Market Monitor Report

MC Webinar

May 26, 2020

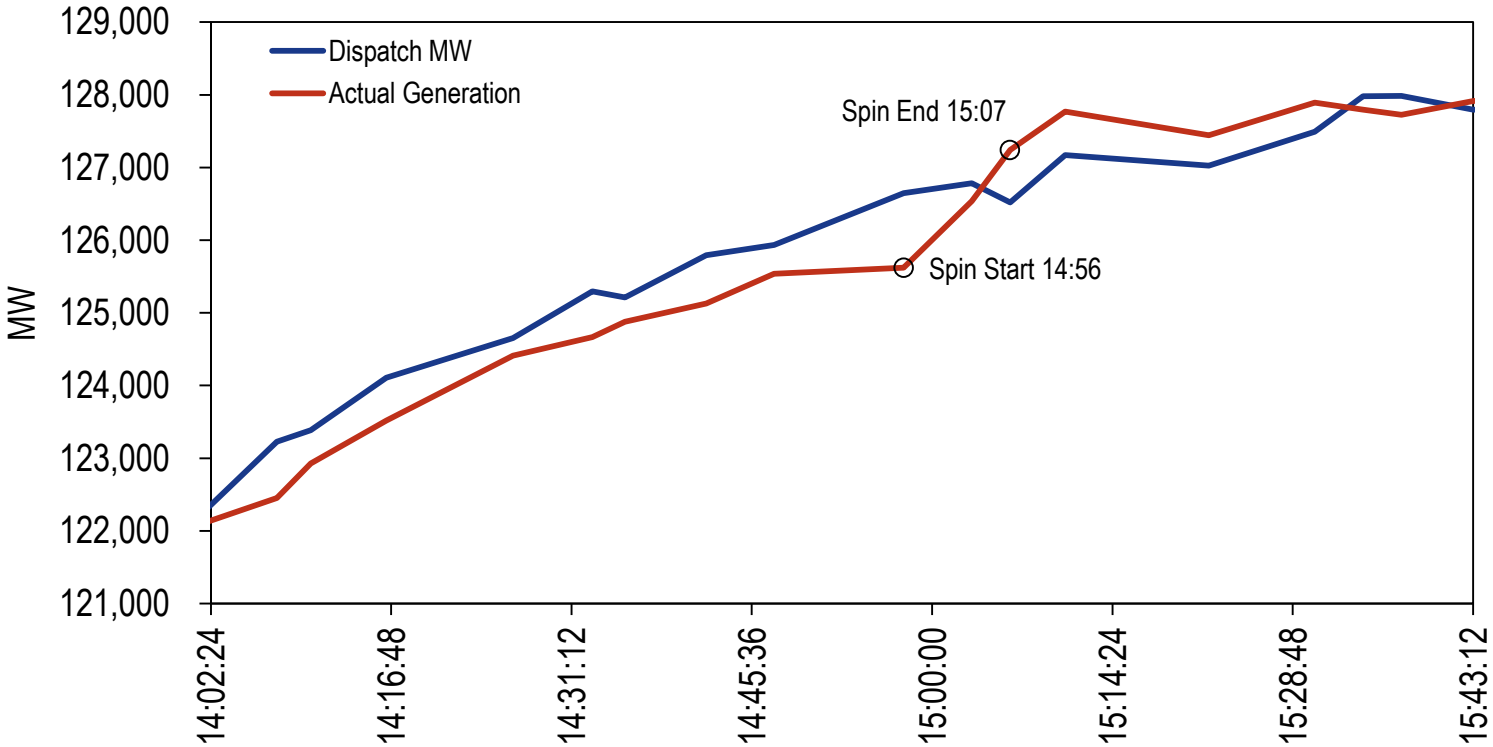
IMM

Monitoring Analytics

Generation Performance

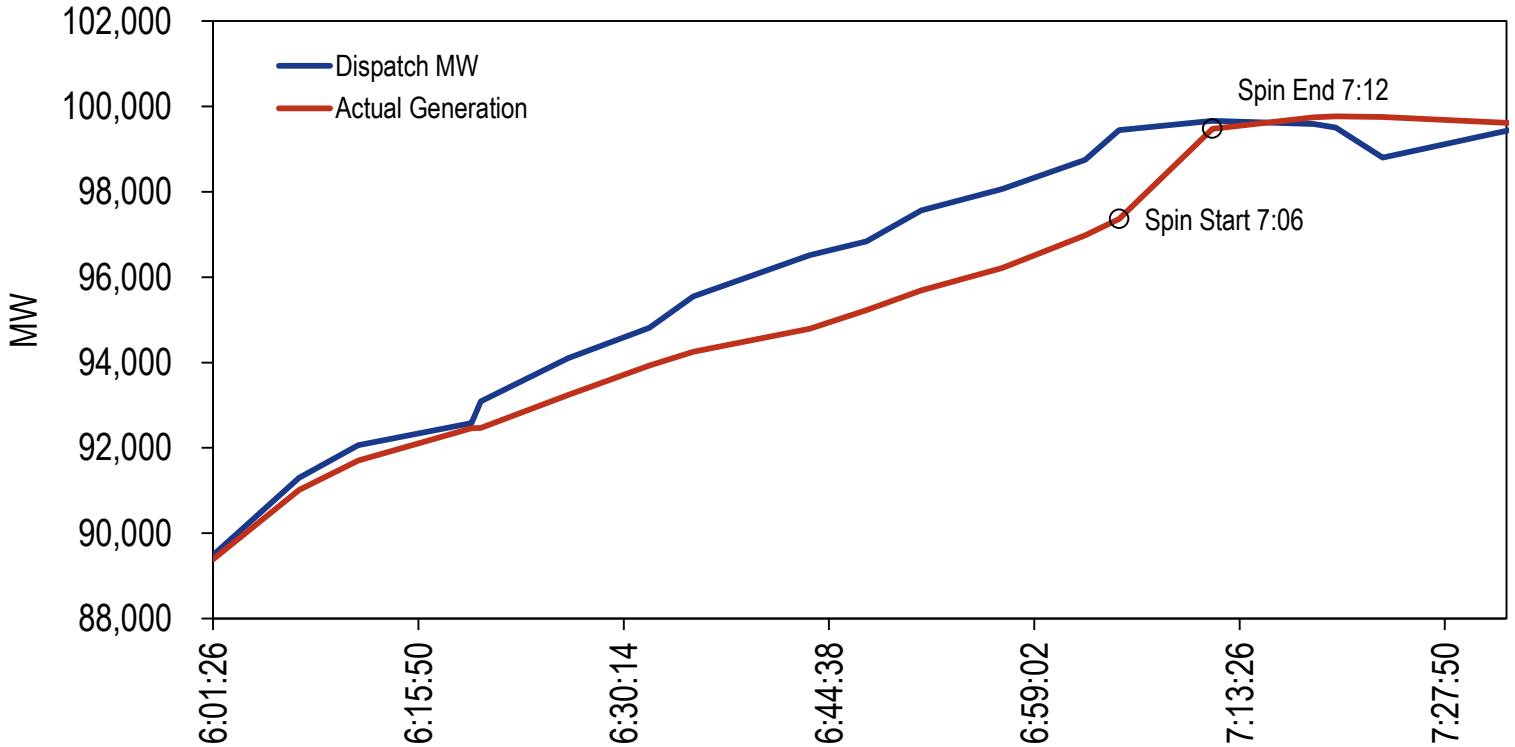
- **The Market Monitor has observed situations in which lack of response from generators to the dispatch signal has been a major contributor to low ACE and high prices.**
- **On October 1, 2019, and February 7, 2020, a number of generators failed to respond to PJM's dispatch signal. On both days, PJM declared synchronized reserve events to address low ACE.**

Gen Performance - October 1, 2019



Monitoring Analytics

Gen Performance – February 7, 2020



Monitoring Analytics

October 1 Generation Performance

- **After the event of October 1, 2019, the Market Monitor contacted owners of 125 units to investigate the reasons for the discrepancies.**

October 1 Generation Performance

- **Some of the reasons provided:**
  - **Ambient conditions: The eco max of some units assumed milder ambient conditions than the ones observed, resulting in overstated eco max values.**
  - **Understated derates: Underestimates of plant derates, resulting in overstated eco max values.**
  - **Peaking operation that required manual intervention, deployed late or not deployed.**
  - **Incorrect unit set point: Some units were set to a lower output point than the eco max submitted.**

February 7 Generation Performance

- **On February 7, the Market Monitor again observed lack of response from generators before a spin event. Data showed similar results to October 1.**
  - **Some generators did not increase output as requested by PJM.**
  - **Some generators increased output but not when requested by PJM.**
  - **Some units appeared to be at a fixed MW output, but PJM was dispatching the units significantly higher.**

Generation Performance Requirement

- **Generators should ramp up or down based on the ramp rate submitted by the Market Seller and the dispatch signal from PJM.**
