

**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 Protocols

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

**PREHEARING CONFERENCE STATEMENT OF THE CALIFORNIA  
INDEPENDENT SYSTEM OPERATOR**

The California Independent System Operator Corporation (“CAISO”) submits this Prehearing Conference Statement in response to ALJ Hecht’s March 2, 2007 Administrative Law Judge’s Ruling Requesting Prehearing Conference Statements (the “PHC Ruling”). CAISO concurs with ALJ Hecht’s comment in the PHC Ruling that “because the forth goal, considering modifications to DR programs needed to support CAISO efforts to incorporate DR into its market design, requires additional investigation by CAISO and Commission staff, this element of the proceeding cannot be planned in any detail at this point.” (PHC Ruling at p. 2.) The CAISO looks forward to working with the CPUC and coordinating efforts, so that demand response can be an economic resource that enhances the operation and reliability of the grid.

**Interrelation of DR with Resource Adequacy and Associated Deliverability Concepts**

Various rulings and statements from the Commission have noted the interrelation of Demand Response (DR) to resource adequacy and resource planning.<sup>1</sup> In the resource

---

<sup>1</sup>See, e.g., Assigned Commissioner’s Ruling and Scoping Memo for Phase 2, in the Resource Adequacy Proceeding R.05-12-013, at p. 10, listing DR impacts and dispatch as a Phase 2 issue, and noting the need

adequacy proceedings, there has come to be a recognition and explicit determination that viable RA resources must be deliverable to the grid and dispatchable by the CAISO. In other words, RA resources must be effective and useful to the CAISO. For example, in D. 05-01-042<sup>2</sup>, the Commission has held:

We determine that an RA capacity contract that includes the following minimum elements ... shall qualify as an eligible contract that LSE's can rely upon to meet their RA procurement obligations:

1. Capacity must meet the counting protocols adopted by the CPUC in D.04 10-035, in today's decision, and as modified in subsequent Commission decisions.
2. Capacity must meet the deliverability requirements as determined by the CAISO.
3. Capacity cannot be sold to more than one buyer. Buyer has exclusive right to count the Capacity towards buyer's Resource Adequacy Requirements.
4. Capacity must be subject to CAISO Tariff.
5. ...

In addition. D.05-01-042 stated that capacity must be made available to the CAISO as outlined in detail in the decision.

CAISO submits that these objectives must be continually referred to in the development of policies and protocols for DR in this proceeding. In this regard, policies and protocols should insure that DR resources are real and firm, can be relied upon in balancing loads and resources and contribute to the reliability of the grid.

In addition, as the Commission has noted, timing and alignment of the resource is necessary, so that the load reduction commitment is presented within CAISO timing parameters for unit commitment tabulation for the day-ahead and real time markets. In this connection, as CAISO has explained in a recent filing in the Resources Adequacy Proceeding<sup>3</sup>, from CAISO's perspective, there are essentially two distinct categories of

---

to address how DR programs should count for Local RAR and how DR dispatch by CAISO or the IOU may affect the RA counting of DR.

<sup>2</sup>Issued October 27, 2005 in R.04-04-003.

<sup>3</sup> Proposals of the California Independent System Operator Corporation on Track 1 Issues, filed January 26, 2007 in R.05-12-013.

DR products: 1) DR that is triggered by a staged emergency event (which is an uncertain event contingency) and 2) DR that is triggered by price or by some other event that is known in advance.<sup>4</sup> Under CAISO's MRTU Residual Unit Commitment (RUC) process, CAISO cannot consider the contribution from the first category of DR, since such programs cannot be factored into the CAISO's day-ahead planning and forecasting process.<sup>5</sup> However, RUC can consider demand response as described in the second category of DR, that is certain of being curtailed and will result in a lower demand forecast and, therefore, a lower RUC procurement target<sup>6</sup>.

Moreover, emergency/interruptible DR programs that are dispatchable when the CAISO is already in an emergency will not be considered in RUC. The CAISO operates in a manner to reliably serve all forecast load. This includes the "non-firm" load associated with utility operated emergency/interruptible DR programs. Accordingly, the CAISO cannot lower the demand forecast in anticipation of a yet unknown emergency event and the associated emergency-load interruption.

### **Load Impact Estimation and Protocols**

The OIR explains that "the load impact of a DR program is defined as the difference between the customer's load (in response to a DR request) and the customer's expected load absent the DR request, which is also called the customer's 'baseline.' Consequently, estimating the baseline is critical."<sup>7</sup> The OIR also notes that "a sound method of estimating load impacts will also improve the CAISO's implementation of

---

<sup>4</sup> The OIR notes that emergency DR is intended to relieve threats to system reliability, whereas price-triggered ER in economic, intended to address spikes in market prices. (OIR at p. 2.)

