

**Comments of VIASYN
Flexible Resource Adequacy & Must-Offer Obligation 5th Revised Straw
Proposal**

Submitted by	Company	Date Submitted
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VIASYN appreciates the opportunity to comment on the 5th Revised Straw Proposal of the Flexible Resource Adequacy Criteria & Must-Offer Obligation ISO Stakeholder Initiative. VIASYN supports the initiative and the recent move to a technology agnostic bucket approach for assessing Flexible Resource Adequacy Capacity (Flex-RA).

The comments below are in association with the ineligibility of downward dispatchable capacity to provide the Flex-RA products and the EFC Calculation for hydro resources with storage.

CAISO Should Permit Downward Dispatchable Capacity to Provide a Subset of the Flex-RA Category 1 Capacity Product

Although CAISO has committed to “continuing to assess the need for an explicit downward flexibility requirement” VIASYN encourages CAISO to permit downward dispatchable capacity to be eligible as a subset of the Category 1 Flex-RA product because downward dispatchable VERs¹ with a positive forecast during afternoon net-load ramps are capable of (1) decrementing in anticipation of meeting upward ramping needs and (2) decrementing to meet overgeneration and near-overgeneration reliability needs. Further, a capacity-based compensation mechanism for downward dispatchable capacity is needed *in-advance* of the materialization of flexibility and overgeneration reliability concerns so as to provide the marketplace and price signal necessary to incentivize the investment in enhancing the dispatchability of the existing and proposed variable and non-dispatchable resource fleet.

With the implementation of CAISO’s FERC Order 764 Compliance Proposal under way many asset owners are assessing the economics of the capital investments and system upgrades necessary to provide CAISO with the dispatchability needed to resolve the “quickly growing concern” of downward ramping and overgeneration reliability needs. While permitting VERs to submit decremental economic bids and lowering the bid floor to (\$150) are first steps in the development of a market that accounts for and values the products and tools necessary to maintain system reliability, these steps are only slight modifications

¹ As well as self-scheduled energy and Non-Generating Resources offering energy.

to the energy product and do not compensate VERs for the higher quality (dispatchable) capacity that they can provide to the market.

As well, the introduction of the Fifteen-Minute Market (FMM) and the move of the Virtual Market from the 5-minute Real-Time Dispatch (RTD) to the FMM is expected to exacerbate RTD price divergence due to the lack of participation of the RTD in this price convergence mechanism. The introduction of the FMM will also increase RTD price volatility because the majority of Real-Time Market (RTM) energy will be financially bound in the FMM, turning the RTD into an exceedingly marginal imbalance market. These changes to the RTM will likely result in increased RTD price divergence, volatility, and occurrence of negative price spikes. This is appropriate given the role that the RTD will serve, however the market should offer VERs the tools, and incentivize LSEs to allow VERs, to hedge their exposure to these new market conditions.

In a market that is increasingly characterized by negative and volatile prices, a capacity-based compensation mechanism is the optimal method of fixed cost recovery for downward dispatchable capacity because it more directly aligns the valuation function of the market with the characteristics of the product and removes the reliance on energy price spikes for the recovery of capacity-related costs.

Further, Load Serving Entities (LSEs) have a disincentive to provide VERs with PPA terms that allow dispatch flexibility. Even if the market provided sufficient energy revenue to cover the (fixed) costs of decremental capacity, the existing market structure provides no incentive for LSEs to provide VERs with such higher quality PPA terms. This is an important issue as many LSEs have significant market power in PPA negotiations with their counterparties. Allowing downward dispatchable capacity to be eligible to meet a portion of Category 1 Flex-RA procurement requirements could be an important step that the CAISO takes towards incentivizing LSEs to provide PPA terms with downward dispatchable flexibility. Without this incentive, resources will be unable to mitigate their exposure to negative prices by offering their capacity as dispatchable and limits the quality of the capacity available to the market, reducing the efficacy of optimization solutions for overgeneration and near-overgeneration conditions.

A capacity-based compensation mechanism that recognizes downward dispatchability (1) creates a marketplace for desirable product characteristics, (2) provides a valuable price signal that improves the economics of operating below a VER's forecast, and (3) begins to incentivize LSEs to provide decremental flexibility in their power purchase offerings, improving the quality of the capacity available to the market optimizations.

CAISO should ensure that market design development incentivizes the product characteristics necessary to maintain future system reliability while avoiding excess buildout of non-RPS-mandated resources. In this initiative, focusing

solely on a market mechanism that incentivizes sufficient upward dispatchability will ensure excess buildout of capacity and ignores the potentially significant value that VERs could provide given a reliable price signal. Allowing downward dispatchable capacity to be able to provide the Category 1 Flex-RA product will introduce this price signal—providing CAISO, in time, with significant flexibility benefits as the saturation of VERs continues to increase.

Effective Flexible Capacity Calculation for Hydro Resources is Overly Stringent

While CAISO's technology agnostic bucket approach to defining Flex-RA capacity requirements is a significant improvement over previous revisions of the draft proposal, hydro resources are discriminated in the calculation of their Effective Flexible Capacity (EFC). Hydro resources with storage are capable of supplying Category 3 (Peak Flexibility) and Category 4 (Super-Peak Flexibility) Flex-RA. These categories require a minimum of three hours of minimum run time to be eligible. The EFC calculation for a hydro resource, however, is based on the six hour energy equivalent output of its storage capacity.

This limitation unnecessarily restricts the options available to the resource category when exploring alternatives for monetizing its flexible capacity. It prohibits the resource from exploring the trade off between, for example: 3 MW Category 1 Flex-RA Vs. 6 MW Category 4 Flex-RA, even though both options require the same total energy output (18 MWh). Depending on the economic condition of the market, one of these two options may be more valuable to the counterparties than the other, and permitting this type of trade-off to occur improves the liquidity of the market.

We encourage CAISO to perform the EFC calculation for hydro resources based on the six hour energy equivalent output of its storage capacity, however allowing the EFC to double if the resource is listed on an RA Plan to be providing Category 3 or Category 4 Flex-RA.