



Market Efficiency Update

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PJM Market Simulation

Transmission Expansion Advisory Committee

May 9, 2023



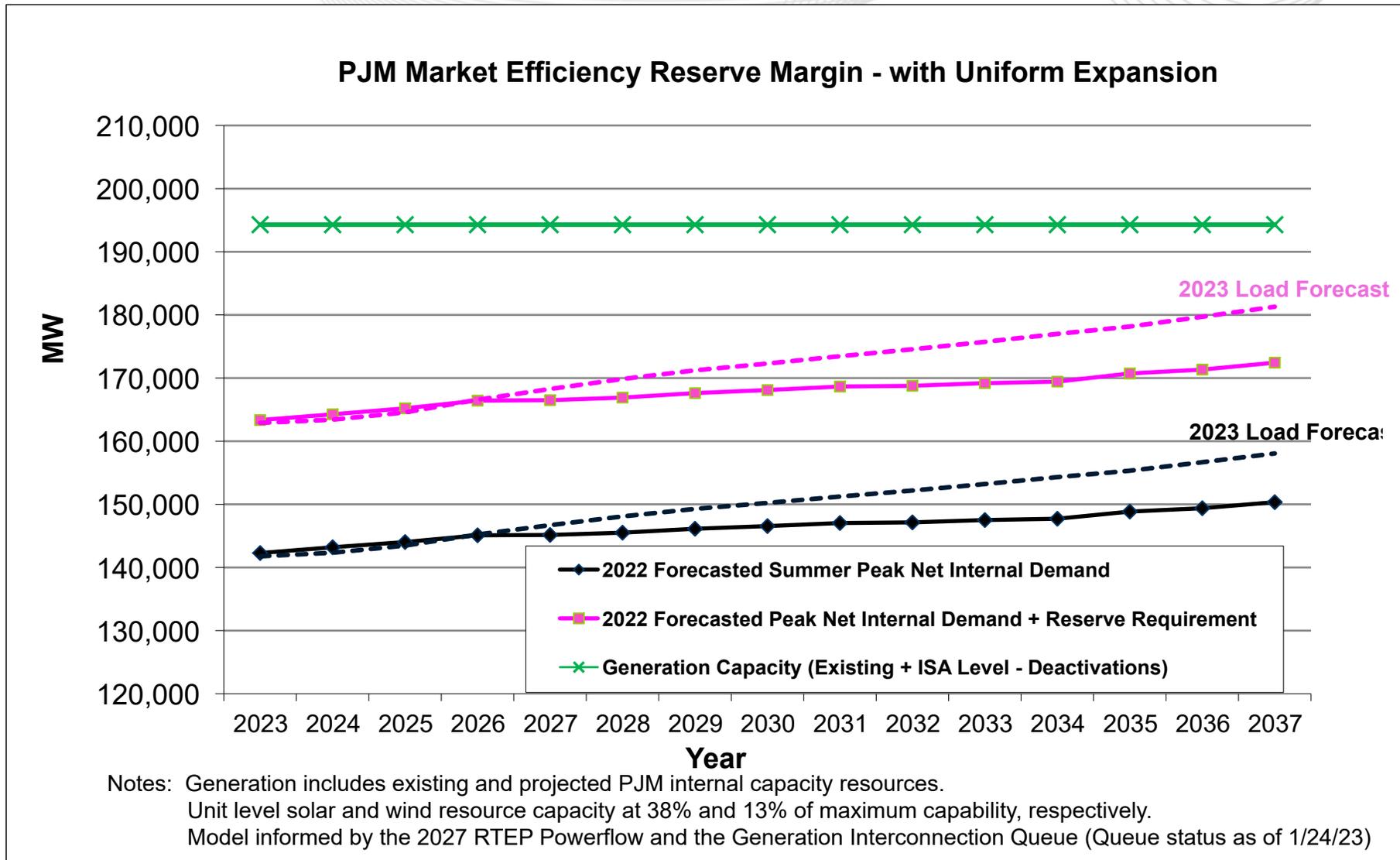
2022/23 Market Efficiency Cycle

- Back in January, PJM posted a preliminary ME Base Case:
 - Included the reliability upgrades from the 2022 Window 1 and 2022 Multi-Driver Window.
 - Preliminary case was posted on the [ME secure page](#).
- Currently in process of updating the preliminary ME Base Case with the following:
 - Generation model
 - Fuel forecast
 - Load forecast
 - Topology (i.e. supplemental projects)
- The case will be posted when update completed.

- Market Efficiency Generation Expansion Plan is informed by the 2027 RTEP load flow model.
- Currently updating the Market Efficiency Base Case to include existing and ISA (Interconnection Service Agreement) level generators.
 - Cutoff date for unit status is January 24, 2023.
 - Generators with a signed ISA that are not suspended will be included.
- PJM public generator deactivations will be modeled if reliability analysis completed.
- Small correction applied to existing PJM solar and wind unit generation to ensure better output correlation of similarly located generation.



ME Base Case – Modeled Reserve Margin (Preliminary)



- The generation expansion provides a comfortable reserve margin even with the higher level of loads from the 2023 PJM Load Forecast Report.
- When using the high 2023 data center load forecast, PROMOD SCED engine has difficulty achieving a reasonable dispatch for the 2030 and 2033 simulations
 - a high number of hours have emergency energy and overloads.
- The extreme levels of PROMOD congestion are an indicator of reliability violations and prevent further evaluation of the congestion patterns.
- Preliminary congestion analysis shows some constraints in ComEd independent of the data center load issue:
 - Enbridge-DeKalb Tap – Waterman 138 kV
 - Haumesser Rd-W DeKalb Tap 138 kV

- PJM delayed the opening of the 2022/2023 Long-Term Window until the reliability violations for the 2022 Window 3 (Dominion) are addressed.
- PJM will continue to monitor the progress and provide additional details to stakeholders at future TEAC meetings.
- Updates to the Market Efficiency Base Case will be posted as necessary.

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Market Efficiency Update



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- V1 – 5/4/2023 – Original slides posted

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