

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System Operator  
Corporation

Docket Nos. RM07-19-\_\_\_\_  
and AD07-7-\_\_\_\_

**INTERIM REPORT AND MOTION FOR EXTENSION OF TIME  
OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to the Commission's directives in Order No. 719<sup>1</sup> and Rules 212 and 2008(a) of the Commission's Rules of Practice, the California Independent System Operator Corporation ("ISO") respectfully submits this interim report and motion for an extension of time until January 26, 2010, in which to file a report on the result of the ISO's Smaller Demand Response pilot projects. The ISO is filing an interim report and a request for a three-month extension because the pilot projects are currently in progress and an evaluation of the results will not be available until the end of 2009.

**I. Background**

In Order No. 719, the Commission directed RTOs and ISOs, in cooperation with their customers and other stakeholders, to assess the technical feasibility and value to the market of smaller demand response resources providing ancillary services, including whether (and how) smaller demand response resources can reliably and economically provide operating reserves.

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<sup>1</sup> Wholesale Competition in Regions with Organized Electric Markets, 125 FERC ¶ 61,071 (October 17, 2008).

The Commission left to the RTO or ISO (and its customers and other stakeholders) the choice of whether to conduct the assessment through a pilot program or through other mechanisms. The assessment was to include such issues as the need for measurement and verification standards and a definition of what constitutes a “small demand response resource.” The Commission stated that RTOs and ISOs must file a report with the results of the assessment within one year from the publication of Order No. 719 in the Federal Register.<sup>2</sup> Although no report was due at the time, the CAISO provided the Commission with an update on its activities in its April 28, 2009 compliance report.

In the ISO’s April 28 report regarding other aspects of Order No. 719, the ISO indicated that it expected, in the very near future, to file agreements with the Commission regarding three new pilot projects that would assess the ability of smaller demand response resources to participate in ancillary service markets through aggregation. Each of the three investor-owned utilities within the CAISO control area would conduct a project: Pacific Gas and Electric Company (“PG&E”) would evaluate large commercial and industrial demand response; San Diego Gas & Electric Company (“SDG&E”) would assess aggregation of commercial loads greater than 20 kilowatts; and Southern California Edison Company (“SCE”) would test a project involving cycling of aggregated residential air conditioning.

## **II. Interim Report**

On June 26, 2009, the ISO filed Participating Load Pilot Agreements regarding each of the projects described in the April 28 report. On August 25,

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<sup>2</sup> *Id.* at P 97, as revised at 126 FERC ¶ 61,261(2009).

2009, the Commission accepted each of the agreements, effective June 29, 2009.<sup>3</sup> As of July 28, 2009, the ISO had completed ancillary services certification testing for each of the resources, allowing them to commence bidding into the ISO's ancillary services markets on July 29, 2009. The projects are all continuing through at least October. Each is part of the particular utility's demand response activities and budget as approved by the California Public Utility Commission ("CPUC") in Decision 09-08-027.<sup>4</sup>

### ***Pacific Gas and Electric Company***

The PG&E pilot involves three large retail loads: a county government office building; a "big box" furniture store; and an industrial-size bakery. The pilot employs PG&E's existing Auto-Demand Response infrastructure. Each of these resources has been certified to 0.2 megawatts of non-spinning reserve. PG&E intends to bid these resources into the ISO markets until the end of October.

In the implementation plan filed with the CPUC, PG&E explained that the pilot's main objective is to gain knowledge regarding the processes necessary to integrate demand response into the ISO's markets. Because of the time constraints and ISO Participating Load requirements, PG&E has developed short-term solutions for some of the hardware and software issues that arise in connection with bidding demand response into the ISO's markets. PG&E stated it would perform a thorough analysis during and after conclusion of the pilot in order to understand better the resource requirements.

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<sup>3</sup> *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,184 (2009)

<sup>4</sup> [http://docs.cpuc.ca.gov/WORD\\_PDF/FINAL\\_DECISION/106008.PDF](http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/106008.PDF)

PG&E's implementation plan indicated that the pilot would allow it to examine the following areas: (1) the technical feasibility of large commercial and industrial facilities providing energy or ancillary services as Participating Load; (2) the development of specifications for internal and external process development of the utility's provision of energy and ancillary services as Participating Load; (3) economic analysis of the large commercial and industrial sector's participation in ISO's ancillary services markets from the customer and societal points of view; and (4) potential barriers to the integration of demand response as a supply resource in the ISO's markets. Among the barriers PG&E identified were the ability to forecast the magnitude of participant load available to provide Ancillary Service and energy; the development of methods for nominating load in CAISO's ancillary services and day-ahead energy markets; the accuracy of forecasting the load drop; the development of methods for settling with the ISO (including determining the actual amount of load dropped); locational dispatch of demand response; and telemetry for demand response.

