BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.	Rulemaking 18-12-005 (Filed December 13, 2018)

COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE TO THE ORDER INSTITUTING RULEMAKING TO EXAMINE ELECTRIC UTILITY DE-ENERGIZATION OF POWER LINES IN DANGEROUS CONIDITIONS

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

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 to the *Order Instituting Rulemaking* ("OIR"), issued on December 13, 2018. CESA also files these comments pursuant to the *Administrative Law Judge's Ruling Providing Guidance on Comments to Order Instituting Rulemaking and Canceling February 6th Prehearing Conference* ("Ruling"), issued by Administrative Law Judge ("ALJ") Melissa K. Semcer on January 25, 2019, that clarified the request for comment on two key questions.

[1] 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, AltaGas Services, Amber Kinetics, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Boston Energy Trading & Marketing, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Clean Energy Associates, Consolidated Edison Development, Inc., Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Enel X North America, Energport, ENGIE, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, GAF, General Electric Company, Greensmith Energy, Ingersoll Rand, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, Lendlease Energy Development, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., Parker Hannifin Corporation, Pintail Power, Primus Power, Quidnet Energy, Range Energy Storage Systems, Recurrent Energy, Renewable Energy Systems (RES), SNC-Lavalin, Southwest Generation, Sovereign Energy, Stem, STOREME, Inc., Sunrun, Swell Energy, Tenaska, Inc., True North Venture Partners, Viridity Energy, VRB Energy, WattTime, 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).

I. INTRODUCTION.

CESA supports the opening of Rulemaking ("R.") 18-12-005 to examine conditions, impacts, and best practices for de-energization of power lines in dangerous conditions, particularly during periods of high wildfire risk (*e.g.*, strong winds, heat events, low humidity, and other related variables). The Commission has set forth a list of issues that will serve as the preliminary scope for this proceeding, including conditions that trigger de-energization, criteria to develop effective programs, notification procedures and improvements, investor-owned utility ("IOU") coordination with first responders, impact mitigation of de-energization on vulnerable populations, reducing the need for de-energization, among other issues. In general, CESA agrees with and supports the scope of the OIR.

However, in accordance with the Ruling,[2] CESA recommends that additional items be added to the scope. Specifically, a key missing scoping item in the OIR is the role of distributed energy resources ("DERs") such as energy storage in the de-energization of power lines in dangerous conditions. The role of DERs should be discussed as related to the issue items of reducing the need for de-energization, of mitigating the impact of an event for vulenerable populations, and of notification ways and standards for de-energization. CESA elaborates on these points below.

[2] The Ruling (p. 2) asks: "A) Is the scope as proposed in the OIR complete and sufficient to address the issues of the OIR? If not, what additional items should be in scope and/or how should the proposed scope be modified? B) Are the preliminary schedule and proposed procedural mechanisms sufficient to address the issues of the OIR? If not, what procedural mechanisms should the Commission consider in order to resolve the issues of the proceeding?"

II. DISTRIBUTED ENERGY RESOURCES CAN SUPPORT THE CONTINUED ENERGIZATION OF NON-RISK PORTIONS OF THE DISTRIBUTION GRID WHILE LIMITING THE EFFECT OF DE-ENERGIZED POWER LINES.

The OIR could expand its scope to include discussions around how to reduce the scale and extent of de-energization.[3] DER technologies and resources are available to the IOUs that can, when deployed at localized level, reduce the need to de-energize large portions of the distribution grid. For example, the implementation of Smart Inverter Phase II requirements will enable all inverter-based generation on the distribution grid to be able to send and receive control signals to potentially modify operations in response to a high-risk situation (*e.g.*, high winds, low humidity, heat wave). Utility or aggregators could form microgrids by islanding localized downstream or behind-the-meter ("BTM") solar-plus-storage resources in localized areas where there is not an immediate threat present.

The role DERs could also factor into the discussion around mitigating the impact of de-energization on vulnerable populations. In instances where a localized de-energization event cannot be avoided for identifed vulnerable populations, DERs could be deployed or/re-purposed during potential de-energization events to ensure these vulnerable populations have power without creating broader wildfire risks. Specificity with operating parameters for the DER's for safe operations under these conditions may be needed. Energy storage systems could be deployed at identified vulnerable customer segments to ensure that power is provided during these increasingly frequent high-risk events. Critical public facilities, such as shelters and police/firefighter facilities, could also be provided with onsite or distribution-sited resilient DERs to serve these entities. In addition, plug-in electric vehicles ("EVs") or other mobile storage solutions could hold a key role in providing mobile storage units that can be operated to ensure continuous energy supply during

[3] OIR, p. 9.

high-risk conditions. The possibilities of leveraging DERs are innumerable to reduce the need for de-energization or to reduce the scope of de-energization events. DERs could be sited behind the customer meter to focus grid resiliency for specific critical customers, or could be sited more 'upstream' at specific substations or circuits on the distribution grid to provide broader islanding capabilities. The above are just some examples of how DERs could be deployed and/or re-purposed for a critical grid need. Thus, in addressing the question of how to reduce the need for de-energization, if possible, CESA recommends that the Commission consider the role of DERs.

Furthermore, the role of DERs should be considered during the discussions around the notification ways and standards during a planned de-energization event. To activate the role of DERs to reduce or mitigate the impacts of de-energization events, operational parameters need to be developed to determine the communication protocols, notification periods (*e.g.*, day-ahead versus day-of notifications), contract or tariff provisions around capacity and energy services, etc. With DERs in place, the processes for operationalizing them for islanding and resiliency will be important as well.

Finally, CESA believes that the discussions around the best practices for evaluating effective programs will also reveal the potential for DERs to reduce the need for de-energization. In 2018, for example, during the aftermath of Hurricane Maria that caused Puerto Rico's grid failures, numerous companies deployed a series of energy storage systems that showcased the need to develop localized emergency response assets as a safeguard from future disasters.[4] Australia also developed microgrids to be deployed in fire-prone areas and operated during extreme weather events, which has also helped to avoid "grid augmentation" – *i.e.*, avoid certain distribution-grid

[4] Tesla, others help Puerto Ricans go solar amid power turmoil (2018, July 26) retrieved 6 February 2019 from https://phys.org/news/2018-07-tesla-puerto-ricans-solar-power.html

investments.[5] In reviewing the best practices in other wildfire-prone states and countries, CESA recommends that the Commission also explore how DERs were deployed and/or operated to reduce the need for de-energization and mitigate impacts of de-energization to vulnerable populations.

III. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the OIR and looks forward to collaborating with the Commission and stakeholders in this new proceeding.

Respectfully submitted,

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[5] Creating the Rural Network of the Future Stand-alone Power Systems Demonstration Project. https://westernpower.com.au/media/3061/stand-alone-power-systems-demonstration-project.pdf