Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide your comments on the FRACMOO Phase 2 stakeholder initiative Draft Framework Proposal posted on May 1, 2017 (November 20, 2017?)

Submit comments to InitiativeComments@CAISO.com

Comments are due December 13, 2017 by 5:00pm

The Draft Framework Proposal posted on November 20, 2017 and the presentation discussed during the November 29, 2017 stakeholder web conference may be found on the FRACMOO webpage.

Please provide your comments on the Draft Framework Proposal topics listed below and any additional comments you wish to provide using this template.

Identification of ramping and uncertainty needs

The ISO has identified two drivers of flexible capacity needs: General Ramping needs and uncertainty. The ISO also demonstrated how these drivers related to operational needs.

Comments:

The California Efficiency + Demand Management Council ("Council") appreciates the CAISO's explanation of the drivers of flexible capacity needs and how they relate to operational needs. CAISO's analysis indicates there could be a significant need for flexible ramping products with the integration of increasingly more renewables and variability on the grid. The Council agrees that CAISO should work toward addressing the increasing variability and uncertainty of demand

based on the growing segment of the market being met with variable and distributed resources. We appreciate the analysis that has gone into better understanding the gaps between the IFM and FMM, and between the FMM and RTD. In addition, we accept that some resources may of necessity be excluded from addressing these needs if they are insufficiently flexible, particularly those with long startup or ramp times or high Pmin costs. It seems that demand response resources that could provide flexible RA today would be candidates for providing the day-ahead ramping product proposed by CAISO. It also seems that DER related solutions could be used – for example, bundling combinations of energy efficiency, demand response, distributed generation, storage and EVs – where transmission and generation solutions may not be available.

As CAISO continues to identify the need for new flexible RA products, it will be critical to consider what resources can meet the needs and whether appropriate value is being signaled and provided for resources to meet the identified needs. It is our understanding, for example, that current demand response resources have been limited in providing flexibility because of the requirement that these resources also must meet the underlying system RA obligations. We discuss this further in the eligibility criteria section. There may also be demand side resources that are not currently RA resources that could meet the new product definitions if the current metering limitations were addressed.

Another important point that the Council has stated in other CAISO initiatives is that there needs to be higher value for flexible resources. A combination of reasonably defined flexible attributes, separate from additional RA attributes, and clear price signals will be important to robustly encourage all DER to provide flexible capacity going forward.

Quantification of the flexible capacity needs

The ISO has provided data regarding observed levels of uncertainty, in addition to previous discussion of net load ramps.

Comments:

The Council appreciates the CAISO's illustrative examples of the potential uncertainty to help explain the need for flexibility beyond the forecast net load ramping requirements. We agree with other parties who have expressed the need for CAISO to focus on minimizing forecast error and analyze the uncertainty needs based on historical data over a longer period of time. We have no additional comments on the needs quantification at this time.

Eligibility criteria and must offer obligations

The ISO has outlined the need for three different flexible RA products: Day-ahead load shaping, a 15-minute product, and a 5-minute product. Additionally, the ISO has identified a preliminary list of resources characteristics and attributes that could be considered for resource eligibility to provide each product. Additionally, the ISO is considering new counting rules for VERs that are willing to bid into the ISO markets.

Comments:

It is critical that proposed changes to flexible RA products do not preclude the eligibility of flexible resources such as demand response, because of their nature. CAISO is the appropriate place to blend the beneficial contributing values of use limited and or energy limited and particularly weather-sensitive loads. It should not prescribe resource qualifications that prevent such resources from contributing where they can. And, it should not impose on a particular resource the requirement to provide replacement resources when it is exhausted. It should be allowed to bid into the evolving market in a manner that makes clear to CAISO what it is capable of, and its limitations. CAISO can then meet its needs by using the range of resources, that vary over time, based on which are the most cost-effective.

The Council agrees with CAISO's stated intention to collaborate closely with the CPUC and potentially move these issues into the Resource Adequacy proceeding. In fact, within this framework the CPUC is already considering demand response related issues including, specifically, how to treat weather-sensitive load resources. A key value of many of these resources is that they can be particularly flexible. Many IOU demand response resources and a growing fleet of third-party resources have the ability to respond, up or down, within 15 minutes, and in the future, are increasingly likely to provide even more granular response (i.e., 5-minute response). Residential load resource aggregations, can potentially offer flexible ramping support multiple times in a day and multiple days in a row.

