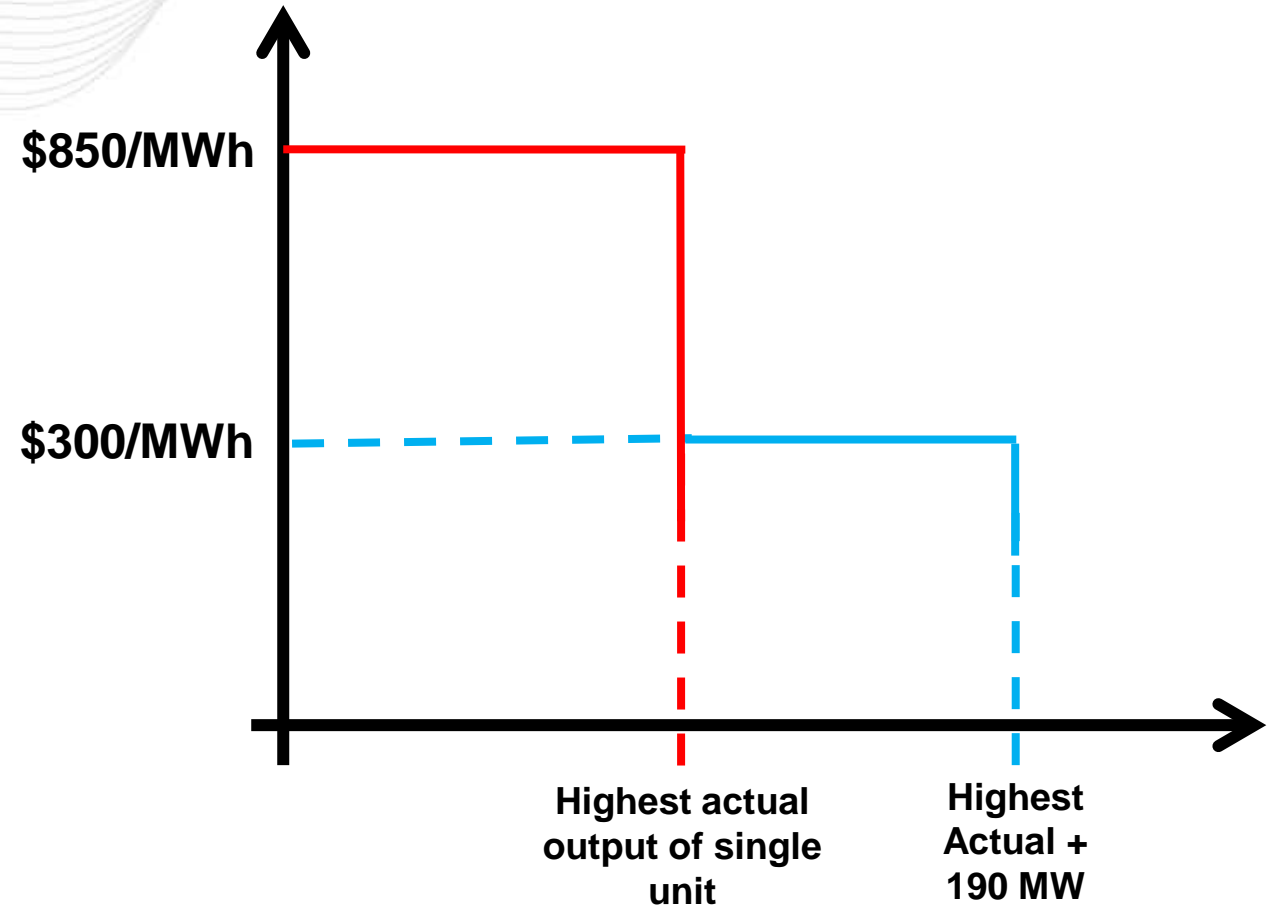


# Shortage Pricing Update



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Market Implementation Committee  
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- FERC accepted the proposed demand curve changes, **effective Wednesday, July 12**
- Reserve requirement changes dynamically in real-time based on highest actual output of online units
- 2<sup>nd</sup> step on demand curve
  - MW = step 1 + 190 MW
  - Penalty Factor = \$300/MWh



At the June OC questions were raised around the consistency of transient shortage pricing implementation with the FERC order on transient shortages

- PJM compliance filing explicitly outlined the intent to price shortages based on the RT SCED look-ahead solution
- FERC has not acted on this filing due to lack of quorum
  - Order 825 also included five minute settlements changes
- The software was implemented consistent with the approach filed with FERC

Previous analysis of July 2015 – September 2016 showed 215 intervals (0.17%) where the approved RT SCED case had a reserve deficiency but did not price shortage

- If the assumptions in that analysis were true, why haven't we seen any transient shortage intervals so far?
  - Historical analysis represented an extremely conservative estimate
  - Deficiencies without shortage were not highlighted to dispatchers prior to transient shortage implementation
  - Had dispatchers had awareness of reserve deficiencies they likely would have taken remedial action to maintain reserves

PJM has been asked to provide the following data to support ongoing discussions on the implementation of transient shortage pricing:

- Comparison of the actual real-time reserves and reserve requirement displayed in Data Viewer vs. the real-time reserves and reserve requirement used to determine shortages
- Explanation of differences between Data Viewer reserves and reserves calculated by RT SCED
- Instances where an unapproved RT SCED case indicated shortage, and the reason it wasn't approved

- 15 minute length of the RT SCED look-ahead interval contributes to the differences between reserves observed in real-time and the reserves estimated in the RT SCED case
- In an effort to better align the reserve values, PJM believes the RT SCED look-ahead interval can be reduced to 10 minutes without impacting system reliability
- PJM intends to test the 10 minute look-ahead value from 09:00 Monday, July 17 – 09:00 Monday, July 24 (system conditions permitting)
  - If analysis reveals no negative reliability impacts and reserve values are better aligned, PJM may choose to leave the look-ahead interval at 10 minutes
  - Communication will go to the OC, MIC and SOS