



Market Efficiency Update

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PJM Market Simulation

Transmission Expansion Advisory Committee

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2022/23 Market Efficiency Cycle

- ME team completed updating the ME Base Case with the reliability upgrades from the 2022 Window 1 and 2022 Multi-Driver Window
 - Congestion impact presented at January 10th TEAC
 - PROMOD modeling data posted on the ME secure page
- Currently analyzing the congestion impact of the new PJM load forecast from the 2023 Load Forecast Report
 - 2023 PJM Load forecast modeled as a sensitivity scenario



2023 PJM Peak Demand/Energy Forecast

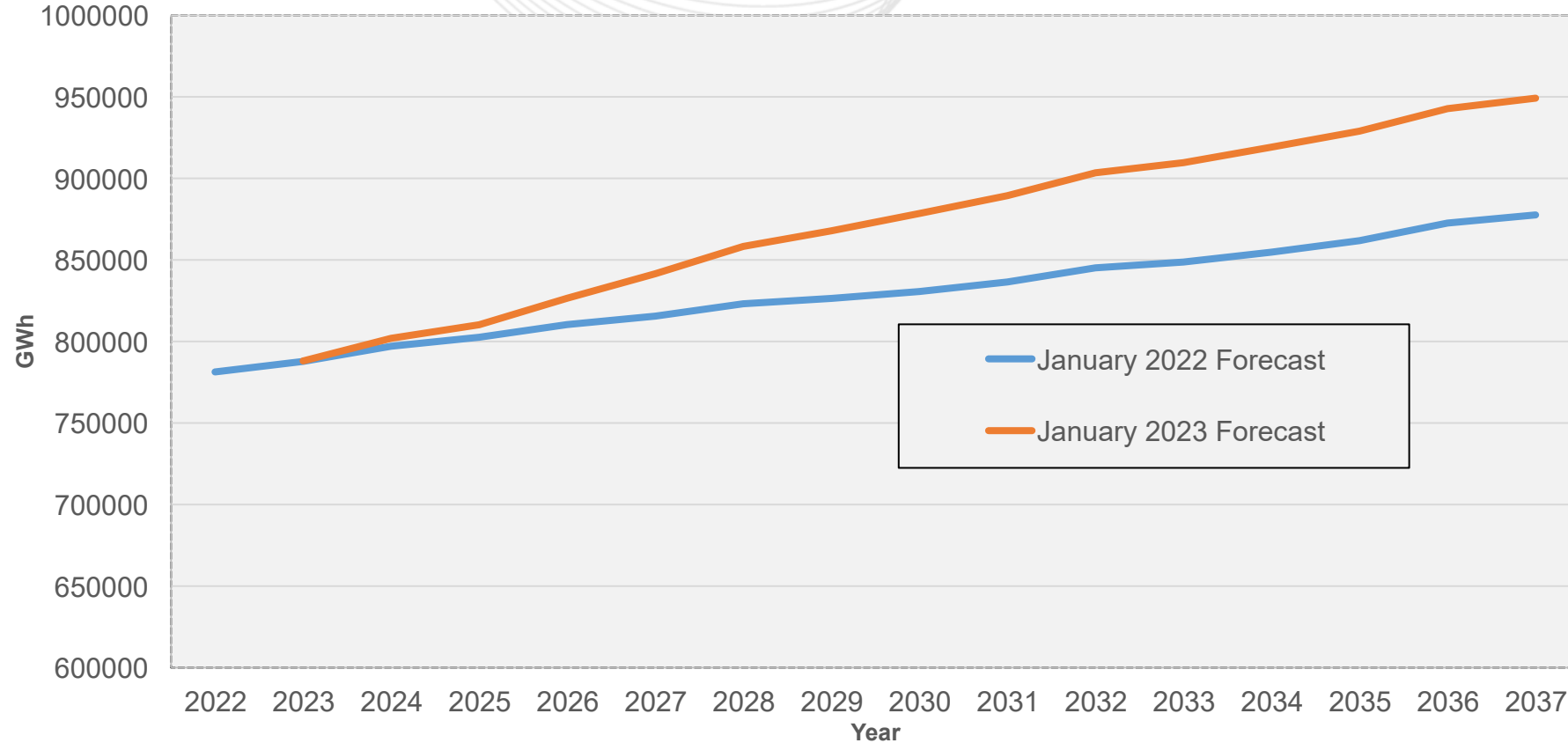
PJM Peak Load and Energy Forecast

Load	2023	2027	2030	2033	2037
Peak (MW)	149,059	154,275	157,899	160,971	165,976
Energy (GWh)	788,050	841,514	878,461	909,622	949,166

Notes: 1.) Peak and energy values from the January 2023 PJM Load Forecast Report Table B-1 and Table E-1, respectively.

