

PG&E Comments on CAISO Demand Response Barriers Study

Submitted by	Company	Date Submitted
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General Comments:

- The CAISO's Draft Demand Response Barriers Study was well organized and provided a thorough reflection of the diverse comments from all the major stakeholders. It is PG&E's understanding that the CAISO will be adding a prioritization of the barriers to the report as well as a plan to address the barriers. We understand that the CAISO will include these additional thoughts in its filing to FERC on April 28, 2009, and that stakeholders will have the opportunity to comment on the CAISO's filing after it is submitted. PG&E would prefer to provide our comments before the CAISO files, but we understand the time constraints and may comment on the CAISO filing after we have reviewed it.
- PG&E sees the highest priority barriers that need to be addressed as the following:
 - Time
 - We understand that it will take time to work through many of the issues that need to be resolved in order to most effectively integrate DR into the CAISO markets. PG&E does not believe that this process needs to be slow. However, the process should be carefully designed and should be implemented deliberately and efficiently. DR bidding into a complex market needs to be done with care so that the benefits are realized.
 - Issues that will require time to develop include:
 - Full deployment of smart meters
 - Linking wholesale prices to retail rates
 - Telemetry/EMS/SCADA infrastructure
 - Ability to measure and accurately forecast loads at comparatively fine geographic granularity
 - Local regulatory authorities (e.g. CPUC) setting rules that allow their parties to offer DR products to the CAISO.

- Getting the CAISO and WECC product requirements (particularly ancillary services) to be based on functional needs rather than the traditional characteristics of generation.
 - Details on processes for “bid to bill” for DR. This is a major reason why significant time is needed to implement DR directly bidding in to the CAISO markets. This implementation will require significant infrastructure upgrades. This work includes upgrading IT infrastructure as well as other business processes and systems.
- It is essential that the CPUC and the CAISO closely coordinate to develop a plan for the implementation of DR. Many important policy issues will require a coordinated response from the CPUC and the CAISO, including the development of the criteria and rules that will allow third parties to bid in the customers of IOUs directly to the CAISO.

Specific Comments:

- **Slide 13:** We recommend that the CAISO add the IOU’s 2009-2011 DR program applications as an item. The recently opened Smart Grid OIR is another item to consider for this chart.
- **Slide 20:** We disagree with the central point of this slide. In markets with functioning capacity markets, capacity revenues are the main form of wholesale market value for many types of DR.

Is the point of this slide that the volatile energy prices associated with energy-only approaches to resource adequacy might elicit larger curtailments from price responsive demand?

Are the first two sub-bullets inconsistent? Any resource adequacy/capacity market blunts the necessary energy price signals but the absence of a clear capacity price signal is also limiting the development of DR.

Virtually all existing DR programs now count towards resource adequacy requirements. What better accommodation of use limited resources is necessary in the existing resource adequacy rules?

- **Slide 21:** It is unclear how this slide pertains to DR. Perhaps this can be removed as a barrier to DR.
- **Slide 24:** What is the concern in the second sub-bullet? What aspect of the current hybrid market structure prevents CSPs from offering customers a high fraction of remuneration through capacity payments?

- **Slide 25:** The first bullet is particularly relevant to the issue of “time” as a barrier. This slide raises many important points, however; we do not believe that the issues are “irreconcilable.”
- **Slide 27:** PG&E agrees with the third sub-bullet. This point clearly reflects the spirit of our approach to cost-effectiveness.
- **Slide 28:** We disagree with the characterization in the last bullet that utilities ignore cost-effectiveness in the process of trying to meet their DR goals.
- **Slide 30:** PG&E does not agree with the bullet: “Utilities core competency is not marketing and innovation.” In addition, this slide states "Utilities and Regulators fundamentally underestimate challenge of changing customer behavior." Based on this phrasing we think that the CAISO should be included in this title as well.
- **Slide 36:** This slide says: "System operators lack experience with price-based, behavior-driven DR translates to a lack of confidence in its ability to deliver MW reductions." This is an important issue that will require time and effort to resolve.