

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

Order Instituting Rulemaking on the Commission's
Own Motion to Improve Distribution Level
Interconnection Rules and Regulations for Certain
Classes of Electric Generators and Electric Storage
Resources.

R.11-09-011
Filed September 22, 2011

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO ORDER INSTITUTING RULEMAKING**

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October 27, 2011

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Pursuant Rule 14 of the California Public Utilities Commission’s (“Commission’s”) Rules of Practice and Procedure, and the Order Instituting Rulemaking on Commission’s own Motion to Improve Distribution Level Interconnection Rules and Regulations for Certain Classes of Electric Generators and Electric Storage Resources (“OIR”) the California Energy Storage Alliance (“CESA”)¹ hereby submits these comments to the OIR.

I. INTRODUCTION.

CESA strongly supports the Commission’s stated intention to review the rules and regulations governing interconnecting generation and storage resources to the electric distribution systems of Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (the “Utilities”) in Rule 21 of their respective electric tariffs. Certainly the Commission must ensure that the interconnection process is timely, non-discriminatory, cost-effective, and transparent. Of paramount importance to CESA, of course, is the statement of the Commission’s purpose to revise Rule 21 to incorporate processes appropriate for energy storage. CESA’s comments place great emphasis on coordination with

¹ The California Energy Storage Alliance consists of A123 Systems, Applied Intellectual Capital/East Penn Manufacturing Co., Inc., Beacon Power Corporation, Bright Energy Storage Technologies, CALMAC, Chevron Energy Solutions, Debenham Energy, Deeya Energy, EnerSys, EnerVault, Exide Technologies, Fluidic Energy, General Compression, Greensmith Energy Management Systems, HDR, Inc., Ice Energy, International Battery, Inc., LG Chem, LightSail Energy, Inc., MEMC/SunEdison, Powergetics, Primus Power, Prudent Energy, RedFlow, RES Americas, Saft America, Inc., Samsung SDI, SANYO, Seeo, Sharp Labs of America, Silent Power, Sumitomo Electric, SunPower, Suntech, SunVerge, SustainX, Xtreme Power, and Younicos. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. <http://www.storagealliance.org>.

other proceedings and process, responds to the issues listed and suggests two additional issue's for the Commission's consideration.

II. THIS PROCEEDING SHOULD BE COORDINATED WITH ALL OTHER CALIFORNIA REGULATORY ACTIVITY RELATED TO ENERGY STORAGE.

Energy storage systems, standing alone and paired with renewable generation technologies, is greatly in need of clarity as to interconnection rules. Energy storage has the potential to help other distributed generation with all of the Commission's goals for this proceeding because of its ability to schedule and dispatch both energy and power. Energy storage has the potential to speed interconnection of all distributed generation resources cost-effectively and with great transparency.

III. THE PROPOSED SCOPE IS AN ADEQUATE STARTING POINT PROVIDED THAT IT TAKES FULL ACCOUNT OF THE ENERGY STORAGE OIR AND ALL OTHER ACTIVE PROCEEDINGS THAT CONCERN ENERGY STORAGE.

A. The Storage OIR is Not Mentioned.

The fact that the Commission's OIR focused on energy storage is not mentioned at all is very troubling, because interconnection issues are specifically listed as significant barriers to greater deployment of energy storage in all of its forms.²

B. The Potential for Issue Gridlock is Very Real.

CESA is on record in R.10-12-007 as very concerned regarding the possibility that it may hinder, rather than help identify and solve issues specific to energy storage.³ It has already been mentioned by some as a reason to discontinue progress in other proceedings that implicate energy storage and there is every indication that such a negative trend may be emerging.⁴ Rather, R.10-12-007 should be leveraged to help coordinate and accelerate progress on grid storage in the many Commission proceedings where it is relevant.

² R.10-12-007, filed December 16, 2010.

³ See, *Electric Energy Storage: An Assessment of Potential Barriers and Opportunities*, Commission Policy and Planning Division White Paper, July 9, 2010; and see, *Energy Storage Activities at the CPUC*, presentation by Rebecca Lee, October 5, 2010.

⁴ See, e.g., *Opening Comments of CESA in R.10-12-007*, August 29, 2011; and see, *Reply Comments of CESA in R.10-12-007*, September 9, 2011

IV. THE RELATIONSHIP OF THIS PROCEEDING TO OTHER CLEARLY RELATED ACTIVE PROCEEDINGS AND PROCESSES AT THE COMMISSION THAT DEAL WITH ENERGY STORAGE SHOULD BE HIGHLIGHTED.

A. RPS, Section 399.20 – Feed in Tariffs.

The track of the Commission’s proceeding dedicated to modifications to the renewables portfolio standard (“RPS”) dealing with implementation of feed in tariffs (“FiTs”) very specifically includes the subject of streamlining the interconnection process for renewable energy generation projects sized up to 3 MW.⁵

B. Rule 21 Settlement Process.

The activities of the Commission’s Rule 21 Working Group have evolved into a “Settlement Process” that was initially contemplated as suitable for resolution in R.11-05-005, but is now proposed as a subject of this proceeding.⁶ CESA suggests that care should be taken by the Commission to assure that issues related to energy storage are dealt with here and in R.10-12-007, and not de-prioritized and swallowed by the Rule 21 Settlement Process.

C. Self-Generation Incentive Program.

The Commission’s Energy Division staff is actively taking the post-decision steps that were directed by the Commission to implement the Commission’s proceeding that is reforming the Self-Generation Incentive Program (“SGIP”).⁷ Although the proceeding is much broader in scope than the SGIP, CESA suggests that care should be taken to assure that this proceeding does not interfere with timely completion of the SGIP SB 412 implementation process.

