Comments of Pacific Gas and Electric Company

Flexible Ramping Product – Second Revised Straw Proposal

Submitted by		Company	Date Submitted
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Pacific Gas & Electric (PG&E) appreciates the opportunity to participate in the stakeholder process for the CAISO's Flexible Ramping Product ("FRP") Initiative and to submit comments regarding the CAISO's proposal as outlined in its January 5, 2012 Second Revised Straw Proposal.

PG&E supports the high-level objective of creating the FRP and commends the CAISO for addressing the "double payment" issue by proposing to use the Real-Time Dispatch ("RTD") price, rather than the Real-Time Pre-Dispatch ("RTPD") price, to settle the FRP.[1]

However, PG&E strongly opposes the CAISO's proposal to allocate all of the Flexible Ramping costs to load. Variable Energy Resources ("VER") are partly responsible for the need to develop a FRP and, therefore, it is just and reasonable to allocate a portion of the costs to these resources. PG&E anticipates this cost allocation principle will be reinforced by the Federal Energy Regulatory Commission (FERC) in its upcoming Flexible Ramping Constraint Settlement Conference. If the CAISO wishes to finalize the FRP design before the conclusion of the Cost Allocation Initiative[2], then the CAISO should determine a more just and reasonable interim default than allocating all FRP cost to load.

PG&E is also seeking more detail on how the CAISO will determine the procurement requirements for Flexible Ramping; the level at which the CAISO sets the requirements will be a key driver of the Flexible Ramping cost. We asked for this information in our previous comments and are making the request again.

[1] In the CAISO previous proposals, it recommended pricing the Flexible Ramping Product in the RTPD, which could result in a "double payment" being provided to generators: 1) energy opportunity cost payment in RTPD for providing the FRP and 2) an energy payment for the FRP dispatched into energy in the RTD. For reasons discussed below, CAISO's new proposal of pricing the Flexible Ramping Product in RTD addresses this issue.

[2] PG&E understands that the CAISO will conduct a Cost Allocation Initiative in Q1 of 2012 to review cost allocation across all products

1. Summary of Straw Proposal

Below are the design elements of the CAISO's Flexible Ramping Product discussed in the Straw Proposal:

Cost Allocation

- Both Flexible Ramp Up cost and Flexible Ramp Down cost will be allocated to Load.[3]
- The CAISO will track resource level deviations and publish aggregated data for each of the following cost buckets on a monthly basis:
  - Costs attributable to (1) load, (2) intertie ramps, (3) deviations from hourly schedules, and (4) costs attributable to deviations from CAISO dispatch.
  - The report will provide the information necessary for load to transfer Flexible Ramping to Load with the use of Inter-Scheduling Coordinator trades.

Compensation

- Procurement of flexible ramping, energy schedules and other ancillary services will be co-optimized.
- Flexible ramping product prices will equal the shadow price of the Flexible Ramping constraint
- Flexible ramping capacity bids at zero will be generated by CAISO for all energy bids.
- Flexible ramping revenue will be included in the Bid Cost Recovery ("BCR") calculation, and there will be rescission of payment for non-performance.

Product Characteristics

- FRP will be procured in both the Day Ahead ("DA") market and RTPD. However, the FRP will be priced and settled in the RTD.
- Self-provision of the FRP will be allowed
- The product will be based on a 5-minute ramp.
- There will be two separate flexible ramping products: ramping up and ramping down.
- The market will accept bids on both products, which express the resources' willingness to provide flexible ramping and the cost associated with this service.
- DA non-contingent reserve awards may be fully or partially converted to upward flexible ramping if the resources have economic energy bids in RTPD.

[3] The CAISO has abandoned the original position advocated in its November 1st Straw Proposal, in which it proposed to allocate costs to both load and supply deviations. Instead, the November 29th Revised Straw Proposal and the January 5th Second Revised Straw Proposal recommends allocating all upward and downward flex ramp costs to metered demand.

2. Outstanding Issues than Need to be Addressed

Below are outstanding issues that need to be addressed before PG&E can support the CAISO's proposal. We have repeatedly asked for this information in our previous comments and would like for these issues to be addressed in the Draft Final Proposal.