- **Section 1.7.19 of Schedule 1 to the OA:**

  A generator dispatched by the Office of the Interconnection pursuant to a control signal appropriate to increase or decrease the generator's megawatt output level shall be able to change output at the ramping rate specified in the Offer Data submitted to the Office of the Interconnection for that generator.

Generation Performance

- **Conclusions:**
  - **PJM needs the best possible data to run the system. Small inaccuracies can add up to significant MW amounts that RTSCED expects but do not materialize.**
    - This includes modeling soak time and soak MW.
  - **Peaking operating modes need to be addressed in PJM's market rules. PJM lacks rules and guidelines about this type of operation and dispatch.**
    - Peaking operating modes include: fogging, steam/water injection, duct burners, overfiring, oil topping.

Generation Performance

- **The fundamental question is the definition of following dispatch.**
- **PJM does not have a clear, operational definition of following dispatch.**
- **A problem statement is needed to bring the focus of PJM and the stakeholders on this question.**

MIRA Modifications: DR Permits

- **Member Information Reporting Application (MIRA) collects market monitoring required data from PJM members.**
- **The MOPR filing (EL16-49-000) requires CSPs to provide additional data to support participation in the capacity market.**
- **Most CSPs are not set up in MIRA and must request MIRA access in order to submit required information.**
- **MIRA allows CSPs to upload documentation at the RPM resource level.**

MIRA Modifications: DR Permits

- **Generation backed demand response may require environmental permits to operate.**
- **The IMM will collect permits through MIRA to verify compliance with PJM market rules.**
- **To contact the IMM about MIRA access, email MIRA@monitoringanalytics.com**

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