

September 21, 2011

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20246

**Re: California Independent System Operator Corporation  
Docket No. ER11-3616-000**

**Response to the August 26, 2011 Letter Requesting  
Additional Information and Regarding Reliability Demand  
Response Resources Tariff Amendment**

Dear Secretary Bose:

On May 20, 2011, the California Independent System Operator Corporation (CAISO) filed proposed tariff revisions to allow reliability demand response resources to participate in the CAISO markets.<sup>1</sup> As explained in its filing, the CAISO's proposal reflects the results of a comprehensive settlement agreement among the CAISO, state investor-owned utilities, and other interested parties addressing how emergency-triggered demand response resources in California made available under state retail demand response programs will be integrated into the CAISO's wholesale market design. Further, the CAISO's proposal to integrate reliability demand response resources complies with the Commission's directives in Order No. 719,<sup>2</sup> which require independent system operators and regional transmission organizations to allow aggregated retail customers to bid demand response directly into the wholesale energy market to the extent permitted by applicable state laws and regulations.

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<sup>1</sup> Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO tariff and in the May 20 tariff amendment. Except where otherwise noted herein, references to section numbers are references to sections of the CAISO tariff, including new proposed tariff sections and revisions to existing tariff sections contained in the May 20 tariff amendment.

<sup>2</sup> *Wholesale Competition in Regions with Organized Electric Markets*, FERC Stats. & Regs. ¶ 31,281 (2008) (Order No. 719), *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292, *order on reh'g and clarification*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

The May 20 tariff amendment was submitted following an extensive stakeholder process.<sup>3</sup> The CAISO sought to include in the filing sufficient detail to demonstrate the justness and reasonableness of the CAISO's reliability demand response resource design and to permit the Commission to issue an order accepting it. However, on August 26, 2011, the Commission Staff issued a letter requesting additional information in order to process the filing.

The CAISO submits this response to the Commission Staff's request for additional information. The CAISO requests that the Commission accept the May 20 tariff amendment as supported by the additional information and supplemental proposed clarifying tariff revisions included with this response.<sup>4</sup> Also, as discussed below, the CAISO modifies its requested effective date for the proposed demand response provider agreement.

## **I. Responses to Requests for Additional Information**

The following are the CAISO's responses to the requests for additional information contained in the August 26 letter.

1. Request for Additional Information – *CAISO states that the RDR [reliability demand response] program will “enable retail emergency triggered demand response programs . . . to be integrated into [CAISO] markets and operations.” We also note that the cited settlement agreement includes a provision describing such emergency trigger. However, the submitted tariff provisions do not make clear when an RDR resource would be subject to dispatch. Please explain, with reference to specific tariff provisions, under what circumstances would resources registered under the RDR program be “emergency triggered.” Please submit any necessary tariff revisions.<sup>5</sup>*

### Response –

Resources registered under the reliability demand response program (*i.e.*, reliability demand response resources) will, in normal system and system-modeling conditions, be subject to dispatch through the CAISO's market applications based on bids submitted in the day-ahead and real-time markets. Reliability demand response resources will be subject to bidding and dispatch restrictions in the real-time market, where economic dispatch can only occur once real-time threshold operating conditions are met. Moreover, as discussed below, reliability demand response resources will be subject to additional special

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<sup>3</sup> See May 20, 2011 tariff amendment at Attachment D.

<sup>4</sup> The CAISO submits this addition information and further proposed tariff revisions pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d.

<sup>5</sup> August 26, 2011 letter at 1 (citations omitted).

dispatch rules to address abnormal system and system-modeling conditions. These special dispatch rules are: (1) exceptional dispatch by the CAISO pursuant to the CAISO tariff; and (2) dispatch by state investor-owned utilities to address a local transmission or distribution reliability concerns.

Proposed Section 30.6.2 of the CAISO tariff states that, unless otherwise specified in the tariff and applicable business practice manuals, the CAISO will treat bids for energy on behalf of reliability demand response resources like bids for energy on behalf of other types of supply resources. Proposed Section 30.6.2 also states that a scheduling coordinator for a demand response provider representing a reliability demand response resource may submit energy bids for the reliability demand response resource in the day-ahead market and the real-time market.<sup>6</sup> Further, proposed Section 30.6.2.1.1 of the CAISO tariff states that, within each six-month reliability demand response services term, any capacity of a reliability demand response resource that remains uncommitted after the day-ahead market must be bid in the real-time market in order to be available to provide demand response services in real-time until such time as the reliability demand response resource has reached the reliability demand response resource availability limit for the reliability demand response services term.<sup>7</sup> Pursuant to proposed Sections 30.6.2.1.2.1(a) and 30.6.2.1.2.2(a) of the CAISO tariff, the bids submitted in the real-time market must be between 95 and 100 percent of the applicable maximum bid price set forth in Section 39.6.1.1 of the CAISO tariff. Bids in the day-ahead market are not subject to this restriction. Enabling reliability demand response resources to participate in the day-ahead market without bid restrictions allows the CAISO to capture additional value from resources that have the ability to respond economically in the day-ahead timeframe yet can curtail additional load in the real-time when required under a system or local emergency.

