

# Capacity Market Workshop #4 – Next Steps

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Capacity Market Workshop – Session 4

March 26, 2021

- **Session 1** (Feb. 12) – PJM provided:
  - an historical perspective of the capacity market
  - initial thoughts on the problem to solve, reform concepts, scoping, timing and sequencing
- **Session 2** (Mar. 4) – Stakeholders provided key principles and thoughts on scoping, timing and sequencing
- **Session 3** (Mar. 12) – Stakeholders provided market design concepts and proposals
- **Session 4** (Mar. 26) – PJM will recap what it heard from stakeholders and propose a path forward

1. Recap recent stakeholder discussion on this topic to-date
2. Provide additional thinking by PJM on prioritization of issues
3. Propose a timeline to address the MOPR and other capacity market enhancements
4. Provide an overview of stakeholder process options available to address these enhancements
5. Get stakeholder feedback

- Nearly everyone agreed some form of capacity market should be retained to perform some level of capacity procurement.
- Many supported rights of states, public power or large consumers to choose their own resource mix outside of PJM markets.
- Most agreed the current MOPR is unsustainable and addressing it is a top priority.
- Many indicated MOPR reform was not the only capacity market reform that is needed.
  - Many saw a tension between current market designs and the future resource mix.
- Some recommended incorporating environmental attributes into PJM markets.

## Reform the current MOPR

Review Procurement Levels

Clean Energy/Capacity Procurement Approaches

Enhanced Demand Side Participation

Assess Reliability Attributes of the Capacity Portfolio

Shift Focus to a Residual Capacity Market

Create an exchange for capacity trading

Reforms to the Capacity Product Definition & Performance Incentives

## The capacity market should:

- Function to help support reliability;
- Respect and accommodate state resource preferences and facilitate competitive, least-cost procurement of these policy choices;
- Be flexible in design, thus ensuring the long-term viability of the market;
- Embrace competitive principles and send appropriate price signals for efficient entry and exit;
- Ensure appropriate mitigation of market power.

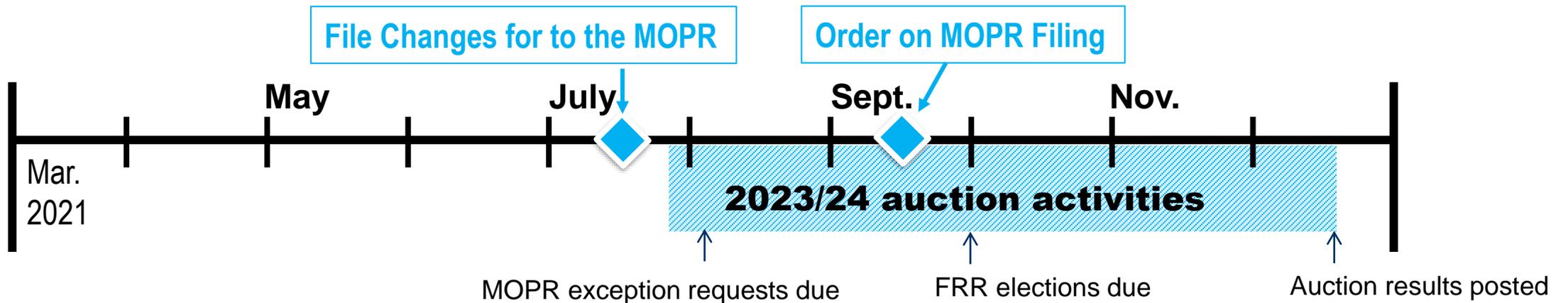
Seek to limit and target the solution set to the specific problems we're trying to solve



# A Proposed Path Forward on Capacity Market Reform

- PJM proposes addressing MOPR reform first
  - Stakeholder feedback is clear that the MOPR is a critical issue that needs to be addressed
  - The FERC Chairman has made clear that his office believes the MOPR must be addressed or FERC will take action for the 2023/2024 Base Residual Auction
  - PJM has been clear that it does not believe the current MOPR is sustainable
- PJM's goal is for stakeholders to achieve consensus on a MOPR reform package which can be filed
- PJM's recommendation is predicated on pursuing all required changes expeditiously following resolving the MOPR.
- When do we need to do this by? What would we file?

