

Stakeholder Comments Template

Reactive Power Requirements and Financial Compensation Draft Final Proposal

Submitted by		Company	Date Submitted
Deane Burk	916-574-0669	California Department of Water Resources (CDWR)	December 3, 2105
Rodrigo Avalos	916-574-1364		

This template has been created for submission of stakeholder comments on the draft final proposal for the Reactive Power Requirements and Financial Compensation initiative that was posted on November 12, 2015. The draft final proposal and other information related to this initiative may be found at: <http://www.caiso.com/informed/Pages/StakeholderProcesses/ReactivePowerRequirements-FinancialCompensation.aspx>.

Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **December 3, 2015**.

1. Please indicate whether you support reactive power requirements for all resources.
Yes.
2. Please indicate whether you support the proposed technical requirements for asynchronous resources.
Yes.
3. Please indicate whether you support the current provision payments for providing reactive power outside of the standard required range.
Yes.
4. Please indicate whether you support the proposal to not provide administrative payments for reactive power capability.
Yes.
5. If you have any other comments, please provide them here.
See below.

Background:

Ensuring a reliable distribution of reactive power throughout the system is vitally important for everyone. However, resources that have typically provided reactive power in the past are being replaced by resources that do not typically provide reactive power. The proliferation of asynchronous resources in conjunction with the retirement of large synchronous generators and displacement of synchronous resources during certain times of the day are significantly changing the landscape of the interconnected power grid. The CAISO wants to maintain system reliability by requiring more interconnected resources to provide reactive power.

The primary purpose of this initiative is to extend reactive power requirements to all asynchronous generators as soon as possible. The CAISO is proposing to replace the current case-by-case system impact study approach for asynchronous generators¹ with a reactive power requirement “effectively equivalent” to the current synchronous generator reactive power requirements².

The secondary purpose of this initiative is to compensate resources for providing reactive power outside of their minimum reactive power requirements. The previous proposal recommended a new exceptional dispatch category and provision payment for “atypical” resources and unconventional situations, for instance, clutch resources and solar arrays at night. However, due to a lack of agreement and details of how this new exceptional dispatch category and settlement would work, the CAISO has dropped this recommendation in the draft final proposal. The topic of financial compensation for reactive power will be addressed in a separate stakeholder initiative in Q2 2016. The CAISO will continue current payments to resources for providing reactive power outside of the standard required range.³

CDWR's Comments:

CDWR reiterates its support for the CAISO to extend reactive power requirements to all asynchronous generators as soon as possible. Reactive power requirements should be uniform between synchronous and asynchronous generators.

CDWR, for now, supports the elimination of exceptional dispatches and a compensation mechanism for “atypical” resources and unconventional situations to provide additional reactive power. There are too many concerns that still need to get worked out. Having an appropriate settlement and allocation mechanism to address the compensation and cost causation concerns should not slow down the primary purpose of this initiative.

¹ With the current impact study approach, approximately three-fourths (3/4) of the asynchronous projects through mid-2014 requesting interconnection to the CAISO controlled grid were required to provide reactive power capability (see Issue Paper & Straw Proposal, page 13).

² Current synchronous generator requirements: 0.90 lag/0.95 lead at generator terminals; proposed asynchronous requirements: 0.95 lag/0.95 lead at point of interconnection (see CAISO Draft Final Presentation, pages 8-13 for additional details).

³ Resources can be called upon under an exceptional dispatch instruction to reduce their real power output to provide reactive power. Payments are calculated based on a resource's opportunity cost (See CAISO Tariff, Section 11.10.1.4). Reactive power payments are allocated to measured demand (CAISO Tariff, Section 11.10.7).

CDWR understands that accurately identifying which resources (generators or loads) are causing the need for reactive power is a highly complex, dynamic, and detailed process that for all practical purposes may not be achievable. Any attempt to develop such a cost causation mechanism would likely outweigh the cost of reactive power provision payments, especially considering that current reactive power payments paid by the CAISO are “minimal”. Nevertheless, an accurate cost causation mechanism that may never be attainable does not justify allocating all reactive power payments to measured demand – it is irrational and discriminatory. Measured demand should not be the default payer of a service that benefits everyone.

If an accurate reactive power cost causation mechanism is practically not achievable, then CDWR believes that the next best thing is a “negotiated” cost allocation mechanism that will align reactive power costs with the distribution of benefits. This negotiated cost allocation mechanism can take into account (1) the benefits that generators, imports, loads, and exports receive from having enough reactive power; (2) the regional limits of reactive power; and (3) the benefits that purely financial transaction stakeholders receive from having a stable and reliable energy market.

CDWR believes in general that no reactive power compensation mechanism should be implemented without also having a fair and just cost allocation mechanism.