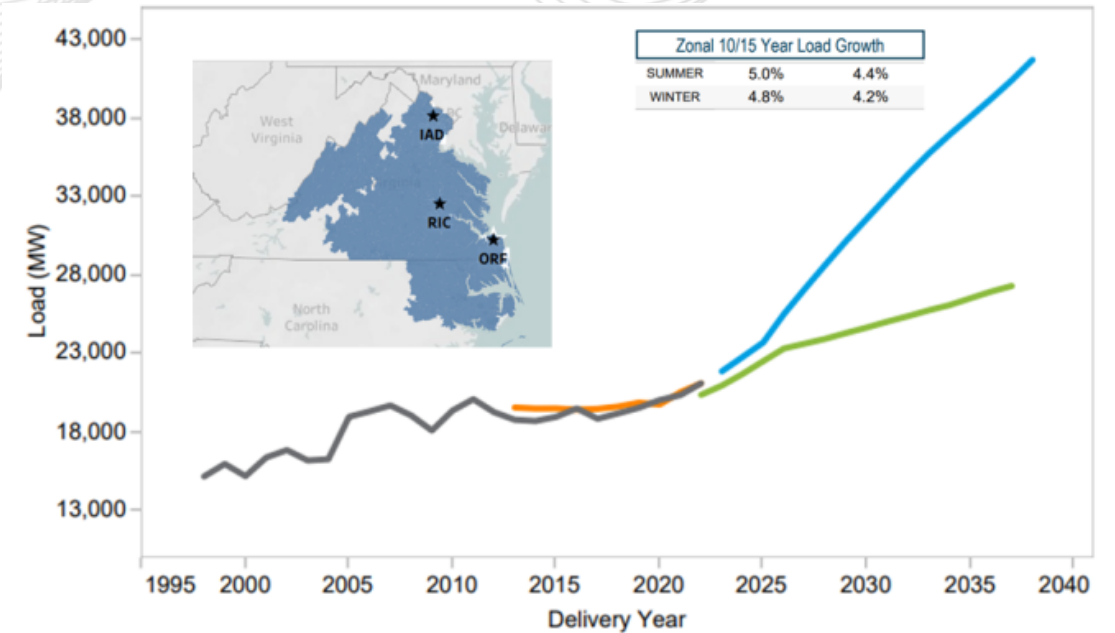
2.) Model inputs are at the zonal level. To the extent zonal load shapes create different diversity, modeled PJM peak load may vary.

PJM RTO
Annual Energy (GWh)



Note: Data Center Loads within Northern Virginia have been increasing at an unprecedented rate.

- Sensitivity scenario uses the 2023 Load Forecast with APS/DOM data center updates.
- RTEP Topology updated to reflect the new data center injections. associated supplemental projects, and new bus level load profile.



<https://pjm.com/-/media/library/reports-notice/load-forecast/2022-load-report.ashx>

- *Due to high 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 evaluating the congestion drivers.*

- PJM will delay the opening of the 2022/2023 Long-Term Window until the reliability violations for the 2022 Window 3 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 – 2/2/2023 – Original slides posted

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