

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking To
Enhance the Role of Demand Response
in Meeting the State's Resource
Planning Needs and Operational
Requirements.

Rulemaking 13-09-011
(Filed September 19, 2013)

**RESPONSES TO THE SET OF SIX QUESTIONS REGARDING DEMAND RESPONSE
PROGRAM BRIDGE FUNDING AND THE STAFF PILOT PROPOSAL OF
ENVIRONMENTAL DEFENSE FUND**

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I. Introduction

The Environmental Defense Fund (“EDF”) thanks the California Public Utilities Commission (“CPUC” or “Commission”) for the opportunity to respond to the set of six questions regarding demand response program bridge funding and the staff pilot proposal attached to the CPUC Order Instituting Rulemaking to Enhance the Role of Demand Response in Meeting the State’s Resource Planning Needs and Operational Requirements, R. 13-09-011 (“DR Order”).

Based on the DR Order and attached Staff Proposal for Demand Response Pilots in 2015 (“Staff DR Pilots”), EDF believes that it is reasonable for the Commission to authorize Southern California Edison Company (“SCE”), San Diego Gas & Electric Company (“SDG&E”), and Pacific Gas and Electric Company (“PG&E”) one-year of bridge funding to allow current demand response programs to continue, as is, through 2015 while the Commission contemplates changes to the structure of overall demand response programs.

EDF generally supports funding 2015 Demand Response pilot programs and believes that these monies should be directed towards programs that enable California to realize the broad

Demand Response (“DR”) objectives that match the ambitious goals set forth in the DR Order. As the Order states, “the time is ripe” for the Commission to consider “further and deeper changes to demand response programs.”¹ In this respect, EDF recommends that the initial phases of this proceeding consider the additional and supplementary pilot initiatives and suggestions proposed by the California Independent System’s Operator (“CAISO”), the investor-owned utilities (“IOUs”), and other intervenors. Ultimately, the 2015 pilot programs adopted in this proceeding should work towards fundamental design strategies needed to spur DR programs to meet pressing needs, in accordance with the CPUC’s desire to address the “challenges and developments related to our electric grid,” which “call[ed] for the Commission’s immediate attention to the matter.”²

EDF’s comments below are primarily focused on DR Order questions 2, 3, and 4. The responses provided to correspond to these questions are meant to broadly engage in the CPUC’s request for parties to respond to the Staff DR Pilots.

II. DR Order Question 2: Do You Support the Objectives of the Staff Proposed Pilots?

Please Provide Alternative Suggestions for Utility Pilots in 2015 if you do not.

EDF supports the CPUC determination that Demand Response Pilots in 2015 should be utilized to “prepare for a new demand response program structure.”³ With this overarching goal, EDF believes that 2015 pilot projects should broadly work towards advancing knowledge, analyses, and general readiness to meet “the needs of the grid and the State’s vision for future energy policy including the vision for the future of demand response.”⁴ In addition to the Staff

¹ DR Order, R. 13-09-011 at 4, 6 (9/25/2013).

² *Id.* at 6.

³ *Id.* at 21.

⁴ *Id.* at 6.

Proposal, discussed below, pilots and suggestions proposed by stakeholders in this proceeding could help the Commission expediently advance the State’s vision for DR.⁵ For example, CAISO’s proposed DR auction mechanism, if developed in a way that enables emerging clean technologies to demonstrate their full reliability benefits, could act to further California’s energy and environmental goals. As part of this proceeding, EDF encourages the Commission to examine ways to enable this auction mechanism to meet CAISO requirements, environmental mandates, and end-use customer needs – ensuring that it provides necessary support for achieving California’s DR policy outcomes. In this vein, EDF recommends that regulators take the opportunity to reevaluate rules after the first year of the auction, before expansion, to enable modifications that guarantee it is meeting California’s goals.

Likewise, DR pilots should be crafted to produce data that can be used to inform probabilistic modeling approaches as part of closely coordinated Resource Adequacy and related CAISO proceedings. For example, pilots should be used to develop information about the potential characteristics of different emerging and conceptual DR programs, their strengths and weaknesses, and associated performance risks.

The Staff Proposal details three demand response pilot projects: (1) expand on an ongoing Intermittent Resource Management Phase 2 (“IRM2”) pilot in northern California; (2) launch an IRM2 pilot in southern California based on its northern counterpart; and (3) implement a pilot to increase customer responsiveness to dynamic tariffs (“DR Customer Response Pilot”).

The first two pilot projects are meant to test participation of demand response in the CAISO wholesale energy market. EDF is generally supportive of these pilots, but is concerned that “enhancement” of the northern California IRM2 pilot may not yield widely scalable results.