- The pre-auction schedule for the 2023/2024 Base Residual Auction begins on July 9, 2021. Auction results are posted December 14, 2021.
- PJM believes a filing to change the MOPR in time for the 2023/2024 Base Residual Auction would need to be submitted to FERC by **mid-to-late July 2021**.



- A filing in mid-to-late July 2021 attempts to strike the following balance:
  - Avoid further auction delays
  - Preserve the existing 10/1/2021 FRR election date. Changes to the FRR status of an entity will change the Planning Parameters.
  - Allow for some time between receipt of the FERC order and the FRR election date for entities to perform some analysis
  - Allow maximum time for stakeholder deliberation to reach consensus
- It will result in re-administering the process around the existing MOPR and potentially not using all or some of the results
  - Avoiding this is difficult given the timing

Date	Activity
7/4/2021	PJM posts preliminary MOPR screen prices <span style="float: right; border: 1px dashed pink; padding: 2px;">FERC filing</span>
8/3/2021	Last day for Market Seller resource-specific MOPR exception request
8/23/2021	PJM posts Planning Parameters
9/12/2021	Last day for Market Seller to notify PJM/IMM of agreement with IMM MOPR Floor Price
9/27/2021	PJM notifies participant/IMM of unit-specific offer cap/floor determination <span style="float: right; border: 1px dashed pink; padding: 2px;">FERC order timing</span>
10/1/2021	Last Day for FRR Election or Termination of FRR Election
12/1/2021	Auction Window Opens
12/14/2021	Auction Results Posted

## **Solution:**

Accommodate policy resources by reducing the clearing price to ensure total cost does not increase

### **General characteristics**

- Maintains current MOPR
- Seeks to incorporate commitments on policy resources without physically “crowding out” other economically cleared resources
- Mechanism to do this is by scaling the clearing price
- Transitional in nature until longer-term MOPR reform can be addressed

## **Initial Questions to Consider:**

- Do we want to maintain the current MOPR even in a transitional state?
- Is it acceptable that the final market outcome is not a point on the demand curves?

## **Solution:**

The MOPR would only identify and apply the MOPR in cases where the ex-ante screens are triggered

### **General Characteristics**

- A single test or set of tests would be defined in the Tariff that identify the intent to suppress price. They could cover all scenarios or leave some flexibility.
- Scenarios that fail the screen are subject to MOPR.
- Could apply to every resource type, both new and existing, regardless of fuel source or be confined to a narrower set.

## **Initial Question to Consider:**

- Could we define the intent to suppress price ex-ante in a way that sufficiently accommodates state resource preferences while providing a bright line test?

## **Solution:**

Create an explicit buyer side market power screen based on the contractual obligation of a supply resource and the impact to clearing price

### **General characteristics**

- Focuses in on direct contractual tie from a resource to a load
- Exempt scenarios where there is no clear intent (self-supply)
- Captures scenarios where the reduction in clearing price caused by a resource being offered below cost results in a reduction in payments to the associated load
- Includes short screen for self-supply

## **Initial Questions to Consider:**

- Does this accommodate state resource preferences by MOPRring the resources we expect?
- How is this test implemented under different scenarios when there are multiple resources and owners in different LDAs?

## **Solution:**

Revert to a MOPR that resembles pre-December 2019 versions of the MOPR. Potentially include features of prior iterations.

### **General characteristics:**

- Only has non-zero MOPR Floor Prices for new natural gas resources
- All other resources have a \$0 floor price
- Allows for unit-specific exceptions to the MOPR floor price

### **Options:**

- Competitive entry exemption?
- State policy exemption?
- Self-supply exemption or short/long test?

## **Initial Questions to Consider:**

- Which old MOPR, specifically, or are there components of old MOPRs we want to piece together?
- Is an old-style MOPR that applies to only new natural gas a durable solution given the grounds on which the motivating complaint was granted?

**LS Power**

**Intent-Based**

**E-Cubed**

**“The Old-  
style PJM  
MOPR”**

Are there others we should consider?

