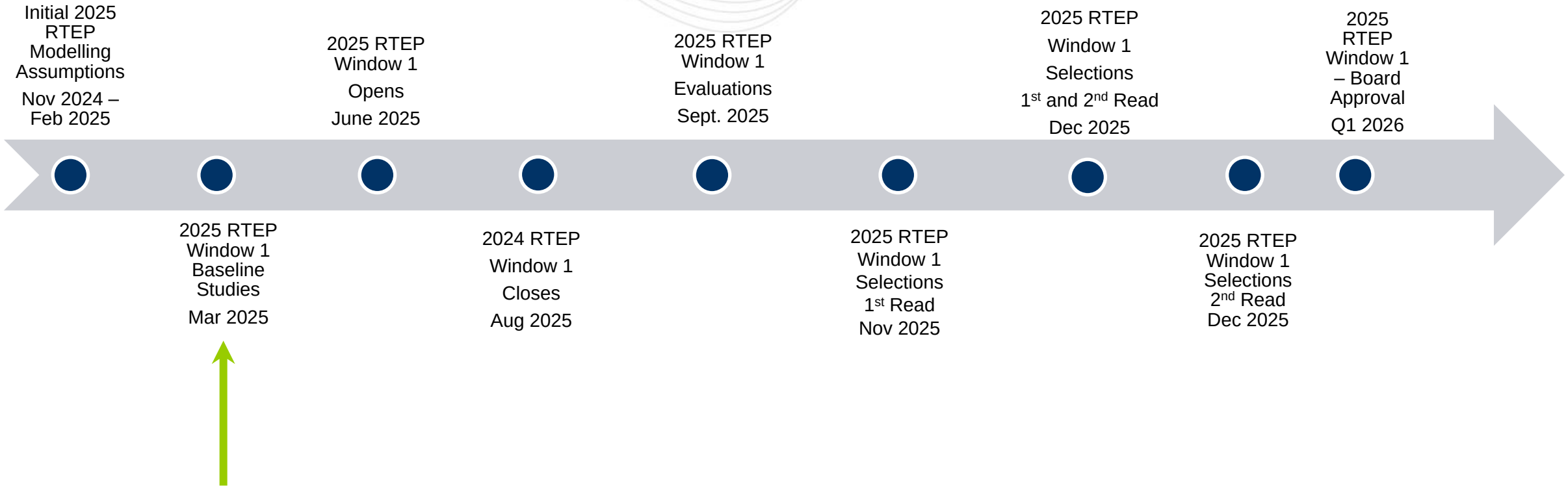
2025 RTEP

Presented to ISAC
March 31, 2025

Materials from March 4, 2025 TEAC

Framing / Timing

2025 RTEP Window 1 – Timeline



2025 RTEP Window 1
Load and Generation Assumptions

- 2025 RTEP Window 1 will utilize the 2025 PJM Load Forecast (Jan 2025);

  https://www.pjm.com/-/media/DotCom/library/reports-notices/load-forecast/2025-load-report.pdf

- 2030 Load Forecast to increase by 16 GWs approximately (compared to 2024 Load Forecast)
- PJM is currently working on finalizing the initial RTEP Baseline models
  - Planned for completion by early March
- Resource balancing to serve forecasted load is expected be tight;
  - More information related to Resource Assumptions and Sensitivity Scenarios (beyond baseline) in 2025 RTEP Assumption Updates.

