



California Independent
System Operator Corporation

January 15, 2014

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER06-615-000**

**Public Version of Annual Report Evaluating Demand Response
Participation in the ISO for 2013**

Dear Secretary Bose:

The California Independent System Operator Corporation (“ISO”)¹ submits this annual report evaluating demand response participation in the ISO for 2013 (“2013 Annual Report”), pursuant to the Commission’s June 25, 2007 order in this proceeding.² The ISO submits two versions of the 2013 Annual Report – a public version that redacts privileged information and a privileged version containing no redactions.³

The information provided in the 2013 Annual Report covers the period from January 1 through November 30, 2013 (“Reporting Period”). Each of the ISO’s previous annual reports on demand response participation has also covered the period from January 1 through November 30 of the subject year. This is because, to produce the annual report, the ISO must cull, correlate, and organize information compiled mainly from a larger pool of underlying data in the ISO’s settlement system, and all settlement data elements for December are not

¹ Capitalized terms not otherwise defined herein have the meanings set forth in appendix A to the ISO tariff.

² See *California Independent System Operator Corp.* 119 FERC ¶ 61,313, at P 226 (2007). The ISO has filed annual reports on demand response participation each January since that order was issued.

³ The ISO requests privileged treatment of the privileged version of the 2013 Annual Report pursuant to section 388.112 of the Commission’s regulations (18 C.F.R. § 388.112), because the report contains commercially sensitive data regarding participation in the ISO market.

available in time for the ISO to include them in the annual report due in January. Notwithstanding these time constraints, each annual report reflects data for the large majority (11 of 12 months, or 92 percent) of the year.

I. Summary of the ISO’s Demand Response Programs for the Reporting Period

The ISO operated two demand response programs during the Reporting Period: a participating load program and a proxy demand resource program. Participation in each program is summarized below.

A. Participating Load

For the Reporting Period, there were [REDACTED] active participating load resources associated with large pumping resources registered in the ISO Master File.⁴ These participating load resources can be broken down as follows:

Market Participant: California Department of Water Resources State Water Project

No. of resource IDs: [REDACTED]

These participating load resources represent an aggregation of pumps; they have been aggregated into separate participating load “facilities” for scheduling and settlement purposes.

B. Proxy Demand Resources

For the Reporting Period, there were [REDACTED] active proxy demand resources registered in the ISO Master File. These proxy demand resources can be broken down as follows:

Market Participant: Pacific Gas and Electric Company

⁴ These [REDACTED] participating load resources are unique, non-pumped hydro storage facilities. This report follows the ISO’s previous annual reports in not including data for pumped hydro storage facilities. As the ISO explained in the first annual report (submitted in this proceeding on January 25, 2008), the reason for this approach is that pumped hydro storage facilities operate differently from traditional demand response resources, in that pumped hydro storage facilities affirmatively schedule and increase load as well as provide load curtailment. The ISO believes that this report’s focus on traditional demand response resources results in more meaningful content, because the reported information can be more meaningfully compared with information for other regions and organized markets, which was a primary purpose for implementing the reporting obligation.

No. of resource IDs:

█

Market Participant:

San Diego Gas & Electric Company

No. of resource IDs:

█

Market Participant:

Southern California Edison Company

No. of Resource IDs:

█

Each of these █ proxy demand resources represents an aggregation of retail service accounts assembled into a █ resource for scheduling and settlement purposes.

II. Non-Spinning Capacity Awards and Payment from Demand Response Resources

In the ISO's wholesale market, market participants can choose to bid ancillary services (such as non-spinning reserves), or to self-provide them. Market participants that choose to bid ancillary services are paid at the ancillary service market clearing price. Accordingly, the ISO makes payment to them for the ancillary service capacity type that was offered and accepted. Market participants that fulfill their ancillary service obligations by self-providing effectively receive an offset of their ancillary service obligations. The offset reduces or eliminates the quantity of ancillary service capacity that they must procure from the market.

On average, for the Reporting Period, the ISO system utilized approximately 873 MW of non-spinning reserve capacity per hour to operate. This procurement average is based on the total ISO system non-spinning reserve capacity divided by the total number of hours for the Reporting Period, *i.e.*, 8,016 hours. The range of non-spinning reserve capacity offered or self-provided exhibited some variations during certain, limited hours in 2013. In this regard, demand response resources cleared (bid and/or self-provided) an hourly maximum of █ MW and a minimum of █ MW of non-spinning reserve capacity on certain occasions. On average, however, █ MW per hour was bid or self-provided to the ISO. Table 1 below sets forth the total MW and dollar amounts associated with non-spinning reserve capacity awards and payment for the Reporting Period.

TABLE 1 - Non-Spinning Reserve Capacity Awards and Payment*			
Total non-spinning capacity bid (MW)	Total non-spinning capacity awarded (MW)	Total non-spinning capacity payments (\$)	Total non-spinning capacity self-provided (MW)
██████████	██████████	██████████	██████████

* These values represent cumulative totals based on all demand response resources.

