

Stakeholder Comments Template

Frequency Response Phase 2 Initiative Working Group

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This template has been created for submission of stakeholder comments on the working group for the Frequency Response Phase 2 initiative held on February 9, 2017. Information related to this initiative may be found at:

<http://www.caiso.com/informed/Pages/StakeholderProcesses/FrequencyResponsePhase2.aspx>

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **March 17, 2017**.

The ISO includes a summary of the brainstormed options for potential solutions to reference while responding to Question 1 and its subparts. Seven potential options were brainstormed, they include:

1. Annual Forward Procurement - external BAAs
 - a. Only procures incremental amount to cover expected shortfall
 - b. Requires one contract type (TFR)
 - c. Supports bid submission and settlement of that price if procured
 - d. Does not require any day-ahead or real-time market co-optimized constraint
2. Annual Forward Procurement - external BAAs and internal resources
 - a. Only procures incremental amount to cover expected shortfall
 - b. Requires two contract types (TFR and frequency response awards)
 - c. Supports bid submission and settlement of at least that price if procured
 - d. Requires day-ahead and real-time co-optimized constraint
3. Day-ahead or Real-Time Market Product
 - a. Procures amount to meet total requirement
 - b. Requires one contract type (frequency response awards)
 - c. Supports bid submission and settlement of at least that price if procured
 - d. Requires day-ahead and real-time co-optimized constraint
4. Day-ahead and Real-Time Constraint

- a. Procures amount to meet total requirement
- b. Does not support bid submissions but would include some type of settlement for service
- c. Requires day-ahead and real-time co-optimized constraint
- 5. Combination Annual for externals and Day-ahead/Real-Time Product
 - a. Procures incremental amount in annual forward procurement that would support bid submission and settlement of at least that price if procured
 - b. Separately procures remainder of the amount to meet the total requirement that would support bid submission and settlement of at least that price if procured
 - c. Requires day-ahead and real-time co-optimized constraint
- 6. Combination Annual for externals and Day-ahead/Real-Time Constraint
 - a. Procures incremental amount in annual forward procurement that would support bid submission for TFRs and settlement of that price if procured
 - b. Separately procures remainder of the amount to meet the total requirement that would not support bid submission for market constraint but would include some type of settlement
 - c. Requires day-ahead and real-time co-optimized constraint
- 7. "Do nothing"
 - a. Take no proactive action including procuring TFR from external BAAs

Questions:

1. The ISO seeks stakeholder input on the brainstormed options for a potential solution to the ISO need to take proactive action to ensure its frequency response is sufficient to support reliability in the event of a loss of two Palo Verde units (BAL-003-1 requirement). These include
 - a. Provide description of view of advantages, disadvantages, or position on option 1 - Annual Forward Procurement - external BAAs.
 - b. Provide description of view of advantages, disadvantages, or position on option 2 - Annual Forward Procurement - external BAAs and internal resources.
 - c. Provide description of view of advantages, disadvantages, or position on option 3 - Day-ahead or Real-Time Market Product.
 - d. Provide description of view of advantages, disadvantages, or position on option 4 - Day-ahead and Real-Time Constraint.
 - e. Provide description of view of advantages, disadvantages, or position on option 5 - Combination Annual for externals and Day-ahead/Real-Time Product.
 - f. Provide description of view of advantages, disadvantages, or position on option 6 - Combination Annual for externals and Day-ahead/Real-Time Constraint.
 - g. Provide description of view of advantages, disadvantages, or position on option 7 - "Do nothing".

The Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside California (the “Six Cities”) do not, at this time, take a position as to the above options for a potential solution to the ISO’s need to take proactive action to ensure sufficient frequency response. The Six Cities, however, reserve their right to take a substantive position in the future. With regard to the above options, the Six Cities encourage the ISO to focus on both minimizing the complexity and cost for frequency response procurement, while still maintaining reliability. It appears that certain of the options outlined above may involve a great degree of complexity, and a simpler solution that achieves the same goal at the lowest cost to market participants would be preferable.

Moreover, the Six Cities reiterate the position from their prior comments that new generators should not be compensated for having frequency response capability. The ISO imposes a number of interconnection requirements on generators for which recovery of capital costs and operating expenses are not necessarily ensured. An investment in frequency response capability should not be carved out and treated differently than other capital investments. For the development of new generators, resource developers will have the opportunity to recover capital costs for primary frequency response capability in the same ways they recover other capital costs associated with generation resources, and they have the ability to factor the costs for primary frequency response into their economic assessment of project viability under anticipated market conditions and into their negotiations for capacity sales.

With regard to existing resources, if the ISO should conclude that a requirement to have primary frequency response should be applicable to existing resources *and* existing resources are able to demonstrate that having primary frequency response capability imposes a significant additional cost, then the Six Cities believe it would be appropriate to consider a mechanism for compensation in this scenario. Existing generators do not have the same opportunity as new generators to account for the costs of primary frequency response capability, and thus should be provided an opportunity to recover additional costs related to the capability to provide primary frequency response if those costs are significant.

2. ISO seeks stakeholder input on the proposed frequency response service specifications for fast frequency response, primary frequency response and fast regulation attached separately in the draft frequency control product specifications document found [here](#).

The Six Cities have no comments at this time.

3. ISO seeks stakeholder input on the proposed scope of services for which a procurement mechanism would be designed. The proposed scope shown in the product specification handout is that the ISO only needs to evaluate procurement of primary frequency response whether from external BAAs or internal resource and does not need to procure fast frequency response or fast regulation capable of providing the secondary response shown on slide 47 in the appendices to the working group presentation. If any stakeholders believe that the scope should include the fast frequency response or fast regulation services under its evaluation of a procurement mechanism please provide an explanation.

The Six Cities have no comments at this time.

4. ISO seeks stakeholder input on whether load responsive devices can perform with a proportional response or does it require shedding load at a specific trigger point? Also, whether there has been any exploration of the concept of stopping non-critical processes for short periods has been evaluated?

The Six Cities have no comments at this time.

5. ISO seeks stakeholder input on whether pump storage hydro is pumping rather than generating would frequency control device perform with a proportional response or require shedding load at specific trigger points?

The Six Cities have no comments at this time.

6. ISO seeks stakeholder input on the statement made on Slide 15 of the ISO presentation, “Frequency control services require reserves above operating reserves that are not procured for RA”. The ISO stated that it believes that resource adequacy or flexible resource adequacy capacity procured to ensure RA to ensure energy deliverability cannot be awarded frequency responsive reserves since these reserves cannot be released by ISO dispatch to ensure deliverability during peak or ramping needs. If any stakeholders hold a different belief, the ISO asks that additional information and explanation be provided to continue to move the dialogue forward.

The Six Cities have no comments at this time.