



Five minute dispatch and pricing

Problem Statement:

The PJM energy market relies on LMP as the primary price signal. Transparency and consistency in LMP calculations is fundamental to market efficiency and competition. Recent events and subsequent changes to the language describing the process by which PJM calculates LMP have highlighted a lack of transparency and consistency in the process.

Manual 11 describes the real time security constrained economic dispatch and pricing process that PJM uses in the energy market to send dispatch signals to generators and calculate LMPs. PJM manual changes in January 2019 add detail to the process described in Manual 11 Sections 2.7, 2.8 and 2.9.1.¹

The language and the July 10, 2018, low ACE event that triggered review of the language, raise questions regarding the RT SCED case execution and approval process, who approves the SCED cases, what criteria PJM uses to approve RT SCED cases, and what criteria PJM uses for selecting cases to be used in the Locational Pricing Calculator (LPC).² The manual language should include additional detail describing the RT SCED and LPC case execution, selection, and approval processes for market transparency and to ensure efficient market pricing.

The delay in publishing prices for two intervals on April 8, 2019, raises questions on the price-bounding violation validation checks, the thresholds used, and the timeline for publishing prices. The process is currently described in Manual 11, Section 2.11. The process, thresholds

¹ See "Manual 11 Updates," PJM presentation to the Markets Implementation Committee (January 9, 2019). <<https://www.pjm.com/-/media/committees-groups/committees/mic/20190109/20190109-item-01a-manual-11-updates.ashx>>.

² See "July 10, 2018, ACE/Frequency Excursion Apparent Cause Analysis Report," PJM presentation to the Operating Committee (September 11, 2018). <<https://www.pjm.com/-/media/committees-groups/committees/oc/20180911/20180911-item-04a-july-10-low-frequency-event-update.ashx>>.

and criteria for revisions should be reviewed and described in full detail in Manual 11 to ensure transparency.