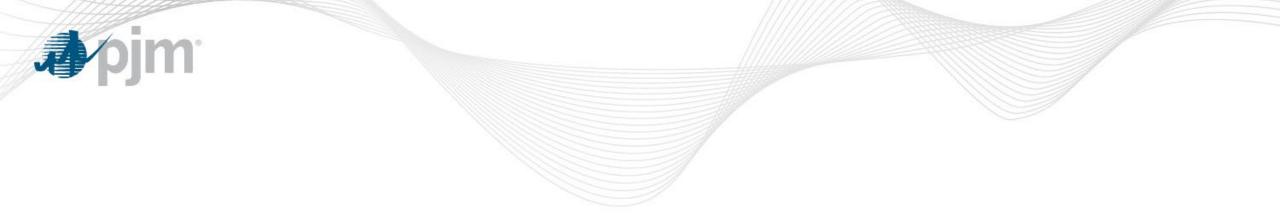


# Market Efficiency Update

Nick Dumitriu Sr. Lead Engineer, Market Simulation Transmission Expansion Advisory Committee October 6, 2020



## 2020/2021 Long Term Window



### 2020/2021 RTEP Window Assumptions

- Long-Term Window schedule 2020 2021 presented at the June TEAC
  - <u>https://www.pjm.com/-/media/committees-groups/committees/teac/2020/20200602/20200602-item-02-market-efficiency-update.ashx</u>
- Market Efficiency input assumptions presented at TEAC meetings June through August
  - 2020 Market Efficiency Analysis Assumptions whitepaper was shared with the PJM board for consideration at the September Board meeting and posted with the October TEAC materials.
- Posting Schedule
  - Preliminary Market Efficiency Base Case was posted on September 4<sup>th</sup> (XML format)
    - XML files compatible with PROMOD 11.3
  - A retooled Market Efficiency Base Case will be posted by the end of October
  - Final Base Case and Congestion Drivers to be posted in December, before start of 2020/21 Long-Term Window



#### Market Efficiency Base Case – Status

- PJM currently processing the feedback received from stakeholders
- Current model work
  - MISO data update
  - Update topology using the retooled 2025 powerflow from Transmission Planning
  - Update ISA/FSA status
  - Finalize event file
  - Finalize PROMOD setup
- Post retooled base case model (end of October)
- Finalize and post sensitivity cases



#### Base Case Preliminary Results - 2025 Simulated Congestion\*

Group**	Correlated Historical Constraints***	Congested Area	Туре	storical 2019 Day Ahead Congestion		storical 2020 Day Ahead Congestion	Simulated 2025 Area Congestion*
1	Harwood to Susquehanna #1 230 kV	PPL	Line	\$ 4,587,972	\$	16,157,914	Yes
1	Harwood to Susquehanna #2 230 kV	(Susq. Group)	Line	\$ 1,466,849	\$	3,290,309	103
2	Cumberland to Juniata 230 kV		Line	\$ 3,516,896	\$	6,368,984	
2	Dauphin to Juniata 230 kV	PPL	Line	\$ -	\$	472,479	Yes
2	Juniata #1 500/230 kV	(Juniata group)	XFRM	\$ -	\$	46,886	
2	Juniata #2 500/230 kV		XFRM	\$ -	\$	2,836,659	
3	Plymouth Meeting to Whitpain #3 230 kV		Line	\$ 1,572,531	\$	3,104,181	Voc
3	Plymouth Meeting to Whitpain #4 230 kV	PECO	Line	\$ 938,713	\$	654,931	Yes
4	Cherry Run to Morgan 138 kV		Line	\$ 883,588	\$	-	
4	Jct. to French's Mill 138 kV		Line	\$ 116,952	\$	345,506	
4	Gore to Stonewall 138 kV	APS	Line	\$ 818,902	\$	177,599	Yes
4	Messick Road to Morgan 138 kV		Line	\$ 263,290	\$	-	
4	Messick Road to Ridgeley 138 kV		Line	\$ 1,704,272	\$	462,027	
5	Kammer North (Bus 1 & 3) to Natrium 138 kV	AEP	Line	\$ 178,984	\$	36,523	Yes

\*Preliminary results, not final congestion drivers. List of constraints and congested areas may change after the retooling of the base case. \*\*Table identifies correlated historical constraints with 2025 PROMOD simulated congestion in the same area/group. \*\*\*M2M constraints not shown (Base Case MISO data update in-progress).



## 2020/2021 RTEP Window Next Steps

Step	Timeline				
Stakeholders Feedback	September 2020				
Identify Congestion Drivers	October 2020				
2020 Reevaluation Analysis	October – December 2020				
2020 Acceleration Analysis	November – December 2020				
Post Final Base Case and Target Congestion Drivers	December 2020				
Long Term Proposal Window	January 2021 - April 2021				
Analysis of Proposed Solutions	May – September 2021				
TEAC Reviews and Board Approval	October - December 2021				



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**Market Efficiency Update** 

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1



**Revision History** 

• V1 – 9/29/2020 – Original slides posted