

CALIFORNIA ISO
FLEXIBLE RAMPING PRODUCTS

COMMENTS OF THE STAFF OF THE
CALIFORNIA PUBLIC UTILITIES COMMISSION
ON THE SECOND REVISED STRAW PROPOSAL

January 19, 2012

The Staff of the California Public Utilities Commission (CPUC Staff) appreciate this opportunity to comment on the California ISO's (CAISO) January 5, 2012 Second Revised Straw Proposal ("revised proposal") for Flexible Ramping Products (FRP). The revised proposal makes valuable improvements to real time (RT) 5-minute deployment and settlement of FRP that avoids "double" (capacity and energy) payment and explicitly makes the energy bid stack available to provide FRP via implicit FRP bids. The CPUC Staff also appreciate the CAISO's effort to better explain the sequence of FRP procurement, deployment and settlement day-ahead (DA) through RT, as well as the relationship between FRP and the hourly net load following requirement calculated in the CAISO's renewable integration studies. Nevertheless, there are still aspects of the straw proposal that CPUC Staff would like to see further refined as discussed below.

1. The Potential May Remain for "Double Payment" if FRP Capacity Procured and Settled in the DA Market is Subsequently Dispatched and Settled for RT Energy.

The revised proposal addresses previous stakeholder concerns regarding potential "double" payment for both FRP capacity and energy, by proposing to physically commit FRP capacity in 15-minute real time pre-dispatch (RTPD) intervals, followed by separate decisions to allocate and settle that capacity for *either* energy or FRP on a 5-minute real time dispatch (RTD) basis. Still, FRP procured in the DA market would be paid for both FRP capacity settled¹ in the DA market and RT energy if dispatched in RTD. The CPUC Staff are concerned that this may still provide an excessive or "double" payment. The CAISO should further explain this issue and consider alternatively paying the FRP capacity the maximum of the DA FRP payment or the RT energy payment, or another combination that results in paying any increment of procured FRP capacity less than the full DA FRP

¹ The FRP capacity price in DA presumably represents a shadow price reflecting opportunity costs across **mutually exclusive** products, e.g., FRP capacity versus energy.

capacity price plus the full RT energy price if dispatched for energy. Specifically, the CAISO should determine if an adjusted payment less than the full capacity plus energy payment would still provide appropriate FRP and energy bidding signals for the generators in question.

2. The CAISO Should Further Justify the Basis for Calculating the Amount of FRP Procured in the DA Market.

Under the revised proposal the CAISO would procure in the DA market an amount of FRP calculated to meet the projected FRP needs at a 60% probability level. If, contrary to the intent, no additional FRP was procured in RT, then statistically the FRP needs estimated on a DA basis would not be met 40% of the time. The DA procurement presents increased risk of over-procurement relative to RT procurement of FRP, because the actual needs are less certain on a DA basis. Thus, it reduces uncertainty of procurement need to move FRP procurement from DA to RT. Procuring FRP in the DA market may also increase the risk of “double payment” (for FRP capacity plus RT energy) as discussed above. The CPUC Staff request that the CAISO explain more fully why DA procurement of FRP to meet RT FRP needs at the 60% level is appropriate (for example, if it is based on the expected importance of slower starting units in contributing to FRP in the future).

Further, regardless of whether the proposed procurement of estimated FRP needs at the 60% level on a DA basis is appropriate, FRP design and implementation should provide for transparent assessment and adjustment of the initial DA procurement target. Such adjustment would be based on reporting and analysis of actual operational experiences regarding over/under procurement of FRP, FRP procurement costs, and the robustness of the RT market for FRP such as influenced by the availability of quick-start and already-on-line units or demand response, to provide FRP in RT.

3. The CAISO Needs to Better Explain if FRP Procured in the DA Market Can be Used to Address System Needs Other than FRP for RT Operations.

Procuring FRP in the DA market could make flexible capacity available in the next day to meet needs other than the RT 5-minute flexible ramping. For example, the net load following pseudo-product studied in the CAISO’s renewable integration studies reflects hourly commitment of capacity to meet flexibility needs over a one-hour time horizon, rather than the 15-minute RTPD time horizon addressed by FRP. FRP would thus address a subset of the previously modeled net load following need, by addressing flexibility needs over a 15-minute time horizon.² It appears that the one-hour net

² Second Revised Straw Proposal, p. 7.

load following requirement would additionally address the flexibility needed to make required resource commitment changes between the four 15-minute RTPD commitments in an hour. The CAISO should further clarify how FRP procurement in the DA market could provide the additional “net load following” flexibility for transitions between 15 minute RTPD commitments, or any other flexibility requirements beyond FRP, including how well the non-FRP flexibility needs could be met without significant DA FRP procurement.

4. The CAISO Should Clarify the Impact of Procuring FRP in the DA Market on Calculation of Residual Unit Commitment.

The CPUC Staff believe that FRP capacity procurement in the DA market should reduce or eliminate capacity commitment needs from the Residual Unit Commitment process. The CPUC Staff ask that the CAISO clarify if and how this would occur. This is a necessary part of designing and vetting the proposed FRP.

5. The CAISO Should Explain the Role of Energy Bids in FRP Procurement.

The CPUC Staff understand that FRP would be procured based on minimization of overall system procurement costs for energy, conventional ancillary services and FRP, yielding shadow prices for the different products. How the CAISO will take into account the energy bids of potential FRP providers in both the DA and RT procurement of FRP should be explained to stakeholders. The CAISO should also explain how FRP bidding, procurement and settlement may impact overall Bid Cost Recovery.

6. The CAISO Should More Fully Explain How FRP could be Procured with Other Reserve Products.

At the January 12, 2012 meeting there were stakeholder questions and brief discussion regarding why FRP could not be treated as more fully interchangeable with and/or procured in conjunction with conventional ancillary services, particularly non-contingent spinning reserves or regulation. (This assumes that the disparate ramp intervals of 5 minutes versus 10 minutes are accounted for.) While CAISO staff provided a brief response, the CPUC Staff request a more complete explanation why such interchangeability is limited.

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