Market Simulation Update

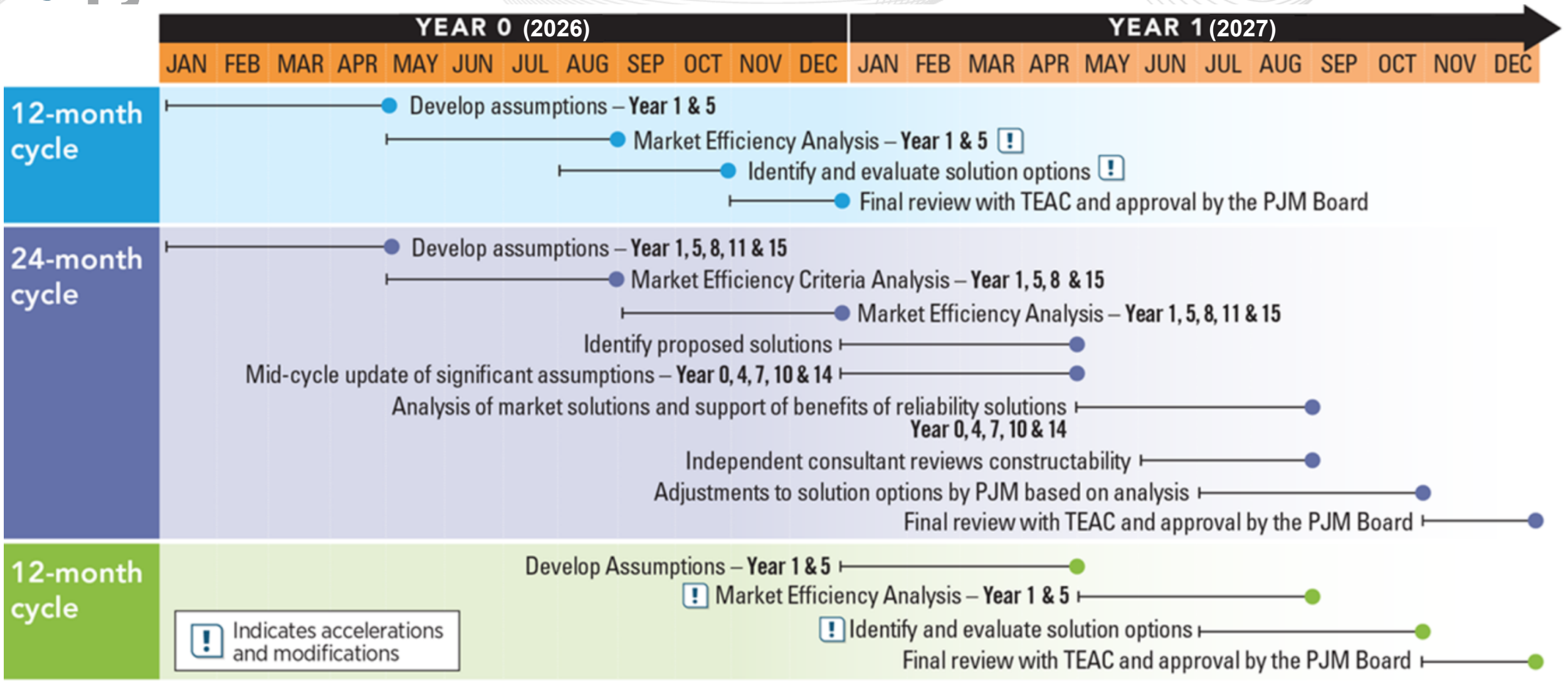
Market Simulation

Transmission Expansion Advisory Committee

June 2, 2026

2026/27 Market Efficiency Cycle

2026/27 Market Efficiency Timeline



2026/27 Market Efficiency Milestones

Step	Target Date
Post Preliminary Base Case	July 2026
Stakeholders Feedback	August – October 2026
Identify Congestion Drivers	September – December 2026
Post Final Base Case and Target Congestion Drivers	January 2027
Long Term Proposal Window	January - May 2027
Analysis of Proposed Solutions	May – September 2027
TEAC Reviews and Board Approval	October - December 2027

