

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

Order Instituting Rulemaking to Enhance
the Role of Demand Response in Meeting
the State's Resource Planning Needs and
Operational Requirements.

Rulemaking 13-09-011

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION REPLY
COMMENTS TO ADDITIONAL QUESTIONS IN REGARD TO 2018 AND
BEYOND DEMAND RESPONSE PROGRAMS**

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COMMENTS TO ADDITIONAL QUESTIONS IN REGARD TO 2018 AND BEYOND
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The California Independent System Operator Corporation (CAISO) files these reply comments pursuant to Administrative Law Judge (ALJ) Hymes’ May 20, 2016 Ruling Requesting Responses to Additional Questions in Regard to 2018 and Beyond Demand Response Programs (Ruling) and ALJ Hymes’ July 11, 2016 email ruling extending the date for reply comments. The reply comments address six issues raised in parties’ responses to the questions.

**I. THE COMMISSION SHOULD NOT REEVALUATE ITS RULES REGARDING
THE NET BENEFITS TEST AND THE DEFAULT LOAD ADJUSTMENT**

Certain parties have requested that the Commission schedule a workshop regarding the net benefits test and the default load adjustment.¹ The CAISO agrees with Southern California Edison Company (SCE) that there is no need to reevaluate the net benefits test and the default load adjustment.² As the CAISO explained in its opening comments, the Commission should continue to require jurisdictional entities to bid at or above the monthly net benefits test price threshold because bids should not be submitted that are known to be not net beneficial to the

¹ California Large Energy Consumers Association (CLECA) Comments, p. 26 (“It would be useful to have a workshop on this topic to try to assure that everyone has a common understanding of what the Commission intended, what the CAISO does, and whether any consensus can be developed on possible changes, either to the CAISO’s tariff or to the Commission’s policy.”)

² SCE Comments, p. 28 (“So long as the bids exceed the net benefits test threshold, SCE sees no need to reevaluate Commission rules established in D.12-11-025.”)

system. Under FERC's Order No. 745, demand response bid below the net benefits test price threshold is not net beneficial to the system because the cost of dispatching demand response below the net benefits test price threshold outweigh the benefits its dispatch provides the system. In FERC's order on rehearing of its order regarding the CAISO's Order No. 745 compliance filing, FERC stated:

Order No. 745 was a Final Rule amending the Commission's regulations under the Federal Power Act (FPA), regarding compensation for demand response resources participating in wholesale energy markets, i.e., the day-ahead and real-time markets, administered by Regional Transmission Organizations (RTO) and Independent System Operators (ISO). Specifically, Order No. 745 requires each RTO and ISO to pay a demand response resource the market price for energy, i.e., the locational marginal price (LMP), when two conditions are met. First, the demand response resource must have the capability to balance supply and demand as an alternative to a generation resource. Second, dispatching the demand response resource must be cost-effective as determined by a net benefits test in accordance with Order No. 745. The net benefits test is necessary to ensure that the overall benefit of the reduced LMP that results from dispatching demand response resources exceeds the costs of dispatching and paying LMP to those resources. (emphasis added).³

Based on FERC Order 745, the Commission should retain the prohibition on its jurisdictional entities submitting bids below the net benefits test price threshold and, therefore, application of the default load adjustment as approved by FERC.

II. NO ADDITIONAL COMPENSATION IS REQUIRED FOR COMMITTING OR PRE-DISPATCHING RESOURCES: COMMITMENT COSTS ARE COVERED UNDER THE RA CAPACITY PAYMENT

The Commission asked parties to explain and justify whether customers should be compensated for being pre-dispatched (committed), even if they are not ultimately dispatched. Several parties support compensation for resources that are "pre-dispatched."⁴

³ *California Independent System Operator Corporation*, 144 FERC ¶61,046at P 2 (2013).

⁴ See AMS Comments, pp. 12-13, Joint DR Parties Comments, p. 33, and CESA Comments, p. 18.