Revised Section 34.5 of the CAISO tariff sets forth general dispatch principles that apply to all resource types, including reliability demand response resources. Revised Section 34.6 of the CAISO tariff

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<sup>6</sup> Proposed Section 30.6.2 specifies that a scheduling coordinator for a demand response provider representing a reliability demand response resource may not submit energy self-schedules from the reliability demand response resource, may not self-provide ancillary services from the reliability demand response resource, and may not submit residual unit commitment availability bids or ancillary service bids for the reliability demand response resource.

<sup>7</sup> Proposed Section 30.6.2.1.1 also states that, after a reliability demand response resource reaches the reliability demand response resource availability limit for the reliability demand response services term, any capacity of the reliability demand response resource that remains uncommitted after the day-ahead market may be (but is not required to be) bid in the real-time market in order to be available to provide demand response services in real-time.

specifies that the CAISO may also issue dispatch instructions to reliability demand response resources pursuant to proposed Section 34.18. Proposed Section 34.18 sets forth two sets of special dispatch rules to address abnormal system and system-modeling conditions.

The first set of special dispatch rules contained in proposed Section 34.18 states that the CAISO may issue an exceptional dispatch instruction for a reliability demand response resource for reliability purposes as provided in revised Section 34.9.3 of the tariff.<sup>8</sup> Revised Section 34.9.3 permits the CAISO to issue a reliability-based exceptional dispatch instruction for a reliability demand response resource in order to address transmission-related modeling limitations in the CAISO's full network model or in response to system conditions including threatened or imminent reliability conditions for which the timing of the real-time market optimization and system modeling are either too slow or incapable of bringing the CAISO controlled grid back to reliable operations in an appropriate time frame.<sup>9</sup> Further, revised Section 34.9.1 of the tariff states that the CAISO may issue an exceptional dispatch instruction for a reliability demand response resource during a system emergency, or to prevent an imminent system emergency or a situation that threatens system reliability and cannot be addressed by the CAISO's real-time market and system modeling.<sup>10</sup>

The second set of special dispatch rules contained in proposed Section 34.18 states that an entity other than the CAISO that has a contractual or tariff-based right to do so, may dispatch a reliability demand response resource in real-time in order to mitigate a local transmission or distribution system emergency pursuant to applicable state or local programs, contracts, or regulatory requirements not set forth in the CAISO tariff.<sup>11</sup> The state or local programs, contracts, or regulatory

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<sup>8</sup> Exceptional dispatches are dispatches that are not derived from the market. They may be communicated manually or through the CAISO's automated dispatch system.

<sup>9</sup> In addition, revised Section 34.9.3 and proposed Sections 34.18 and 34.18.1 of the tariff permit the CAISO to issue one unannounced exceptional dispatch instruction per year to each reliability demand response resource in order to test the resource's availability and performance.

<sup>10</sup> As explained in the May 20 tariff amendment, the CAISO will endeavor consistently to dispatch reliability demand response resources through its market applications, rather than through exceptional dispatch instructions. Therefore, the CAISO expects to issue exceptional dispatches for reliability demand response resources as seldom as possible. However, when system conditions require the use of exceptional dispatch, reliability demand response resources should be and will be subject to exceptional dispatch on an equal basis with other types of resources. May 20, 2011 tariff amendment at fn. 49.

<sup>11</sup> In addition, proposed Section 34.18 states that an entity other than the CAISO that has a contractual or tariff-based right to do so may perform a test of a reliability demand response resource.

requirements referenced in these tariff provisions include the existing emergency-triggered demand response programs of the state investor-owned utilities, as well as any other programs, contracts, or regulatory requirements that may satisfy the tariff provisions. This second set of special dispatch rules is consistent with the comprehensive settlement agreement that resulted in the development of the May 20 tariff amendment. The settlement agreement stated that, “[f]or purposes of this Settlement, reliability-based DR [demand response] programs refer to programs in which customer load reductions are triggered only in response to abnormal and adverse operating conditions, such as imminent operating reserve violations or transmission constraint violations (i.e., emergencies).”<sup>12</sup>

