

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

Order Instituting Rulemaking Regarding  
Policies and Protocols for Demand Response,  
Load Impact Estimates, Cost-Effectiveness  
Methodologies, Megawatt Goals and  
Alignment with California Independent System  
Operator Market Design Protocols

Rulemaking 07-01-041  
(January 25, 2007)

**PRE-WORKSHOP COMMENTS OF THE CALIFORNIA INDEPENDENT  
SYSTEM OPERATOR REGARDING WORKSHOPS 2 AND 3**

The California Independent System Operator Corporation (ISO) submits these pre-workshop comments in advance of Workshop 2 and Workshop 3 to be held October 20, 2009 and December 2, 2009, respectively. The Administrative Law Judge’s Ruling Regarding Workshop 2 noted that pre-workshop comments should focus on alternatives to the current emergency-triggered DR programs<sup>1</sup> and the Amended Scoping Ruling noted that Workshop 3 would address the appropriate means to accomplish any necessary transitions.<sup>2</sup>

In response, the ISO proposes a framework for an ISO wholesale Reliability-based Demand Response Product (RDRP) into which retail Resource Adequacy (RA) emergency-triggered DR programs could integrate. This product would be available to both reconfigured IOU retail programs and third party DR participation.<sup>3</sup> The ISO proposes that this product be available to the market by target date 2012, in coordination with the 2012-2014 demand response program application cycle. The timing for this

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<sup>1</sup> Administrative Law Judge’s Ruling Regarding Workshop 2, dated September 23, 2009 at p 10.

<sup>2</sup> Assigned Commissioner’s Ruling Amending the Scoping Memo and the Schedule of Phase 3 of this Proceeding, dated July 8, 2009 at p. 12 [“The ruling will also permit participants to provide comments which address the issues related to both Workshop 2 and 3 – alternative proposals and a transition plan.”]

<sup>3</sup> A third party could be a demand response provider or end-use customer that is eligible to offer demand response resources to the ISO through a Scheduling Coordinator, subject to ISO Tariff and the applicable rules of the Local Regulatory Authority.

product provides *two-years* for the ISO and its stakeholders to 1) design and implement the RDRP, 2) transition into *reconfigured* emergency-based DR programs, and 3) address any open and/or transitional issues through the regulatory process.

**1. The Commission should Support the Development of a Wholesale Reliability-based DR Product by 2012**

The RDRP would be a wholesale demand response product that would enable the participation and integration of IOU retail and third-party offered reliability-based demand response programs into the wholesale market. Specific product details would be vetted by ISO stakeholders, as framed by the following general principles:

- (i) The Reliability-based DR Product would be specifically designed to accommodate resource adequacy qualifying demand response resources<sup>4</sup> that have more significant use-limitations, or a higher Value of Lost Load<sup>5</sup> relative to other demand response resources. When developed and implemented, RDRP would provide the ISO with the market systems, tools and operating rules to properly manage the use-limited nature of these resources. The RDRP would not be dispatched as a “price-responsive” resource, as generally understood by the parties, but, instead, would be economically dispatched, using standing bids, when certain conditions are met, such as a Warning Notice, a contingency event, and/or to mitigate a scarcity pricing event that the ISO declares because of an operating reserve shortage. Once these conditions are met, the resources in the RDRP would be eligible for dispatch in real-time, in accordance with their standing bids, along with all other resources, until the conditions or event has been mitigated, subject to program and/or resource-specific limitations.

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<sup>4</sup> Per the applicable rules and requirements of the Local Regulatory Authority

<sup>5</sup> Value of Lost Load is defined as the value an average consumer puts on an unsupplied MWh of energy. (see, e.g. Publication on the NE-ISO website at [http://www.iso-ne.com/committees/comm\\_wkgrps/inactive/rsvsrmoc\\_wkgrp/Literature\\_Survey\\_Value\\_of\\_Lost\\_Load.rtf](http://www.iso-ne.com/committees/comm_wkgrps/inactive/rsvsrmoc_wkgrp/Literature_Survey_Value_of_Lost_Load.rtf))

(ii) The ISO would propose that the BIP programs, with a change in the BIP trigger mechanism, be eligible for inclusion in the RDRP, but the ISO would propose no change to the eligible *use* of the resources under the RDRP. As currently specified in the retail tariffs for BIP, and other similarly situated emergency-triggered DR programs, resources under the RDRP would continue to have the ability to address both system and local transmission and distribution (T&D) reliability needs, with the ISO being informed, and/or directing dispatch<sup>6</sup>, whenever the underlying resources under the RDRP are used for local T&D needs.