<sup>5</sup> The purpose of RUC is to assess the resulting gap between the day-ahead procurement and the CAISO demand forecast and to ensure that sufficient capacity is i) committed, ii) on-line and iii) available for dispatch in real-time, in order to meet the demand forecast for each hour the following day. In essence, the RUC process is a reliability backstop that allows the CAISO to meet its reliability requirements.

<sup>6</sup> Of course, this assumes that the second category DR programs are coordinated with the CAISO and are aligned with CAISO's operational timelines.

<sup>7</sup> OIR issued January 25, 2007, at p. 5.

MRTU,” noting that the CAISO may be able to more confidently rely on DR as a day-ahead resource, if the reliability of that resource is better defined.<sup>8</sup>

CAISO submits that the discussion and measurement of DR load impacts should

- Evaluate impacts at the grid level, assessing how the load reduction contributes to the reliability of the grid. For example, this analysis should identify, at minimum, the duration, response time, and frequency of load reduction, and the extent to which the DR commitment by customers is firm, such that it can be relied upon as a resource, rather than an aspiration or pledge for reduction, which must be hedged against;
- Be cognizant of CAISO MRTU markets and market timelines; and
- Consider the probability of certain loads being called upon.

### **Cost-Effectiveness of DR**

The OIR notes that some parties have expressed concern in Commission proceedings that DR programs may not be cost effective.<sup>9</sup> The OIR also states that the proceeding is intended to identify the value of avoided costs for DR, the costs of DR programs, and DR benefits not captured by avoided costs.<sup>10</sup>

The CAISO submits that the cost-effectiveness of DR must reflect more than just its energy attributes, and should include an identification of the attributes of DR and/or the various value streams that come from using DR in different ways. For example, depending on how it is structured and considered, DR may have different attributes, such as these:

- Resource Adequacy Capacity
- Ancillary Services Capacity;

---

<sup>8</sup> Id.

<sup>9</sup> OIR at p.6.

<sup>10</sup> It at p. 7.

- Other Externalities—to the extent that DR substitutes for other resources, it can possibly aid in emissions reduction or can defer investment in new generation and transmission;

In dissecting DR, other components are temporal (when load reduction is committed to occur and how quickly it can respond), frequency (how often load reduction can occur) and duration (length of the reduction). All of these components affect value.

CAISO will continue to emphasize that DR's value to the grid, and to the market, is best achieved when DR is structured to deliver products that integrate with the wholesale market and with the operational needs of the grid. As such, DR products that maximize value to grid by reducing the demand forecast or by bidding directly into the wholesale energy and ancillary services market can ultimately lower the cost for all market participants and help address market power concerns. In addition, DR that can be dispatched in specific locations and address reliability concerns in specific load pockets contributes to value.

Finally, DR may well benefit from consideration of some type of performance-based remuneration for utilities having met certain metrics in establishing various DR products or programs. Such an approach was successfully applied in the area of Energy

Efficiency and demand-side management and, similarly, may provide an opportunity for better alignment of utility shareholder and utility customer interests in development of DR.

Dated: March 9, 2007

Respectfully submitted,

By: /s/ Baldassaro "Bill" Di Capo //

CALIFORNIA INDEPENDENT SYSTEM  
OPERATOR CORPORATION  
Anthony Ivancovich, Assistant General Counsel  
– Regulatory  
Baldassaro "Bill" Di Capo, Esq., Counsel  
151 Blue Ravine Road  
Folsom, CA 95630  
(916) 608-7157  
(916) 608-7222 (FAX)  
[bdicapo@caiso.com](mailto:bdicapo@caiso.com)

**CERTIFICATE OF SERVICE**

I hereby certify that on March 9, 2007. I served, by electronic mail, a copy of the foregoing

Prehearing Conference Statement of The California Independent System Operator on the following individuals:

Jessica Hecht, assigned Administrative Law Judge by delivery to [jhe@cpuc.ca.gov](mailto:jhe@cpuc.ca.gov)

Bruce Kaneshiro, CPUC Energy Division, by delivery to [bsk@cpuc.ca.gov](mailto:bsk@cpuc.ca.gov)

Andy Campbell, Office of CPUC Commissioner Rachelle Chong, by delivery to [agc@cpuc.ca.gov](mailto:agc@cpuc.ca.gov)

Executed on March 9, 2007 at Folsom,  
California

*/s/ Susan L. Montana*

---

Susan L. Montana  
An employee of the California Independent  
System Operator