More Details are Needed on How the Procurement Requirement will be Determined

A key driver of the cost of the FRP, like any ancillary product, is the procurement requirement. This is a key element of the design which has only been addressed in very general fashion. In the Second Revised Straw Proposal, the CAISO states, "the ISO will perform statistical study using historical data to determine the requirements."[4] It also describes two possible options in determining the level of procurement the DA market.

This general description does not provide stakeholders with enough information to assess the CAISO's proposal or answer some obvious questions. What is the statistical methodology? How much historical data will the CAISO use - one month, six-months, or a year? How often will the CAISO review and revise the requirements? How will the CAISO know whether the requirements are too high?

PG&E asks the CAISO to give this very important aspect of the design more thought and provide additional detail to stakeholders. If there is a more thorough explanation in another document, it should be referenced (with page numbers included) in the Draft Final Proposal.

More Information is Needed on How Cost is Divided into "Slices"

The CAISO has proposed to track the costs by resources so parties could use this information as the basis for trading Flexible Ramping obligations via Inter-SC trades. The CAISO's proposed methodology is a two-step process. In the first step the CAISO divides the total Flexible Ramping costs into "slices". These slices are further allocated to individual participants based on deviation metrics. The CAISO has not provided any detail on how the costs will be divided into slices. This is a critical feature of the methodology, and the CAISO needs to provide greater detail on this step.

PG&E also asks the CAISO to provide greater detail on how the deviation metrics (as described in the in the table on page 33 of the Revised Straw Proposal) will be measured and aggregated. A detailed settlements example would be helpful.

CAISO Needs to Address Possible Issue Related to Conversion between Flexible Ramp and Non-Contingent Spinning Reserve

PG&E agrees that it may be beneficial to allow non-contingent reserves and Flexible Ramping to substitute for one another. However, it should be noted that some resources that are capable of offering non-contingent spinning reserves may not be able to provide the Flexible Ramping

[4] Second Revised Straw Proposal, Jan. 5, 2012, p. 9.

Product.[5] Thus, the Scheduling Coordinator of these resources should be able to insert a flag prohibiting the CAISO from converting a DA spinning reserve award to flexible ramping in RTPD.

3. Comments on Cost Allocation

Flexible Ramping Costs Should be Allocated to All Market Participants Based on Cost Causation

PG&E's position remains the same as before - we strongly opposes the CAISO's proposal to allocate all of the flexible ramping costs to load. A primary justification of this initiative, and other recent initiatives designed to provide more flexibility, is the integration of renewable resources. While there is variability in the load, the CAISO has presented no evidence that load variability will increase such that the new ramping product is needed. The CAISO's current set of Ancillary Service products has been (and will continue to be) sufficient to handle the variability in load. The need for the FRP is being driven primarily by the projected increase in variability due to a greater amount of VERs entering service, not the increase in variability of load.

Given the need for Flexible Ramping caused by VERs and the CAISO's commitment to allocate costs based on cost causation as expressed in the Road Map, the CAISO position to not allocate costs based on cost causation in this instance is untenable. There is no question that VERs are partly responsible for the need to develop the FRP and, therefore, it is not just and reasonable to allocate the entire cost to load.

An Interim Allocation Methodology Based on Cost Causation Should be Implemented with This Initiative

PG&E understands that the CAISO will start a stakeholder process in Q1 2012 to review cost allocation across all products. PG&E appreciates the CAISO's desire to develop comprehensive and permanent allocation mechanisms in a stand-alone initiative. However, in the event that the initiative fails to develop a permanent methodology before the finalization of the FRP design, the CAISO must put in place a reasonable cost allocation methodology in the interim. Allocating costs to all market participants in the interim would be more appropriate than singling out one sector of the market to carry the burden. Not only will a broader interim allocation be fairer, it will motivate more parties to support future initiatives to develop more permanent cost allocation mechanisms. If the CAISO wishes to finalize the FRP design before the conclusion of the Cost Allocation Initiative, then the CAISO should determine a more just and reasonable interim default than allocating all FRP cost to load.

[5] Resources offering non-contingent reserves are only required to reach their awarded level in ten minutes and do not necessarily have to provide a verifiable ramp rate. This is unlike resources offering flexible ramping, which is a 5-minute ramping product.

