

# Market Efficiency Update

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Market Efficiency Special Session

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# 2020/21 Long Term Window

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# Long-Term Window Process Overview



Identify Target Congestion Drivers

Solicit Proposals for Congestion Drivers

**Analyze / Compare Proposals**

Present Selected Solution at TEAC

PJM Board Approval

## **In determining eligible congestion drivers PJM considers**

- All binding flowgates internal to the PJM footprint (including tie lines)
- Current active Market-to-Market flowgates (NERC book of flowgates)
- Potential future Market-to-Market flowgates between PJM and MISO

## **Eligible congestion drivers**

- Selected to focus proposals on significant issues
- Identified coincident with the opening of market efficiency proposal window

## **Proposals must address at least one identified congestion driver**

- If the proposal does not substantially address an identified congestion driver, or is otherwise substantially deficient or is seriously flawed, it will be rejected and the proposer will be notified



# Criteria for Target Congestion Drivers

**Annual simulated congestion frequency of at least 25 hours in each of the RTEP and RTEP+3 study years**

## Congestion Threshold

### Thermal Constraints

Minimum of **\$1 million** congestion in each RTEP and RTEP+3 study years

### Regional Constraints

Minimum of **\$10 million** congestion in each RTEP and RTEP+3 study years

### Interregional Constraints

Minimum of **\$0.5 million** congestion in each RTEP and RTEP+3 study years  
(lower threshold as there may be interregional benefits in addition to the regional benefits)

## **PJM may not recommend proposals for certain facilities meeting the criteria due to following exceptions:**

- Congestion is significantly influenced by a FSA generator or a set of FSAs
- Majority of the congestion was already addressed in previous window(s)
- Simulated congestion for future study years displays a declining trend

Note: PJM reserves right to add other exceptions as necessary.



# Preliminary Congestion Drivers

2020/21 RTEP Market Efficiency Window Eligible Congestion Drivers			ME Base Case (Annual Congestion \$million)		ME Base Case (Hours Binding)		
Constraint	From Area	To Area	2025 Simulated Year	2028 Simulated Year	2025 Simulated Year	2028 Simulated Year	Comment
Kammer North to Natrium 138 kV	AEP	AEP	\$ 2.54	\$ 12.22	105	249	Internal Flowgate
Maliszewski Transformer 765/138 kV	AEP	AEP	\$ 4.02	\$ 5.64	29	40	Internal Flowgate
Muskingum River to Beverly 345 kV	AEP	AEP	\$ 1.08	\$ 2.19	112	184	Internal Flowgate
Cherry Run to Morgan 138 kV	APS	APS	\$ 3.46	\$ 4.12	257	288	Internal Flowgate
Gore to Stonewall 138 kV	APS	APS	\$ 25.07	\$ 35.00	577	753	Internal Flowgate
Junction to French's Mill 138 kV	APS	APS	\$ 4.97	\$ 5.89	255	257	Internal Flowgate
Yukon to AA2-161 Tap 138 kV	APS	APS	\$ 4.31	\$ 5.39	1743	2043	Internal Flowgate
Charlottesville to Proffit Rd Del Pt 230 kV	DOM	DOM	\$ 2.80	\$ 2.92	116	96	Internal Flowgate
Plymouth Meeting to Whitpain 230 kV	PECO	PECO	\$ 6.17	\$ 6.40	150	145	Internal Flowgate
Cumberland to Juniata 230 kV <sup>1</sup>	PLGRP	PLGRP	\$ 5.77	\$ 6.39	151	158	Internal Flowgate
Harwood to Susquehanna 230 kV <sup>1</sup>	PLGRP	PLGRP	\$ 20.39	\$ 16.47	1145	878	Internal Flowgate

**Notes:**

1) Cumberland – Juniata and Harwood – Susquehanna Congestion drivers may be impacted by DLR (Dynamic Link Rating) projects (expected in-service date 06/01/2021)





# Preliminary Congestion Drivers (cont.)

2020/21 RTEP Market Efficiency Window Eligible Congestion Drivers			ME Base Case (Annual Congestion \$million)		ME Base Case (Hours Binding)		Comment
Constraint	From Area	To Area	2025 Simulated Year	2028 Simulated Year	2025 Simulated Year	2028 Simulated Year	
Duff to Francisco 345 kV	DUK-IN	DUK-IN	\$ 0.86	\$ 3.71	74	118	M2M
Gibson to Francisco 345 kV	DUK-IN	DUK-IN	\$ 4.18	\$ 3.59	195	200	M2M
Quad Cities to Rock Creek 345 kV	COMED	ALTW	\$ 6.35	\$ 9.01	148	172	M2M

## Long-Term Market Efficiency Window

2020/21 Market Efficiency Window to open January 11, 2020 (*120-days January – April*)

The problem statement, target congestion drivers, and modeling data are posted when the Long-Term Window opens

- Includes market efficiency base case files for all study years, PROMOD input files and benchmark test cases and results.
- To access the information, stakeholders required to have CEII confirmation (for both PJM and MISO) and PROMOD vendor (ABB) confirmation.

