

**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

Rulemaking 11-09-011
(Filed September 22, 2011)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON THE FINAL DECISION GRANTING JOINT MOTIONS TO APPROVE
PROPOSED REVISIONS TO ELECTRIC TARIFF RULE 21 FOR PACIFIC GAS
AND ELECTRIC COMPANY, SOUTHERN CALIFORNIA EDISON COMPANY,
AND SAN DIEGO GAS AND ELECTRIC COMPANY**

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA")¹ hereby submits these comments on the *Final Decision Granting Joint Motions to Approve Proposed Revisions to Electric Tariff Rule 21 for Pacific Gas and Electric Company, Southern California*

¹ 1 Energy Systems Inc., Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, Brookfield, CODA Energy, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ELSYS Inc., Energy Storage Systems, Inc., Enersys, Enphase Energy, EV Grid, GE Energy Storage, Gordon & Rees, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IMERGY Power Systems, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, K&L Gates, LG Chem Power, Inc., LightSail Energy, Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Mitsubishi Corporation (Americas), NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Pathfinder, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, RES Americas Inc., S&C Electric Company, Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sovereign Energy, Stem, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Trina Energy Storage, Tri-Technic, UniEnergy Technologies, Wellhead Electric, 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://storagealliance.org>).

Edison Company, and San Diego Gas and Electric Company, issued by Administrative Law Judge Maribeth A. Bushey on February 16, 2016 (“Proposed Decision”).

I. INTRODUCTION.

CESA has already commented extensively on the *Joint Motion Supporting Revisions to Streamline Rule 21 for Behind-The-Meter, Non-Exporting Storage Devices* (“Joint Motion”) in its Response submitted on December 3, 2015. CESA generally supported the Joint Motion as an incremental improvement in creating increased transparency and streamlining of energy storage load interconnection review, but could only offer partial support for certain elements of the Joint Motion and requested a successor distributed generation and energy storage interconnection proceeding for a number of outstanding energy storage interconnection issues that have yet to be addressed.² Considering the Proposed Decision approves the joint request by the investor-owned utilities (“IOUs”) for improvements to treatment of behind-the-meter energy storage without any changes from the Joint Motion filed on November 18, 2015, CESA has nothing to add that is not already on the record. Rather, the focus of these comments will be on the Proposed Decision’s closing of this proceeding and why CESA strongly recommends prompt opening of a new successor proceeding or continuation of this proceeding with a new track to continue discussions and development of interconnection processes for other energy storage applications and configurations. This proceeding has demonstrated that collaborative efforts of stakeholders, when effectively facilitated by the Commission’s Energy Division, can lead to tangible and timely progress on important interconnection issues. In CESA’s view, it would be a shame to close this proceeding and not replace it with a successor docket given the number of outstanding

² *Response of the California Energy Storage Alliance to the Joint Motion Supporting Revisions to Streamline Rule 21 for Behind-the-Meter, Non-Exporting Storage Devices*, submitted on December 3, 2015. pp. 2-3.

issues that remain and the now proven ability of stakeholders to work effectively together to resolve these types of issues.

II. A SUCCESSOR PROCEEDING OR NEW TRACK WITHIN THIS PROCEEDING SHOULD BE OPENED TO RESOLVE UNADDRESSED ENERGY STORAGE INTERCONNECTION ISSUES BECAUSE OTHER PROCEDURAL VENUES WILL NOT ADEQUATELY ADDRESS THEM.

As CESA indicated in its Response to the Joint Motion, there are a number of substantial unaddressed energy storage interconnection issues that have yet to be addressed.³ In short, these issues include:

- Relaxing or removing the disconnect switch requirement for non-exporting energy storage resources;
- Creating an overall Interconnection Guidebook for both load and generation review;
- Removing anti-islanding tests during Permission-to-Operate inspections;
- Streamlining approval and validation processes to verify IOUs' load review;
- Developing streamlined interconnection review process for energy storage systems with different operational profiles and configurations, such as exporting energy storage systems (other than just the use case of non-exporting energy storage systems, which was the subject of the Joint Motion);
- Resolving meter ownership issues for energy storage-related Proxy Demand Response;
- Developing mobile inverter standards for interconnection;

³ *Response of the California Energy Storage Alliance to the Joint Motion Supporting Revisions to Streamline Rule 21 for Behind-the-Meter, Non-Exporting Storage Devices*, filed on December 3, 2015. pp. 9-12.

- Removing “complex metering solution” classification for NGOM meter installations for customers with NEM-paired energy storage;
- Considering how to incorporate the Integration Capacity Analysis (“ICA”) being developed in the Distributed Resource Plan (“DRP”) proceeding (R.14-08-003) into Rule 21 for purposes of expediting the interconnection review process; and
- Addressing jurisdictional issues and questions regarding the ability of resources interconnecting under Rule 21 to participate in the California Independent System Operator’s markets that currently must interconnect under the IOU’s Federal Energy Regulatory Commission jurisdictional Wholesale Distribution Access Tariffs.

The Proposed Decision suggests that interconnection issues related to distributed resources may be addressed in the DRP proceeding and Integrated Distributed Energy Resources (“IDER”) proceeding (R.14-10-003). However, CESA believes that it is unlikely that the DRP and IDER proceedings will consider these more complicated technical and policy questions because the scope of those proceedings will likely be focused on validating the Locational Net Benefits Analysis (“LNBA”) and ICA methodologies, which alone are tall orders for all stakeholders involved. CESA is concerned that the expansive scope of those proceedings will cause many important specific issues such as those listed above to be overlooked or lost. Some of the issues above are also likely to be considered outside of the scope of the DRP and IDER proceedings. Generally, CESA’s view is that to the degree issues involve consideration of changes to the actual Rule 21 tariff itself or other rules governing interconnection are to be considered, it is important to have a proceeding that is specifically dedicated to the interconnection process.