<u>CAISO Should Anticipate that FERC will Order the CAISO to Modify its Flexible Ramping Constraint to Allocate Costs based on Cost Causation</u>

In its December 12, 2011 Order, in which FERC set the Flexible Ramping Constraint[6] for hearing, it questioned whether the CAISO's allocation of cost to only load was just and reasonable:

> *With respect to cost allocation methodology, CAISO attributes the need for flexible ramping capacity to a number of factors. CAISO has not adequately demonstrated to the Commission that its proposed allocation reflects the Commission's cost causation principles, and accordingly that allocation may not be just and reasonable. Therefore, the Commission finds that the Flexible Ramping Constraint cost allocation raises factual issues that require more data to evaluate fully; we are setting the matter for hearing and settlement judge procedure.*[7]

PG&E anticipates the principle of cost allocation based on cost causation will be reinforced by FERC in its upcoming Flexible Ramping Constraint Settlement Conference. PG&E will be advocating at the Conference for a change in the allocation methodology to better reflect this principle. We recommend the CAISO anticipate the likely FERC outcome and design a more just and reasonable allocation methodology.

4. Comments on Compensation

<u>PG&E Supports the CAISO's proposal to Price the FRP in the RTD</u>

In the CAISO's previous FRP proposals, it recommended pricing the FRP in the RTPD, which could result in a "double payment" being provided to generators: 1) energy opportunity cost payment in RTPD for providing the FRP and 2) an energy payment for the FRP converted into energy in the RTD.

Because the FRP will be dispatched for energy in the RTD, pricing the FRP in the RTPD is inappropriate. The CAISO Department of Market Monitoring ("DMM") made the following observation on this point:

> *DMM does not agree with the ISO's position that if a resource receives a payment [in RTPD] for flexi-ramp that includes opportunity cost components, and is then dispatched in RTD [for energy], that there is not "double payment" (November 7 presentation, p. 12). While the opportunity cost of not selling ancillary services may be valid, the nature*

[6] Like the FRP, the Flexible Ramping Constraint ensures that sufficient upward ramping capability is available in real-time and that resources are appropriately compensated for providing the service. Unlike the FRP, the Flexible Ramping Constraint does not contemplate day-ahead procurement of flexible capacity, and does not provide an opportunity for resources to indicate their desire and costs of providing this service.

[7] FERC Docket ER12-50-000, Dec. 12, 2011, p. 11. http://www.caiso.com/Documents/2011-12-12_ER12-50_FlexiRamporder.pdf

> *of the flexible ramping product contradicts the principle of paying an opportunity cost for not selling energy.*[8]

In response, the CAISO has changed its proposal in order to prevent this possible double payment. Specifically, the CAISO proposes to use the RTD price, rather than the RTPD price, to settle the Flexible Ramping Product. If a resource's Flexible Ramping Capacity is not dispatched for energy, then it will incur a true opportunity cost which will be reflected in RTD price. However, if the resource's Flexible Ramping Capacity is dispatched for energy, it will not receive a FRP capacity award and will only be paid for energy.

PG&E agrees with and supports the CAISO's solution to prevent this possible double payment to providers of the FRP.

5. Comments on Product Characteristics

Self Provision of the FRP in the DA Market should be Allowed

PG&E asks CAISO to reconsider its removal of self provision from the design of the day ahead flexible ramping product. Day ahead flexible ramping, if implemented, should be considered an ancillary service like any other ancillary service, and just as there is a substantive difference between self provision and bidding zero on other ancillary services, there would be a substantive difference between self provision and bidding zero for the provision of flexible ramping. In particular, self provision has consequences for settlements that give it an advantage over bidding zero in some cases, and self provision allows market participants to supply an ancillary service preferentially from one or more resources even when other resources are bid at zero. PG&E requests that CAISO either modify its design to allow explicit self provision in the day-ahead market, or provide a compelling argument as to why this should not be allowed.

[8]DMM Comments on Flexi-Ramp Straw Proposal, Nov. 15, 2011, p.2. http://www.caiso.com/Documents/Department_MarketMonitoring_Comments_FlexibleRampingProductStrawProposal.pdf