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)

RESPONSES IN REPLY TO PARTIES REGARDING ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE'S RULING SOLICITING RESPONSES TO QUESTIONS ARISING FROM FEDERAL ENERGY REGULATORY COMMISSION ORDER 745 AND 745A

The California Independent System Operator Corporation (ISO) provides this reply to initial responses of the parties in response to the July 27, 2012 ruling of Assigned Commissioner Peevey and ALJ Hymes on certain remaining issues for the Direct Participation Phase (Phase IV) of the demand response proceeding.[1] The ruling asks parties to comment on the interrelation of those issues and FERC's Orders, 745 and 745A.

Financial Settlement Issues; Question 1—is there still a revenue shortfall or "missing money" problem when DR is dispatched above the NBT?

The missing money concern arises when the load serving entity (LSE) and demand response provider (DRP) are different entities and, without the default load allocation mechanism, a situation could occur where the LSE pays more for energy than the LSE recovers by charging its retail customers for what they have consumed. When DR is deployed, the LSE does not get to charge the DR-participating customers for the amount of energy they did not consume during the demand response event.

[1] Joint Assigned Commissioner and Administrative Law Judge's Ruling Soliciting Responses to Questions Arising from Federal Energy Regulatory Commission Orders 745 And 745A, dated July 27, 2012, accessible on the CPUC's proceeding webpage for R07-01-041 at http://docs.cpuc.ca.gov/efile/RULINGS/171579.pdf

The ISO agrees with the Joint DR Parties that no financial settlement is necessary between the DRP and LSE for bids that clear above the net benefits test (NBT) price threshold.[2] Given the use-limited nature of DR resources, and the fact that DR is generally triggered during stressed system conditions--when wholesale market prices are high, there is little concern about "missing money." As the ISO explained in its initial comments, the uninstructed energy payment that the LSE receives, minus any uplift payments, should offset any missing money.[3]

The ISO also notes that even SCE, rendering the opinion that a potential missing money problem may still exist, has stated that "SCE does **not** recommend that the Commission institute a retail financial settlement for transactions that clear above the NBT."[4] SCE further states that it does not believe that ISO's revised tariff creates other problems or inequities that necessitate a financial settlement between the utilities and DRPs.[5]

With this in mind, the Commission should move forward with the understanding that the missing money issue will generally be offset, and so the Commission should authorize direct participation of demand response resources (i.e. bundled customers) at bid levels that are higher than the ISO published net benefits test price threshold.

The ISO concurs with SCE's request that the Commission consider establishing a rule that does not authorize a demand response provider from submitting bids of CPUC jurisdictional resources when the bid price is below the ISO published net benefits test price threshold. FERC considers that such bids are **not** cost-effective and, therefore, not beneficial. The Commission should consider this rationale in connection with fulfillment of California's loading order –it is a logical conclusion that the loading order preference for demand response is frustrated and not promoted by *non cost-effective demand response bidding behavior*. Restricting direct participation below the NBT would eliminate the need for the ISO to apply the default load adjustment settlement mechanism, thus preventing the need to consider an additional financial settlement outside the ISO market between the DRP and LSE.

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[2] Joint Comments of EnerNoc, Inc, Energy Connect (Johnson Controls, Inc.), Comverge, Inc. et al, at pp. 2-3.
[3] As the Joint DR Parties explain, under Order 745, if cost effective DR bids are accepted above the NBT, the ISO pays the DRP for the DR at the locational marginal price (LMP), which the ISO collects revenues to pay LMP by using an uplift mechanism that recovers proportionally from all wholesale metered demand participating in the ISO market. (Joint Comments at p.3)
[4] SCE Comments at p. 6, responding to Question 1(b).
[5] SCE Comments at p. 6, responding to Question 1(c).
Compare comments of PG&E, who states that it believes it is premature to make a determination now on whether a financial settlement is needed. (PG&E Comments at pp. 3-4, responding to question 1(b).

Finally, the ISO disagrees with PG&E's call for delay in its responses to the July 27 Ruling.[6] The Commission should move forward with the direct participation of DR with the settlement and rule changes outlined above.

Utility-DRP Competition Issues; Question 2

In their comments, the Joint DR Parties appear to confuse the issue of benefits with the issue of ISO revenue collection.

> The CAISO collects sufficient revenues in order to settle with generators and DRPs, eliminating the need for the CAISO to have a special settlement with the load serving entity (LSE) in whose territory the DR resource performed.[7]

The FERC assumes that bids that clear the NBT price threshold are cost-effective. As such, the DR cost (the wholesale double payment) is outweighed by the DR benefits (a lower market clearing price)[8]. However, the CAISO still must maintain revenue neutrality.

