

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

Application of Pacific Gas and Electric Company (U39E) for Approval of Demand Response Programs, Pilots, and Budgets for 2012-2014	Application 11-03-001 (Filed: March 1, 2011)
And Related Matters	Application 11-03-002 Application 11-03-003

**COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
ON APPLICANTS' RESPONSES TO ENERGY DIVISION DATA REQUESTS**

The California Independent System Operator Corporation (“ISO”) submits the following comments to the Responses of Applicants Pacific Gas and Electric Company (“PG&E”), San Diego Gas & Electric Company (“SDG&E”) and Southern California Edison Company (“SCE”) to Data Requests propounded by the Energy Division. The Data Requests and Applicants’ Responses are attached as an appendix to ALJ Hymes’ August 5, 2011 Ruling entitled “Administrative Law Judge’s Ruling Requesting Comments on Applicants’ Responses to Energy Division Data Requests”¹ The Ruling incorporates the Responses into the proceeding as part of the record and provides parties to the proceeding with the opportunity to provide comments. While not explicitly stated

¹ The Ruling is accessible on the Commission’s website at <http://docs.cpuc.ca.gov/efile/RULINGS/140887.pdf>. The appendix is accessible at <http://docs.cpuc.ca.gov/efile/RULINGS/140888.pdf>. In addition, hyperlinks included within the appendix incorporates baseline information submitted by SCE and SDG&E which are posted on a Commission webpage entitled “*Ruling Re: 2012-2014 Demand Response Applications (A.1103001)*” at http://www.cpuc.ca.gov/PUC/energy/Demand+Response/a1103001_appendices.htm

in the Ruling, the ISO reads the Ruling to mean that the parties' comments which are filed and served in compliance with the Ruling shall also be incorporated into the record.

I. Comments Re Data Request Question 01

Question 01:

1. Please provide the baseline settlement result using both individual and aggregated baseline with 30%, 35%, 40%, 50% and no cap adjustment for CBP-DA and CBP-DO for the month of July, August and September 2010; and compare those 2010 baseline settlement results with the 2010 M&E results.

To obtain a monthly load impact measurement for CBP (DO and DA options), average load impacts across all event hours within a month for each product (1-4 hour and 2-6 hour) within an option (either DO or DA), and then aggregate the performance of the two products to obtain monthly performance for an option. To maintain confidentiality, results should be reported at the option level but not the product level

...

Energy Division requested that the Applicant IOUs each provide baseline settlement results using both individual and aggregated baselines with 30%, 35%, 40%, 50% and no cap adjustment for two demand response programs, CBP-DA and CBP-DO, for the month of July, August and September 2010 and compare those 2010 baseline settlement results with the 2010 M&E results. Each IOU complied with the request and provided results.²

Through this data request, Energy Division is exploring whether one adjustment factor (versus another) applied in the baseline calculation more accurately reflects the 2010 M&E results for the CBP-DA and CBP-DO demand response programs. Upon review of the IOU submitted data, the ISO finds the results to be inconclusive. The ISO believes that there is insufficient data for the Energy Division to draw a defining conclusion and to make any changes to the existing baseline methodology.

² Note that spreadsheet Baseline Analysis information provided to Energy Division by SCE and SDG&E are posted on the Commission website at http://www.cpuc.ca.gov/PUC/energy/Demand+Response/a1103001_appendices.htm .

For instance, from the ISO's review of the data evaluating the "+/-" [*i.e. plus or minus*] difference from 100 percent across the three study months, it appears that, the following methodologies best match the 2010 M&E data for the respective IOUs:

- PG&E: 10-in-10 aggregated 40% cap
- SDG&E: 10-in-10 individual 35% or 40% cap; and
- SCE: 10-in-10 individual 50% cap.