## Sensitivity

## Range

**Load Sensitivity**

Plus or Minus 2%

**Gas Sensitivity**

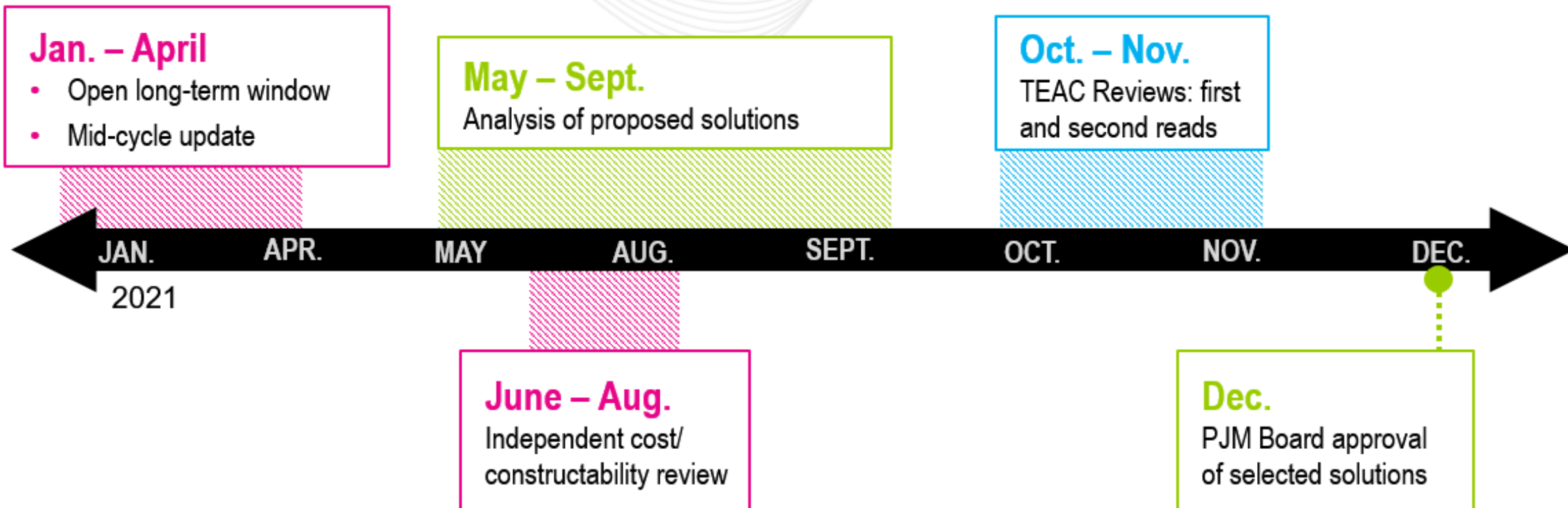
Plus or Minus 20% Henry Hub

**FSA Sensitivity**

Add all units with FSA or suspended ISA status

PJM reserves right to add sensitivities as necessary.

# 2020/21 Long-Term Window Schedule (Year 2021)





# 2020/21 Long-Term Window Registration Process

**Beginning in July 2020**, all RTEP competitive proposals will be submitted through a new web based Competitive Planner application.

Beginning in July 2020, all RTEP competitive proposals will be submitted through a new web based Competitive Planner application. Only transmission owners and developers who have received authorization to receive CEII information associated with the current window will be able to participate in the PJM competitive planning process.

[Request Access to Competitive Planner](#) 

Only transmission owners and developers who have received authorization to receive CEII information associated with the current window will be able to participate in the PJM competitive planning process.

- **Register** for the 2020/21 RTEP Market Efficiency Window at PJM.com > Planning > [Competitive Planning Process](#)
- In the CEII Request form write “**Access to the 2020/21 Long Term RTEP Window**” as the description of the information requested.
- All participants must register to access the data regardless of prior participation in the PJM Competitive Process.

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- Services & Requests
- Project Status & Cost Allocation
- Competitive Planning Process
- Redacted Public Proposals for Current and Closed Windows
- Pre-Qualification for Designated Entity Status
- RTEP Development
- Resource Adequacy Planning
- Planning Criteria
- Design, Engineering & Construction
- Interregional Planning

Home > Planning > Competitive Planning Process

## Competitive Planning Process

Competitive Planner makes it easier for transmission owners and transmission developers to submit proposals through PJM's competitive transmission development process windows. It provides an interactive form that allows developers to provide information more easily and accurately, while also securely submitting that information to PJM from a single location.

Previously developers would need to fill out an Excel file that would then be uploaded securely.

PJM will announce in the Transmission Expansion Advisory Committee (TEAC) its intention to solicit competitive solutions to identified planning needs. The "windows" for submitting such solutions fit into three categories and follow the 18-month and 24-month planning cycles as described in Manual 14F.

### Pre-Qualified Entities

While not a requirement to propose competitive projects, an entity must obtain Designated Entity status in order to construct, own, operate, maintain, and finance competitive planning projects. If your company hasn't been pre-qualified, [apply for pre-qualification status](#).