No additional compensation should be provided. Resource adequacy (RA) resources receiving RA capacity payments are obligated to offer their capacity into the CAISO market pursuant to the FERC-approved Must Offer Obligation (MOO) set forth in the CAISO tariff. An RA capacity payment compensates an RA resource for complying with the MOO whether or not the resource is dispatched based on its energy bid.⁵ Further, an integral part of CAISO's wholesale electricity markets is the Residual Unit Commitment (RUC) process whereby the CAISO commits resources to ensure sufficient capacity is available to meet forecast demand. The RUC process commits (pre-dispatches) resources in the day-ahead market to be available and online the following day. All RA resources are committed at \$0 because their capacity already has been compensated through a bi-lateral RA capacity arrangement. For this reason, the Commission need not approve any additional or incremental compensation for resources that are pre-dispatched (committed) but ultimately not dispatched. Instead, the Commission should expect such costs, where applicable, to be subsumed in a resource's RA contract price and provisions. By having these costs embedded in the RA contract, the Commission can more easily compare the price and value of resources on a level playing field, preventing the ability to have important resource costs reside outside the RA contract.

III. PRE-CONTINGENCY DISPATCH APPLIES TO LOCAL RA CAPACITY RESOURCES

The Joint DR Parties argue that any pre-contingency local RA demand response resources should be compensated for pre-contingency dispatch. However, how a particular customer prepares for a potential pre-contingency dispatch can vary widely- from requiring no preparation/no costs to taking explicit and costly actions as the Joint Parties describe here:

⁵ Non RA resources can submit to the ISO a non-zero dollar RUC bid.

The expectation that a customer modify their scheduled load for the next day without compensation would be unreasonable and not commensurate with generation. In pre-dispatching DR customers, the customer would change their business operations to be available for dispatch and load shed. This could include pre-cooling a building, changing employee schedules, planning to run production lines at different times, and generally changing their general business practices in order to be available during the dispatch window. As such, any pre-dispatch of a customer should be compensated.⁶

Pre-contingency dispatch would occur when a slow responding demand resource that qualifies as a local resource adequacy resource cannot respond within 20 minutes post-contingency. Like slow responding generators, these demand response resources must be committed pre-contingency to keep the local area within its System Operating Limits (SOL) in case a contingency occurs. The CAISO can keep the system within the SOL by having generation online and operating at a point where it can immediately ramp and increase output to recover from a contingency, or by expressly decreasing load through demand response in the local area so that if a contingency occurs, the loading on the transmission lines serving that local area will remain within the SOL. These pre-contingency dispatch requirements are unique to local RA capacity, which the CAISO depends on to serve local capacity area reliability needs. In any event, there is no obligation that demand resources, particularly if ill-suited or unable to meet the reliability needs of a local area, must qualify as local RA capacity resources. Slow responding resources whose attributes or costs make them less suitable to serve as local RA resources can still qualify as system RA resources without being subject to the more stringent requirements of local RA resources.

With this clarification, the CAISO understands that a pre-contingency dispatch could result in costs for certain slow-responding demand response resources that wish to qualify as

⁶ Joint DR Parties Comments, p. 33.

local RA capacity; however, the Commission should recognize that not all resources are so constrained and have such costs. The CAISO believes any preparatory costs that a resource requires should be subsumed in a resource's RA contract price and provisions, and be factored into a resource's cost effectiveness since these resources will be competing against resources that do not incur such costs.

IV. IT IS INAPPROPRIATE TO COMPENSATE NET ENERGY METERING CUSTOMERS FOR EXCESS ENERGY

The Joint DR Parties claim that Net Energy Metering (NEM) participating customers can provide demand response and be paid for excess energy they provide to the grid. The Joint DR Parties state:

For example, a Net Energy Metering (NEM) customer looking to participate in a DR program may be discouraged from participating in DR because of their inability to be compensated for load reduction during peak NEM production. In other words, if a customer's baseline is only calculated down to zero, then any reduction below zero would not be counted. Neither the utilities' programs nor the CAISO allow for compensation of load reductions below zero.

Thus, in order for additional NEM to be integrated with DR services, policy modifications will be needed at the CAISO as well as the Commission. The Joint DR Parties recommend the Commission continue to include this as part of the Supply Integration Working Group efforts.⁷

Excess energy produced from a NEM participating customer (*i.e.*, when the baseline would go negative as described in the Joint DR Parties' example) is "banked" for later withdrawal under NEM energy netting provisions. Compensating a customer for excess energy production and then allowing that customer to bank and later withdraw that energy under the NEM energy netting provisions would inappropriately result in double compensation for the NEM participant. Additionally, classifying excess energy as demand response means demand response can

⁷ Joint DR Parties Response at p. 15.

