

**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

**NOTICE OF EX PARTE COMMUNICATION OF
THE CALIFORNIA ENERGY STORAGE ALLIANCE**

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February 10, 2014

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Pursuant to Rule 8.3 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure, the California Energy Storage Alliance (“CESA”)¹ hereby gives notice of the following oral and written *ex parte* communication initiated by CESA in the above-referenced proceeding.

On February 6, 2014, from 9:00 a.m. to approximately 10:00 a.m., Janice Lin, Executive Director of CESA, Don Liddell, of Douglass & Liddell, Dan Chia, Director, Policy & Electricity Markets, of SolarCity, and Stacey Reineccius, President of PowerTree Services, met with Rachel

¹ The California Energy Storage Alliance consists of 1 Energy Systems, A123 Energy Solutions, AES Energy Storage, Alton Energy, American Vanadium, Aquion Energy, AU Optronics, Beacon Power, Bosch Energy Storage Solutions, Bright Energy Storage, BrightSource Energy, CALMAC, ChargePoint, Clean Energy Systems Inc., CODA Energy, Customized Energy Solutions, Deeya Energy, DN Tanks, Duke Energy, Eagle Crest Energy, EaglePicher, East Penn Manufacturing Co., Ecoult, Energy Cache, EnerSys, EnerVault, EVGrid, FAFCO Thermal Storage Systems, FIAMM Group, FIAMM Energy Storage Solutions, Flextronics, Foresight Renewable Systems, GE Energy Storage, Green Charge Networks, Greensmith Energy Management Systems, Gridtential Energy, Halotechnics, Hydrogenics, Ice Energy, ImMODO Energy Services, Innovation Core SEI, Invenergy, K&L Gates LLP, KYOCERA Solar, LightSail Energy, LG Chem Ltd., NextEra Energy Resources, NRG Energy, OCI Company Ltd., OutBack Power Technologies, Panasonic, Parker Hannifin, PDE Total Energy Solutions, Powertree Services, Primus Power, RedFlow Technologies, RES Americas, Rosendin Electric, S&C Electric Co., Saft America, Samsung SDI, SeaWave Battery Inc., Sharp Labs of America, Silent Power, SolarCity, Sovereign Energy Storage LLC, Stem, Stoel Rives LLP, Sumitomo Corporation of America, TAS Energy, Tri-Technic, UniEnergy Technologies, Xtreme Power, and Wellhead Electric Co. 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>

Peterson, Energy Advisor to Commissioner Michel Peter Florio. Alope Gupta and Jamie Ormond, of the Commission's Energy Division, were also present. The meeting took place at the Commission's offices at 505 Van Ness Avenue, San Francisco. In the meeting the referenced individuals discussed the attached Issues List.

To receive a copy of this *ex parte* notice please contact Michelle Dangott, at 818.961.3003 or mdangott@energyattorney.com.

Respectfully submitted,



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February 10, 2014

Draft Interconnection Issue List

- 1. Assigned Commissioners Ruling.** An ACR should be issued that focuses on distribution level interconnection issues related specifically to energy storage. It should include reference to the specific subject areas itemized below, ask for comments on those issues listed, and call for parties to identify others that should be added to the list.
- 2. Separate Storage Track.** An energy storage-focused scope should begin a separate track/phase in the rulemaking that proceeds in parallel with other broader issues, such as interconnection cost estimate certainty and cost containment, applicable to all DG and energy storage. This would include focus on interconnecting standalone energy storage (non-generating resources) that is not presently contemplated under Rule 21, which deals with generation only.
- 3. Technical Working Group.** An energy storage interconnection technical working group should be established along the lines of the Rule 21 Working Group in collaboration with the CEC, and perhaps the CAISO. A good example of what the group should consider would be how energy storage is treated in the Joint CPUC/CEC study of Candidate DER Capabilities for Updating Technical Requirements in Rule 21.
- 4. Clearinghouse.** A forum should be created for issues that are not related to specific open Commission dockets that can be identified when they do not tie directly DG and energy storage. A good example would be SCE's Advice Letter 28818-E that allows SCE pay nothing at all for power exported from DG facilities.
- 5. Participation in NEM.** Utilities are refusing to allow DG integrated with energy storage to be eligible for participation in NEM. This issue is also being independently addressed by the CEC in the context of revising its RPS Eligibility Guidebook.
- 6. Net Metering and Interconnect for Behind-the-Meter Ancillary Services.** Wholesale ancillary services provided to the ISO from behind the meter can involve backfeeding of the utility meter if the native load is relatively small compared to the energy storage device, such as with vehicle-to-grid in residential applications. Ancillary services can be provided through demand response products such as the CAISO Proxy Demand Resource (PDR) product, which has been considered for use in providing Non-Generator Regulation from behind the meter. In such situations, the storage device is providing flexible grid services that are essential to integrating large quantities of renewables, and the (potentially retail) energy transacted in the course of providing the ancillary services is not the primary focus of the service. While it is may not be clear that the power flowing through the energy storage device is renewable or not, it is a net load at the end of the day, and therefore not subject to the same subsidization complexity as distributed generation is. Crediting energy discharged at the same rate as energy for charging is essential to this case. For behind-the-meter energy storage providing ancillary services, retail energy backed at any given time should be credited at the same rate as retail energy consumed at that time.
- 7. Interconnection and Standby Fee Waiver.** This should be the forum to consider waiving interconnection charges for energy storage integrated with renewable DG.
- 8. No Interconnection Agreement Requirement for Non-Exporting Energy Storage Systems.** Some behind the meter energy storage resources only operate when the grid is down. Other energy storage resources will never export energy to the grid. These applications of energy storage systems are no different than any other energy conserving appliances, so they should not be required to go through the Rule 21 interconnection process.

9. Virtual Net Energy Metering with Energy Storage. The virtual net metering rules related to energy storage need to be defined.

10. Inappropriate Sizing Limitations. Utilities will not allow interconnection of energy storage systems unless there is a corresponding load equal to or exceeding the capability of the storage system. This prevents installation in cases that may back feed the grid, e.g. to provide ancillary services to offset peaker plants or to supplement PV solar generation. This also limits to potential size of energy storage to local loads and prevents the use of storage under such systems as virtual net energy metering.

11. Resource Adequacy Credit. CAISO deliverability determinations should be explicitly addressed in Rule 21. Clear rules for RA counting for behind the meter energy storage resources should be established.

13. Rule 21 Screen Adjustments. Technical Requirements:

- Rule 21, Screen I, Options 3 & 4 and Screen J – These screens dictate when non-export relays are required. These screens should be reevaluated to allow for larger systems without non-export relays given non-export relay costs (\$5k+) and the fact that NEM tariffs eliminate the economic incentive to export energy.
- Screen B – This needs to be clarified such that UL 1741 listing is sufficient to meet all requirements and no other test results are required. It also needs to be clarified that UL 1741 listing of individual generators is sufficient, and that a bank of generators does not need to be UL Listed specifically as a group whether such group is separately packaged or further enclosed within and additional chassis (such as for weather protection or onsite equipment protection) .
- Screen M – The 15% peak load screen – This screen should be raised for all DG, including PV solar. Recent research shows there are still no safety concerns at twice this level. For example, Hydro One, an Ontario utility with large amounts of wind resources on the distribution system, states, “The acceptable generation limit at a Hydro One TS or a Hydro One DS is established by adding together: 60% of maximum MVA rating of the single transformer and the minimum station load.”¹ Similar thresholds should be established in California.

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