Market Efficiency Update

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Transmission Expansion Advisory Committee
July 7, 2020
2020/2021 Long Term Window
Long Term Window Overview

- Long-Term Window schedule 2020 - 2021 presented at the June TEAC

- Also presented at June TEAC an overview of following input assumptions:
  - Powerflow consistent with the 2020 RTEP Proposal Window 1
  - Load Forecast and Demand Response based on PJM 2020 Load Forecast Report
  - Generation Expansion consistent with the machine list included in the Planning 2025 RTEP Powerflow
  - Financial parameters Discount Rate and Carrying Charge, based on the Transmission Cost Information Center spreadsheet
Market Efficiency Base Case – Posting Schedule

- Preliminary Market Efficiency Base Case to be posted by end of August (XML format)

- XML files compatible with PROMOD 11.2

- Stakeholders feedback due September 31st

- Final Base Case to be posted in December, before start of 2020/21 Long-Term Window
Market Efficiency Data Posting

- Market Efficiency Web Page located at
  [link](http://www.pjm.com/planning/rtep-development/market-efficiency.aspx)

- During December 2020, PJM will post
  - Market Efficiency Case Files for all study years
    - Access requires CEII confirmation (PJM and MISO)
    - Access requires PROMOD vendor (ABB) confirmation
    - XML Format

  - Reference Files
    - Input Assumptions Summary
    - Updated Modeling Document will provide details of setup and modeling methods
• Market Efficiency Base Case Generation Expansion Plan includes all existing and ISA (Interconnection Service Agreement) level generators
  – Generators with Interim ISA and Suspended ISA status are not included

• Machine list posted at March TEAC

• Announced retirements are modeled
PJM Market Efficiency Reserve Margin - with Uniform Expansion

Notes: Generation includes existing and projected PJM internal capacity resources. Solar and wind resource capacity at 38% and 13% of maximum capability, respectively. Model informed by 2025 machines List.
Fuel Price Assumptions

Notes:
- Coal – Annual average of PJM unit burner-tip prices
- Gas – Annual average Henry Hub price
- Oil-H, Oil-L – Annual average prices
Note: Base assumption of MD, DE, NJ and VA units assigned to RGGI price.
SO₂ Emission Price Assumption

$/Ton

2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035

CSAPR Group 1 SO₂
NOx Emission Price Assumptions

- CSAPR Annual NOx
- CSAPR Seasonal NOx (May - Sep)
## Next Steps

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• V1 – 6/30/2020 – Original slides posted