



Market Efficiency Update

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Market Simulation

Transmission Expansion Advisory Committee

April 6, 2021

2020/21 Long Term Window

Long-Term Market Efficiency Window (120 days)

2020/21 Long-Term Window started January 11, 2021 and will close May 11, 2021

Window process and registration presented at the [Special TEAC – Market Efficiency](#) on December 23rd, 2020

Problem statement and target congestion drivers are posted on the [Competitive Planning Process](#) page

- 2020/21 Long-Term Window Congestion Drivers list has been updated to reflect removal of the following drivers:
 - ME-4 Yukon to AA2-161 Tap 138 kV
 - ME-8 Harwood to Susquehanna 230 kV
- Updated Market Efficiency Economic Models posted on the [Market Efficiency Secure Page](#)

- Updated PJM Generation Expansion
 - Removed unit AA2-161 from the base case due to announced suspension
- Updated Susquehanna – Harwood 230 kV model to reflect the expected installation of DLR devices on this line.
 - Added DLR hourly profile to the flowgates monitoring this line



Updated ME Base Case - Congestion Changes

FG#	Constraint	From Area	To Area	Comments
ME-4	Yukon to AA2-161 Tap 138 kV	APS	APS	Suspension of AA2-161 unit eliminates the congestion driver.
ME-8	Harwood to Susquehanna 230 kV	PPL	PPL	Congestion decreases more than 65% in each of the 2025 and 2028 years after modeling the market impact of DLR (Dynamic Link Rating) project (Expected in-service date 06/01/2021). Congestion decreases between simulated years 2025 and 2028. FSA Sensitivity shows annual congestion less than \$1 million in 2028 simulated year. Driver may also be impacted by recently announced Talen Energy retirements. (Retirement notice not submitted to PJM).

ME-4 and ME-8 are no longer eligible congestion drivers (updates to the model reduced congestion below the eligibility threshold).



2020/21 RTEP Market Efficiency Window Congestion Drivers*

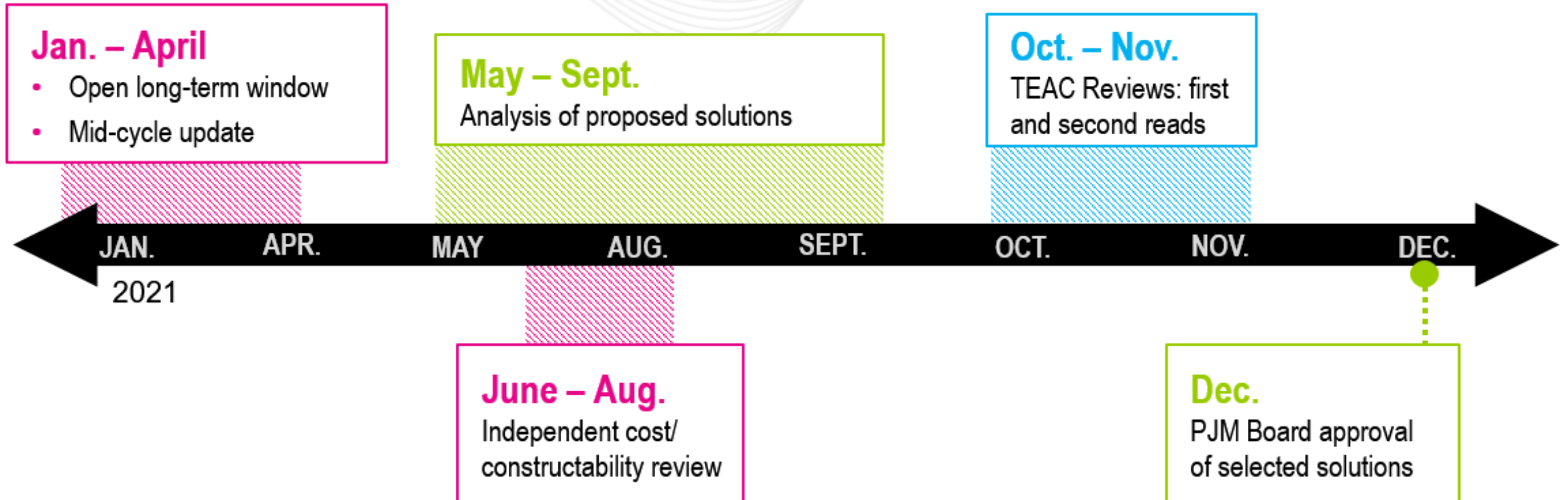
2020/21 RTEP Market Efficiency Window Eligible Energy Market Congestion Drivers* (Posted 04-05-2021)				ME Base Case (Annual Congestion \$million)		ME Base Case (Hours Binding)		Is Line Conductor Limited?	Conductor Ratings**	Comment
FG#	Constraint	FROM AREA	TO AREA	2025 Simulated Year	2028 Simulated Year	2025 Simulated Year	2028 Simulated Year			
ME-1	Kammer North to Natrium 138 kV	AEP	AEP	\$ 2.13	\$ 5.89	71	157	Yes		Internal Flowgate
ME-3	Junction to French's Mill 138 kV	APS	APS	\$ 6.78	\$ 9.49	215	233	No	SN/SE=221/268 MVA WN/WE=250/317 MVA	Internal Flowgate
ME-5	Charlottesville to Proffit Rd Del Pt 230 kV	DOM	DOM	\$ 3.96	\$ 5.34	125	122	Yes		Internal Flowgate
ME-6	Plymouth Meeting to Whitpain 230 kV	PECO	PECO	\$ 3.36	\$ 3.48	117	95	No	SN/SE=463/578 MVA WN/WE=521/639 MVA	Internal Flowgate
ME-7	Cumberland to Juniata 230 kV***	PLGRP	PLGRP	\$ 8.11	\$ 6.11	204	185	Yes		Internal Flowgate

Notes:

* ME-2, ME-4, ME-8, ME-9, and ME-10 constraints no longer eligible congestion drivers (updates to the model reduced congestion below the eligibility threshold).

** Conductor ratings provided by TOs for congestion drivers that are limited by station equipment.

*** Cumberland – Juniata congestion driver may be impacted by DLR (Dynamic Link Rating) projects (Expected in-service date 06/01/2021).



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- V1 – 04/01/2021 – Original slides posted
- V2 – 04/05/2021
 - Slide 3: Updated text in the lower box to reflect that updated list of congestion drivers and updated Market Efficiency models have been posted.
 - Slide 6: Updated annual congestion and binding hours to reflect the results from the updated models.