D. Resource Adequacy.

The Commission has very recently opened a proceeding dedicated to refining its resource adequacy (“RA”) program, which for the first time will expressly include the subject of energy storage.⁸ The likelihood of direct interaction with this proceeding should, in principal, be

⁵ R.11-05-005, filed May 5, 2011.

⁶ See, *ALJ’s Ruling Clarifying the Impact of Rule 21 Settlement Efforts*, September 2, 2011.

⁷ R.10-05-004, filed May 6, 2010.

⁸ R.11-10-023, filed October 20, 2011.

relatively remote. However, the subject of deliverability and counting of generation, demand response, *and* energy storage resources is critical to CESA.⁹

E. Long Term Procurement.

The subject of interconnecting energy storage resources as part of the procurement planning process conducted by the Utilities should probably not implicate interconnection of energy storage resources *per se*.¹⁰ However, the convergence of the subject of this proceeding with the planning assumptions being developed by the California Independent System Operator (“CAISO”) will necessarily implicate storage on a macro level.¹¹

V. THE RELATIONSHIP BETWEEN CAISO STAKEHOLDER INITIATIVES, FERC ORDERS, AND CEC PROCESSES RELATED TO ENERGY STORAGE MUST EACH BE SPECIFICALLY ADDRESSED.

A. CAISO Stakeholder Initiatives.

The CAISO has numerous active stakeholder processes that are in various states of advancement and relate directly to energy storage. In addition to the Commission’s RA, and LTPP proceedings related to planning, the CAISO is acting in concert with the Commission on specific programs such as Proxy Demand Resource and Reliability Demand Response Product that are marketed as wholesale products by the CAISO.¹² Most immediately important for this proceeding, of course, is the interaction between the Commission’s and the CAISO’s interconnection policies and procedures that is front and center for all stakeholders.¹³

B. FERC Orders.

Among many other activities, the CAISO is currently implementing Order 745, related to demand response, and Order 755, related to compensation for frequency regulation.¹⁴ The relationships between the Commission’s demand response programs, and the CAISO’s products

⁹ “10. With the passage of AB 2514, the Commission opened R.10-12-007 to consider policies to promote the adoption of viable and cost-effective energy storage systems. In coordination with the policy developments in R.10-12-007, we will consider any technical updates to our RA rules such that flexible grid operational attributes (such as those provided by energy storage technologies) may receive accurate and correct placement within our RA program.” (App. A).

¹⁰ R.10-05-006, filed May 6, 2010.

¹¹ See, *Briefing on Renewable Integration for the CAISO Board of Governors*, August 18, 2011.

¹² <http://www.caiso.com/23a6/23a6e37f1f20.html>; <http://www.caiso.com/27ab/27ab6e875c2e0.html>.

¹³ <http://www.caiso.com/2b21/2b21a4fe115e0.html>.

¹⁴ See, *California Independent System Operator Corp.*, 132 FERC ¶ 61,045 (2010); *and see* Docket Nos. RM11-7-000 and AD10-11-000; Order No. 755 issued October 20, 2011.

being developed under FERC orders that provide broad policy direction are very complex and require close coordination.

C. CEC Issues.

The California Energy Commission's ("CEC's") generation project siting authority implicates energy storage very directly, most prominently related to concentrating solar projects. Of course it is also actively studying interconnection and energy storage issues in the context of its Integrated Energy Policy Report process.¹⁵

VI. ISSUES IDENTIFIED IN THE OIR AND ADDITIONAL ISSUES THAT SHOULD BE PRIORITIES FOR ENERGY STORAGE IN THIS PROCEEDING.

A. Behind the meter storage interconnection.

Behind the meter energy storage interconnection is not listed specifically as an issue in this proceeding, and should be -- especially given recent program changes to the SGIP which now provides incentives for standalone energy storage and energy storage paired with distributed generation, including PV.

B. Renewable Procurement Auctions.

Also not mentioned, but very importantly, this proceeding should address potential benefits and impacts of considering energy storage for RPS procurement <20 MW in size, within the context of existing programs, including:

- Renewable Auction Mechanism
- Feed in Tariffs
- Utility-owned PV programs

C. Issue 1 – Reform Distribution-Level Interconnection Process and Reporting Requirements.

This proceeding should create specific distribution level interconnection procedures for energy storage technologies.

Issue 2 – Technology Operating Standards, Standardized Engineering Study Methodology and Deliverability Study Methodology.

¹⁵ See, [Committee Revised Scoping Order for the 2011 IEPR](#), March 30, 2011.

This should factor in the RA value of energy storage, both standalone and when coupled with distributed generation resources, particularly given its ability to be dispatched as needed by the CAISO.

Issue 3 – Limits on Distributed Generation Penetration.

Not only should this proceeding review and modify, if necessary, the screening mechanism that limits expedited interconnection without additional engineering study – it should do so factoring in the potential for energy storage to help address the system level concerns of limiting interconnection to 15% of line section’s peak load.

Issue 4 – Cost allocation for Infrastructure Upgrades.

Methodologies and mechanisms developed here should consider the potential for energy storage to defer infrastructure upgrades, or perform such upgrades more cost-effectively.

VII. CONCLUSION.

CESA appreciates this opportunity to respond to the OIR, and looks forward to working with the Commission and other stakeholders throughout the entire proceeding.

Respectfully submitted,



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Date: October 27, 2011