

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

Order Instituting Rulemaking to Create a
Consistent Regulatory Framework for the
Guidance, Planning, and Evaluation of
Integrated Demand-Side Resource
Programs.

Rulemaking 14-10-003
(Filed October 2, 2014)

**CLEAN COALITION COMMENTS ON ORDER INSTITUTING RULEMAKING
TO CREATE A CONSISTENT REGULATORY FRAMEWORK FOR THE
GUIDANCE, PLANNING, AND EVALUATION OF INTEGRATED DEMAND-
SIDE RESOURCE PROGRAMS**

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CLEAN COALITION COMMENTS ON ORDER INSTITUTING RULEMAKING TO CREATE A CONSISTENT REGULATORY FRAMEWORK FOR THE GUIDANCE, PLANNING, AND EVALUATION OF INTEGRATED DEMAND-SIDE RESOURCE PROGRAMS

I. INTRODUCTION

On October 2, 2014, the California Public Utilities Commission (“Commission”) issued the Order Instituting Rulemaking (“OIR”) to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Demand-Side Resource Programs in order to consider the adoption of a regulatory framework to provide policy consistency for the direction and review of demand-side resource programs. The Clean Coalition offers the following comments on the framework. The comments respectfully urge the Commission to consider three additional areas of focus in the proceeding: 1) locational value, 2) the additional benefits resulting from integrated use of multiple types of distributed energy resources (“DER”), and 3) developing a market for DER to monetize all grid services the resources are capable of providing.

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement, interconnection, and realizing the full potential of integrated distributed energy resources, such as distributed generation, advanced inverters, demand response, and energy storage. The Clean Coalition also works with utilities to develop community microgrid projects that demonstrate that local renewables can provide at least 25% of the total electric energy consumed within the distribution grid, while maintaining or improving grid reliability. The Clean Coalition participates in numerous proceedings before Federal, California, and other state agencies throughout the United States.

II. COMMENTS

The Clean Coalition generally supports the Commission’s continued efforts to integrate demand-side energy solutions and technologies through utility program offerings.

Specifically, in undertaking this proceeding, we applaud the Commission's actions seeking to enable the most effective sources of demand reduction to meet individual customer needs. As the OIR recognizes, this proceeding may result in a major shift in the Commission's demand-side management policy.

The Clean Coalition submits the following three recommendations that would strengthen the regulatory framework—potentially termed the Customer Energy Solutions Framework—to be developed during Phase 1 of the proceeding. First, the Clean Coalition supports the Commission's proposal to coordinate closely with R.14-08-013, the Rulemaking regarding policies, procedures and rules for development of Distribution Resources Plans (“DRPs”) pursuant to Public Utilities Code Section 769. The framework should specifically import lessons learned from that rulemaking addressing locational value and methods to encourage DER siting at optimal locations. From a distribution grid system locational value perspective, optimal locations for DER are those locations that avoid or defer alternative investments to meet projected demand for power and needs for grid services, such as investments in transmission, congestion mitigation, flexible capacity, central generation, local peak resources, and voltage control or conservation.

From a substation-level locational value perspective, optimal locations for DER are the locations where the resource provides the greatest value to the grid and imposes the lowest costs to the grid. The locational value of a DER should be based on its ability to contribute toward locally balancing demand for power and preventing voltage violations. Optimal locations for distributed renewables are the locations that do not require grid upgrades (due to robust feeder locations and available capacity), match the load profile of the feeder (e.g., feeders with commercial buildings have high day time load, which matches peak solar production hours), and leverage a connected feeder system across a substation area for better local balancing such as cross-feeding (i.e., back-feeding from one or more feeders to other feeders within a substation area). Similarly, optimal locations for other DER that require interconnection are the locations that reduce the need for grid upgrades and help to smooth out the net load profile of the feeder. For example, advanced inverters for solar PV or storage can be strategically placed and programmed, or

signaled to help avoid voltage violations, support conservation voltage reduction, provide reactive power, and increase reliability.

While the DRPs being developed under R.14-08-013 will identify where the services provided by demand-side management and other DER are most needed and in what quantities, integrated demand-side resource programs have a critical role to play in ensuring that policies are developed to cost effectively incent the appropriate type and level of demand-side management capacity in those locations. Adopted DRPs should be explicitly referenced and incorporated in demand-side management policy and planning.

Second, the Customer Energy Solutions Framework should consider the additional benefits arising from the integrated use of multiple types of DER. Instead of simply focusing on each individual component in isolation, the Commission should account for the benefits of complementary functionality among multiple DER. Such synergistic relationships can lead to substantial improvements in efficiencies and costs. For example, it is expected that high levels of distributed PV, peaking during mid-day, will lead to excess supply and lower daytime energy prices, depending on rate design. Such low mid-day energy prices, when communicated to end users via Time of Use or dynamic pricing, may lead to behaviors that mitigate this over-generation condition. Low energy prices may cause customers to precool (e.g., summer weekdays) or preheat (e.g. winter weekdays) their homes when energy is cheaper, relying less on more expensive energy later in the day and reducing the need for additional flexible supply capacity. Further, peak PV generation impacts can be mitigated with demand response—used to increase daytime loads—and coincident local daytime electric vehicle charging.¹ Coordinated local supply and demand mitigates impacts of either when developed and considered in isolation. The framework should account for this significant added value component.

Finally, the Commission should use this proceeding to further develop market based and other compensation mechanisms to reflect the value of all grid services provided by demand-side resources and provide accessible means for utility customers and other

¹ Craig Lewis, Presentation to California Energy Commission, *Flattening the Duck: Facilitating Renewables for the 21st Century Grid* (Feb. 2014), available at <http://www.clean-coalition.org/resources/february-2014-cec-presentation-flattening-the-duck/>.

providers to realize predictable monetary compensation for that value. For example, the value of distributed solar and storage are enhanced by turning on advanced capabilities of inverters, which can prevent over-voltage due to high levels of distributed solar, prevent blackouts by providing reactive power close to loads, and enable conservation voltage efficiencies.²

As part of the Distribution Resources Plans proceeding, the IOUs will identify higher opportunity and value locations, which will help to quantify the synergistic benefits of DER discussed above. Additionally, the Load Modifying Demand Response Valuation Working Group, which was established following a recent settlement agreement concerning demand response,³ will also quantify the benefits resulting from interaction of multiple types of DER. We respectfully urge the Commission to work towards full monetization of all DER services in this proceeding.

² Craig Lewis, SOLARSERVER, *Advanced Inverters—Recovering Costs and Compensating Benefits* (Oct. 2013), available at http://www.clean-coalition.org/site/wp-content/uploads/2013/10/October2013_SolarServer.pdf.

³ Motion for Adoption of Settlement Agreement Between and Among Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, California Independent System Operator Corporation, Office of Ratepayer Advocates, the Utility Reform Network, California Large Energy Consumers Association, Consumer Federation of California, Alliance for Retail Energy Markets, Direct Access Customer Coalition, Marin Clean Energy, Enernoc, Inc., Comverge, Inc., Johnson Controls, Inc., Olvine, Inc., Energyhub/Alarm.com, Sierra Club, Environmental Defense Fund, and Clean Coalition on Phase 3 Issues, Cal. Pub. Utils. Comm'n, R.13-09-011 (Aug. 4, 2014), available at http://www.clean-coalition.org/site/wp-content/uploads/2014/08/clean_Motion-for-Adoption-of-Settlement-Agreement_FINAL_CPUC_Settlement-attached.pdf/.

III. CONCLUSION

The Clean Coalition appreciates the opportunity to comment on the OIR.

Respectfully submitted,

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