***Southern California Edison Company***

SCE is testing retail air conditioning as demand response, using one customer, a military installation located in the Mojave Desert. SCE is modeling the air conditioning load from the installation by sampling specific air conditioning units and creating a statistical representation of the overall load. This project design will allow the ISO to evaluate the methodologies and feasibility of proxy telemetry.

The SCE demand resource has been certified for five megawatts of curtailable demand. SCE will bid the resource into the ISO's markets as non-spinning reserve until October 14, 2009.

In its implementation plan, SCE informed the CPUC that the objective of the pilot was to explore the technical and economic feasibility of small aggregated demand response participating in the ISO's planned programs for Participating Load, including Dispatchable Demand Resources (aka Participating Load) and Proxy Demand Resources (which were described in the ISO's April 28 filing). SCE anticipated that the pilot might result in recommended changes to the ISO's Participating Load requirements or technical specifications in order to make small aggregated demand response load feasible in these programs.

SCE noted the particular challenge of determining how its pilot would implement the CAISO's telemetry requirement for Participating Loads. The customers involved did not have interval metering. The pilot would thus explore development of a "telemetry proxy" and even a "metering proxy" for settlement in lieu of actual real-time telemetry and 5-minute interval metering at each residential customer site. SCE planned to (and did) work with CAISO early in the pilot development to come to a mutually acceptable metering solution, which including a combination of circuit metering and sample customer metering.

***San Diego Gas & Electric Company***

SDG&E's pilot has aggregated multiple bundled customers throughout its service area into a single resource for bidding into the ISO's ancillary services market. The aggregated resource consists of office buildings and one hotel.

SDG&E is working with APX, who is responsible for, inter alia, developing and maintaining the technology to support the project, providing the ISO with real-time load data, and monitoring the ISO's real-time dispatches for participating resources. SDG&E's resource for the aggregated customers was certified for three megawatts. Although the program is scheduled to run through October 31, SDG&E may extend the project.

The challenges of the SDG&E pilot were establishing the ability to combine customers and satisfying the CAISO's ancillary service timing requirements in order to deliver a specific amount of load curtailment; and the creation of telemetry values that are measured, aggregated and provided to the ISO in a timely manner. In its implementation plan, SDG&E told the CPUC that it had targeted 3 megawatts for participation in the pilot during 2009, with the intention of working with existing Demand Response Aggregators or Curtailment Service Providers to identify end-use customers for participation in the PLP. The Curtailment Service Provider would act as the direct participant in the pilot by aggregating smaller load reductions to achieve the three-megawatt target for the pilot project resource.

The pilot was designed to allow both SDG&E bundled customers and Direct Access customers to participate. SDG&E explained that, because of existing commercial relationships, bundled customers and direct access customers could be represented through separate pilot project resources. As a result, SDG&E would use a third party scheduling coordinator (APX) for bidding direct access participants' demand reduction into the CAISO market. The pilot to

date includes only the bundled customers. SDG&E plans to incorporate direct access customers in a later phase.

### **III. Request for Extension of Time**

As noted above, Order No. 719 directed ISOs and RTOs to file a report on the technical feasibility and value to the market of smaller demand response resources providing ancillary services by one year from the publication of the order in the Federal Register, which is October 28, 2009. For a number of reasons, it was not feasible to commence the pilot projects at a time that would allow the ISO to report the results in accordance with the Commission's schedule.

As is apparent from the discussion above, the implementation of the pilot projects required extensive preparatory work. In addition to recruiting customers, the sponsoring utilities needed to work with the ISO to develop techniques and software to provide the necessary telemetry and metering for the resources and to address issues concerning bidding, dispatch, and settlement. The parties needed to negotiate and execute the necessary agreements and to file them with the Commission. It was not possible to complete these tasks prior to July 2009. Moreover, it was important to conduct the pilots during the ISO's peak load season, when the need for demand response is greatest. That season runs from July through October. This left no time for the evaluation of the results and the preparation of a report by the October 28, 2009, deadline.

As also noted above, the initial phases of the utilities' pilots end in October. The CPUC has directed the utilities to evaluate the projects and to file

a report by December 31, 2009. The ISO therefore requests a three-month extension – to January 28, 2010 – of the deadline for filing a report with the Commission. This will allow the ISO to examine the reports filed by the three project sponsors in light of the ISO’s own observations and to prepare a consolidated report for the Commission.

#### **IV. Conclusion**

For the reasons above, the ISO requests that the Commission accept this interim report and grant a three-month extension – to January 26, 2010 – of the deadline for filing a report on the technical feasibility and value to the market of smaller demand response resources providing ancillary services.

Respectfully submitted,

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Dated: October 13, 2009

## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service lists in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Washington, D.C. this 13<sup>th</sup> day of October, 2009.

*/s/ Michael E. Ward*

Michael E. Ward  
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