Comments of Cogentrix Energy Power Management, LLC on Second Revised Flexible Capacity Framework Proposal – Flexible Adequacy Criteria Must Offer Obligation (FRACMOO) Phase 2

Submitted by	Company	Date Submitted
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Cogentrix Energy Power Management, LLC (Cogentrix) appreciates the opportunity to comment on the *Flexible Resource Adequacy Criteria and Must Offer Obligation – Phase 2; Second Revised Flexible Capacity Framework Proposal* (Second Revised FRACMOO2 Proposal). Cogentrix also appreciates the effort that the CAISO staff has put into undertaking this initiative to close the gaps "by developing a new flexible RA framework that more intentionally captures both the ISO's forecasted operational needs and the predictability (or unpredictability) of ramping needs." Upon review of the Second Revised FRACMOO2 Proposal, Cogentrix submits the following comments.

I. Background

As stated by the CAISO and other regulatory bodies responsible for oversight of the California electricity market, including the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), reliability of the electricity system is of utmost importance and a principal concern for the state. Cogentrix concurs with the CAISO's original characterization of the risks associated with maintaining the status quo with respect to the flexible RA product. In particular, Cogentrix agrees with the problem statement in the Background section of the Second Revised FRACMOO2 Proposal, which states that the "ISO's assessment shows that the current flexible capacity product is overly inclusive, and risks exacerbating the ISO's operational challenges by sustaining largely inflexible resources (long starting, long minimum run times, and high Pmins) at the expense and financial viability of more flexible resources." Furthermore, Cogentrix also acknowledges increasing system imbalance as a result of greater intermittent

resources as well as increasing levels of uncertainty between the day-ahead and real-time market. According to the CAISO, this uncertainty has resulted in re-dispatching of up to 9,000 MW.[1]

As such, Cogentrix has been a supporter of and an active participant in the FRACMOO2 initiative since its inception.

II. Comments

CAISO's Proposed Definition of Flexible RA Products is Too Broad and Does Not Recognize the Value of Flexibility Required on the System

As stated by the CAISO in the Second Revised FRACMOO2 Proposal, "real-time products – the five and fifteen minute flexible RA capacity – will be designated to address real-time uncertainty, including imbalances between day-ahead market and RTD."

Cogentrix believes that recent changes to the Second Revised FRACMOO2 Proposal unreasonably broadens the list of qualifying resources to such an extent that this initiative's goal – creating a meaningful flexible RA product to send appropriate market signals and provide the CAISO with the tools to ensure system reliability – will not be accomplished.

First, the fifteen minute calculation should reflect the fifteen minute need in real-time. If long-start resources and variable energy resources (VERs) clear in the Day Ahead Market for the fifteen minute product, the CAISO may not have the flexibility it requires to respond to uncertainty in real-time.

Second, if long-start resources and VERs are included in the fifteen minute product definition, they should be capped. Capping these resources' contribution to the fifteen minute product would reduce their burden of additional over-generation, which is already a contributor to system imbalance and poses a challenge for the CAISO to manage. In addition, a cap would also minimize unnecessary GHG emissions that result from idling long-start resources in anticipation of fifteen minute ramping needs that may or may not materialize.

Third, the removal of eligibility criteria based on start-up time in the most recent draft results in recreating the precise problem that this process was attempting to resolve – an "overly inclusive" product that "risks exacerbating the ISO's operational challenges by sustaining largely inflexible resources." Long-start resources and VERs do not provide the same level of flexibility as fast-response units and are not sufficiently flexible to enable the CAISO to respond to variability and uncertainty in real-time.

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[1] CAISO *Flexible Resource Adequacy Criteria and Must Offer Obligation – Phase 2; Second Revised Flexible Capacity Framework*, April 27, 2018 at 4.

In addition to exacerbating the problems that FRACMOO2 is trying to resolve, overly inclusive flexible RA criteria will also result in a market signal that is highly diluted or non-existent. Market signals influence operators' decisions with regards to investment, maintenance and upgrades. Over time, insufficient revenue from flexible RA could lead to a reduction in fast-response, flexible resources in the market and an expansion of out-of-market solutions.

Fifteen minute Product Calculation

The flexible RA fifteen minute requirement is proposed to be set using a similar methodology to the DA Enhancements imbalance product. The Second Revised FRACMOO2 Proposal describes the differences in Table 1 (below)[2].

Table 1: Drivers requiring imbalance reserves

Upward imbalance reserve Drivers	Downward imbalance reserve Drivers
Load that is higher than IFM schedule	Load that is lower than IFM schedule
Virtual supply	Virtual demand
Conventional generators that are unable to meet their IFM schedule	Conventional generators that self-schedule above their IFM schedule
Variable energy resources that are unable to meet their IFM schedule	Variable energy resources that self-schedule above their IFM schedule
Imports that that don't tag their IFM schedule	Imports that self-schedule above their IFM schedule
Exports that self-schedule above their IFM schedule[10]	Exports that don't tag their IFM schedule

Cogentrix notes, however, that the CAISO has omitted significant drivers behind the need for imbalance reserves; the difference between bid-in demand and the adjusted CAISO forecast of CAISO demand. This is fundamental to the imbalance reserve design, which both ensures that basic capacity needs are met and accounts for uncertainty.

The adjusted CAISO forecast of CAISO demand is made up of two main drivers. The first is the CAISO forecast of CAISO demand. LSEs are not obligated to bid-in at the level of the CAISO forecast of their need. Even if they were to bid-in at the level of the CAISO forecast, they may not clear that level. It is critical that the CAISO ensures there is adequate capacity in real-time to make up the difference between the cleared demand and the CAISO forecasted demand. This is different than forecast error between the day-ahead and real-time, which is represented in the description within the proposal and the presentation by item (1) in Table 1. It is known, needed additional capacity.

[2] CAISO *Flexible Resource Adequacy Criteria and Must Offer Obligation – Phase 2; Second Revised Flexible Capacity Framework*, April 27, 2018, Table 1 at 15.

The second driver is the difference between VER offers and the CAISO forecast of variable energy resources. The CAISO adjusts the CAISO forecast of CAISO demand by actual VER forecasts because many wind resources, in particular, do not offer into the day-ahead market and instead choose to offer only into the real-time market. This is different than an inability to meet their IFM schedule, represented by item (4) in Table 1, because they do not have an IFM schedule in the first place.

Given this, Cogentrix believes that the CAISO should fully align the flexible RA fifteen minute requirement methodology with the DA Enhancements methodology and account for these drivers.

Allocation

Cogentrix supports the CAISO's proposal to "allocate flexible capacity requirements based on the primary contributing factors to each product" to LSEs in order to safeguard the CAISO's ability to respond to predictable and unpredictable ramping needs. Cogentrix also encourages the CAISO to increase LSE requirements as needed to properly reflect increasing uncertainty and ensure system-wide reliability.

III. Conclusion

Cogentrix continues to support the FRACMOO 2 initiatives and the CAISO's goal to reform the flexible RA product in order to meet its reliability needs in real-time. We highlight the need for flexible products that can respond to increasing system variability and uncertainty. We also reiterate the importance of providing the flexible resources with adequate market signals to support investment and operation required for their ongoing participation in the market. It would be disappointing, as well as detrimental to system reliability, if this multi-year initiative resulted in no fundamental changes to system reliability. Cogentrix urges the CAISO to continue to press forward and carefully consider stakeholder comments that address open questions, while working urgently toward approval and implementation of recommended changes that result from this process.