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12-18-15 CESAâ€™s Comments on Bulk Storage Workshop

Additional submitted attachment is included below.

CESA
CALIFORNIA ENERGY STORAGE ALLIANCE

December 18, 2015

California Energy Commission
Dockets Office, MS-4
1516 9th Street
Sacramento, CA 95814-5512

RE: California Energy Storage Alliance (CESA) Comments Following the Joint California Energy Commission and California Public Utility Commission Workshop on Bulk Energy Storage Workshop on November 20, Docket 15-MISC-05.

Dear Commissioners:

The California Energy Storage Alliance (CESA) greatly appreciates the opportunity to comment on the Joint California Energy Commission (CEC) and California Public Utilities Commission (CPUC) Bulk Storage Workshop held on November 20, 2015 (Workshop).

The Workshop covered an array of critical issues for bulk energy storage projects, including their application to existing pumped hydro projects, including: a) modeling of potential future system conditions under which bulk storage systems may play important roles, b) assessing barriers to potential bulk energy storage project deployments, and c) agency discussions and potential policy next steps. CEC Chairman Weisenmiller, CPUC Commissioners Picker and Peterman, and CAISO CEO Stephen Berberich led insightful discussions and established the type of collaborative policy environment necessary to the consideration and development of new bulk energy storage projects.

CESA's comments recommend a number of specific pathways forward for the CPUC, CEC, and CAISO. The mission of CESA is to make energy storage a mainstream resource in helping to advance a more affordable, clean, efficient, and reliable electric power system in California.

CESA supports technology-neutral and business-model neutral approaches.[1] While CESA's comments focus on the bulk storage technologies and projects that were discussed at the Workshop, other storage technologies with comparable capabilities should be allowed to compete for bulk storage project development.

CESA's comments detail how the CEC, CPUC, and CAISO can take coordinated actions through establishing 'lead proceedings' on these matters, optimizing planning efforts by factoring in energy storage solutions into key renewables portfolio standard (RPS) planning efforts as part of the Renewable Energy Transmission Initiative (RETI 2.0), the CPUC's RPS Calculator, and the CAISO's Transmission Planning Process (TPP), and then enhancing evaluation and procurement methodologies in several key ways. Collectively, these steps will position the state to assess and act on bulk energy storage opportunities in a well-informed, strategic, and direct manner.

A. The CPUC Should Take a Lead Role in Directing Methods For Procurement of Bulk Storage.

While the CEC, the CAISO, and the CPUC all have important roles to play in assessing future grid needs and in advancing consideration of bulk storage solutions, CESA believes the CPUC is best positioned at this time to 'lead' these efforts. As such, the CPUC's Long-term Procurement Planning (LTPP) and Track 2 of the Energy Storage Proceeding should be used to develop robust records of system needs and of barriers, solutions, and procurement methods for deployments

[1] CESA members may have their own views. CESA members include: 1 Energy Systems Inc., Abengoa, Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, ARES North America, Brookfield, Chargepoint, Clean Energy Systems, CODA Energy, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Duke Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, Elevation Solar, ELSYS Inc., Energy Storage Systems, Inc., Enersys, EnerVault Corporation, Enphase ENERGY, EV Grid, Flextronics, GE Energy Storage, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Hydrogenics, 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, Manatt, Phelps & Phillips, LLP, Mobile Solar, NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, Renewable Energy Systems Americas Inc., Rosendin Electric, S&C Electric Company, Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sony Corporation of America, Sovereign Energy, STEM, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Tri-Technic, Wellhead Electric, 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://storagealliance.org

of bulk storage resources. CESA thus recommends any findings and discussion from this workshop be added to the record of the LTPP and Storage OIR proceedings, arming the CPUC for further actions.

Actions on this matter by the CPUC would also be timely. CAISO analysis[2] indicates changes in net demand experienced in spring of 2015 had been more severe than anticipated, and that increasing renewable levels coupled with potentially higher hydro conditions will increase this trend. The CAISO expressed a need for California to be prepared to enact solutions that enable the continued reliable operation of the electricity grid and highlighted energy storage as a key technology capable of providing valuable ramping capability to the system while also capturing excess renewable generation, among other benefits. Given the timelines for the development of many bulk storage projects, CESA recommends the CPUC begin deliberations and take action on bulk storage procurement decisions very soon.

B. Renewable Energy-Related Planning Processes Should Identify Synergies With Bulk Storage Solutions.

California currently uses several discrete planning proceedings and tools for consideration of where and what renewables are likely to be deployed to meet energy policy goals as well as what (if any) transmission system upgrades should best enable renewable project deployments. RETI 2.0, the RPS Calculator, and the TPP are all part of this mix, although other agency planning efforts also play critical roles.

CESA recommends the RETI 2.0 and RPS Calculator efforts be expanded to consider 'renewables integration' and or 'renewables maximization' goals in detail, so that considerations for transmission system expansion can identify synergies with bulk storage projects as well as 'policy-related' transmission projects useful for renewables integration.

Additionally, the CAISO should conduct a special TPP study to assess both the reliability, integration, and economic benefits of bulk storage resources. The current TPP works well to assess benefits from traditional transmission system resources but has not always considered energy storage as a policy-driven resource. Precedent exists for storage as a 'transmission function', and the combined benefits of policy, reliability, and economic transmission services may identify bulk storage solutions and related transmission upgrades as worthwhile options to pursue.[3]

[2] See CAISO Letter to CPUC on July 21, 2015.
[3] FERC Order On Western Grid Development, LLC, EL10-19-000, January 21, 2010, pg. 1. http://www.dwt.com/files/Uploads/Documents/Advisories/FERC_BatteryStorageOrder.pdf

C. A Clear Series of Next Steps Should be Developed for Consideration of Alternative Methods for Procurement of Bulk Storage.

The CPUC, overseeing most of the State's electrical load, directs investor owned utility procurement of new electric generation resources or related preferred resources through contracts currently structured 20-year term Power-Purchase Agreements (PPAs) and shorter-duration procurement mechanisms for other preferred resources. These efforts are informed by planning exercises sometimes looking 10-years or less into the future. Collectively, these steps position the state to manage near-term conditions, but may potentially overlook solutions that could work for both nearer and longer-term conditions – such as energy storage. CESA recommends several changes to the procurement frameworks, at least for consideration of bulk storage resources, to ensure shorter run decisions can weigh longer term grid needs.

Procurement frameworks can better assess the capabilities and value of energy storage through longer-term forecasts, through sensitivity assessments of present and foreseeable clean energy goals, and through coordination of alternative contracting methods. More specifically, CESA recommends considerations of 30-year term PPAs, along with modeling of needs for grid condition relating to the state's 2050 carbon-emissions reduction goals. The state should coordinate a comparison of procurement outcomes and benefits not only through PPAs but also through 'public-good' cost-recovery methods traditionally used for cost-recovery of bulk transmission system projects. Outcomes with single-party vs. multi-party contracting should also be considered. With all of these recommendations, CESA suggests conventional methods be compared against the alternative proposed methods. CESA also advocates for competition in any solution so that an array of bulk storage solutions can vie to provide least-cost best fit solutions to meet the needs in an optimal manner.

In conclusion, thank you very much for your important work and for consideration of CESA's views. We at CESA look forward to next steps.

Sincerely,

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