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 ON ASSIGNED COMMISSIONER'S AMENDED SCOPING MEMO AND RULING REQUESTING COMMENTS

Donald C. Liddell
DOUGLASS & LIDDELL
2928 2nd Avenue
San Diego, California 92103
Telephone: (619) 993-9096
Facsimile: (619) 296-4662
Email: liddell@energyattorney.com

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

October 25, 2012

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 ON ASSIGNED COMMISSIONER'S AMENDED SCOPING MEMO AND RULING REQUESTING COMMENTS

The California Energy Storage Alliance ("CESA")[1] hereby submits these comments on the *Assigned Commissioner's Amended Scoping Memo and Ruling Requesting Comments,* issued September 26, 2012 ("ACR").

I. INTRODUCTION.

CESA is dismayed to observe that the ACR, *for the first time in this proceeding*, removes any reference to commitments made by the Commission to address interconnection substantive issues related specifically to energy storage.[2] At the same time, as discussed in these comments below, there are a number of issues of major importance to energy storage that are arising with

[1] The California Energy Storage Alliance consists of A123 Systems, Beacon Power, Bright Energy Storage Technologies, CALMAC, Chevron Energy Solutions, Deeya Energy, East Penn Manufacturing Co., Energy Cache, EnerVault, Fluidic Energy, GE Energy Storage, Green Charge Networks, Greensmith Energy Management Systems, Growing Energy Labs, HDR Engineering, Ice Energy, Kelvin Storage Technologies, LG Chem, LightSail Energy, Panasonic, Primus Power, Prudent Energy, RedFlow Technologies, RES Americas, Saft America, Samsung SDI, Seeo, Sharp Labs of America, Silent Power, Stem, Sumitomo Electric, Sumitomo Corporation of America, SunEdison, SunVerge, TAS Energy, UniEnergy Technologies and Xtreme Power. 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

[2] The sole exception to this disappointing state of affairs appears in the ACR as follows: "Compliance with Rule 21. This issue will be limited to compliance with established timelines, interconnection completion rates by study track and by type of generating facility or storage technology, and results of the use of dispute resolution alternatives set out in Rule 21 by a respondent utility5 or an interconnection customer." (p. 4).

alarming frequency in recent weeks that the Commission should be aware of. On the topic of interconnection cost responsibility, for example, the Commission should consider an interconnection processes that will affirmatively *motivate* developers to consider energy storage integrated with renewable distributed generation ("DG") as an alternative to investor owned utility ("IOU") distribution system upgrades. CESA therefore advocates for a standalone energy storage working group to be formed in the context of this proceeding that is focused exclusively on interconnection-related subjects specific to energy storage.[3]

CESA also urges the Commission to mirror the essential point made recently by the California Independent System Operator Corporation ("CAISO") in submitting comments in connection with the Federal Energy Regulatory Commission's July 17, 2012 technical conference involving a review of small generator interconnection agreements and procedures: "The Commission [FERC] should coordinate any proposed rulemaking in this proceeding with the CPUC's Rule 21 interconnection proceeding. As the Commission [FERC] is aware, a settlement is currently pending in CPUC Rulemaking 11-09-011 that would provide for refinements to the Rule 21 interconnection process. The settlement proposes changes to Rule 21 that overlap with issues the Commission is considering in this proceeding, including screens for developers to take advantage of a fast track interconnection process." (p. 5).[4]

[3] Of course, CESA also looks forward to participating in the work outlined in the ACR. The topics on which comments were requested include (1) enhancing the predictability of the costs and process of interconnection; (2) developing new cost arrangements among developers of distributed generation; and (3) improving cost certainty within high-volume distribution and transmission interconnection queues.

[4] California Independent System Operator Corporation Docket Nos. RM12-10-000, ER12-1177-001, ER12-1855-000, ER12-502-001, and ER12-502-002 Comments regarding Commission's July 17, 2012 Technical Conference, filed August 20, 2012.

II. PROCEDURAL BACKGROUND.

CESA was encouraged when the *Order Instituting Rulemaking*, filed September 22, 2011, that initiated this proceeding stated that the Commission intended to create distribution-level interconnection procedures for storage technologies (p. 5). CESA therefore noted that this commitment appeared to have been re-affirmed in the *Scoping Memo and Ruling of Assigned Commissioner*, issued June 20, 2012, and expanded to define distinct engineering methodologies based on the characteristics of the resource, such as the resource's impact on the transmission system, and establish a path to resource adequacy qualification for resources that have "certain characteristics." (pp. 3-4).[5]

The Commission's decision approving a settlement of certain issues related to Rule 21[6] stated that "the rulemaking and the scoping memo also confirm that this proceeding seeks to 'create distribution-level interconnection procedures for storage technologies.' The Proposed Settlement addresses this issue by introducing in the Revised Rule 21 the term 'storage' to the definition of Generating Facility." The Commission further noted that "Attachment A, Motion at Proposed Settlement at Attachment A-1 Revised Rule 21 at Section C ("Generating Facility: All Generators, electrical wires, equipment, and other facilities, excluding Interconnection Facilities, owned or provided by Producer for the purpose of producing electric power, including storage. The inclusion of this term means that storage systems are eligible for and treated under the same evaluation processes as a generating facility"). (pp. 22-23).

---

[5] *CESA's Comments on Utility Pro Forma Agreement Filings*, filed July 2, 2012, later pointed out: "Unfortunately, the Scoping Memo appears very ambiguous as to how and when exactly the Commission will address energy storage-related issues in Phase 1 of this proceeding." (p. 2).