2026/27 ME Base Case Status and Next Steps

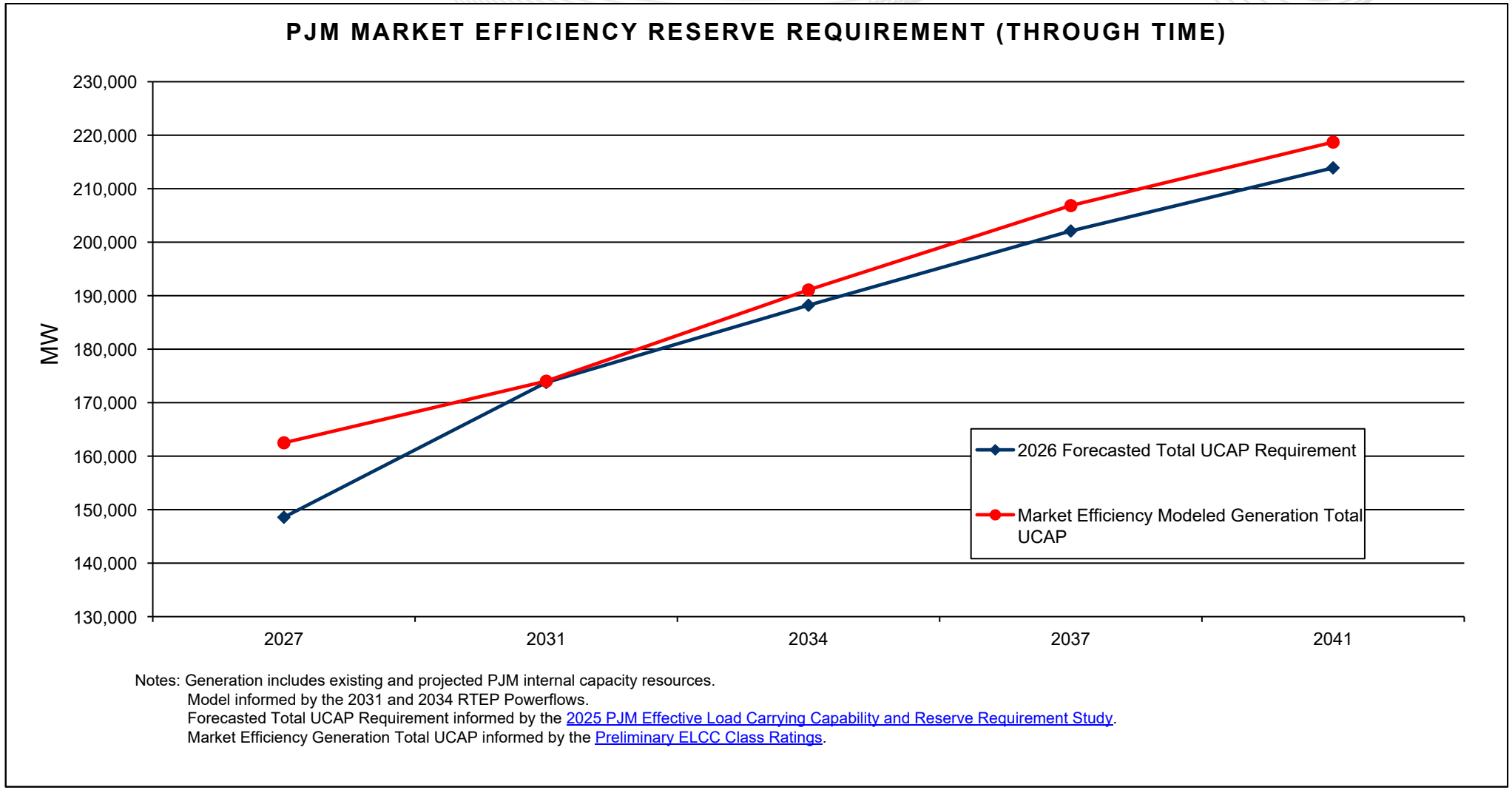
- In June 2026, PJM will post the preliminary 2026/2027 ME Base Case database:
  - Case will be posted on the ME secure page.
- This database will be the starting point for the 2026/2027 Market Efficiency Cycle and it will be consistent with the cases posted for the upcoming 2026 RTEP Reliability Window.
- Solicit feedback from stakeholders by August 31, 2026.
- Next Steps:
  - Update powerflow for consistency with RTEP cases.
  - Update generation expansion to observe PJM reserve requirement (beyond year 2034).
  - Update interregional data as needed.