“produce” energy, not just consume or curtail energy, which is inconsistent with capabilities of demand response resources. For these reasons, the CAISO does not support NEM as an integrated DR service, and the Commission should not keep this issue open for further discussion as the Joint DR Parties recommend.

V. UNIT COMMITMENT AND PRE-CONTINGENCY DISPATCH IS STANDARD CAISO PRACTICE

The Commission asked about the CAISO’s ability to “pre-dispatch” demand response resources in the day-ahead market to mitigate a local contingency on the grid, and the definition of “pre-dispatch.” CLECA responded that

[t]he CAISO has no definition in its tariff, as noted in the recent RA decision, D. 16-06-045, at page 27. Parties are awaiting a CAISO stakeholder process to learn the definition and the process of pre-dispatch.⁸

The CAISO disagrees that the concept or process of pre-contingency dispatch, also known as unit commitment, is undefined. Unit commitment processes are used to “pre-dispatch” resources for various reasons, including, for example, to ensure sufficient capacity is online to meet forecast demand, or to meet minimum system operating limits in local capacity areas on a pre-contingency basis. The CAISO refers the Commission to the CAISO’s opening comments in response to this question,⁹ and includes links that describe, for example, the CAISO’s Minimum Online Commitment (MOC) constraint process.¹⁰ Dispatching resources pre-contingency to ensure a local area remains within system operating limits is a routine step taken in market operations in the residual unit commitment process. Unit commitment (pre-contingency

⁸ CLECA Comments, p. 20-21.

⁹ CAISO Opening Comments, pp. 6-7.

¹⁰ See Market Operations Business Practice Manual, Section 6.6.2.4 Minimum Online Commitment Constraint. Also, see Technical Bulletin 2010-01-02, Minimum Online Commitment Constraint, January 11, 2010 found here: <http://www.caiso.com/271d/271dedc860760.pdf>.

dispatch) is not an undefined process or procedure; rather, unit commitment is an integral part of the market. Information about the overall residual unit commitment process can be found in the link below.¹¹ What remains an open issue is not the ability or processes to commit resources, but how many hours will slow responding, energy-limited resources, like traditional demand response need to be available and committed for pre-contingency dispatch to qualify as local RA resources. The CAISO and investor-owned utilities are collaborating on a study to determine this result, including how such resources operate under the CAISO's unit commitment processes.

VI. RESOURCE ADEQUACY RULES REQUIRE RESOURCES ABIDE BY THE MUST OFFER OBLIGATION WHENEVER THE RESOURCE IS AVAILABLE

The Joint DR Parties provide a list of recommendations for the Commission to consider before transitioning to a full-scale DRAM program. The CAISO provides certain clarifications regarding the Joint DR Parties recommendation to allow four hour bids based on the four hour daily resource adequacy obligation for demand response resources. The Joint DR Parties state:

Allow 4 hour bids. As the Resource Adequacy must offer obligation is four hours, the CAISO energy bidding structure should accommodate four hour bids instead of five.¹²

It is important to distinguish resource availability and related must-offer obligations from resource dispatch requirements. For example, if a demand response program is designed to operate from 1 p.m. to 6 p.m., its related must-offer obligation, *i.e.* the obligation to submit bids into the CAISO market spans that entire five-hour period. Similarly, a demand response program that is designed to operate from 8 a.m. to 8 p.m. would have a 12 hour must offer obligation given the resource is available between those hours. However, resource availability and must-offer obligations defined in the CAISO tariff differ from resource adequacy dispatch

¹¹ See Market Operations Business Practice Manual, Section 6.7 found here: <https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Market%20Operations>.

¹² Joint DR Parties Comments, p.30.

requirements. Dispatch requirements for supply demand response resources limit dispatch to four hours per day, up to three consecutive days and a total limit of 24 hours per month. Once a resource has been dispatched for four hours on any single day in a month, the resource has met its resource adequacy obligation for that day. The resource can then submit an outage ticket to the CAISO after those 4 hours of dispatch, thereby eliminating any further must-offer obligation for that day. This prevents any resource adequacy penalties from accruing to that resource for that day. However, to re-emphasize all resource adequacy resources must bid into the CAISO market based on their availability, which for supply demand response is often based on program specific resource availability parameters that are reflected in the resource's annual use plan.

VII. CONCLUSION

The CAISO appreciates this opportunity to provide reply comments and asks that the Commission take them into account in any final decision in this proceeding.

Respectfully submitted,

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