

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 Second Revised Draft Framework Proposal posted on April 27, 2018.

Submit comments to InitiativeComments@CAISO.com

Comments are due May 17, 2018 by 5:00pm

The Second Revised Draft Framework Proposal posted on April 27, 2018 and the presentation discussed during the May 3, 2018 stakeholder meeting may be found on the [FRACMOO](#) webpage.

Please provide your comments on the Second Revised 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 were related to operational needs.

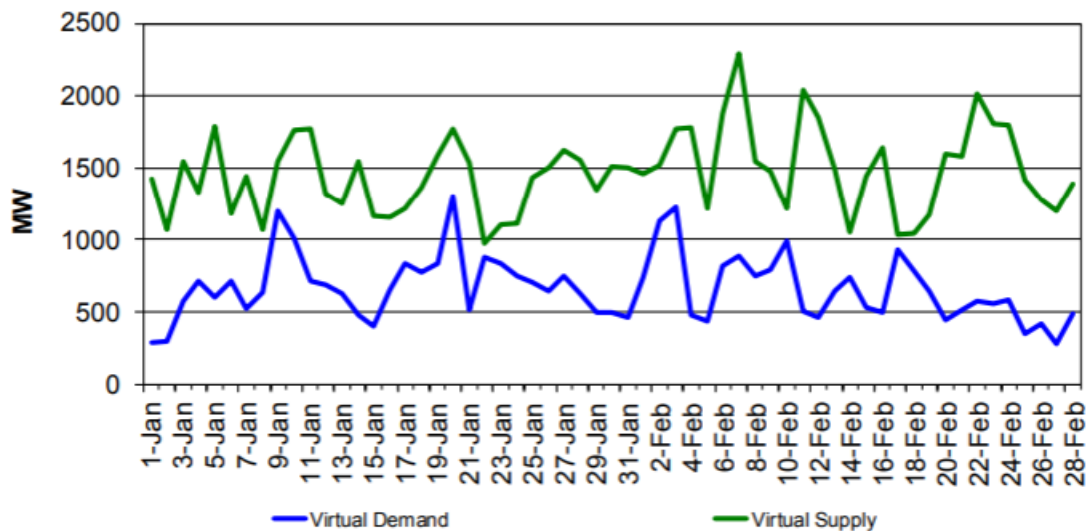
Comments:

With respect to general ramping needs and uncertainty, SCE notes that the data provided by the CAISO regarding the volume and volatility of “uncertainty” are informative in understanding how the dispatch of resources and market clearing, regardless of their standing within RA, is not necessarily meeting the CAISO’s expectation of operational needs. However, the data provided by the CAISO are not evidence that the flexible RA product has failed to provide sufficient capacity from which the CAISO can dispatch energy to meet ramping needs.

For example, the CAISO has stated that “[t]he drivers of FMM imbalances are caused by load and resources whose FMM schedules change from the day-ahead market” (p. 15 of the second revised flexible capacity framework). Then the CAISO set the requirement of the proposed 15-min flexible RA product at the amount of the schedule change, which is in the range of 10,000 MW (Table 3, p. 19). If SCE understands the data correctly, this approach is flawed. The 10,000 MW schedule change is well above the day-ahead load forecast error (the day-ahead load forecast is typically within 1-3%). Further, much of it can be attributed to virtual bidding activities. As an example, the chart below shows the unbalanced virtual schedules for February 2017 (the month with highest overall schedule change in 2017). As shown on this chart, the position of unbalanced virtual schedules can be material. Note this chart shows *daily average* difference between virtual supply and virtual demand, which means that the hourly difference can be much larger.

To set a target that guides physical resource procurement for reliability at a level that is dependent on virtual bidding activities is flawed.

Chart 1: daily average of cleared virtual bids in February, 2017



Market Performance Report, February 2017 ([Source](#), p. 17)

SCE to this point has not seen indications from the CAISO that the market is running out of sufficient capacity to dispatch for operational flexible needs. Without such information or some analysis showing that the CAISO is coming close to that situation, it is hard to conclude that a new Flex RA product is warranted. Through an earlier analysis performed by SCE¹, it has been

¹ SCE comments and presentation on CPUC Energy Division’s Workshop, Workshop Report, June 29, 2016, R14-10-010.

shown that the three hour product definition can be used to ensure that the CAISO has enough flexible capacity to meet all ramping needs of the system.

SCE designed an analysis to verify the 3 hour product will reliably pass the multi-dimensional test

Framework Analysis Methodology*

1. Create generation portfolios that satisfy the 3 hour ramping product
2. Test the generation portfolios against the multi-dimensional requirements
"Does the flexible RA portfolio meet the largest 15-minute ramp, 1 hour ramp, etc."
3. Determine how often a portfolio that satisfies the 3 hour ramping requirement will pass the multi-dimensional test:

- Test will **always pass** regardless of generation portfolio selected
- Test is **expected to pass**, but could not be with specific portfolios
- Test is **not expected to pass**, but could be with specific portfolios
- Test could **never pass** with a portfolio that met the product definition

Assumptions: Generation fleet and System Needs from 2014 LTPP; Product definitions the same as the interim solution; Test requirements developed in a similar manner as the interim solution

3 Hour Product in the 2024 Trajectory LTPP Case 2024 Net Load and Generation Fleet

Test Metrics	Month of Year											
	1	2	3	4	5	6	7	8	9	10	11	12
5 Minute Ramp	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
15 Minute Ramp	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
30 Minute Ramp	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
1 Hour Ramp	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
2 Hour Ramp	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
3 Hour Ramp (Once a Day)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
3 Hour Ramp (Twice a Day)*	Yellow	Green	Green	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Green

- Test will **always pass** regardless of generation portfolio selected
- Test is **expected to pass**, but could not be with specific portfolios
- Test is **not expected to pass**, but could be with specific portfolios
- Test could **never pass** with a portfolio that met the product definition

*Maintaining the three separate categories from the interim solution (Base, Peak, Super Peak Ramping) will guarantee the twice a day, 3 hour ramp, test always passes

SCE asks that the CAISO demonstrate that the analysis SCE has previously performed is incorrect and if incorrect, what the implications to the analysis are. In particular, SCE asks that the CAISO demonstrate how the capacity results in a shortfall and how that shortfall manifests itself in the energy market dispatch of the reliability resources. Further, SCE asks that the CAISO demonstrate how the new capacity products if procured would be utilized in a manner to ensure that the CAISO meets all ramping needs in the energy market dispatch.

It is SCE's belief that the inappropriate dispatch of either set of capacity resources can result in the CAISO running out of capacity whether such capacity is procured as a single or multiple products. If it is this dispatch that is the cause of the CAISO's concerns rather than the amount and attributes of the capacity procured, SCE believes that changes such as the Day-Ahead Market Enhancements should be pursued first as it is likely that such energy market enhancements necessary to meet ramping needs will need to take place before definitively concluding that it is a lack of sufficient capacity from the existing Flex RA product.

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:

SCE does not agree with the definition of new products as the current stakeholder process has not been able to demonstrate a shortfall in capacity from the existing Flex RA product.

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:

SCE disagrees with the CAISO interpretation of the data. Please see comments above.

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:

SCE does not have any comments on this topic at this time. SCE may comment at a later time.

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:

SCE does not have any comments on this topic at this time. SCE may comment at a later 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:

The CAISO should provide evidence that the current flex RA product does not ensure enough flexible capacity to meet all ramping needs of the system prior to proceeding with this framework.

Other

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

Comments:

SCE does not have any comments on this topic at this time. SCE may comment at a later time.