2026/27 ME Cycle Assumptions Overview

- Study Years
  - 2027, 2031, 2034, 2037.
- Model and Input Assumptions
  - Fall 2025 Data Release from Hitachi Energy.
    - Fuel/Emissions price forecasts from Hitachi Energy, Spring 2026 update (see Appendix for details).
  - Load forecast from PJM 2026 Load Forecast Report (see Appendix for details).
  - Topology based on the final 2031 and 2034 Summer Peak powerflows from the RTEP 2026 24-month cycle.
- Generation Expansion based on 2026 RTEP Generation Assumptions.
  - Additional generation added as needed to meet the PJM reserve requirement.
- Financial parameters based on the Transmission Cost Planner (see Appendix for details).
- Simulations performed using PROMOD V v1.0.11 engine.

- Monthly energy and peak load forecast from PJM 2026 Load Forecast Report.
- Zonal hourly profiles updated using the zonal hourly load forecasts posted with the 2026 Load Forecast Report.
- Demand Response modeled by demand zone from PJM 2026 Load Forecast Report.
- Merchant Transmission Facilities modeled as hourly demands derived from historical scheduled flows.

2026/27 ME Assumptions
Generation Reserve Requirement Forecast



Notes: Generation includes existing and projected PJM internal capacity resources.
Model informed by the 2031 and 2034 RTEP Powerflows.
Forecasted Total UCAP Requirement informed by the 2025 PJM Effective Load Carrying Capability and Reserve Requirement Study.
Market Efficiency Generation Total UCAP informed by the Preliminary ELCC Class Ratings.

Appendix

2026/27 ME Assumptions
PJM Peak Demand/Energy Forecast

PJM Peak Load and Energy Forecast

Load	2027	2031	2034	2037	2041
Peak (MW)	160,451	191,017	211,882	228,100	241,416
Energy (GWh)	898,163	1,170,946	1,348,192	1,479,300	1,580,537

Notes: 1.) Peak and energy values from the January 2026 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.

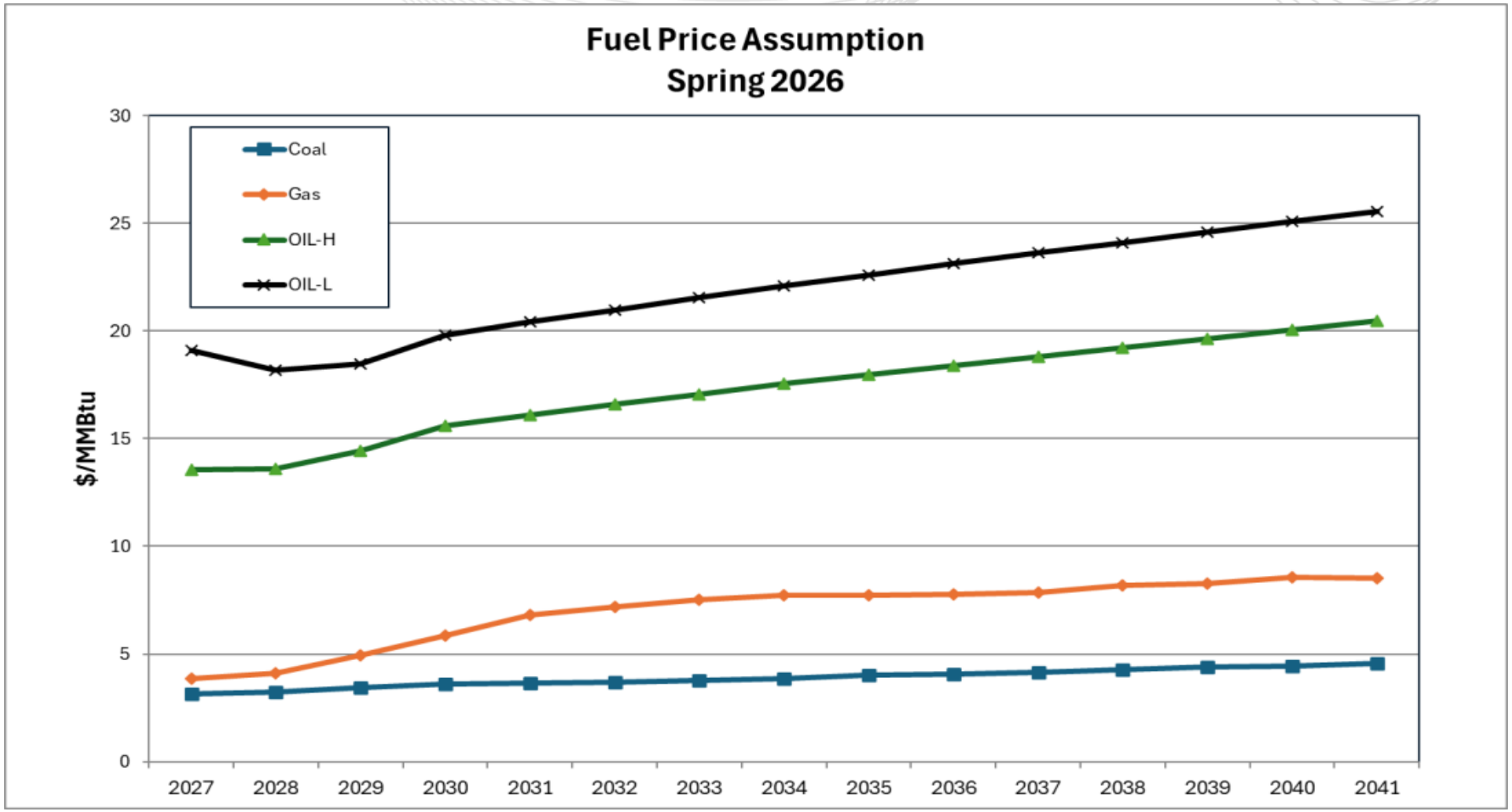
2026/27 ME Assumptions
PJM Demand Resource Forecast