(iii) Given the restricted nature of the resources under the RDRP and agreement to limits on maximum resource availability, the ISO would require that the resources under RDRP meet minimum operating and performance requirements, with the potential to adopt, subject to further stakeholder input, current retail emergency-triggered DR program characteristics such as a firm-service level, event limits, and non-compliance penalties. The ISO would place a limit on the total eligible MW quantity that can be offered to the ISO under this product by third-party providers<sup>7</sup> in the ISO's balancing authority. Subject to any additional information or analysis that parties may provide, the ISO proposes a MW quantity limit of the RDRP set at *two-percent of the ISO's all-time system peak*, which is currently 50,085 MW, or effectively 1,000 megawatts.<sup>8</sup>

(iv) The ISO believes that the RDRP should be eligible to prevent a scarcity pricing event, or, at minimum, help to mitigate the duration of a scarcity pricing event. Further discussion about this attribute and the applicability of

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<sup>6</sup> Subject to further discussion by stakeholders, the ISO may desire to issue a dispatch instruction to a RDRP resource when needed for a utility's local T&D needs so that event information, number of dispatches, etc. can be more easily managed and the resources' "use" known by ISO systems.

<sup>7</sup> See footnote 3, above for a description of third parties.

RDRP to Day-ahead and/or Real-time scarcity pricing events is needed. But, if the Commission supports the development of a wholesale reliability-based DR product, then the Commission should indicate whether or not this product should have a relationship to, or an impact on, scarcity pricing, as a general principle.<sup>9</sup>

Additional summary details about the proposed RDRP can be found in the attached *Proposed Framework for the Reconfiguration of Emergency DR Programs*.

## **2. The Commission should support transitioning all RA Qualifying Emergency DR Programs into the RDRP**

If the Commission supports the development of the RDRP under the general principles described above and as developed through interaction in Workshops 2 and 3, then the Commission should rule that *all* the emergency-triggered DR programs that are currently supported in the Utility 2009-2011 DR program applications<sup>10</sup> must transition into the RDRP product, within a specified transition period, up to the MW quantity limit for the RDRP product. All other currently configured emergency-triggered DR programs would, according to a Commission-stipulated plan, transition into price-responsive demand response programs.

The ISO believes that transitioning the remaining megawatts enrolled in emergency-triggered DR programs, above the 1,000 MWs eligible under the RDRP, could be accomplished without significant customer dislocation, provided that the utilities develop a plan acceptable to the Commission to convert their A/C cycling and agricultural pumping programs to price-responsive programs over the specified

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<sup>9</sup> Scarcity Pricing is a mechanism that allows market prices to rise automatically, potentially beyond any applicable bid cap, when there is a shortage of supply in the market. Following general practice in other ISO markets a shortage of supply is defined as the inability by the California ISO (ISO) to procure sufficient regulation or operating reserves through market mechanisms. For additional information, please refer to the ISO's Draft Final Proposal- Reserve Scarcity Pricing found at: <http://www.aiso.com/243e/243ecc4d2d490.pdf>.

<sup>10</sup> These programs were approved in D 09-08-027 issued in A.08-06-001 et al

transition period. The ISO would encourage the Commission to pursue this concept and approach with the utilities.

**3. The Commission should allow for a dispensation period for existing emergency-triggered DR programs provided certain requirements are met**

The ISO supports a dispensation period until 2012 for the transition into the proposed RDRP, for a limited number of megawatts, and into other price-responsive program options for the remaining megawatts enrolled in emergency-triggered DR programs. The CAISO believes that the transition plans and proposed changes should be completed over the next two years, in preparation for the 2012-1014 DR application program cycle. Detailed transition plans, with dates and key milestones, should be submitted to the Commission for review and acceptance. Failure to achieve the transition plan objectives and milestones should result in certain, understood consequences that should be detailed in the transition plans, including the inability to count the megawatts remaining in emergency-triggered DR programs towards a utility's RA requirement, and/or other such measures and restrictions.

As part of a utility's transition plan, and as discussed above, the Commission should require details about how the utility can convert all of its A/C cycling and, as applicable, agricultural pumping programs to be price-responsive. Transitioning these types of programs away from being emergency triggers would minimize dislocation of the large interruptible customers on BIP and would enable BIP to remain near its current megawatt levels and, if supported by the Commission, enable BIP to transition into the proposed RDRP at the ISO specified MW quantity limit of the RDRP product.

Finally, an important element during the transition period for the ISO, and likely for the Commission as well, that the Commission require, during the transition period, that emergency-triggered programs be available to the ISO sooner, under the

ISO’s Emergency Operating Procedures. The Emergency DR programs should be made available to the ISO at a *Warning Notice*, which occurs prior to the currently agreed-to trigger of a *Warning, Stage 1 Imminent*. Specifically, the ISO believes that emergency-triggered programs should be available to the ISO before the ISO must go out of market for additional resources from other balancing authorities, in order to prevent a Stage 1 emergency.

