Flexible Ramping Products – Draft Final Proposal

Submitted by	Company	Date Submitted
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GenOn fully supports the CAISO's transition from the flexible ramping constraint to the forward procurement of these new ancillary service products. The CAISO has completed an enormous amount of work in developing the Draft Final Proposal for how flexible ramping products can be competitively bid, priced and procured by the CAISO. However the proposal is very complex, and certain clarifications or simplifications are necessary, particularly with respect to cost allocation. GenOn supports billing flexi-ramp on the same basis as other ancillary services, but if the proposed cost allocation is preserved, then a dead band for dispatchable resources must be included.

Specification of Flexi-Ramp Parameters

It is not clear how many of the parameters discussed in the proposal would be specified in the tariff, or would be subject to CAISO adjustment based on experience. The CAISO should clearly indicate how values will be established and adjusted regarding requirements, DA procurement criteria (i.e., the 60% confidence level), bid cap and floor thresholds for adjusting the capacity price, demand curve prices and quantities, and other variables related to the specification of requirements, product pricing and determination of capacity awards.

Energy Pricing and Capacity Awards

The proposal contemplates that in the DA Market, suppliers will identify a range for real time bids would serve as the basis for CAISO determination of an adder to capacity bids to recognize the expected cost of energy procurement in determining what capacity receives a flexible ramping award. Apparently, this capacity price adder would be included in the shadow price, which would seem to create an incentive for suppliers who wish to retain flexibility for energy pricing to discount their capacity bid based on whatever adder the CAISO would include. Other options for considering energy price in flexi-ramp procurement were discussed at the stakeholder meeting, including the use of DA bids, default energy bids, or other fixed energy price as a "strike price" for the flexible ramping "option." Since these strike prices would vary by resource, the CAISO would require some kind of probability distribution for dispatch of energy at all possible prices in order to evaluate the bids.

Any such approaches seem overly complicated, and GenOn supports use of the existing Ancillary Service product design which is linked to energy pricing only by the consideration of the energy opportunity cost of reserving capacity. This approach has worked well, and would yield a simpler flexi-ramp design.

Cost Allocation

The CAISO has offered an innovative proposal for cost allocation – and it appears to provide a framework that may be useful. However, the proposal is a complete departure from how all ancillary service costs have been allocated in the past, and the CAISO should exercise due diligence in evaluating the basis on which it proposes to allocate costs. GenOn does not believe that the CAISO has demonstrated that the allocation of costs will reasonably consider the factors that cause the costs to be incurred, and therefore concludes that the cost allocation requires additional work.

The CAISO proposes to allocate costs to three categories (load, generation and interties) pro rata using the aggregate "net" deviations within each category. Costs would then be assigned to individual scheduling Coordinators within each category based on the gross resource-specific deviations.

As an initial observation, dispatchable resources are held to a much higher standard than load or variable energy resources, and there are several issues that suggest a misalignment between the causes that lead the CAISO to procure flexi-ramp, and the basis on which the CAISO is proposing those costs be allocated. The first issue is with respect to the definition of the baseline for load and variable energy resources, which is proposed to be defined by a forecast of provided 37.5 minutes in advance of each 15 minute RTUC interval (hereafter, "the RT Forecast"). If no deviation arises between the forecast and metered energy in that 15 minute interval, then no flexi-ramp costs would be assigned. The paper also claims that allowing updates of the load and variable energy resource profiles every 15 minutes will result in "comparable treatment between variable energy resources with real-time self-schedules and conventional generation." This is simply untrue.

The proposed basis for defining deviations by load and variable energy resources implies that the CAISO has no need for flexi-ramp capacity to meet the inherent variability of load and variable energy resources. This method ignores the contribution to flexi-ramp need associated with both the variability across 15 minute RTUC intervals, and the variability within each 15 minute interval. This proposal also ignores that only flexi-ramp capability that is reserved through RTUC can be forgone based on a reduced "need" for flexi-ramp as indicated by any changes in the RT Forecast. No reduction in DA procured flexi-ramp is possible based on moderated changes in ramping need due to revised aggregate RT Forecasts.

Additionally, this approach fails to recognize that even if the RT Forecast is accurate, the CAISO may still need to procure flexi-ramp in real-time because the CAISO has a lower tolerance for the risk of under-estimating the required ramping capability as

compared to the risk of over-estimating that required capability. Deviations from the RT Forecast is simply a poor basis on which to assign the cost of flexi-ramp to load and variable energy resources, and leads to an under-allocation of those costs.

In contrast, the CAISO is proposing to assign flexi-ramp in proportion to any deviations incurred by dispatchable resources, which bear the full burden of balancing the system and responding to CAISO dispatch instructions every five minutes. The CAISO must assure that dispatchable resources should not be saddled with flexi-ramp costs associated with deviations that are beyond their reasonable control. Such deviations include the lack of consideration of inertia when a resource is ramping in one direction and then instructed to ramp in the opposite direction. Since the CAISO ignores any limits on unit acceleration, uninstructed deviations will unavoidably arise. Second, there is a lag between the time that re-rates are recorded in SLIC, and the time that dispatch instructions reflect such limitations. Until these issues can be more fully analyzed, GenOn supports allocating costs in a manner consistent with other ancillary services.

In any event, if the CAISO proceeds with this proposal, it must recognize the limitations in CAISO systems that lead to some unavoidable uninstructed deviations. At a minimum, the CAISO should confirm that the CAISO's "standard" dead band based on the greater of 5 MW or 3% of PMax will be applied to mitigate the exposure of dispatchable resources to the allocation of flexi-ramp costs. The dead band should be applied both in defining the aggregate deviations from dispatchable resources that define the category allocations, and in assigning the deviations to individual dispatchable resources within the category.

We appreciate the opportunity to provide these comments.