

# **Incorrect Real Time Market Bid Cost Recovery Settlement for Non-Multi-Stage Generating Resources**

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## Executive Summary

On May 12, 2016, the ISO implemented the software for the Bidding Rule Enhancement Part A (BREA) rules. Under certain circumstances, the ISO miscalculated the Real Time Market (RTM) Minimum Load Cost (MLC) used in the bid cost recovery (BCR) process for non-multi-stage generating resources. The ISO resolved the issue prospectively on October 21, 2016, through a software correction. The ISO will correct the settlement error for trade dates May 12, 2016 through October 20, 2016, through the regularly scheduled recalculation settlement statements covering those trade dates. Market participants may receive either a refund or charges because of the recalculation.

## Scope of Document

This document provides information concerning the incorrect RTM MLC calculation and the method used to rectify the issue. This market issue bulletin also provides the market impact, steps the ISO has taken and the timeline for remediation for all settlement trade dates affected.

## Review of events

In August, a few months after the implementation of BREA, the ISO became aware of unusually high RTM MLCs calculated for a resource as part of the real-time bid cost recovery calculation. The high payments occurred when: (a) the non-MSG resource was economically committed in the day-ahead market; (b) the resource's Pmin was re-rated after the day-ahead market but before subsequent real-time market runs relevant to the same trade day; (c) the resource subsequently submitted real-time energy self-schedule for the trading hours in which it was committed in the day-ahead market; and (d) the resource was committed in real-time market because of the real-time self-schedules for the same trading hours.

Under this scenario, the ISO correctly included the day-ahead MLC, which is based on the Pmin as registered in the Master File, in day-ahead bid cost recovery. However, the ISO also incorrectly included additional RTM MLC calculated as the product of the resource's default energy bid and the megawatts related to the segment between registered Pmin and re-rated Pmin in real-time bid cost recovery.

Section 11.8.4.1.2 of the ISO tariff states:

The RTM Minimum Load Cost is the Minimum Load Cost of the Bid Cost Recovery Eligible Resource submitted to the CAISO for the Real-Time Market, as adjusted pursuant to Section 30.7.10.2, if applicable, divided by the number of Settlement Intervals in a Trading Hour. For each Settlement Interval, only the RTM Minimum Load Cost in a CAISO RTM Commitment Period is eligible for Bid Cost Recovery. ***The RTM Minimum Load Cost for any Settlement Interval is zero if: (1) the Settlement Interval is included in a RTM Self-Commitment Period for***

***the Bid Cost Recovery Eligible Resource;*** (2) the Bid Cost Recovery Eligible Resource has been manually dispatched under an RMR Contract or the resource has been flagged as an RMR Dispatch in the Day-Ahead Schedule or the Real-Time Market in that Settlement Interval; (3) for all resources that are not Multi-Stage Generating Resources, that Settlement Interval is included in an IFM or RUC Commitment Period; or (4) the Bid Cost Recovery Eligible Resource is committed pursuant to Section 34.9.2 for the purpose of performing Ancillary Services testing, pre-commercial operation testing for Generating Units, or PMax testing. A resource's RTM Minimum Load Costs for Bid Cost Recovery purposes are subject to the application of the Real-Time Performance Metric as specified in Section 11.8.4.4. For Multi-Stage Generating Resources, the commitment period is further determined based on application of Section 11.8.1.3. For all Bid Cost Recovery Eligible Resources that the CAISO Shuts Down, either through an Exceptional Dispatch or an Economic Dispatch through the Real-Time Market, from its Day-Ahead Schedule that was also from a CAISO commitment, the RTM Minimum Load Costs will include negative Minimum Load Costs for Energy between the Minimum Load and zero (0) MWhs. [emphasis added]

Per this tariff section, the resource does not receive any RTM MLC if the applicable interval falls under a RTM self-commitment period. The ISO did not modify this rule with the adoptions of the BREA and, therefore, this rule applies even if the resource re-rates their Pmin in real-time.

Specifically, resources should not receive compensation for the rerated PMin where the following occurred: (a) a non-MSG resource was economically committed in the day-ahead market; (b) the resource's Pmin was re-rated after the day-ahead market but before subsequent real-time market runs relevant to the same trade day and; (c) the resource also subsequently submitted real-time energy self-schedules in real-time for the trading hours in which it is committed in day-ahead market; and (d) the resource is committed in real-time market because of the real-time self-schedules for the same trading hours.

## Market Impact

It is possible that the issue affected market settlements starting on the date the ISO implemented BREA, May 12, 2016. The ISO adopted a software fix on October 21, 2016, that addresses the scenario identified above going forward. The ISO is continuing to investigate if other possible scenarios that render the settlements inconsistent with the tariff have or may occur and will take necessary steps to resolves any issues identified as well.

Because this issue only affects the settlement amounts and not the dispatches, the ISO will correct the settlement statements going back to May 12, 2016, the first date the issue might have occurred. The table below indicates when the impacted market settlement statements will reflect this correction.

Settlement Statements	Trade Dates
T+3B	Starting from 10/21/2016
T+12B	10/01/2016 through 10/20/2016
T+55B	08/18/2016 through 09/30/2016
T+9M	05/12/2016 through 08/17/2016