



Iberdrola Renewables appreciates the opportunity to comment on the CAISO's Renewables Integration Market Vision & Roadmap – Revised Straw Proposal released August 29, 2011 and is supportive of the CAISO's decision to adopt an incremental approach to market design changes. Iberdrola Renewables is a member of the California Wind Energy Association (CalWEA) and the Center for Energy Efficiency and Renewable Technologies (CEERT) and supports the comments submitted by these organizations in this initiative. In addition, Iberdrola Renewables submits the following comments for the CAISO's consideration.

Guiding Principle Revisions

Iberdrola Renewables is generally supportive of the concept of cost causation, but is concerned with the CAISO's ability to correctly and equitably quantify cost causation for purposes of cost allocation. All resources, regardless of their prime mover, require ancillary services for effective and reliable integration into the grid. The cost of providing these services for traditional generators, as well as for load variability, has been embedded into the current market design. To begin applying a cost causation principle on an incremental basis may discriminate against new market entrants and potentially violate the CAISO's stated "technology agnostic" principle. If the CAISO pursues market design changes that incorporate cost causation principles, a comprehensive analysis of existing market products and services must be completed to ensure all elements contributing to market flexibility requirements are factored into the new design.

Short-term Market Enhancements

Iberdrola Renewables is supportive of the CAISO's numerous short-term market enhancements designed to increase system flexibility. Iberdrola Renewables feels strongly, however, that the CAISO should also pursue scheduling timeline changes as part of its short-term market enhancement initiative. Iberdrola Renewables has consistently advocated for a shortened scheduling timeline to reduce the scheduling error of variable energy resources. As detailed in previous comments, the scheduling error associated with variable energy resources can be significantly reduced if the existing scheduling deadline of 75 minutes prior to the operating hour is reduced. By allowing schedules to be submitted closer to the actual operating hour, the need for system flexibility – particularly with a higher penetration level of variable energy resources – will be reduced, resulting in reduced operational complexity for CAISO operators and lower integration costs for the system.

Flexi-ramp Product

Iberdrola Renewables supports the CAISO's work on new market mechanisms to ensure adequate levels of ramping capability to meet system needs, however, additional information and analysis is required to determine whether the proposed flexi-ramp product is appropriately designed to provide the most cost-effective delivery of required ramping capability. Iberdrola Renewables supports the CAISO's proposed use of a 95% confidence interval in selecting target procurement amounts of a ramping product and recommends adding resource diversity to the list of factors used to create the statistical estimates for this product (in addition to wind and solar forecasts, load forecast, time of day, time of year, predicted forecast errors, etc.).

Variable Energy Resource Availability Updates

Iberdrola Renewables strongly supports changes that will enable a variable energy resource to provide schedules at a higher level of granularity. The CAISO's proposal to enable variable energy resources to submit schedules in 15-minute increments may be helpful to better capture the expected level of generation, however, the 75-minute prior to the operating hour scheduling deadline remains a significant barrier in a variable energy resource's ability to improve the accuracy of its expected output – particularly during volatile wind periods. As discussed above, Iberdrola Renewables strongly recommends the CAISO explore mechanisms to shorten the scheduling deadline in the near future.