Still, residential resources are weather sensitive, meaning that while they are variable, they are predictable (highly correlated with sun and temperature), which makes them particularly attractive for addressing peak related ramping issues. The Council has pointed out previously, and in other forums (ESDER 2 and 3, CPUC RA), that buildings – both homes and businesses as well as weather-sensitive load resources can be seen as thermal energy storage systems. The development of the "shift" product being considered in ESDER 3 and the IFM Shaping product being considered in FRACMOO 2, could be consolidated. Building load aggregations can absorb excess energy during the day in precooling, for example, and then be available to provide "up" capacity by reducing demand during the three-hour ramp. Buildings can do this through pre-cooling and reduction of energy usage in other timeframes. As these products mature, and as means to compensate such behavior is developed, they could also vary this response more granularly in the transition from mid-day to evening.

For this reason, we are particularly concerned that CAISO not change its process in a way that would allow only generation that can be available 24 hours a day to participate.[1] Demand response from weather-sensitive resources would be most useful during the day, and would have some use limitations. CAISO should allow products such as these to participate and identify those limitations in a way that helps CAISO utilize them appropriately.[2]

To avoid discriminating against certain load resources, it would therefore be important for the CAISO to retain capacity response products that address peak and super-peak capacity, which would allow some resources with use limitations to provide cost-effective offerings where they are best suited. CAISO should certainly purchase the Flexible RA products envisioned more granularly than daily, at least for daytime and night-time, and preferably more granularly, as noted, for off-peak, peak, super-peak hours.

The CAISO response to variability and uncertainty does need to be worked out in conjunction with the LSEs and LRAs as it notes in more than one place. In particular, self-scheduling is important because LSEs should be able to use load modifying demand response resources to reduce their need for additional flexible RA resources. While load-modifying resources have been bifurcated because they are not actively integrated into the market as supply, they are none-the-less important demand side resources. Already they can affect the long-term planning reserve forecast. It would be much better, however, if the LSEs were able to adjust their IFM and even FMM load obligations on the basis of their own self-scheduling of such resources, many of which are quite capable, or have the potential of becoming capable given appropriate price signals, of responding to relatively short and frequent signals from the managing LSE, which in turn would be responding to CAISO signals.

While the CAISO may seek to simplify its task of achieving reliability by reducing complexity, the most cost-effective pathway will likely include additional complexity related to using a greater variety of resources such as a range of demand response and distributed resources.

There are currently several barriers to providing the flexible RA products CAISO has identified, and it might be helpful to think about them as CAISO considers what the eligibility criteria should be. As stated above, the Council continues to be concerned that there is currently

[1] Additionally, the ISO must determine in what hours the resources must be available. The ISO's analysis demonstrates that uncertainty happens at all hours, but, as shown in Figure 5, the ISO observes more uncertainty during day-light hours. Therefore, the ISO is considering if all resources that provide the five-minute flexible RA product should have a 24 by 7 must offer obligation, or if there is an opportunity to create an additional day-time product with a shorter must offer obligation window.

[2] While it doesn't delve into the implications further, the White Paper notes: "While the range of maximum forecast errors between the IFM and the FMM shows slightly more deviation, between 5,200 MW and 8,700 MW, these deviations are likely due to weather sensitivity and weather conditions between the IFM and FMM."

limited or no value associated with providing flexibility, as evidenced in the reluctance of parties to provide flexible capacity through the Demand Response Auction Mechanism (DRAM). Until there is appropriate value for the flexibility that CAISO is seeking, it is hard to envision a procurement model that drives procurement of these fast resources.

In addition, there is the CPUC's requirement that flexible RA must include flexible attributes as well as meet system RA capacity requirements. Asking an aggregation of customers to be as available as a generator – ready for long dispatches on a day ahead basis and also capable of shorter term flexibility -- is taxing. Generally, a DR resource is comprised of customers and capabilities to provide either but not both of these services. Requiring the bundling of system and flexible requirements and obligations in one resources is a significant barrier for demand response resources. If these flexible RA products are the products CAISO requires to meet its operational needs, it would be helpful for CAISO to support the process for removing the bundling requirement at the CPUC as well as consider supporting a 1- or 2-hour MCC bucket product.

Another issue that we understand is likely to be considered in the upcoming RA proceeding at the CPUC is whether RA will continue to be purchased annually based on August requirements or potentially move to a monthly or daily requirement instead.

Equitable allocation of flexible capacity needs

Equitable allocation of flexible capacity needs is a critical element of a new flexible RA framework. The ISO seeks comments on potential allocation methodologies.

Comments:

The Council does not have a position on this issue at this time.

Other

Please provide and comments not addressed above, including any comments on process or scope of the FRACMOO2 initiative, here.

Comments:

While we don't have a position on VER at this time, it is our understanding that demand response, as a dispatchable resource, does not qualify as a VER.