⁵ The State’s vision for DR as enumerated is this and related proceedings, the loading order, and discussions of statewide policy, such as the Energy Action Plans and the Integrated Energy Policy Report.

Given increasing pressure on the State to cultivate flexible resources, it is imperative that DR's potential to cost-effectively compete with flexible and peaking combustion resources be developed quickly. This prerogative merits a host of investigations, including of different "bundles" of DR that reflect a diversity of curtailment time periods and longevities, as well as integration with various other resources, such as storage and incentive structures. To the extent that funding constraints limit the number of pilots that can be supported, EDF recommends postponing final decisions on either of these two pilots until this proceeding explores the ways that they could be added to or changed to wholly meet its goals.

The third pilot project, focused on how to better engage commercial class customers in demand response tariffs, should be reoriented towards gaining more expansive, actionable experience. Significant literature exists on how utilities can effectively engage with small businesses, including as developed by San Francisco Community Power in collaboration with EDF as part of a pioneering DR pool consisting of an aggregation of commercial class customers.⁶ Likewise, given that it is the utilities' responsibility to effectively market these programs within existing, Commission-approved budgets, set-aside funding should be allocated towards pilots that directly lead to launchable, innovative products that directly address existing important gaps or operational requirements. Commission adoption of incentives for utilities to utilize effective time-variant rates can incent them to conduct the necessary research and outreach efforts to ensure successful tariff launches, without the need for separate pilots.

That said, EDF supports pilot elements oriented towards commercial class customers that actively explore sector-specific measures to automate peak load shifting technologies. For example, focus should continue on seamlessly and financially attractively automating and

⁶ *Distributed Energy Resource (DER) Implementation: Testing Implementation of A Demand-Response Program Within a Small Business Population*, CEC-500-2010-014 (November 2010), available at <http://www.energy.ca.gov/2010publications/CEC500-2010-014/CEC-500-2010-014.PDF>.

aggregating: collections of refrigerator compressors, parking lots dedicated to electric battery recharging, water pumps of all kinds, and other small and medium loads that might lend themselves to effective, aggregated, automation. Likewise, pilots examining how best to pair financing mechanisms – such as on-bill financing – with adoption of auto-DR or effective participation in time-variant rates would be well worth exploring, as would pilots that investigate how to better use Smart Grid data and capabilities to craft and target deployment of DR programs.

In addition, EDF is generally supportive of pilots that demonstrate methods to increase participation in DR programs, extract extra services and values out of DR using reliable, fast DR with telemetry, and leverage existing resources – such as fully clean back-up generation – to provide additional benefits to ratepayers, the grid, and the environment. The Demand Response Pilot Project offers an example of a pilot approach to the former two issues.

III. DR Order Question 3: In Section II.C.4 of the staff proposal, Energy Division staff recommends that SCE and SDG&E will both need budgets that are 75-80 percent of PG&E’s current Intermittent Resource Management Phase 2 (IRM2) budget (\$2.458 million) to be able to effectively replicate the IRM2 pilot in their territories. Do you agree with that assessment? If not, what would be an appropriate budget for SCE and SDG&E to replicate the IRM2 pilot in their territories? Are there ways to modify the allocation of specific costs of the pilot such that SDG&E and SCE will not need as much as 75-80 percent of PG&E’s budget?

DR Order Question 4: Do you agree with the proposed budgets for the other pilots in the attached staff proposal?

The DR Order makes clear that any 2015 demand response pilot project should be forward focused, to “prepare for a new demand response program structure.”⁷ Given this mandate, EDF believes that any budget allocation should support implementable pilot projects that, if successful, can serve as “soft launches” for broader programs. 2015 pilot projects can serve as foundational pieces of the State’s demand response structures going forward; funding should go towards creating programs that are replicable, future-oriented, and ‘launch-ready’.

Pilots that duplicate similar elements in each service territory might thus not be the best use of funding. Rather, these monies could go towards testing an array of forward thinking demand response elements, while laying the groundwork for future action and implementation with plans in place to amplify successful approaches across service territories. In particular, the needs characteristics for flexible and peaking capacity being developed at CAISO, as well as in the Commission’s Resource Adequacy proceeding, can inform pilots on DR innovations that will robustly contribute to ensuring electric reliability.

IV. Conclusion

EDF firmly believes that demand response program bridge funding and 2015 pilot projects can provide the basis for the Commission’s ambitious goal of advancing a future vision of demand response within California. To reach this end, pilot projects – and the allocated funding – should be focused on the goal of bridging demand response to its next iteration. EDF thus urges the Commission to consider the array of pilot projects and suggestions from stakeholders in this proceeding to help California reach its goals for the wide-spread use of demand response.

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⁷ DR Order, R. 13-09-011 at 6 (9/25/2013).

Respectfully signed and submitted on October 21, 2013

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