

## COMMENTS OF CALIFORNIA ENERGY STORAGE ALLIANCE ON CAISO REGULATION ENERGY MANAGEMENT STRAW PROPOSAL

The California Energy Storage Alliance (CESA) appreciates the opportunity to comment on both the CAISO's November 15<sup>th</sup> *Regulation Energy Management Straw Proposal* (REM Proposal), and the related presentation slides used for the November 18<sup>th</sup> Market Surveillance Committee meeting. CESA strongly supports the CAISO's REM Proposal since it should remove significant barriers that limit the full participation of energy storage resources in the CAISO's wholesale markets.

Of course the CAISO must file a progress report with FERC by March 2011, detailing its work with Beacon and other stakeholders to finalize the design elements of REM, resolve the technical issues surrounding the real-time available capacity of non-generator resources to provide regulation up and down. As with similar FERC directives to other ISOs, FERC's directive was not based on any perceived "need" for the additional regulation but on the basic competitive-market principle that all resources capable of providing a service the CAISO needs should have the opportunity to do so.

It is also important from a policy perspective that FERC has very recently issued a "Notice of Proposed Rulemaking on Integrating Variable Energy Resources" (onto the grid, which may lead to creation of a new "Generator Regulation Service" in accordance with a cost-based rate schedule designed to provide a clear path to recover the costs of regulation from the generator. This would give generators the option to either purchase such regulation service from the local public utility or provide it themselves. Transmission customers or generators would be required to either purchase this service from a transmission provider or make alternative comparable arrangements, which may include use of non-generation resources or processes capable of providing this service, to satisfy its generator regulation and frequency response service obligations.

The REM Proposal is certainly consistent with the method proposed in the NOPR and approved by FERC for use in other wholesale regulation markets. By using the 5-minute real-time energy market to manage the state of charge of energy storage resources, REM enables technologies with 15-minute storage capability to continuously provide regulation service for a full hour for many successive hours. Since the bid timeline of the real-time energy market does not enable energy storage resources to manage their state of charge, REM removes this barrier thereby allowing energy storage to provide regulation on a comparable basis to generation. CESA strongly urges the CAISO to move forward with the REM Proposal, and bring it to the CAISO Board in February 2011 for submission to FERC in March 2011 as planned.

CESA strongly supports Beacon's endorsement of clarification as to how "No Pay" will apply to REM resources. The CAISO "No Pay" rules should result in comparable treatment for energy storage and traditional generators with limited ramping capability. As was stated in Beacon's verbal comments at the Market Surveillance Committee meeting, as long as a REM resource can provide the same total service over an interval factoring in energy limitations as a traditional generation resource does factoring in ramp limitations, it should not be subject to "No Pay" when it is physically available and following its ISO dispatch instructions

CESA also strongly urges the CAISO to continue to evaluate implementing a “mileage payment” compensation mechanism that will compensate resources for both the amount of capacity a resource makes available and its ramping ability to deliver the capacity. This will encourage faster ramping capability into the market and can reduce total MW capacity of regulation services that need to be procured. Resources that can ramp more quickly will reach their dispatch target faster, and therefore be ready to be re-dispatched more often. Thus the amount of Area Control Error (ACE) correction that can be provided from fast regulation resources is much greater than from ramp-limited resources. Because slower ramping resources cannot switch directions quickly, they sometimes provide regulation in a direction that is counterproductive to the needs of the grid and, as a result, actually add to the ACE, requiring another resource to be dispatched to counteract it.

In addition, the CASIO should increase benefits from fast energy storage response by modifying its regulation dispatch. For example, NYISO modified their Automatic Generation Control (AGC) to dispatch non-generator resources first, and any remaining ACE, not allocated to such resources would be allocated to traditional regulation resources on a “pro-rata” basis. This method utilizes the speed of the energy storage resources and improves overall control performance, while reducing the movement required by slower- ramping resources, thereby improving their efficiency and reducing their wear and tear. Implementing this change should be done in conjunction with a “mileage payment” so as to ensure comparable payment for comparable service provided.