A. No-Pay for Unavailable Non-Spinning Capacity from Demand Response Resources

No-pay is a settlement mechanism to encourage resources, both generators and demand response resources, to keep awarded ancillary services available for ISO dispatch by following dispatch instructions and avoiding uninstructed deviations. When triggered, the no-pay mechanism results in the rescission of payment for the provision of spinning reserve or non-spinning reserve when the ancillary service becomes either undispachable capacity, unavailable capacity, undelivered capacity, or, in certain circumstances, unsynchronized capacity subsequent to the ancillary service award for such ancillary services and the ISO payment for the services. A portion of the total non-spinning capacity awarded to demand response resources (approximately █████%) was rescinded through the no-pay settlement mechanism during the Reporting Period. Table 2 below summarizes the total MW and dollar amounts associated with these rescission results.

TABLE 2 - Summary of Unavailable Non-Spinning Capacity		
Total non-spinning capacity awarded and self-provided (MW)	Total non-spinning capacity unavailable subject to the no-pay provision (MW)	Total non-spinning capacity payment rescinded subject to the no-pay provision (\$)
██████████	██████████	██████████

B. Real-Time Energy and Payment from Demand Response Resources

To meet its real-time reliability needs, the ISO dispatches real-time energy from dispatchable demand response resources when it is economic to do so, based on the submitted bids that the scheduling coordinator has submitted to the ISO for demand response resources. A demand response resource can bid to curtail energy. Pursuant to ISO real-time dispatch instructions, a demand response resource is paid for the amount of energy the resource is instructed to curtail. This is analogous to the ISO paying a generator to increase output relative to the resource’s scheduled energy amount. Any deviations associated with the ISO’s real-time dispatches (*i.e.*, under-deliveries or over-deliveries) are settled with the demand response resource as uninstructed energy. Table 3 below summarizes the total MW amounts associated with net settlement of the ISO’s instructed and uninstructed energy for dispatches to decrease consumption during the Reporting Period.

TABLE 3 - Decrease Energy Dispatches - Real-Time Energy and Settlement Summary				
Total real-time energy offered (MW)	Total no. of dispatches (events)*	Total real-time instructed energy (MW)	Total real-time energy delivered (MW)	Total energy settlement payments to demand response resources (\$)
█	█	█	█	█

**Where dispatches equal to or greater than 0.015 MW, in any interval, are aggregated by trading hour.*

C. Real-Time Energy Dispatch Detail for Demand Response Resources

Table 4 below provides a detailed breakdown of the MW amounts associated with real-time energy dispatch for demand response resources by hourly event during the Reporting Period.

Table 4 – Real-Time Energy Dispatch by Hourly Event			
Dispatch Event		Data	VALUE
Day	Hour		
[REDACTED]	[REDACTED]	Real-time energy dispatched (MW) Real-time energy delivered (MW) Energy payment (\$)	[REDACTED]
	[REDACTED]	Hourly avg. system load (MW)	[REDACTED]
	[REDACTED]	Real-time energy dispatched (MW) Real-time energy delivered (MW) Energy payment (\$)	[REDACTED]
	[REDACTED]	Hourly avg. system load (MW)	[REDACTED]
	[REDACTED]	Real-time energy dispatched (MW) Real-time energy delivered (MW) Energy payment (\$)	[REDACTED]
	[REDACTED]	Hourly avg. system load (MW)	[REDACTED]
	[REDACTED]	Real-time energy dispatched (MW) Real-time energy delivered (MW) Energy payment (\$)	[REDACTED]
	[REDACTED]	Hourly avg. system load (MW)	[REDACTED]
	[REDACTED]	Real-time energy dispatched (MW) RT energy delivered (MW) Energy payment (\$)	[REDACTED]
	[REDACTED]	Hourly avg. system load (MW)	[REDACTED]

III. Communications

Correspondence and other communications regarding this filing should be directed to:

Sidney M. Davies
Assistant General Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
sdavies@caiso.com
Tel: (916) 608-7144
Fax: (916) 608-7222

Mike Turner
Manager, Market Settlement
Validation and Resolution
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
mturner@caiso.com
Tel: (916) 608-1107
Fax: (916) 608-7222

Respectfully submitted,

By: /s/ Sidney M. Davies

Nancy Saracino
General Counsel
Roger E. Collanton
Deputy General Counsel
Sidney Davies
Assistant General Counsel
California Independent System
Operator Corporation
250 Outcropping Way
Folsom, CA 95630
T – 916-608-7144
F – 916-608-7222
sdavies@caiso.com

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the above-referenced proceeding, 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 Folsom, California this 15th day of January 2014.

/s/ Sarah Garcia
Sarah Garcia