

## Renewable Integration Phase 2 Revised Straw Proposal Comments

Olivine appreciates the opportunity to comment on the CAISO's revised straw proposal for Phase 2 of the Renewable Integration Initiative and provide comments below for portions of the mid-term enhancements. The changes to the timeline and concept of a market evolution seem realistic and are better able to serve the CAISO and its constituents. However, Olivine remains concerned with the notion that ample gas fired resources is the only means to address the potential impacts of increased VERS and maintain grid reliability.

Given the extension of time to study and resolve the long term enhancements we believe the CAISO has ample time for the following:

1. Expend more effort on determining whether or not expansion of gas fired resources to meet VER concerns is absolutely necessary. Since the underlying objective of 33% RPS is to reduce the use of fossil fuel in the CA resource mix, use of carbon free resource alternatives such as storage and demand response need to be encouraged and accommodated in long term market design and in support of statewide policy.
2. Alignment of the real-time energy dispatch interval with real-time unit commitment is a market efficiency that should be adopted and not dropped from the long term enhancements. While it appears that path is being paved to this ultimate end with some of the features of the mid-term enhancements, concurrent work to meet this end must start now. In particular, the deferral of a 15 minute energy dispatch in the revised proposal is partially tied to the need to align with the rest of the west interchange scheduling timeframes. The CAISO must quickly identify the forum in which this discussion will take place and initiate the discussion that will ultimately support 15 minute energy dispatch.

### 7.2.2 – Flexi-ramp product

Flexi-ramp isn't a reserve product with an established 10 minute energy requirement and one current market feature that seems to create the shortage of ramping energy is the difference between short term unit commitment and 5 minute dispatch. Therefore, it makes sense that the time horizon be set to 15 minutes. This would align with RTPD and would provide insight into whether or not a 15 minute RTED should be adopted as part of the long term initiative. Further, since the Flexi Ramp product is not designed to meet a specific NERC/WECC defined operating reserve, it should not be included in the cascading provisions that currently apply to the procurement of Ancillary Services.

While initially it might appear that cost allocation should be assigned to all participants based on their deviation(s) from schedules or instructions, it doesn't address the potential for extremely high charges when there are very small and few resources and load deviations from schedules and there is a significant amount of Flexi-ramp capacity procured by the CAISO. This situation is likely to occur frequently since the need to set aside ramping energy isn't a function of projected deviations but rather the normal occurrence of intra hour load and resource changes. In the long term the assignment of costs to deviations would make sense if all loads and resources were allowed to schedule in sub hourly intervals (perhaps 15 minute?). The better solution is to

use the two tier method described at the end of the section which should be very similar to the current RUC cost allocation methodology.

### 7.2.3 – Alternative to Flexi-ramp Product

Splitting of contingent and non-contingent energy from Operating Reserves doesn't seem to address the core issues that the Flexi-ramp product would. While the amount of contingent and non-contingent energy associated with operating reserves is not transparent to the market as a whole, the CAISO Tariff currently provides sufficient latitude for the operators to maintain reserve obligations without the need to price the capacity from contingent and non-contingent AS separately.

### 7.2.4 – VER Scheduling

Any change to the scheduling horizon of VERs should not be more granular than other resources, and any sub hourly (15 minute) scheduling increments should be reserved for such a time that the CAISO evaluates the viability of 15 minute real-time dispatch. Self-schedules that result from updated forecasts should be settled against the previous schedule of the resource with the difference paid at the uninstructed real-time energy price. Ultimately the CAISO should consider extending whatever schedule/availability update it allows VERs to load, as well, since demand drives the needs for AS and real-time energy procurement more than any other variable in the market.