

# Market Efficiency Update

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# 2022 Multi-Driver Proposal Window 1

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### 2022 Multi-Driver Proposal Window 1 - Overview

- 2022 Multi-Driver Proposal Window 1 opened on June 6 and will close on August 8, 2022.
  - For additional details see reliability slides presented at June TEAC.

2022 Multi-Driver Proposal Window 1 Eligible Energy Market Congestion Drivers* (update posted 07-11-2022)				2022 Multi-Driver Window 1 Case (Annual Congestion \$million)		2022 Multi-Driver Window 1 Case (Hours Binding)			
FG#	Constraint	FROM AREA	TO AREA	2027 Simulated Year	2030 Simulated Year	2027 Simulated Year	2030 Simulated Year	Line is Conductor Limited?	Comment
MDW1-ME-01	Dumont to Stillwell 345 kV	AEP	NIPSCO	\$ 14.79	\$ 13.81	662	625	no	M2M
MDW1-ME-02	Olive to University Park North 345 kV	AEP	CE	\$ 1.26	\$ 5.32	64	179	no	M2M
MDW1-ME-03,MDW1-ME-04	E Frankfort to Crete to St John 345 kV	CE	NIPSCO	\$ 1.13	\$ 2.60	61	116	yes	M2M

<sup>\*</sup>These congestion drivers are also posted as reliability violations.



# 2022 Multi-Driver Proposal Window 1 – Market Efficiency Analysis

- Participants expected to develop solutions to the identified reliability criteria violations and eligible congestion drivers.
- Only proposals which address one or more of these PJM identified multi-drivers will be evaluated.
  - If the proposal does not address at least one of the identified multi-drivers, and is otherwise substantially
    deficient or is seriously flawed, it will be rejected and the proposer will be notified.
- Market efficiency analysis for the 2022 Multi-Driver Window 1 will use the best case available at the time.
  - Simulation years: 2023, 2027, 2030, 2033.
- Analysis will use PROMOD IV version 11.4.



### 2022 Multi-Driver Proposal Window 1 - Modeling Data

- This window uses the Market Efficiency Base Case from the previous 2020/2021 Long-Term Window updated with the following:
  - Fuel/Emissions price forecasts from the PROMOD vendor, May 2022 update.
  - Load forecast from PJM 2022 Load Forecast Report.
  - Topology from the 2027 Summer Peak case posted for the 2022 Multi-Driver Proposal Window 1.
  - Generation Expansion consistent with the reliability analysis.
- Market efficiency <u>PROMOD modeling data</u> posted at the opening of the window.
  - Posting included base case files for all study years, PROMOD input files and Excel templates.
  - XML format PROMOD IV 11.4 version.
- PROMOD event file reposted 07/07/2020
  - Rating correction on the Powerton-Towerline 138 kV tie line (ComEd Ameren)
  - Contingency definition correction

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# 2022/23 Market Efficiency Cycle

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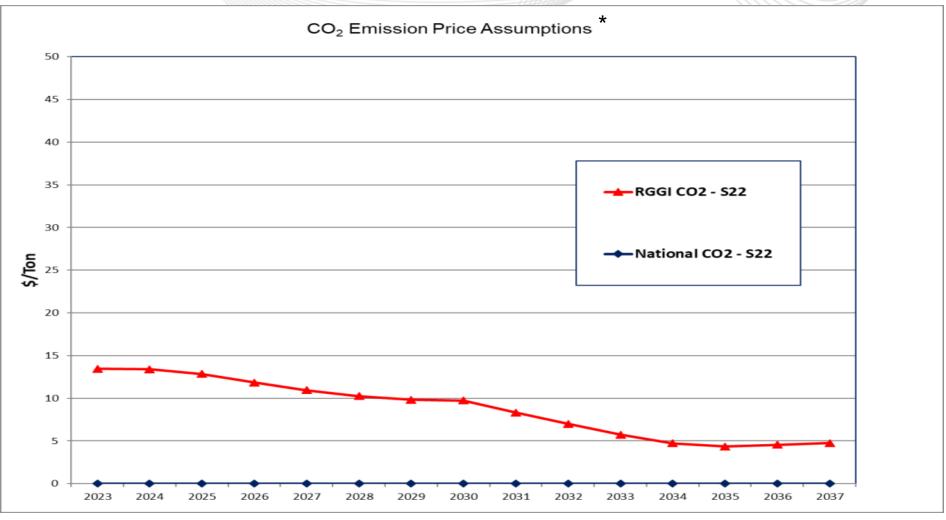
#### 2022/23 Market Efficiency - Draft Base Case

• First draft of the 2022/23 Market Efficiency Base Case and the Market Efficiency Assumptions whitepaper to be posted by the end of July.

