

Stakeholder Comments Template

Frequency Response Phase 2 Initiative Working Group

Submitted by	Company	Date Submitted
Daniel Kim (916) 709-0289	Westlands Solar Park	March 17, 2017

Westlands Solar Park (WSP) appreciates the opportunity to comment on the Frequency Response Phase 2 Initiative as the scope of the solution is being defined.

Background on Westlands Solar Park

The WSP is a 27,000-acre and 5,000MW RETI-identified renewable energy zone in the southern part of the Westlands Water District. It is California's only public-private renewable energy solar park that is universally supported by the environmental and agricultural stakeholders, as it is located entirely on drainage-impaired farmland and sited underneath existing transmission corridors that can deliver renewable power to both the northern and southern parts of California. The WSP provides short term renewable energy delivery opportunities at the least cost to ratepayers because there is already over 1,800 MWs of capacity with minimal transmission upgrade costs in the area. The WSP is the only renewable energy zone near major load centers, making generation from this area more efficient due to the likelihood of lower line loss compared to other renewable energy generation that is sited in remote areas and requires 100-mile "gen-ties" to deliver power to load.

Comments:

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).
 - 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".

Westlands Solar Park does not support this option, but instead encourages the ISO continue to evaluate the above options (1-6) at the next working group meeting. WSP believes that is important for the ISO to develop a compensation scheme in order to incentivize all types of resources to provide primary frequency response service. WSP recognizes the complexity of creating a bidding structure for a service does not respond to an ISO signal, but rather is an automatic response, and suggests that payments could potentially be automatic at a set compensation price if a signal is triggered for primary frequency regulation, or be based on capacity. A bidding structure makes sense only for secondary or tertiary frequency response, should the ISO pursue these products.

The ISO's discussion at the February 9 working group meeting of the recent NREL study shows an interest in renewables participating in the solution of addressing these frequency disturbances – an interest that WSP supports and shares. However, these resources are not traditional. The technology being used by solar is not inertial and in order to provide these services they must reserve capacity, or headroom, on the inverter. There is an opportunity cost to doing so that should be compensated. Without compensation for this reserve, the resources will continue to use as much of the capacity as possible to generate energy. The current compensation structure for renewables is designed to incentivize solar generation to operate in this way, rather than to scale down and save capacity for reliability services.

1. 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](#).
2. 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.
3. 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?

4. 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?
5. 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.