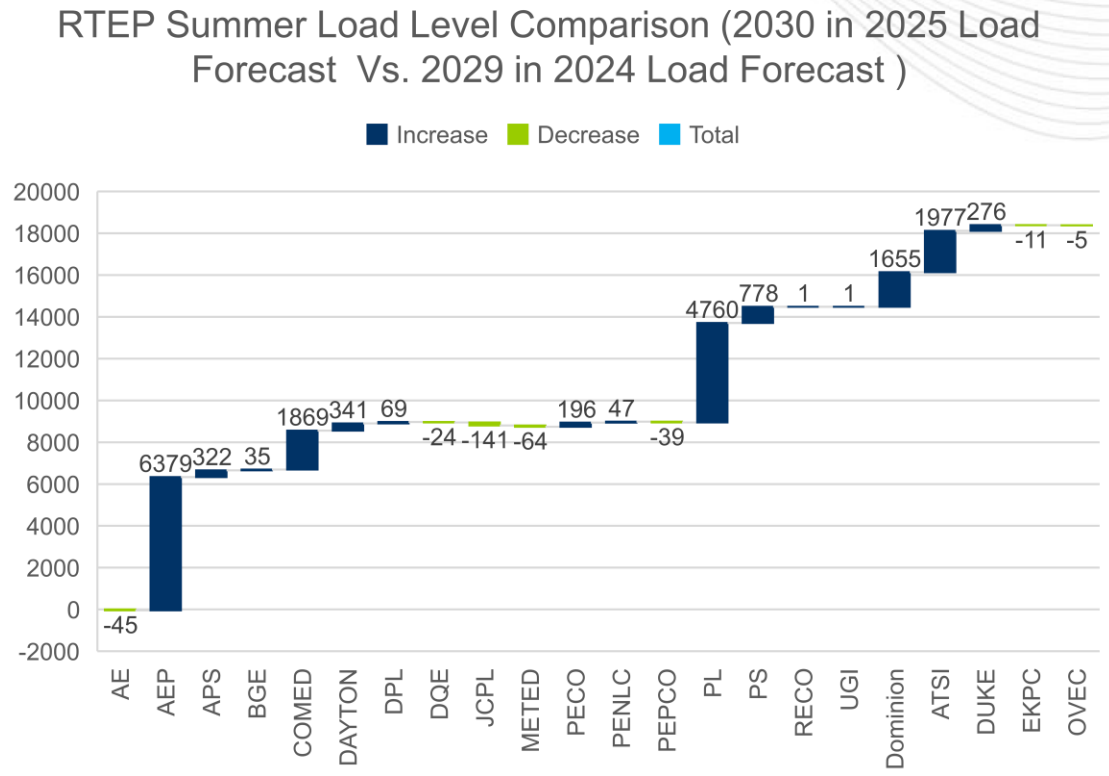
Scenarios

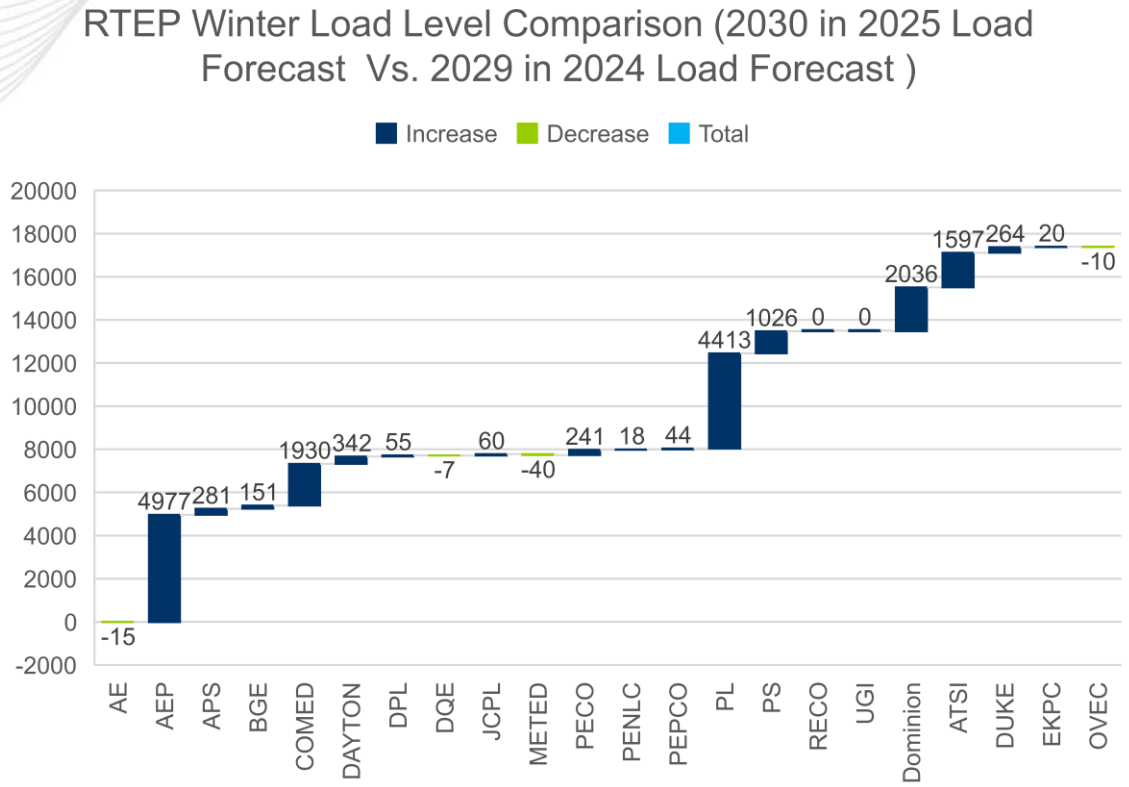
2025 RTEP - Current Scenarios Considered