As explained in the May 20 tariff amendment, there are a variety of investor-owned utilities’ emergency-triggered demand response programs, such as interruptible load programs and agricultural and interruptible pumping load programs.<sup>13</sup> Programs such as these are subject to being modified, supplemented, or eliminated by the entities other than the CAISO that administer them. Therefore, it would be impracticable to describe them with greater specificity in proposed Section 34.18.<sup>14</sup>

2. Request for Additional Information – CAISO states that RDR resources are composed of investor-owned utilities’ reliability-based demand response programs. However, Staff notes that CAISO’s proposed definition for “Reliability Demand Response Resource” is identical to the definition of “Proxy Demand Resource.” Both definitions refer to the “Demand Response Provider Agreement.” Although that agreement provides additional requirements for a proxy demand resource that chooses to provide ancillary services, the agreement does not make a meaningful distinction between RDR resources and Proxy Demand Resources. Please explain why the tariff definitions for these resources are identical if they represent different types of demand response resources. Also, please submit any tariff revisions if necessary.<sup>15</sup>

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<sup>12</sup> Reliability-based demand response settlement at 2-3, available at <http://docs.cpuc.ca.gov/efile/MOTION/114111.pdf>. The settlement agreement goes on to explain that “[p]rograms that are triggered for reasons not exclusively limited to emergencies . . . are not considered to be reliability-based programs even if they include an emergency-based (aka reliability-based) trigger.” *Id.* at 3.

<sup>13</sup> Transmittal letter for May 20, 2011 tariff amendment at 5 & fn. 9.

<sup>14</sup> To the extent the underlying programs are modified or supplemented by the entities that administer them, the CAISO expects any modifications to be consistent with the CAISO tariff requirements for reliability demand response resources.

<sup>15</sup> August 26, 2011 letter at 2 (citation omitted).

Response –

As an initial matter, the CAISO notes that, although reliability demand response resources are expected to include resources under investor-owned utilities' emergency-triggered programs, other resources that meet the same criteria but are operated by third-party providers can also be designated as reliability demand response resources.

The tariff definitions for reliability demand response resources and proxy demand resources are identical because the designs of both types of resources are based on the same market rules and software platform. Thus, the identical tariff definitions reflect that there are many similarities between those two types of demand response resources, yet with key distinctions applicable to bidding and dispatch.

However, the CAISO recognizes that the characteristics of reliability demand response resources and proxy demand resources are not identical. For example, as set forth in proposed Section 4.13.5.2.2 of the CAISO tariff, the minimum load curtailment of a reliability demand response resource can be no smaller than 0.5 MW, whereas, as set forth in proposed Section 4.13.5.2.1 of the tariff, the minimum load curtailment of a proxy demand resource can be no smaller than 0.1 MW. Another difference between those types of resources is that, as stated in Section 4.2 of the demand response provider agreement and as noted in the August 26 letter, proxy demand resources that provide ancillary services are subject to requirements that are inapplicable to reliability demand response resources, which are not permitted to provide ancillary services.<sup>16</sup> Consistent with differences such as these, proposed Section 4.13.2 of the tariff specifies that a location cannot be registered to be both a reliability demand response resource and a proxy demand resource for the same trading day.

In order to make it clear in Appendix A to the tariff that reliability demand response resources and proxy demand resources are different from one another, the CAISO now proposes to revise the definitions of the terms reliability demand response resource and proxy demand resource to refer to tariff provisions specifically applicable to each of those types of demand response resources. Further, the CAISO now proposes to revise the definition of a reliability demand response resource to state that such a resource must satisfy all other requirements applicable to a reliability demand response resource set forth in the tariff (such as those discussed above), and the CAISO now

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<sup>16</sup> See proposed Section 30.6.2 of the CAISO tariff.

proposes to make a corresponding revision to the definition of a proxy demand resource.<sup>17</sup>

## **II. Request for Modified Effective Date for Tariff Revisions to Modify the Demand Response Provider Agreement**

In the May 20 tariff amendment, the CAISO requested that the Commission make the CAISO's proposed tariff revisions to the demand response provider agreement (formerly called the proxy demand resource agreement) effective as of October 1, 2011, and make the remainder of the proposed tariff revisions effective as of April 1, 2012. The CAISO requested the earlier effective date for the tariff revisions to the demand response provider agreement in order to give the CAISO and market participants sufficient time to prepare their systems and make other necessary arrangements for the planned implementation to incorporate reliability demand response resources in April 2012, including time for the investor-owned utilities to conduct their communication, conversion, and registration process prior to the planned implementation date, consistent with the understanding reached with stakeholders during the policy development process. Although the CAISO requested two different effective dates, the CAISO requested that the Commission address all aspects of the May 20 tariff amendment in a single order.<sup>18</sup>

In light of the Commission Staff's August 26 letter requesting additional information, the CAISO recognizes that its requested October 1 effective date for the demand response provider agreement is now most likely impracticable. Therefore, the CAISO hereby modifies its requested effective date of the demand response provider agreement from October 1, 2011 to December 1, 2011. The CAISO believes that a December 1 effective date will still give the CAISO and market participants sufficient time to make the arrangements necessary for the planned changes to permit incorporation of reliability demand response resources in April 2012. The CAISO continues to request that the Commission make the remainder of the proposed tariff revisions, including the tariff revisions contained in this response, effective as of April 1, 2012.<sup>19</sup> The CAISO also requests that the Commission address all aspects of these tariff revisions in a single order issued on or before December 1, 2011.