As the ISO has shown to the Commission previously, the table below details how *infrequently* the ISO calls emergency events under the ISO’s Emergency Operating Procedures. In the past six years, the ISO has called nineteen Transmission Emergencies and has issued thirteen Warning Notices. The ISO believes that it is reasonable for the Commission to insist that emergency-interruptible programs be available sooner to the ISO, so that, when circumstances do arise, the ISO can first call on the emergency-triggered DR programs, which have already been paid for, to prevent a Stage 1 emergency, before going to other market entities and balancing authorities to request and pay for energy out of market.

**Cumulative Emergency Events over the Past Six Years<sup>11</sup>**

<b>TYPE</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009 (YTD)</b>	<b>Total</b>
<b>Transmission Emergency</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>19</b>
<b>Warning</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>13</b>
<b>Stage 1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>
<b>Stage 2</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Stage 3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<sup>11</sup> For more historical information about Cumulative Totals of Restricted Maintenance Operations, Alert, Warning, Emergency and Power Watch Notices Issued from 1998 to Present, please see: <http://www.caiso.com/docs/09003a6080/08/8a/09003a6080088aa7.pdf>

#### **4. Conclusion**

For discussion at Workshop 2, the ISO offers a framework to establish a wholesale Reliability-based Demand Response Product (RDRP) that would participate in ISO markets, and within which Resource Adequacy (RA) qualifying emergency-triggered DR programs would reside. Further details need to be developed, including a transition plan for transition of current programs to RDRP by target date 2012, the first year of the 2012-2014 demand response program application cycle. The ISO looks forward to discussing the proposal further at the upcoming workshop.

Dated: October 12, 2009

Respectfully submitted,

By: /s/ Baldassaro "Bill" Di Capo  
Baldassaro "Bill" Di Capo, Esq., Counsel  
CALIFORNIA INDEPENDENT SYSTEM  
OPERATOR CORPORATION  
151 Blue Ravine Road  
Folsom, CA 95630  
Tel. (916) 608-7157  
Fax (916) 608-7222  
E-mail [bdicapo@caiso.com](mailto:bdicapo@caiso.com)

## CERTIFICATE OF SERVICE

I hereby certify that on October 12, 2009 I served, on the Service List for Proceeding R.07-01-041, by electronic mail, a copy of the foregoing Pre-workshop Comments of the California Independent System Operator Regarding Workshops 2 and 3.

Executed on October 12, 2009 at  
Folsom, California

*Anna Pascuzzo*

Anna Pascuzzo,  
An employee of the California  
Independent System Operator

**Attachment**  
**Proposed Framework for the Reconfiguration of**  
**Emergency DR Programs.**

Proposed Framework for the Reconfiguration of Emergency DR Programs  
(For Discussion Purposes Only)

**1. A wholesale Reliability-based DR Product (RDRP) will be available by target date 2012**

Specific product details would have to be vetted by CAISO stakeholders; however, general principles to establish the nature and character of the RDRP would be as follows:

- MW offered into this product qualify as RA capacity, subject to the applicable rules of the local regulatory authority
- There will be a MW limit on the total eligible MW quantity offered into RDRP
- Eligibility will be subject to satisfying minimum operating & maximum availability characteristics and meeting certain technical requirements
- The product is not “price responsive”, but will be economically dispatched once triggered
- May have multiple reliability-only uses (system and local reliability)
- Can help mitigate or, limit the duration of, Scarcity Pricing events
- Will allow for limited test events to ensure compliance and performance
- Is a product that is available to all demand response providers
- Will be settled through the CAISO settlement system; any additional incentives or payments, if appropriate, will be the prerogative of the local regulatory authority and handled outside the CAISO
- Once triggered, the MWs under this product will be triggered through normal CAISO notification channels, i.e. ADS to the responsible Scheduling Coordinator
- Once triggered, MWs under this product will be dispatchable by location and quantity
- Use of the RDRP product will be formally incorporated and documented into CAISO processes and operating procedures
- Will have certain performance and compliance requirements

**2. All RA qualifying emergency-triggered DR programs will integrate into the RDRP**

A process will be defined by the parties to transition from the current emergency/reliability-based programs to the RDRP:

- The goal is to design and implement RDRP for incorporation into the IOU’s 2012-2014 DR program application cycle (files at CPUC in Q1 2011)

**3. A dispensation period for existing reliability-based DR programs will be allowed**

- Limit BIP near current MW levels, allowing some flexibility to address customer equity and program administration issues
- No limit on A/C cycling programs provided IOUs present acceptable plans to begin transitioning enrolled customers into price-responsive programs, with full transition occurring by the next DR application cycle
- Agree to appropriate step in 508B where emergency/reliability-based programs will be committed that occurs before OOM purchases with other balancing authorities
- Dispensation will remain in effect through 2011-2012 (depends on 2.A above)
- Dispensation for existing programs beyond 2012 TBD, but would impact RA credit or other agreed-to restrictions/measures