- Stakeholders feedback expected by August 31 st
  - Summer/Winter ratings
  - Contingency definitions
  - Topology updates (if any)
- Next steps:
  - Interregional update: MISO, NY-ISO, etc.
  - PJM border interchanges.



## Emission Price Assumptions – CO<sub>2</sub>



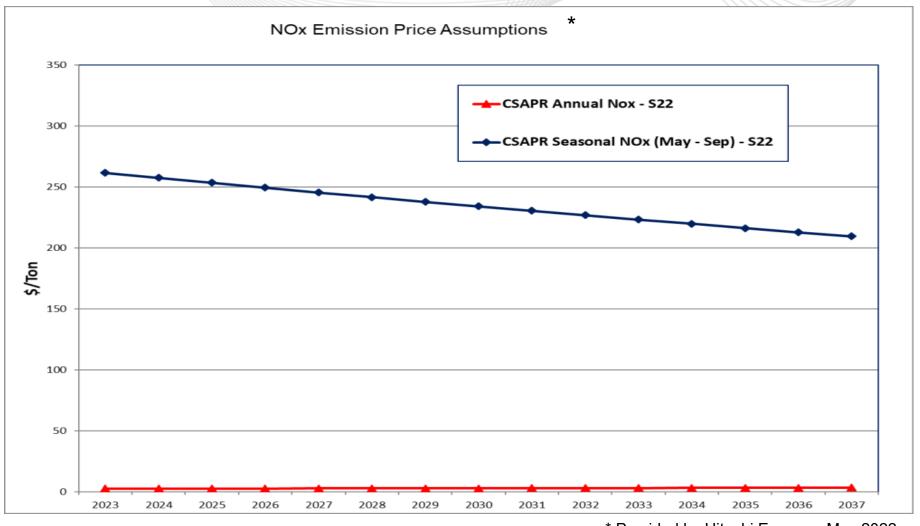
Base assumption of MD, DE, NJ, VA, PA units assigned to RGGI price.

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<sup>\*</sup> Provided by Hitachi Energy – May 2022



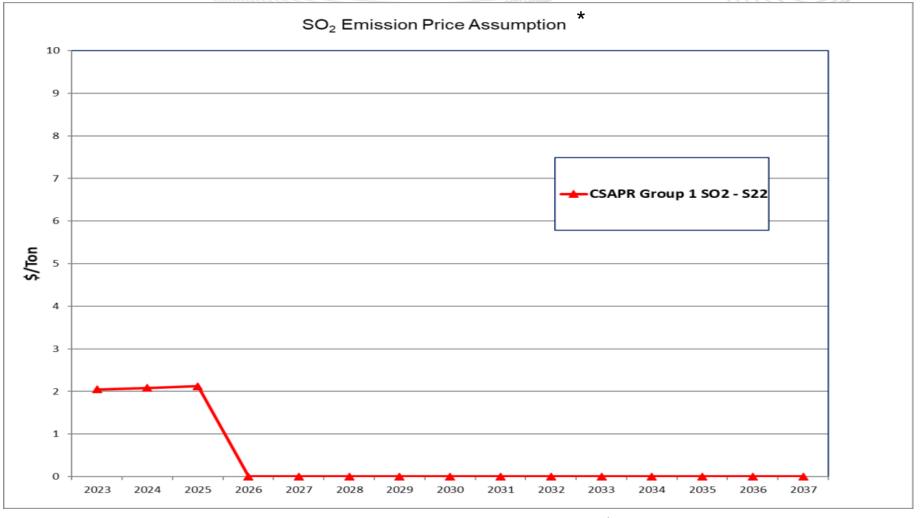
#### Emission Price Assumptions – NOx



\* Provided by Hitachi Energy – May 2022



## Emission Price Assumptions – SO<sub>2</sub>



<sup>\*</sup> Provided by Hitachi Energy – May 2022



 Financial parameters based on the Transmission Cost Information Center spreadsheet (4/05/2022 version)

Discount Rate: 7.26%

Levelized Annual Carrying Charge Rate: 11.59%



Step	Target Date				
Post Draft Base Case	July 2022				
Stakeholders Feedback	End of August 2022				
Update Interregional Data	August - September 2022				
Identify Congestion Drivers	September – November 2022				
2022 Reevaluation Analysis	September – November 2022				
2022 Acceleration Analysis	September – November 2022				
Post Final Base Case and Congestion Drivers	January 2023				
Open Long Term Proposal Window	January 2023				



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**Market Efficiency Update** 



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V1 – 7/7/2022 – Original slides posted

- V2 7/11/2022
  - On slide 3, updated the congestion table to reflect simulation results with the event file updates described on slide 5.
  - Updated slide 5 with the info regarding the PROMOD event file reposted 07/07/2020

