ CEERT Opening Comments, at pp. 6-7; emphasis added.

¹⁸ EDF Renewable Energy Opening Comments, at pp. 4-6; Alton Energy Opening Comments, at p. 6; Brookfield Opening Comments, at pp. 2-3; CESA Opening Comments, at p. 3; PG&E Opening Comments, at p. 14; Shell Energy Opening Comments, at p. 8; IEP Opening Comments, at pp. 8-9; Nevada Hydro Opening Comments, at pp. 1-3..

¹⁹ EDF Renewable Energy Opening Comments, at p. 3; Nevada Hydro Opening Comments, at pp. 2-3.

²⁰ EDF Renewable Energy Opening Comments, at p. 3; Nevada Hydro Opening Comments, at pp. 2-3.

²¹ EDF Renewable Energy Opening Comments, at p. 8.

**V.
CONCLUSION**

CEERT welcomes this opportunity to provide further input on the ACR's energy storage Proposal. CEERT urges that the ACR's proposal be revised, as recommended by CEERT and multiple parties, to clarify the role that storage can play in terms of *facilitating*, but not displacing, RPS-eligible and Loading Order preferred resources; to ensure inclusion of pumped hydro storage in the procurement targets; and to rely on a competitive RFO, and not the RAM, in achieving any identified targets. CEERT further asks that, in doing so, the Commission relies on the "guiding principles" recommended by CEERT in its Opening Comments.

Respectfully submitted,

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