Another concern of deferring unaddressed interconnection issues to the DRP and IDER proceedings is that the interconnection review process may only be limited to “optimal locations” as determined by the IOUs. The IOUs state that “one of the objectives of the ICA is to inform and improve the efficiency of Rule 21 grid interconnection process while maintaining the applicable safety and reliability standards”.⁴ With the ICAs specifying the hosting capacity for specific line nodes and circuits, the IOUs aim to accelerate the integration of distributed energy resources (“DERs”). CESA is encouraged to see that the IOUs have announced plans to implement faster processes to analyze locations on their distribution system “to provide information in advance of seeking interconnection” that is more regularly updated to more closely reflect grid conditions and needs.⁵

However, a critical problem is that the IOUs are currently conducting their ICA analyses to identify “optimal locations” to defer traditional distribution infrastructure upgrades. If the IOUs continue with such a limited analysis, interconnection processes will be streamlined for only a few select locations on the distribution grid, which the IOUs determine to be optimal – *i.e.*, high integration capacity and high LNBA values for DERs. It is unclear if improvements to the interconnection process will be applied only to these locations, and whether the Rule 21 Interconnection Study Process would apply to all other locations not determined to be optimal.⁶ If the ICA analyses are made available for all locations on the distribution grid, and DER providers are permitted to act upon this ICA information, then CESA could potentially be less

⁴ *Administrative Law Judge’s Ruling Inviting Comments on Integration Capacity Analysis Methodologies, Integration Capacity Analysis Workshop Report, Locational Net Benefits Analysis Methodology, Locational Net Benefit Analysis Workshop, and Demonstration Projects A and B*, issued on February 18, 2016, *Attachment A: Joint IOU Workshop Report*, p. 4.

⁵ *Ibid*, p. 8.

⁶ *Ibid*, pp. 5, 8.

concerned with considering unaddressed energy storage interconnection issues in the DRP proceeding.

There is no reason to believe that a new proceeding or a successor track in this proceeding cannot occur in parallel with the DRP and IDER proceedings within the immediate time frame required. The DRP and IDER proceedings are already expected to be closely coordinated and to inform one another, as well as to coordinate with other Commission proceedings, including the Long-Term Procurement Plan proceeding (R.13-12-010).⁷ A similar coordination could occur with a new proceeding or successor track in this proceeding. A successor process can be informed by the ICA analyses from the DRP proceeding, and the IOUs have even indicated as such by stating that “a regularly performed streamlined process that can provide locational results to help inform the Fast Track limits and/or specific thresholds within the Rule 21 interconnection process”.⁸

A robust, accurate, and timely ICA analysis across all locations on the distribution grid could ultimately replace the current interconnection process, as some developers have requested,⁹ but CESA believes that even in this case that the unaddressed energy storage issues will not be addressed in the DRP and IDER proceedings. It is unclear if there is a path forward to addressing some of the key policy and jurisdictional interconnection issues involved with more

⁷ *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, Including Deconsolidation of Certain Proceedings and a Different Consolidation of Other Proceedings*, issued on January 27, 2016, p. 11.

⁸ *Administrative Law Judge’s Ruling Inviting Comments on Integration Capacity Analysis Methodologies, Integration Capacity Analysis Workshop Report, Locational Net Benefits Analysis Methodology, Locational Net Benefit Analysis Workshop, and Demonstration Projects A and B*, issued on February 18, 2016, *Attachment A: Joint IOU Workshop Report*, p. 9.

⁹ *Ibid*, p. 11.

advanced operational profiles, for example, where energy storage systems provide both wholesale and distribution services.

Finally, the Proposed Decision recommends continued collaboration in the Smart Inverter Working Group (“SIWG”) to address Rule 21 interconnection issues as well. CESA continues to support the standards and protocols being developed in the SIWG, and its close coordination with the DRP and IDER proceedings, but does not believe it is the appropriate venue to host actionable policy discussions and implement needed revisions to the Rule 21 interconnection process for energy storage systems. Furthermore, with the SIWG ending later this month, a new proceeding or a successor track in this proceeding will be needed to create a procedural home for the SIWG and allow for continued collaboration with the SIWG, as anticipated in the Proposed Decision.

III. CONCLUSION.

There are many outstanding energy storage interconnection issues that were not addressed in the Joint Motion or in the workshops leading to the Joint Motion, and that will most likely not be adequately considered in the DRP and IDER proceedings, as suggested in the Proposed Decision, within a meaningful time frame to deal with issues that are very pressing today. Energy storage systems are advanced technologies that have more complex operational profiles that can ultimately improve grid conditions, but also require greater collaboration between energy storage providers and the IOUs to better understand the capabilities of these technologies and develop streamlined and expedited interconnection processes. CESA therefore strongly recommends that the Commission open a successor proceeding to address most or all of the outstanding interconnection issues described in these comments.

CESA appreciates the opportunity to submit these comments on the Proposed Decision and plans to promptly continue working with the Commission, the IOUs, and other stakeholders in a successor venue deemed most suitable by the Commission.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "D. Liddell", written in a cursive style.

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Date: March 7, 2016