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<sup>17</sup> These revisions are shown in yellow highlighting in the attached marked tariff document, on top of the un-highlighted and black-lined changes also contained in the May 20 tariff amendment.

<sup>18</sup> Transmittal letter for May 20 tariff amendment at 2, 30.

<sup>19</sup> In order to permit the April 1, 2012 effective date, the CAISO reiterates the request for waiver it first made in the May 20 tariff amendment, pursuant to Section 35.11 of the Commission's regulations (18 C.F.R. § 35.11), of the notice requirements set forth in Section 35.3 of the Commission's regulations (18 C.F.R. § 35.3).

### **III. Communications**

Communications regarding this filing should be addressed to the same individuals that were designated to receive service in the underlying tariff amendment filing to incorporate reliability demand response resources, namely:

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### **IV. Service**

The CAISO has served copies of the instant filing upon all parties in the above-referenced proceeding. The CAISO has also served copies of this filing on the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements. In addition, the CAISO is posting the filing on its website.

**V. Conclusion**

The CAISO respectfully requests that the Commission accept this response as fully providing the additional information requested in the Commission Staff's August 26, 2011, letter. The Commission should approve the CAISO's May 20, 2011 tariff amendment, as supplemented by this response and the attached proposed tariff revisions, as just and reasonable and compliant with Order No. 719.

If there are any further questions or comments, please contact the undersigned.

Respectfully submitted,

/s/ John C. Anders

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Attorneys for the California Independent System Operator Corporation

**California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff  
Response to the August 26, 2011 Letter Requesting  
Additional Information Regarding Filing to Implement  
the Reliability Demand Response Resource Product  
Clean Tariff  
September 21, 2011**

## Appendix A Master Definitions Supplement

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### **- Proxy Demand Resource (PDR)**

A Load or aggregation of Loads that has the characteristics of a Proxy Demand Resource set forth in Section 4.13.5, satisfies all other requirements applicable to a Proxy Demand Resource set forth in the CAISO Tariff, and is capable of measurably and verifiably providing Demand Response Services pursuant to the Demand Response Provider Agreement, including but not limited to Sections 4.1 and 4.2 of the Demand Response Provider Agreement and excluding Section 4.3 of the Demand Response Provider Agreement.

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### **- Reliability Demand Response Resource (RDRR)**

A Load or aggregation of Loads that has the characteristics of a Reliability Demand Response Resource set forth in Section 4.13.5, satisfies all other requirements applicable to a Reliability Demand Response Resource set forth in the CAISO Tariff, and is capable of measurably and verifiably providing Demand Response Services pursuant to the Demand Response Provider Agreement, including but not limited to Sections 4.1 and 4.3 of the Demand Response Provider Agreement and excluding Section 4.2 of the Demand Response Provider Agreement.

**California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff  
Response to the August 26, 2011 Letter Requesting  
Additional Information Regarding Filing to Implement  
the Reliability Demand Response Resource Product  
Marked Tariff  
September 21, 2011**

## Appendix A Master Definitions Supplement

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### **- Proxy Demand Resource (PDR)**

A Load or aggregation of Loads that has the characteristics of a Proxy Demand Resource set forth in Section 4.13.5, satisfies all other requirements applicable to a Proxy Demand Resource set forth in the CAISO Tariff, and is capable of measurably and verifiably providing Demand Response Services pursuant to the Proxy Demand Response Provider Resource Agreement, including but not limited to Sections 4.1 and 4.2 of the Demand Response Provider Agreement and excluding Section 4.3 of the Demand Response Provider Agreement.

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### **- Reliability Demand Response Resource (RDRR)**

A Load or aggregation of Loads that has the characteristics of a Reliability Demand Response Resource set forth in Section 4.13.5, satisfies all other requirements applicable to a Reliability Demand Response Resource set forth in the CAISO Tariff, and is capable of measurably and verifiably providing Demand Response Services pursuant to the Demand Response Provider Agreement, including but not limited to Sections 4.1 and 4.3 of the Demand Response Provider Agreement and excluding Section 4.2 of the Demand Response Provider Agreement.