

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Building Decarbonization.

Rulemaking 19-01-011
(Filed January 31, 2019)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO THE ORDER INSTITUTING RULEMAKING REGARDING BUILDING
DECARBONIZATION**

Alex J. Morris
Vice President, Policy & Operations

Jin Noh
Policy Manager

CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: amorris@storagealliance.org

March 11, 2019

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Building Decarbonization.

Rulemaking 19-01-011
(Filed January 31, 2019)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO THE ORDER INSTITUTING RULEMAKING REGARDING BUILDING
DECARBONIZATION**

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 Regarding Building Decarbonization* (“OIR”), issued on February 8, 2019.

¹ 174 Power Global, 8minutenergy Renewables, Able Grid Energy Solutions, Advanced Microgrid Solutions, Alligant Scientific, LLC, AltaGas Services, Amber Kinetics, Ameresco, American Honda Motor Company, Inc., Avangrid Renewables, Axiom Exergy, Better Energies, Boston Energy Trading & Marketing, Brenmiller Energy, Bright Energy Storage Technologies, Brookfield Renewables, Carbon Solutions Group, Clean Energy Associates, ConEd Battery Development, Customized Energy Solutions, Dimension Renewable Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, EDF Renewable Energy, ElectrIQ Power, eMotorWerks, Inc., Enel X North America, Energport, Engie Storage, E.ON Climate & Renewables North America, esVolta, Fluence, Form Energy, GAF, General Electric Company, Greensmith Energy, Gridwiz Inc., Hecate Grid LLC, 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 Energy Solutions, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Energy, NantEnergy, National Grid, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., Nuvve, Pattern Energy, Pintail Power, Primus Power, Polyjoule, 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., Tesla, 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.”) 19-01-011 to develop a policy framework regarding the decarbonization of buildings and working with the California Energy Commission (“CEC”) to coordinate Title 24 building code and Title 20 appliance standard design and implementation. CESA strongly agrees with the need to have a focus on building decarbonization through this OIR,² as this issue area touches on a number of related proceeding but does not have a dedicated forum to address the multiple ‘touch points’ in any existing Commission proceeding.

Our interest in this proceeding is due to our focus and expertise in customer-sited generation, energy storage, demand response (“DR”) policy and programs, and interconnection, which has the potential to play important roles in achieving greenhouse gas (“GHG”) emissions reductions from building electricity end use. CESA is an industry trade association constituted of more than 80 energy storage related member companies and is a party to many related proceedings that recognizes the important role of optimizing building electricity end use, including the Self-Generation Incentive Program (“SGIP”) (R.12-11-005), Energy Storage (A.18-02-016, *et al*), Net Energy Metering (“NEM”) (R.14-07-002), Demand Response (A.17-01-012, *et al*), Transportation Electrification (R.18-12-006), Distributed Resource Planning (“DRP”) (R.14-08-013), Integrated Distributed Energy Resources (“IDER”) (R.14-10-003), and Integrated Resource Planning (“IRP”) (R.16-02-007).

² OIR, p. 6.

II. ENERGY STORAGE AND FLEXIBLE CHARGING TECHNOLOGIES WILL PLAY AN IMPORTANT ROLE IN SUPPORTING BUILDING DECARBONIZATION.

CESA agrees with the Commission in leveraging the decarbonization of the state's electricity sector to support GHG emission reductions in other sectors, such as for the transportation and building sectors. Energy storage and flexible charging technologies (*e.g.*, managed electric vehicle charging) presents significant opportunities to support the integration and optimize the use of GHG-free renewable generation.³ With the appropriate signals in place (*e.g.*, via rate designs or grid-service contracts), energy storage and flexible charging technologies can manage their charging cycles to occur during periods of low marginal GHG emissions (*e.g.*, mid-afternoon solar overgeneration) and their discharging cycles to occur during periods of high marginal GHG emissions (*e.g.*, thermal generation during peak evening load periods). Going forward, CESA envisions building loads to integrate a number of different distributed energy resources ("DERs"), including a blend of energy efficiency, energy storage, customer-sited solar, smart electric vehicle supply equipment ("EVSE"), and smart controls, which may require new regulatory approaches to facilitate such deployments in support of building decarbonization. In general, CESA supports the Commission's pursuit of decarbonizing and optimizing energy usage of building loads.

III. THE PRELIMINARY SCOPE OF THE PROCEEDING IS APPROPRIATE.

CESA supports the preliminary scope of the proceeding as presented in the OIR, including around the organization and sequencing of the four proposed issue categories. In particular, CESA supports the technology neutral and market transformation design principles of the two new Senate Bill ("SB") 1477 programs, as well as for any other pilots or programs that come out of this

³ OIR, p. 4.

proceeding. There are a range of grid-integration technologies (e.g., battery storage, thermal storage) that would benefit from a program focused on market transformation to better enable deeper and broader building decarbonization.

The consideration of new rate designs that align with GHG emissions reduction will also play an important role in the BUILD and TECH programs. CESA supports this issue as being in the scope. In addition to the consideration of new rate designs, however, the Commission may wish to also focus on identifying the existing or upcoming rates that align with building decarbonization goals. In the SGIP proceeding, a GHG Signal Working Group undertook intensive modeling efforts to analyze and identify existing and new rates that align with the GHG emissions reduction goals of the program, which can serve as additional options for technologies within these programs to achieve the intended GHG emissions reductions.⁴ Generally, many of the lessons learned and insights from the SGIP proceeding may be helpful to this proceeding.

Finally, CESA recommends that the Commission include a consideration of the ‘build-margin’ benefits of various technologies used to advance the state’s building decarbonization goals, as identified in Decision (“D.”) 15-11-028, which can avoid or defer the construction of GHG-emitting resources. In other words, the Commission should not only focus on how DERs generate or are operated to support building decarbonization, but also on how they may impact new supply and capacity. For example, the High Electrification Scenario based on the PATHWAYS Base Mitigation Case by 2030 from the CEC’s *Deep Decarbonization* study cited in the OIR assumes 6 GW of additional storage beyond the Assembly Bill (“AB”) 2514 mandate

⁴ See *Assigned Administrative Law Judge’s Ruling Providing Corrected Versions of Staff Proposal and Working Group Report Issued on September 6, 2018*, Attachment B, issued on September 3, 2018. <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M226/K928/226928266.PDF>

as well as to assume 50% of light-duty vehicle (“LDV”) electric vehicle (“EV”) charging is flexible.⁵ Together, these DERs have the potential to reduce new build of GHG-emitting resources and/or to support the retirement of GHG-emitting resources. Such capacity effects will be addressed more deeply in the IRP proceeding, but the Commission should also account for these effects in developing the framework, metrics, rules, and policies in this proceeding.

IV. 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,



Alex J. Morris
Vice President, Policy & Operations
CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: amorris@storagealliance.org

March 11, 2019

⁵ *Deep Decarbonization in a High Renewables Future: Updated Results from the California PATHWAYS Model*, CEC Energy Research and Development Division Final Project Report prepared by E3, CEC-500-2018-012, June 2018, p. 18.
https://www.ethree.com/wpcontent/uploads/2018/06/Deep_Decarbonization_in_a_High_Renewables_Future_CEC-500-2018-012-1.pdf