[6] *Decision Adopting Settlement Agreement Revising Distribution Level Interconnection Rules And Regulations – Electric Tariff Rule 21 And Granting Motions To Adopt The Utilities' Rule 21 Transition Plans*, D.12-09-018, issued September 13, 2012 ("Rule 21 Decision").

III. THE COMMISSION SHOULD REQUIRE THE INVESTOR OWNED UTILITIES TO DEVELOP DISTRIBUTION-LEVEL INTERCONNECTION PROCEDURES FOR ENERGY STORAGE SYSTEMS IN A STANDALONE WORKING GROUP.

While the Rule 21 Decision incorporates the term "storage" as part of the definition of generating facilities, the Commission should go much further and include explicit language to create distribution-level interconnection procedures for energy storage technologies; specifically at the intersection of energy storage and customer-sited DG exporting power to local investor owned utilities ("IOUs). Energy storage is a unique technology offering new DG facilities the opportunity to address distribution system upgrade requirements with technology-specific mitigation strategies, such as time-shifting energy generation to reduce energy exports. Distributed behind the meter energy storage also presents opportunities for IOUs to work more collaboratively with their customers to leverage their energy storage assets for improved grid utilization and operation overall. There are many complicated issues, including, for example, treatment of energy storage integrated with net energy metering-eligible DG technologies that require careful consideration and input from stakeholders in this proceeding. Within the context of the "Technical Operating Standard" subject area, the Commission should order IOUs and Commission Staff to form a working group with the objective of defining energy storage system control strategies that minimize the need for distribution grid upgrades and improve localized power quality. Examples of energy storage interconnection issues that require immediate in-depth attention include:

A. Net Energy Metering.

Some IOUs are currently requiring energy storage systems integrated with net energy metered DG to pay for interconnection under Rule 21 despite the fact that it is clearly contrary to long-standing California law. Section 2827(g) of the Public Utilities Code prohibits an

electric utility from charging interconnection costs to an "eligible customer-generator."[7] An "eligible customer-generator" is defined as a customer "who uses a renewable electrical generation facility," which in turn is defined as a "facility that generates electricity from a renewable source listed in paragraph (1) of subdivision (a) of Section 25741 of the Public Resources Code."[8] Under Public Resources Code Section 25741(a)(1), a "renewable electric generation facility" includes "any additions or enhancements to the facility using that [renewable] technology."

Energy storage systems, whether installed concurrently or subsequent to the installation of net metering-eligible DG, are clearly an "addition or enhancement" to the DG facility. That the Public Utilities Code Section 2827(g) prohibition against charging net metering eligible generation for interconnection costs is very clear. The Commission should therefore resolve this apparent disconnect with the statement that: "All Generators, electrical wires, equipment, and other facilities, excluding Interconnection Facilities, owned or provided by Producer for the purpose of producing electric power, including storage. The inclusion of this term means that energy storage systems should be eligible for and treated under the same evaluation processes as a "generating facility" when integrated with a net metered renewable electric generation facility.

B. Separate Metering Requirements.

Some IOUs are currently requiring that energy storage systems must be installed on a separate revenue meter whether or not they are integrated with eligible renewable DG. This conflicts directly with rules developed in the Self Generation Incentive Program ("SGIP") that allow for installation of energy storage systems either standalone or when coupled with an eligible on-site renewable generator. Currently, such integrated renewable and energy storage

[7] *See also,* D.02-03-057.

[8] Pub. Util. Code § 2827(b)(4) &(5).

projects are required to install energy storage systems on separate meters; as a result the renewable load and energy storage meters are recorded and billed separately. This results in the customer's inability to utilize the energy storage system to reduce demand charges - significantly undermining the primary value creating purpose of the behind-the-meter energy storage. Further, this barrier prevents any energy storage customer from being able to deliver their system as fully integrated for the purpose of qualifying for Investment Tax Credit ("ITC") purposes. By preventing investment tax credit ("ITC") eligibility which could be as much as 30% of the price of a system this is putting more demand on the funding from SGIP and resulting in a smaller effective pool of projects that can be funded for the same SGIP dollars. Separate meters also means separate inverters. This is unfortunate because the integrated system cannot take advantage of integrated components and reduced capital cost for California ratepayers.

C. Innovative Shared Utilization of Behind the Meter Storage Assets

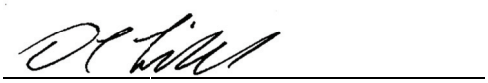
The Commission should explore the possibility of enabling long-term contracts between utilities and behind-the-meter energy storage resource owners and developers, and related interconnection issues that such an innovative business model would require. Most behind-the - meter energy storage assets will only be utilized for a portion of each weekday, primarily to shift load and capture demand charges. For the remaining hours of the day, the behind-the-meter energy storage asset remains a valuable dispatchable energy and capacity asset that could be aggregated and controlled by IOUs to improve overall distribution system utilization and operation as an alternative to required local distribution system upgrades. IOU control of such extra capacity could be accomplished via long-term power purchase agreements to purchase and deploy distribution capacity, load shifting, and ancillary services derived from the behind-the -

meter energy storage technology, regardless of where it is sited - either behind or in front of the customer's meter.

IV. CONCLUSION.

CESA appreciates this opportunity to comment on the ACR and looks forward to working with the Commission and parties to this proceeding going forward. CESA specifically looks forward to participating in the November 15 workshop and working toward solutions to cost related concerns in Phase 2 of this proceeding.

Respectfully submitted,



Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: October 25, 2012