Unlike a generator resource, the ISO must expressly collect additional monies from wholesale metered demand in order to maintain revenue neutrality for the "double payment" associated with wholesale demand response. The ISO market does not generate revenue from DR transactions to cover the wholesale double payment, given that demand response transactions are distinctly bid and settled separately from the bidding and settling of the underlying load. Accordingly, the ISO must expressly collect an uplift payment for the uninstructed energy paid to the LSE for energy (load) procured but not consumed due to DR participation. FERC's interpretation in Order 745 is that the cost of this double payment is offset by the benefits of a lower market clearing price, but the double payment is a cost nonetheless that must be recovered from metered demand for the ISO to maintain its revenue neutrality.

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[6] See, e.g., PG&E's Comments at p.6 that PG&E's approach defers financial settlement issues until questions pending in the Court of Appeals are decided.
[7] Joint Comments at p. 3.
[8] A lower market clearing price for energy is assumed if a DR bid displaces the next more expensive energy bid from a generator. DR bids, like the additional bids from any new cost-effective resource, add depth and liquidity to the wholesale energy market, which can lower the market clearing price. DR energy bids in the wholesale electricity market are not unique and are not necessarily cheaper than energy bids from other resource types.

Other Issues arising from ISO's revised PDR Tariff; Question 3

In response to this question, SDG&E raised several implementation issues, generally software and process implementation issues, which, in the opinion of the ISO, are outside of the scope of the direct participation design proposal issues raised in the July 27 Ruling. Generally, the technical and process points of such implementation issues are addressed at the party and Energy Division staff interaction level and, once distilled, only critical milestone timing and unresolved issues are presented for ALJ and Commission interdiction. To further discussion at the party and staff level, the ISO has provided responsive information for SDG&E in an attachment to this pleading.

CONCLUSION

The ISO appreciates the opportunity to provide these responses on this important phase of this proceeding and looks forward to discussing the questions and its positions further.

Respectfully submitted,

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Attachment
Implementation Issues Raised by San Diego Gas & Electric Co.

Comment by SDG&E:

The Demand Response Wholesale Market Pilot implemented by SDG&E in 2011 revealed some systems and process issues that need to be addressed in order to ensure a smooth transition to a wholesale DR market. Some of the issues that arose during the pilot included:

Market Power Mitigation Process ("MPM"): A software issue was identified that would not permit a PDR resource to process as a Non-Spinning Reserve capacity. Because of this issue, day-ahead capacity was not awarded to an A/S certified PDR when economical. Appropriate IT infrastructure and software design changes are necessary in order to accommodate this component of a transaction.

ISO comment in reply:

Based on a root cause analysis of the issues that SDGE experienced in its 2011 PDR participation, an enhancement was recommended and deployed in the ISO's pre-summer release (deployed 5/21/12, activated 6/4/12). This enhancement was related to the treatment of outage information for PDRs and not an enhancement to MPM process.

The ISO believes, based on analysis of "save cases" for those times in which SDGE's PDR was not awarded ancillary services, that this enhancement should resolve the issue. However, because currently there is no PDR ancillary services participation in production, the ISO has not been able to fully evaluate its resolution approach—further testing/analysis is needed to identify whether other factors may have resulted in the PDR not receiving a day ahead ancillary services capacity award. If that were to be the case, then more specific analysis would need to be done with respect to SLIC and MP software interface.

The ISO is currently seeing, over June/July/August, PDR activity in the market resulting in both day-ahead (DA) awards and real time (RT) dispatching of PDR. Although these have not been ancillary service market awards, the observation that PDR is being picked up in both DA and RT indicates that the issue may now be resolved. Additionally, it is suggested that SDGE may want to participate in market simulation for its previously established PDR, by bidding the resources in for A/S to determine if the same results are seen in a non-production environment

Comment by SDG&E:

PDR Registration Process: The current PDR registration process is labor intensive due to the lack of Application Programming Interface ("API"). In addition, the existing CAISO resource registration process is not currently scalable to handle large numbers of customers efficiently.

ISO comment in reply

ISO created an API project for the Demand Response System DRS to further automate the registration of PDR's. This API project will provide participants the requested ability to bulk load information into the DRS. The Registration API requirements gathering is in progress. The current timeline for implementation is Spring Release of 2013.

Comment by SDG&E:

Meter Data submittal to the Demand Response System ("DRS"): The CAISO requires 45 days of meter data to be submitted for all registrations for baseline calculations. The meter data is required to be submitted in an XML format with aggregated meter data in 5 minute intervals. For a large number of participants, the XML file size can easily exceed the 1MB limit of the DRS system causing operational issues in meter data submittal.

ISO comment in reply

There was an issue with the size of the meter data file being submitted for baseline calculation. (As SDG&E indicates, the ISO requires 45 days of data available to calculate the baseline data). To initially address the issue it was requested that the data files be submitted in 2 mega-byte file size (note: there is not a requirement that the 45 days has to be submitted all at one time, it is recommended that PDR participants submit meter data in an on-going basis to maintain the 45 days of historical data – in this regard, SDG&E however, submitted it all of the data at one time in files that were so large in megabyte size that a software problem was identified. In order to further address this issue, the ISO made some configuration changes and is currently evaluating these changes to determine if they fully resolve the issue presented. (In essence, the large megabyte file was broken up into separate files of smaller megabytes.)