PJM Demand Resource Forecast

	2027	2031	2034	2037	2041
Demand Resource (MW)	8,147	9,733	10,762	11,501	12,024

Note: 1.) Values from the January 2026 PJM Load Forecast Report Table B-7.

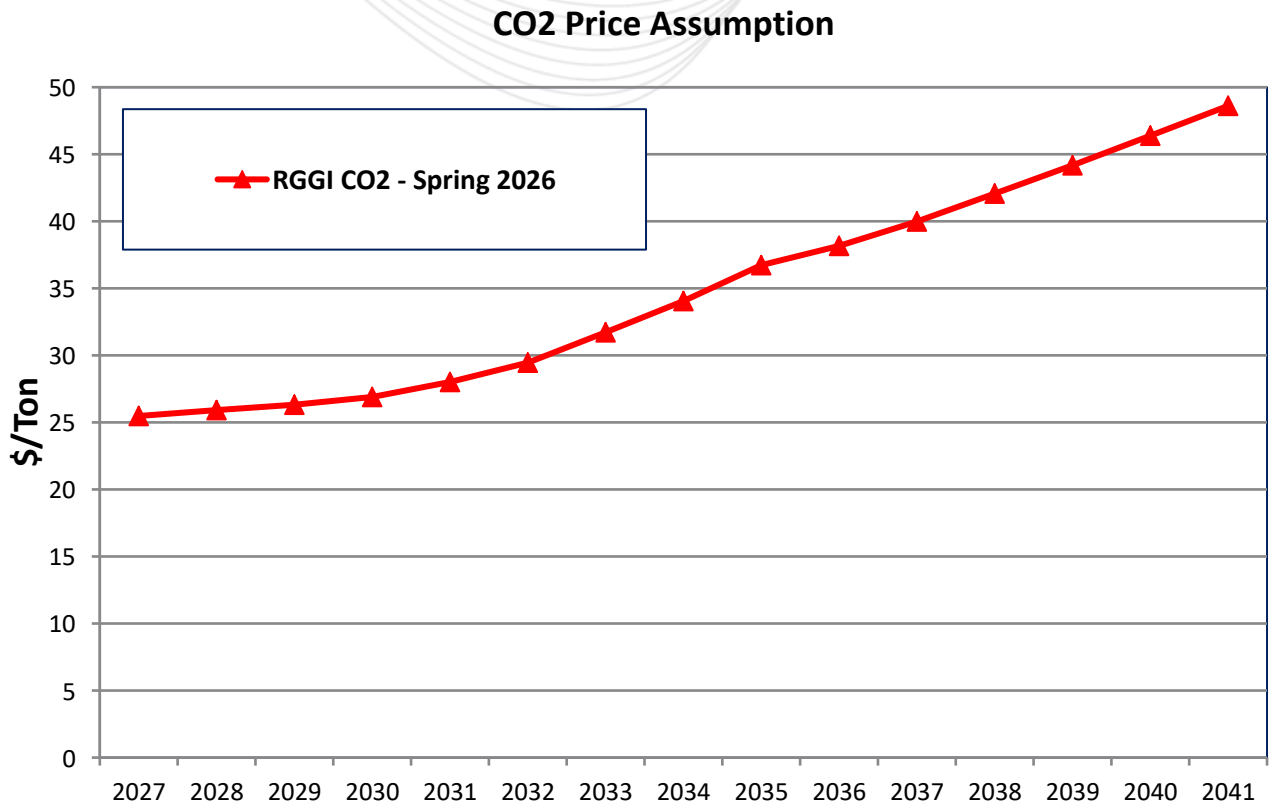
2026/27 ME Assumptions
Fuel Price Forecast



