Stakeholder Comments Template

Subject: Regional Resource Adequacy Initiative

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the Third Revised Straw Proposal for the Regional Resource Adequacy initiative that was posted on September 29, 2016. Upon completion of this template, please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **October 27, 2016.**

Please provide feedback on the Regional RA Third Revised Straw Proposal below.

The ISO is especially interested in receiving feedback that indicates if your organization supports particular aspects of the proposal. Alternatively, if your organization does not support particular aspects of the proposal, please indicate why your organization does not support those aspects.

Calpine generally supports the proposal, especially the aspects of the proposal that would utilize uniform reliability requirements and resource counting rules in the proposed Reliability Assessment.

Based on the October 6 stakeholder call, Calpine has the following limited concerns about the proposal:

Hydro NQC

Tony Braun raised an important point about the determination of NQCs for hydro resources, whose ability to generate during periods of system stress may be constrained more by the availability of water than the availability of generating capacity. For example, BPA publishes three different estimates of the hydro capacity on its system based on the ability of the generation to sustain its output for 1, 18, and 120 hours, which differ from each other by thousands of

megawatts.[1] Similarly, the CPUC QC counting rules used to discount hydro capacity to reflect 1-in-5 hydro conditions. The CAISO may want to consider similar adjustments to hydro NQCs in its uniform counting methodology. On the other hand, suitable performance requirements may limit incentives to sell and show RA capacity from hydro resources—potentially up to the nameplate capacities of the resources—above the levels that are backed by sufficient water.

System v. Local ELCC

Mike Jaske noted that solar and wind resources might have different ELCCs with respect to local reliability requirements, on the one hand, and system reliability requirements, on the other hand, because ELCC captures the coincidence of an intermittent resource's output with the periods of the highest system stress. Periods of the highest system stress may be different in a local area than at the system level. This is an important issue that should be followed as ELCC as implemented in various CPUC and CAISO processes. It is not a reason to not utilize ELCC in the Reliability Assessment or other contexts.

Import RA

Calpine supports the CAISO's efforts to introduce more stringent requirements for what resources can be used to support import RA. It is unclear that requiring non-resource- or non-system-specific import RA to be contracted month-ahead would address the CAISO's concerns about the availability/double-counting of resources used to support import RA. For example, a firm energy sale, even from a specific resource, may still allow another BAA to rely on the capacity of the resource in an emergency.[2] In addition, to the extent that the contracting requirement would encourage contracting for significant volumes of import *energy*, it may contribute to overgeneration/flexibility problems in CAISO.

[1] For example, see the description of BPA's methodology for calculating hydro capacity on p. 12 of https://www.bpa.gov/power/pgp/whitebook/2015/2015_WBK-Loads-and-ResourcesSummary.pdf and line 17 of Exhibits 6-3 and 6-4 in the same document compared to line 17 of pages 210 and 336 of https://www.bpa.gov/power/pgp/whitebook/2015/2015_WBK-TechnicalAppendixVol2-CapacityAnalysis.pdf.
[2] For example, see section C-3.7 of the WSPP Agreement (http://www.wspp.org/filestorage/current_effective_agreement_080316.doc)