# Constraints in the Day-Ahead and Real-Time Markets

## EPFSTF 01.23.2019

Joe Bowring



**Monitoring Analytics** 

#### **Day-Ahead and Real-Time**

- The match between day-ahead and real-time markets will matter under PJM's proposed ORDC approach.
- PJM proposes to pay uplift on a five-minute standalone basis without any offsets during the day, during the hour or during the minimum run time.
- The day-ahead and real-time models differ in significant ways.



2

#### **Day Ahead Model**

- PJM states that 96 percent of constraints were monitored.
- In 2018, on average, line limits were specified for 29.5 percent of the transmission elements in the network model used for day ahead market clearing.
- The line limits for the remaining transmission elements were set at such high levels that they could not bind in the day ahead market.





## **Real Time Constraints**

- In 2018, 56 percent of real-time constraint hours did not have a corresponding day-ahead constraint hour.
  - Accounting for matching hours and constraints, 56 percent of real-time constraints did not bind in the dayahead market.
- Congestion is different in the real-time market than in the day-ahead market.
- The result of different binding constraints and congestion will be that different units are dispatched for energy and reserves in day-ahead and real-time markets with corresponding deviations.



4

**Monitoring Analytics, LLC** 2621 Van Buren Avenue **Suite 160 Eagleville**, PA 19403 (610) 271-8050

#### **MA@monitoringanalytics.com** www.MonitoringAnalytics.com



©2019