BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U902M) for Approval of Demand Response Program Augmentations and Associated Funding For the Years 2013 through 2014.	Application 12-12-016 (Filed December 21, 2012)
And Related Matter	Application 12-12-017

COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON THE PROPOSED DECISIONADDRESSING STAFF REPORT ON 2012 DEMAND RESPONSE RESULTS

In decision D.13-04-017 the Commission directed the Staff to review 2012 demand response results and develop a report with recommendations based on lessons learned from 2012. The report was served on the parties on May 1, 2013 and admitted to the record of this proceeding on May 17, 2013. On June 11, 2013, the ALJ issued a Proposed Decision (PD) approving certain Staff recommendations contained in the report, and directing SDG&E and SCE to implement them. In accordance with the schedule set forth in the PD, the California Independent System Operator Corporation (ISO) hereby submits comments on the PD findings and conclusions.

I. Introduction

The ISO believes that demand response can be an effective alternative to transmission and traditional thermal resources and is actively pursuing various policy initiatives to enable this result.[1] However, if such results are ever to be achieved, existing demand response programs

[1] This includes participation in the Rule 24 development which will facilitate demand response participation as a resource in the ISO market.

must be continuously evaluated and, if necessary, modifications should be considered. The ISO appreciates the efforts of the Commission to assess the performance and overall effectiveness of SCE's and SDG&E's demand response program offerings as an important step in the right direction. The ISO largely supports the conclusions in the PD and the recommendations for programmatic and operational changes needed to make IOU sponsored demand response programs used and useful, and more predictably consistent and accurate. Staff's proposed revisions are particularly important and timely, given SCE's announced retirement of the San Onofre Nuclear Generating Station. Given the similarity in demand response program designs across the three IOUs, the ISO recommends that the Commission apply to PG&E these same lessons learned, and direction provided in the proposed decision, including the daily and weekly production of demand response program forecasts.

II. Comments

A. The PD Appropriately Recognizes that Forecasts must be Reasonably Accurate to be Useful.

Reviewing the load impact results, the ISO concurs with Commission Staff that "…on average, the 2012 ex-post results for all Demand Response program events diverge from the 2012 daily forecast by a considerable degree. The divergence can be traced to a variety of causes, …"[2]

The ISO understands that forecasting the load reduction capability of a demand response program could be challenging, particularly given the hour-to-hour variability of many types of demand response resources. However, given the expectation that demand response is to be operated as a resource to balance loads and address supply variability, it is imperative that the capability of these resources be *accurately* represented to the ISO since resource commitment

[2] PD at p. 3.

decisions are based on the expectation that these resources will reasonably perform to the levels communicated to the ISO. Additionally, accurately forecasting demand resources through future bidding and scheduling in the wholesale electricity market will be especially important, given that system and market optimization decisions are based on, among other things, the accurate representation of the availability and capability of bid-in resources. Given the importance of forecast accuracy, the ISO has suggested a modification to Finding of Fact number 5.

Thus, the ISO supports Staff's recommendation highlighted in the proposed decision "… that the daily forecasting methods for all programs undergo meaningful and immediate improvements so that the day-ahead forecasting is a more effective and reliable tool for grid operators."[3] The ISO particularly supports the PD's directives that the DRMEC begin to work on revising daily forecasts within 15 days of the issuance of a final decision.[4]

B. The DRMEC Evaluation Should Include Historical Operations as Inputs to Ex Ante Forecasts.

After reviewing historical Demand Response program data and peaker plant utilization, Staff recommends that the Commission require the utilities to "… Reflect Demand Response historical operations in the input assumptions for Ex Ante forecast and cost-effectiveness analyses."[5] The PD notes that DRA agreed with this conclusion, specifically recommending that "…the Commission open a new rulemaking to address Demand Response program performance versus forecast; variance between the daily forecasts and ex-post results when evaluating program cost-effectiveness; the reality of maximum available number of hours or events; the

[3] *Id.,* p. 10 (footnote omitted).
[4] *Id,.* p.12; the PD correctly notes that the ISO has become actively involved in the DRMEC process.
[5] *Id.*, p. 8.

extent of free-ridership in certain Demand Response programs; and to identify the requirements for 2015-2017 Demand Response Program applications."[6]