### Planning Cycles

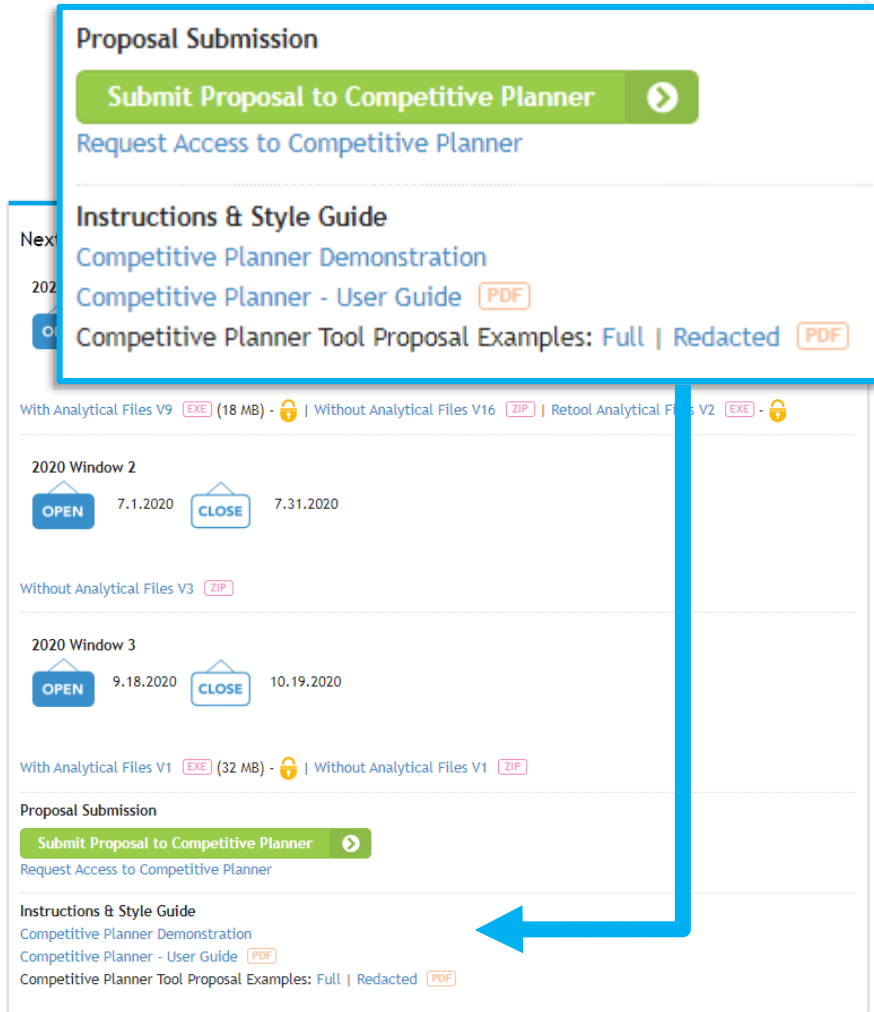
Window Type	What's Included	Duration (days)	Required In-Service Date (years)
Long Term	Reliability criteria violations, economic constraints, system conditions and public policy requirements	120	> 5

### Resources

[Transmission Expansion Advisory Committee \(TEAC\)](#)  
[Apply For Pre-Qualification Status](#)  
[FERC Form 715 - FERC Guidelines For Diagram Requests](#)  
[Manual 14F: Clean](#) WEB | [Clean](#) PDF

Planning Community
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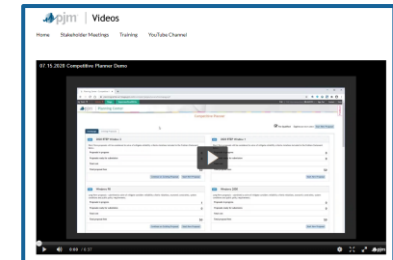
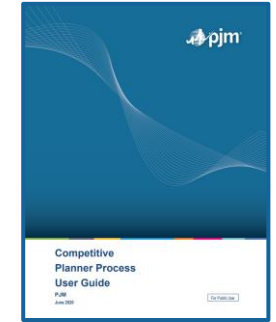
[Training Video](#) | [User Guide](#) PDF  
[Register for Community](#)



**PJM has a Users Guide posted to the PJM website for the new Competitive Planner Tool:**  
PJM.com > Planning > Competitive Planning Process > [Competitive Planner – User Guide](#)

**There is also a demonstration Video posted to the PJM website showing how to use the new Competitive Planner Tool:**  
Videos.pjm.com > [Competitive Planner Demo](#)

**PJM has also posted Examples of Competitive Planer proposals:**  
PJM.com > PJM.com > Planning > Competitive Planning Process > Competitive Planner Tool Proposal Examples: [Full](#) | [Redacted](#)





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## Market Efficiency Update



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- V1 – 12/18/2020 – Original slides posted