No approach is a "best match" for more than one IOU -- what is a "best match" for one IOU is not a best match for any other. The ISO would conclude, along with SCE, that "...the analysis as requested is of severely limited usefulness, and falls well short of sufficient information to make an informed decision on setting the baseline adjustment."³

The ISO submits that, to do a proper evaluation, a deeper analysis is needed across a variety of program types, compared across utilities and ISOs/RTOs. For instance, both the California ISO and New York ISO apply a 20% symmetrical adjustment factor. If an adjustment factor is applied (which the ISO recommends), then the Energy Division should further incorporate into its analysis whether to apply the adjustment factor symmetrically or asymmetrically.

The impact of adjustment factors in baseline calculations is an important topic that merits the Commission's further analysis and is an issue worth settling conclusively through the application of detailed facts and analysis. The ISO recommends that the Commission order the utilities to conduct a professional and comprehensive study of adjustment factors within a range of 20% and 50%, including a no-cap case to be completed within the first quarter of 2012. This should give sufficient time for

³ See explanation provided in SCE's linked spreadsheet, "Analysis Notes" tab, found at http://www.cpuc.ca.gov/PUC/energy/Demand+Response/a1103001_appendices.htm

implementation by 2013, if warranted. Thus, the ISO recommends that the Commission maintain the existing baseline methodology through 2012 and decide on changes once more substantiated data is provided.

II. Comments RE PG&E Response to Data Request No ED-003-06

In this Data Request, Energy Division asked:

Please clarify what is meant by "telemetry solutions for DR resources". p. 3-15/#28.

- a) Describe the technical requirements to qualify as telemetry solution.*
- b) What are the communication channels presumed for these solutions*

PG&E responded as follows:

In this context, "telemetry solutions for DR resources" refers to the provision of real-time or near real-time data to demand response providers to provide visibility into the performance of DR resources. This work is directed to meeting the visibility requirements of the CAISO for resources that participate in its markets. The cost of providing real time visibility is currently high and analysis and pilots need to be performed to reduce these costs to remove a high barrier of entry for DR resources to participate in the CAISO markets.

Responding to subpart (a), PG&E responded that:

- a) The technical requirements are those that are mandated by the CAISO for visibility. Currently, that is a meter data read every four (4) seconds provided to the CAISO no later than one (1) minute after the meter data read.

Certain of these issues are addressed in the recently released draft ISO Direct Telemetry Business Practice Manual ("ISO Direct Telemetry BPM").⁴ The document has been distributed to the IOUs and other stakeholders for review and PG&E submitted specific comment on the document in the BPM change management stakeholder process.

⁴ Information regarding the release and stakeholder comment of the draft BPM can be found at: <https://bpm.caiso.com/bpm/prr/show/PRR00000000446>

The import of PG&E's response is that it perceives the ISO telemetry requirement to be overly strict and unduly expensive. For clarification, the ISO does not require that individual service account meters to be scanned every four seconds by the ISO as PG&E contends. Section 6.2.2, PDR Timing Requirements, states in the draft ISO Direct Telemetry BPM that a demand response provider's remote intelligence gateway (RIG) device, not the individual service account meters, will be scanned by the ISO energy management system every four seconds. A RIG enables the demand response provider to securely provide load data directly to the ISO energy management system in a format that is readable by the EMS. A single RIG device can manage many different aggregated demand response resources operated by a demand response provider. The load data from the individual service account meters is required to be polled and updated to the RIG every one minute, not every four seconds. The four-second machine-to-machine timing requirement is strictly between the demand response provider's RIG and the ISO energy management system. The ISO has no expectation or requirement that individual meters be read on a four second basis.

Responding to subpart (b), PG&E responded that

b) There are no communication channels presumed for these solutions.

PG&E's answer is incomplete. Telemetry is conveyed to the ISO across the ISO Energy Communication Network (ECN), which is semi-private network owned and operated by AT&T on the ISO's behalf. The ISO further notes that Section 5.3 ECN Communication Exception of the CAISO Direct Telemetry BPM states "A resource owner not participating in the CAISO's Ancillary Services markets as an alternative can install an Internet Service Provider (ISP) circuit." As a potentially more cost-effective

solution, the ISO is evaluating the ability for proxy demand resources that offer ancillary services to convey telemetry data using an ISP circuit versus the ECN.

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Respectfully submitted,

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