The ISO supports Staff's and DRA's guidance in this regard, as highlighted in the PD. However, rather than consider program performance in a new rulemaking, the ISO suggests that this topic be addressed by DRMEC as part of the forecast methodology evaluation discussed above. Indeed, it is critically important that the DRMEC evaluate how the actual historical operation of demand response programs impacts the input assumptions for ex-ante forecasts and program cost-effectiveness analyses. Programs that historically under-perform, or are under-utilized, would be potentially less valuable, and therefore less cost-effective, and should reflect a realistic ex-ante forecast based on past performance. Including this consideration in the forecasting methodology will result in the benchmarking and continual improvement of demand response programs and their operational and cost effectiveness. Therefore, the ISO has suggested additional language to be added to the final decision to reflect the inclusion of historical operation information in the DRMEC demand response forecast report.

C. The PD Recognizes the Importance of the Daily and Weekly Demand Response Reports.

The ISO appreciates that the proposed decision highlights that "…the Daily and Weekly Demand Response reports are useful to the CAISO and the Commission for monitoring Demand Response resources."[7] As correctly described in the PD, because demand response is not yet integrated in the ISO's market, the ISO is blind to how much demand response is to be activated, or remains inactivated but available, on any given day or hour. Thus the manual daily and weekly IOU reporting must continue as required in this proposed decision.

[6] *Id.,* p. 7 (footnote omitted).
[7] *Id.,* p. 4.

It is important to understand that once demand response programs are appropriately configured with defined attributes to bid into the ISO market, the current process for reporting daily and weekly demand response program forecasts will be a non-issue. Such demand response resources will be evaluated, optimized, and dispatched along with all other resources. The act of bidding demand response resources that are capable of offsetting the need to dispatch gas-fired peakers will provide the Commission with the transparency needed to evaluate the use and usefulness of IOU demand response programs relative to other resource types, such as peakers, in the IOUs' portfolios and relative to the loading order. In fact, the IOUs will be able to influence and establish a dispatch priority for their portfolio of demand response resources by how they bid the other resources they control in their supply portfolio relative to their demand response resources.

Thus, while the evaluation ordered in the PD as to what extent utilities are using peaker plants at a higher rate than demand response programs will be an interesting study, it may be of limited usefulness because of the existing disconnect between how the electricity market objectively evaluates and dispatches resources compared to how the IOUs' more subjectively evaluate and trigger their demand response programs, which are largely dispatched independent of market forces and system optimization decisions. Once demand response resources can be evaluated through the market against other resource types based on bids that reflect cost of carbon emissions, and other marginal costs, it will be less challenging for the CPUC to cross-compare the use of demand response programs against traditional gas-fired peakers.

In this spirit, the proposed decision should expressly order that the apparent under-utilization of demand response programs, compared to peakers, be addressed in the upcoming demand response OIR. The intent in the OIR would be to explore, beyond wholesale market

integration, whether existing demand response program designs are properly configured to reasonably offset and off-load the use of gas-fired peakers. This has been, and continues to be, a fundamental aspiration of demand response programs and it aligns with the loading order. To the extent that existing demand response programs do not achieve this goal, the OIR should develop programs that will deliver these results.

III. Conclusion

The ISO looks forward to working with stakeholders and the Commission to improve demand response forecast methodologies and, ultimately, to facilitate demand response participation as resources in the ISO market.

Respectfully submitted,

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ATTACHMENT A

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PROPOSED MODIFICATIONS TO FINDINGS OF FACT AND CONCLUSIONS OF LAW

A. Findings of Fact:

5. Successful Demand Response programs require transparent, ~~and reliable forecasting~~ consistent, and accurate forecasting on a daily basis.

B. Conclusions of Law:

4. DRMEC should study the daily forecasting methodologies for all Demand Response programs to determine improvements, including how the historical operations of demand response programs can be used to adjust the input assumptions for Ex Ante forecasts and subsequent program cost-effectiveness analyses.

C. Ordering Language:

2. The Demand Response Measurement and Evaluation Committee (Committee) shall meet 15 days from the issuance of this decision with the California Independent System Operator and Commission Staff to begin to address the forecasting methodology issues discussed in the May 1, 2012 Staff Report, Lessons Learned from Summer 2012 Southern California Utilities' Demand Response Programs, including how the historical operations of demand response programs can be used to adjust the input assumptions for Ex Ante forecasts and subsequent program cost-effectiveness analyses.