

**California Department of Water Resources State Water Project
Comments to CAISO on Real-Time Imbalance Energy Offset (CC6477)**

Submitted September 2, 2009

Due to market participant inquiry into high charges for the Real-Time Imbalance Energy Offset (Charge Code (CC) 6477), the California Independent System Operator (CAISO) released an issue paper on August 24, 2009 followed by a revised issue paper dated August 26, 2009 and a conference call presentation on August 28, 2009. In response to these, the California Department of Water Resource State Water Project (CDWR-SWP) respectfully provides the following comments.

1. Settlement Calculation

Reading CAISO Business Practice Manual and the CAISO issue paper we see some disagreements on calculating the Real-Time Imbalance Energy Offset (RTIEO) settlement amount. SWP requests CAISO to clarify how the RTIEO settlement amount is derived from other charge codes according to the tariff and the Business Practice Manual.

2. Cost and Payment Allocation

Since the biggest contributor to the RTIEO is Uninstructed Imbalance Energy (UIE), cost or payment should be allocated to the major contributor, UIE. The two-tier charge allocation for the RTIEO as proposed by the CAISO is a good move since it tries to follow the cost causation principle. CDWR-SWP encourages CAISO to further consider applying the two-tier methodology to payment allocation of the RTIEO as well. However, SWP is concerned that allocating RTIEO charges to positive UIE might be in conflict with other cost allocation methodologies that allocate costs to negative UIE. CAISO should ensure uniformity of all the cost/payment allocation methodologies. CAISO should send simple and clear price signals that can be responded to by market participants in remedying CAISO market or reliability problems.

The simple average of dispatch interval Locational Marginal Prices (LMPs) should not be used to derive hourly LMPs. Like the derivation of the Load Aggregation Point LMPs, a weighted average mechanism should be used for aggregating the 5-minute dispatch interval LMPs into hourly LMPs.

3. Cost Control

In addition to the above approaches for solving pricing issues, when possible, CAISO should also consider the following improvements in order to minimize the RTIEO dollar amount:

CAISO should refine the DAM optimization mechanism and unit commitment process to, not only minimize the over-scheduling of energy, but to avoid over-committing the number of generating units in the DAM. In this way, there should be less internal generators running at the Minimum Load level, and therefore, CAISO will not need to advise internal generators to run at higher operating points as a method to create downward dispatch room. In solving the problem of over-committing the number of generators in the DAM, CAISO should limit its intervention into the HASP transactions and rely on market participants' response to market situations, because CAISO's intervention might not be effective. Since the HASP schedules for internal generators are advisory, those generators may not follow the advisory schedules but still operate according to DAM awarded schedules. This might be the reason for the supply deficiency and high LMP in real time.

CAISO should also review the 5-minute pricing mechanism in the real time. A 10 to 15 minute pricing mechanism may be more practical for market participants to perform economic response. Due to response delays and ramping limitations, Market Participants need more than several minutes to respond to market signals. A 10 to 15 minute response time might be more practical. The 10 to 15 minute pricing mechanism shall not prevent CAISO Automatic Dispatch System and engineers from dispatching generators on 5-minute dispatch intervals or dispatch Regulation reserves minute by minute to address ramping, imbalance, and reliability issues.

The Default Load Aggregation Point (D-LAP) level scheduling and settlement design could be another reason for the price mismatch between HASP and RTM. It is very hard for CAISO to accurately determine nodal level Demand based on scheduled D-LAP level Demand and the predetermined Load Distribution Factors, while Demand at each node depends on local weather, community events, and so on. Requiring Scheduling Coordinators to submit schedules at nodal level, CAISO will be able to obtain more accurate Demand forecast information and minimize real time deviation from DAM schedules. Also, if all Demands are settled at nodal level, the price mismatch between DAM, HASP and real time will most likely be minimized.