Notes:
Coal – Annual average of PJM unit burner-tip prices
Gas – Annual average Henry Hub price
Oil-H, Oil-L – Annual average prices

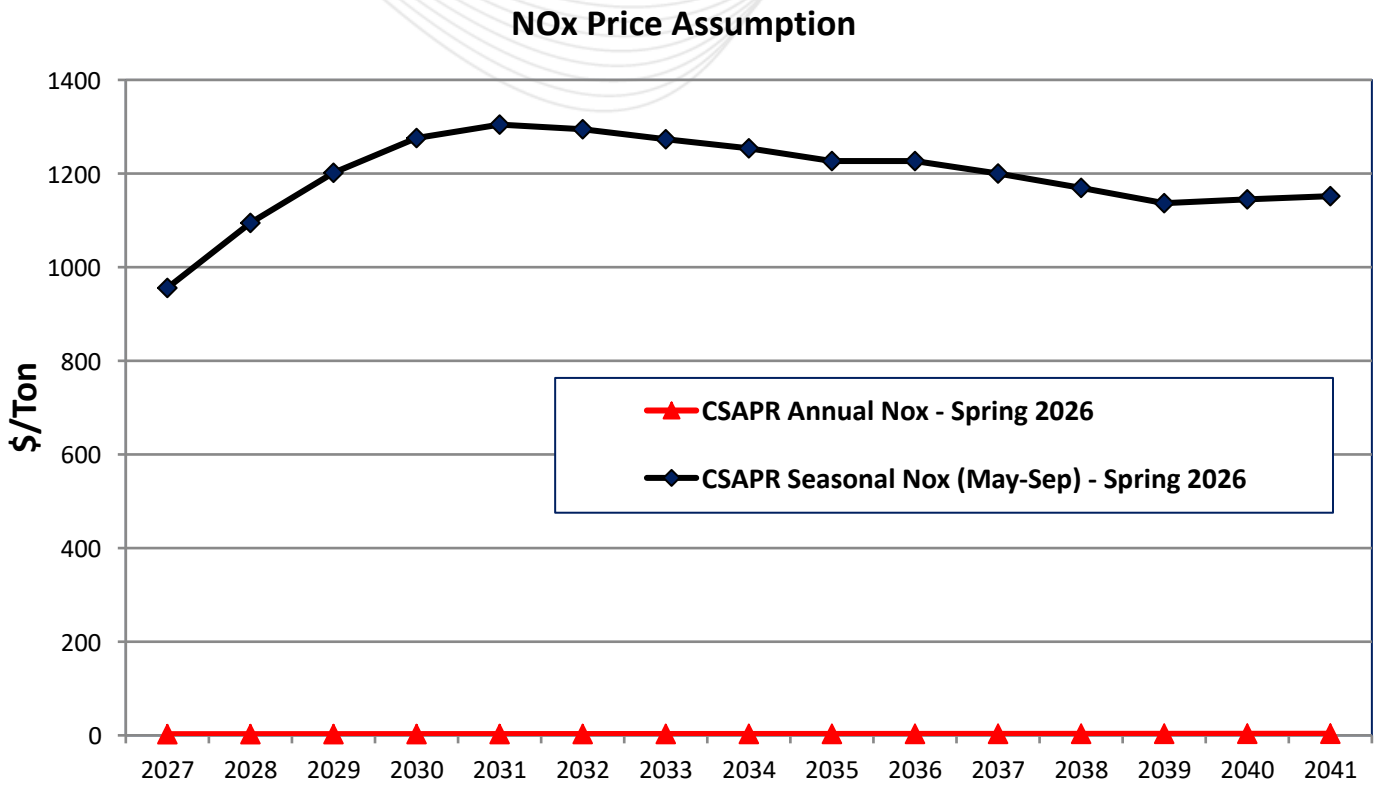
* Provided by Hitachi Energy – May 2026

2026/27 ME Assumptions
Emissions Price Forecast-RGGI CO2



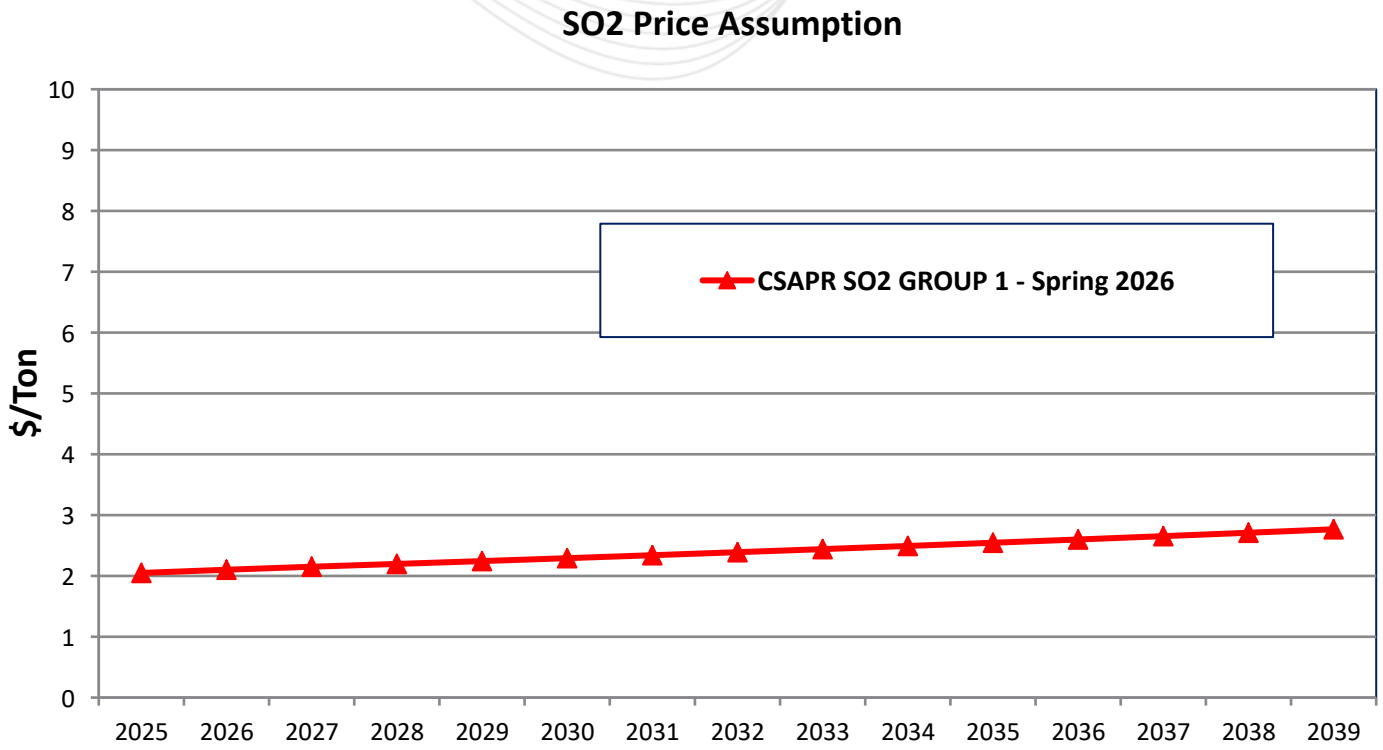
* Provided by Hitachi Energy – May 2026

2026/27 ME Assumptions
Emissions Price Forecast-NOx



* Provided by Hitachi Energy – May 2026

2026/27 ME Assumptions
Emissions Price Forecast-SO2



* Provided by Hitachi Energy – May 2026

2026/27 ME Assumptions
Financial Parameters

- Financial parameters based on the Transmission Cost Planner (as of 05/21/2026).
  - Discount Rate: 7.28%
  - Levelized Annual Carrying Charge Rate: 12.08%

Contact

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Market Efficiency Update

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Revision History

- V1 – 05/28/2026 – Original slides posted.