- 5 Year (2030) Analysis
  - Balance load with: Existing generation, GIA/ISA generation, Suspended ISA generation, Fast Lane Queue, CVOW and Chesterfield plants
  - No consideration of a “targeted LOLE”
  - With and without potential delays to OSW in-service
- 7 Year (2032) Analysis
  - Balance load with: Existing generation, GIA/ISA generation, Suspended ISA generation, Fast Lane Queue, plus TC1 Queue and TC2 Queue
  - With and without potential delays to OSW in-service
  - TC1 and TC2:
    - Will mount generation for “resource adequacy purposes” – EHV Backbone modeling when required
    - Will require reliance on BESS Project’s capacity within TC1 and TC2

Assumptions

2025 RTEP Generation-Load Balance: 2030 (5 Year)



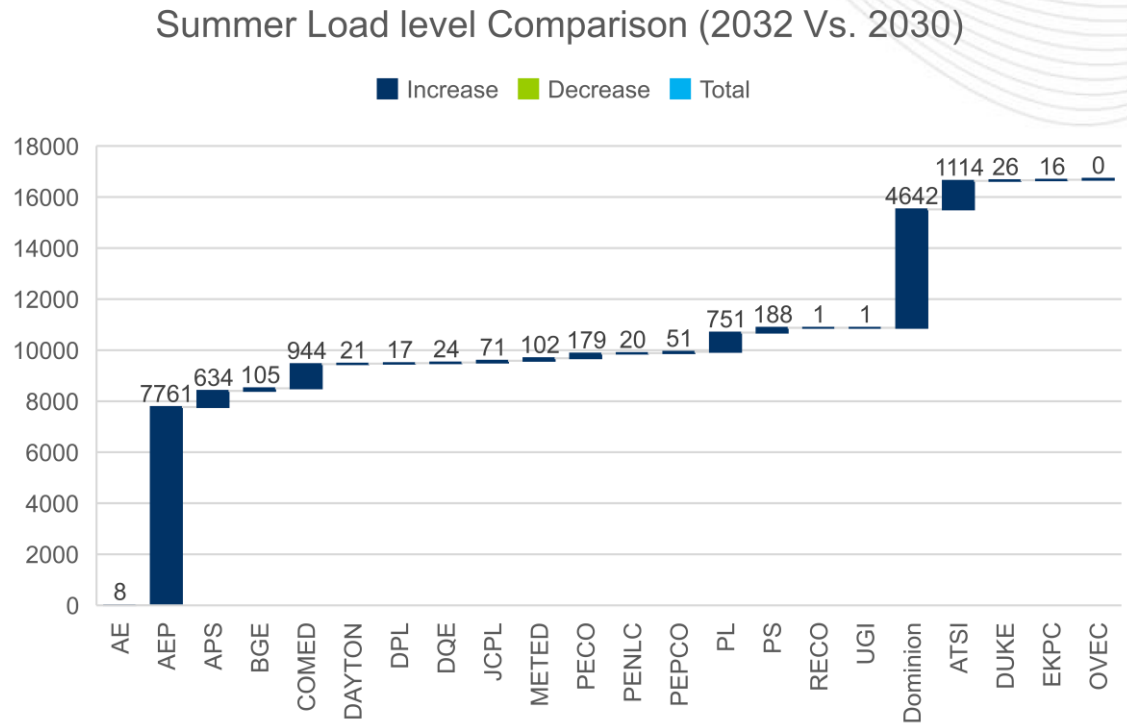


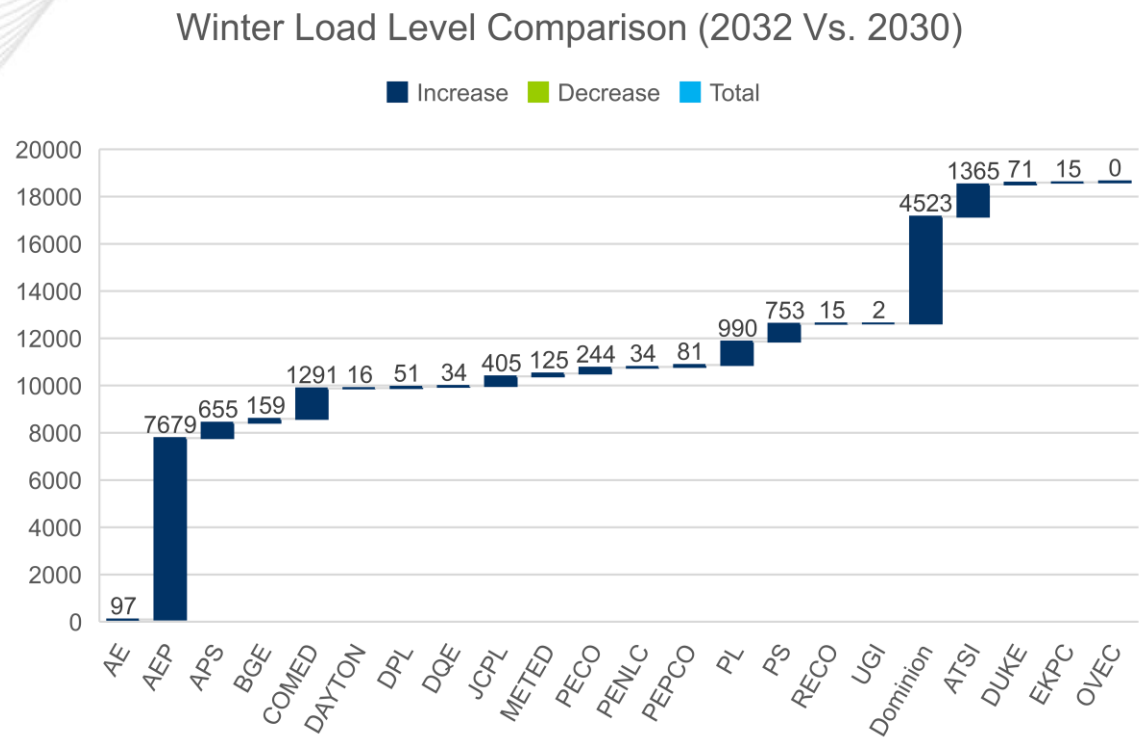
- 2030 load levels in 2025 Load Forecast Vs. 2029 load levels in 2024 Load Forecast: Load increases ~18.4GW (10.6%) in summer, ~17.4GW (11.2%) in Winter, mainly in AEP, DOM, PPL, ComEd, PSEG and ATSI areas.

2025 RTEP Generation-Load Balance: 2030 (5 Year)

- The existing and ISA/GIA generation are NOT enough to meet the load, more generation is needed.
- With additional Suspended ISA generation, Fast Lane Queue, CVOW and Chesterfield plants:
  - The peak load can be served. The LOLE is **1.6 days per year,** which is 16 times higher than the 1 in 10 (0.1 days per year)
