



Comments of LS Power
on
CAISO FRACMOO Second Revised Framework Proposal

Submitted by	Company	Date Submitted
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LS Power appreciates CAISO’s efforts in continuing to make progress on Flexible Capacity and Must Offer Obligations Phase 2 (FRACMOO2) initiative and encourages CAISO to stay on track for completion of this initiative such that inputs can be incorporated in CPUC’s RA proceeding in a timely manner.

CAISO Comment 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 were related to operational needs.

Comments:

LS Power supports CAISO’s proposed identification of the two drivers for flexible capacity needs.

Definition of products

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.

Comments:

LS Power agrees with CAISO’s proposal for need of three different flex RA products.

Quantification of the flexible capacity needs

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

Comments:

Quantification of needs as proposed is workable however additional details on three approaches proposed for unpredictable ramping needs are needed. In addition, CAISO's expectation on timing to implement these methodologies should be provided in the next version of proposal.

Eligibility criteria, counting rules, and must offer obligations

The ISO has identified a preliminary list of resource characteristics and attributes that could be considered for resource eligibility to provide each product. Additionally, the ISO has proposed new EFC counting rules for VERs and storage resources that are willing to provide flexible RA capacity.

Comments:

In this proposal, CAISO has removed "start-up time" as minimum qualification criteria for Real Time Flexible Capacity product. LS Power does not support this. We believe start-up time is a key qualification criterion and absent this CAISO may overestimate the operating flexibility of resource available in FMM and RT to manage imbalances, as explained below.

CAISO is proposing to rely on Imbalance Reserves product as proposed under the Day Ahead Market enhancements to deal with Real Time uncertainty and will be making commitment decisions in the Day Ahead. This approach should generally work, but could potentially lead to some commitment decisions that would have otherwise not been made if CAISO had a start-up time requirement. For instance if an 8-hour startup time resource is needed to be on at 6pm to handle the ramping needs during solar offline hours, then CAISO will need to start this resource by 10 am, which would mean this resource will contribute towards any oversupply issues during the day time which would in turn lead to CAISO dispatching down zero carbon resources and needing more flexible capacity during daytime hours. Instead if CAISO imposes a start-up time criteria then resources that are already committed and online should be able to meet the Real Time flexibility needs. Also, short start resources may be committed as needed much closer to the actual need thereby solving the flexibility issues more efficiently and cost effectively. We recommend CAISO reconsider start-up time as a qualification criterion.

Equitable allocation of flexible capacity needs

The ISO has proposed a methodology for equitable allocation of flexible capacity requirements. The ISO seeks comments on this proposed methodology as well as any alternative methodologies.

Comments:

LS Power has no comments on this topic at this time.

Next Steps

The ISO is currently planning to issue a draft final framework on June 6, 2018. However, given the schedule change in the CPUC's RA proceeding, the ISO will not release a draft final framework until July 10, 2018. The ISO seeks stakeholder input regarding next steps that should be taken to further enhance the ISO's framework. Options include, but are not limited to, another full iteration or working groups.

Comments:

LS Power proposes a Working Group meeting.

Other

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

Comments:

LS Power has the following additional comments:

For Real-Time Flexible Capacity counting, Storage resources should not be limited to resource's instantaneous output

By proposing that only resource's instantaneous output be counted for storage, CAISO is reducing half of the flexible capacity a storage resource can offer in the 15 min interval for Real-Time market. For purposes of calculating Effective Flexible Capacity (EFC) for a storage resource, both charge and discharge dispatch over three hours counts towards the qualifying flexible capacity. For purposes of Real Time Flexible Capacity calculation, charge and discharge over 15 min should be used to determine what resource's flexible capacity is. For instance a 10 MW, 1 hour resource could can easily go from 10 MW discharge to 10 MW charge over one 15-min interval and vice versa, thereby offering CAISO flexible capacity of 20 MW. If CAISO imposes its proposed counting rule, this will limit the flexible capacity for this resource to 10 MW and there would be no differentiation between 10 MW storage resource and a 10 MW generator. Going from one 15 minute interval to the next a storage this 10 MW storage resource can

potentially go from -10 MW (10 MW charge) to +10 MW (10 MW discharge), thereby providing 20 MW flexible capacity. Given that CAISO would not know ahead of time whether Flexible Capacity requirements will help meet deviations in upward direction or downward direction, having a resource such as storage available that can help meet the uncertainty in either direction should be valuable in Real Time and hence full Flexible Capacity range for this resource should be assigned.

LS Power supports CAISO proposal of separate EFC deliverability study

LS Power supports CAISO proposal of establishing of a separate EFC. NQC is a Peak deliverability based product. In order to get NQC assigned a resource has to go through CAISO's generation interconnection study process under which CAISO conducts a Deliverability Study. The purpose of this study is to ensure that resource can be delivered to the load at times when its most needed at Peak load conditions. Under today's process a resource cannot get EFC if it does not have NQC. For new resources, especially ones located in remote areas away from load centers it's extremely difficult to get Deliverability and most times it is left with two choices, either convert to "Energy Only" or withdraw from the queue. While the NQC criteria for testing deliverability at the Peak makes sense for resources that provide System and Local RA, using the same test for resources that can provide Flexible Capacity does not. A resource that is located in a remote area and hence not able to deliver to the load during peak condition may have no NQC but this resource can still very effectively resolve grid flexibility issues and should be assigned EFC. Hence separating the NQC from EFC study process is an important step and we support CAISO's recommendation on this. Several details related to how EFC studies will be conducted need to be discussed and we encourage CAISO to have more discussion on this.

LS Power thanks CAISO for the opportunity to provide these comments.