



SDG&E Comments on September 18, 2012 Flexible Ramping Product Technical Workshop

Submitted by	Company	Date Submitted
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San Diego Gas and Electric (“SDG&E”) appreciates the effort the California Independent System Operator (“CAISO”) has made in designing the Flexible Ramping Product (“FRP”) as well as its effort in hosting the most recent technical workshop on September 18, 2012. SDG&E offers the following comments related to the topics discussed during the technical workshop and the topics addressed in the CAISO’s August 10, 2012 Revised Draft Final Proposal (“RDFP”).

Summary

SDG&E supports the implementation of a market tool that is able to effectively procure system ramping needs in order to maintain power balance in the real-time market and mitigate against real-time price spikes. As the FRP initiative has progressed over time, added complexity and additional components have been introduced within this general initiative. Specifically, these additions include (1) merging the Integrated Forward Market (“IFM”) and Residual Unit Commitment (“RUC”) processes, (2) economic buyback in Real-time Dispatch (“RTD”) (3) implementing an implicit demand curve, and (4) decremental bidding for Participating Intermittent Resource Program (“PIRP”) resources. SDG&E’s concern is that as more products, system changes, and general complexities are combined within a single overarching initiative, the ability of the CAISO to vet and empirically validate/simulate the interactions between these changes within the proposed time frame is questionable. SDG&E is concerned that this initiative’s newly

expanded scope decreases transparency and increases the likelihood of market inefficiencies and unintended consequences.

Merging IFM and RUC

The CAISO's primary objective in merging the IFM and RUC processes for the FRP initiative is to allow RUC'd resources to provide flexible ramping capacity in the day ahead ("DA") market run. In theory, SDG&E agrees that including RUC resources in the IFM should lower the overall cost of FRP procured in the DA. However, the inclusion of RUC in the IFM is a major process change that should have its own stakeholder process, as the change could have unknown implications that may not be unearthed within FRP initiative and timeline. Potential issues include the allocation of commitment costs, pricing differences versus running the two processes sequentially, and BCR calculations. During the latest FRP workshop, the CAISO indicated that it would consider making the merging of IFM and RUC a separate initiative. SDG&E fully supports spinning off this proposal into a new CAISO initiative separate from the FRP initiative.

Economic Buyback in Real-Time

SDG&E agrees that an economic buy back mechanism is necessary to avoid potential double payment issues or the procurement of capacity that isn't available in real time. That said, in designing and approving a buyback mechanism, SDG&E cautions the CAISO to ensure that no gaming opportunities exist that could exploit this mechanism.

Implicit Demand Curve

The proposed method for deriving an implicit FRP demand curve can be broken down into two steps. The first is to determine the system MW minimum and maximum requirements based on the load forecast and historical real-time deviance analysis. The second is to derive the prices associated with the demand curve based on the avoidance of power balance violation penalties.

In determining the system MW requirement, one major factor that is being excluded is the difference between system demand and local demand. SDG&E requests that the CAISO develop a method for determining the amount of useful flexible ramping capacity at the local level in order to avoid procuring excess "unusable" FRP on a system basis. Modeling the FRP at a local level should help reduce the system FRP procured when it does not correlate to a benefit. The

consistent procurement of unnecessary FRP could cause an unnecessary increase in the price paid for Energy since they are both co-optimized.

In regard to the use of penalty prices, using administratively set penalty prices to create the demand curve creates an artificial price curve that is not reflective of true market conditions. Using artificial penalty prices to drive the demand curve could lead to over inflated costs of procuring both FRP and Regulation since they are co-optimized. Consequently, SDG&E does not support using the penalty price metric to derive an implicit demand curve.

PIRP Dec Bidding

SDG&E requests that the CAISO simulate results from PIRP Dec bidding to better understand the correlation of these new products within the FRP initiative. The current proposal allows a PIRP resource to submit a decremental bid, an FRP bid, and exclude itself from specific PIRP settlement intervals when an FRP award is received. The interplay of these moving parts should be fully analyzed in order to ensure no market manipulation is possible. While the CAISO has mentioned that the Department of Market Monitoring (“DMM”) will be watching the bidding strategies, the fact that certain intervals will be PIRP eligible and others not based on FRP awards may make certain bidding strategies more difficult to interpret. In addition, the ability for a variable energy resource (“VER”) to submit its own 15 minute forecast, or default to the CAISO 15 minute forecast across any given time period could provide further opaqueness towards the ability to uncover unethical bidding behavior.

Ability to Delay Implementation

A primary concern expressed by the CAISO was that in order to test the interaction between the proposed products and market changes, a full scale build out would essentially be required. SDG&E recognizes the inherent dilemma in being unable to systematically test a system that does not exist, while at the same time not wanting to commit to building something in which not everyone is on board. We suggest that if the CAISO decides to move forward with the FRP initiative, they do so in the following manner.

1. Build out each component in a modular manner that allows for insertion and removal from the overall process.
2. Test each addition individually under a myriad of circumstances.

3. Perform additional tests with select components included or excluded under different scenarios.

The results of these test market runs should be made available to stakeholders, who in turn should have the ability to delay or postpone the implementation of FRP, or individual components of the FRP initiative, if the results are not in line with expectations.