  - Without NJ OSW (2307.6MW) and Delmarva OSW (255MW), the LOLE is **2.0 days per year**, which is 20 times higher than the 1 in 10 (0.1 days per year)
- With additional Suspended ISA generation, Fast Lane Queue, PLUS TC1 Queue and TC2 Queue (For information purpose only. This won't be studied in 2025 RTEP 2030 analysis):
  - The LOLE is **0.095 days per year**, which is lower (i.e. "better") than the 1 in 10 (0.1 days per year)
  - Without the large majority of the OSW, The LOLE is **0.18 days per year**, which is almost twice the 1 in 10 level (0.1 days per year)

2025 RTEP Generation-Load Balance – 2032 (7 Year)





- 2032, comparing to 2030, the load is further increased by ~16.7GW in summer, ~18.6GW in winter, mainly in AEP, APS, ComEd, PPL, DOM, and ATSI

2025 RTEP Generation-Load Balance – 2032 (7 Year)

- With additional Suspended ISA generation, Fast Lane Queue, TC1 Queue and TC2 Queue:
  - The peak load can be served. The LOLE is 2.3 days per year. This value is 23 times higher than the 1 in 10 (0.1 days per year).

24 Month RTEP

- As part of the 24-month RTEP cycle, a year 7 (2032) base case will be developed and evaluated part of the 2025 RTEP
- The year 7 case will be based on the 2030 Summer case that is developed part of the 2025 RTEP
  - Purpose: To identify and develop longer lead transmission upgrades and right size near-term upgrades with longer term needs.