## Enhanced Liaison Committee (ELC)

- Developed via Governance Assessment Special Team in 2010, used for Capacity Performance in 2014
  - Added meetings in advance of the process formally commencing to discuss & obtain feedback on proposal
  - Resulted in a modified proposal from what was initially presented
- Purpose/Method
  - “... provide the PJM Board of Managers (Board) and PJM Members an orderly and facilitated process to directly discuss contentious issues that were not resolved or would be extremely difficult to resolve within the Stakeholder process.”
- Initiation: Members Committee or Board

## Critical Issue Fast Path (CIFP)

- Added to M34 via Super Forum in 2018, not yet used
- Purpose/Method
  - “The purpose of the Critical Issues Fast Path process is to provide the PJM Board of Managers (Board) and PJM Members an orderly and facilitated process for contentious issues with known PJM and/or FERC implementation deadlines that were not resolved, or would be extremely difficult to resolve, within the normal CBIR Stakeholder process. The CFIP process is to be used on major issues only in extraordinary circumstances (broad impact to markets or significant reliability issue) and is expected to be used very infrequently.”
- Initiation: Board (either directly or upon Members Committee vote to initiate)

## Process

	At least 4 Weeks Prior to ELC Meeting	2 Weeks Prior to ELC Meeting	1 Week Prior to ELC Meeting	ELC Meeting Date	Board Decides after ELC	Feedback to Members After Board Decision
Members/PJM Initiate ELC	●					
PJM Posts Senior Committee Report/White Paper (Including PJM position)	●					
Members/PJM Identify Facilitator	●					
Members Self-Select Coalitions		●				
Members Coalitions and MMU Submit/PJM Post Briefing Papers			●			
Board/Members Hold ELC Meeting				●		
Board Renders Decision					●	
Board Provides Feedback to Members						●

## Potential Plan

### Pre-ELC

Discussions	April 7 (PM) April 9 April 16 April 23 [April 26] April 30 [May 6]
Poll	April 9? April 30 [May 6]?

### Formal Process

PJM Report/Whitepaper	May 11	[May 25]
Coalitions Identified	May 25	[June 8]
Coalition Briefs	June 15	[June 15]
ELC Meeting	June 22	
Board Decision		
Feedback to Members		
Filing	July 16	

## Process

**Stage 1** – Similar to the normal CBIR process. PJM will provide stakeholder education and its initial solution package and alternatives considered, including its option alternatives to stakeholders

**Stage 2** – Stakeholders may discuss any previously considered and/or new alternatives, with row-by-row reviews of the CIFP matrix.

**Stage 3** – Based on the row-by-row discussions, PJM will finalize its package, and stakeholders will create alternative packages as appropriate.

**Stage 4** – “Final Meeting”: For the benefit of all meeting attendees, PJM will review its package proposal in the solution Matrix on a row-by-row basis to show how its solution addresses the PS/IC. At the conclusion of the PJM presentation, Members and invited non-Member stakeholders, whether individually or in self-selected coalitions, will provide feedback to the Board on the impacts, positive or negative on the option details contained within the solution Matrix.

## Potential Plan

### Pre-CIFP

Discussions	April 7 (PM) April 9
Poll	April 9?

### Formal Process

<b>Stage 1:</b> PJM PS/IC & Proposal	April 16
<b>Stage 2:</b> PJM and stakeholder development of the matrix (options)	April 26 May 7 May 17
<b>Stage 3:</b> PJM and stakeholders finalize proposals	May 28 June 7 June 17
<b>Stage 4:</b> Final Meeting (MC Vote)	June 28
Board Review	
Feedback to Members	
Filing	July 16

- PJM recommends using the CIFP as the process to address the MOPR.
  - PJM will need to put together a proposal by April 16 based on the potential meeting schedule.
  - This allows for more stakeholder meetings to occur as it is structured in phases rather than specific targeted meetings.
  - It culminates with a vote at the Members Committee. This is important for gauging consensus.
    - A vote would need to be added to the ELC process.
- The scope of this process will be limited to the MOPR. All other capacity market topics will be discussed through another stakeholder process.

# Changes Beyond the MOPR

At the March 23, 2021 Technical Conference, PJM shared what it views to be priorities for capacity market reform once the MOPR is addressed.

## These proposed reforms included:

- Examine the need to strengthen the qualification and performance requirements on capacity resources
- Evaluate all aspects surrounding the appropriate level of capacity procurement
- Consider clean capacity/energy auctions as an option to allow consumers to procure clean resources
- Evaluate the need for PJM's procurement of additional reliability-based services, with a particular focus on reliability needs in the face of the changing resource portfolio and increased penetration of intermittent resource technologies

## The proposed reform to examine the need to strengthen qualification and performance requirements on capacity resources includes:

Evaluating whether additional requirements for capacity resources should be a part of the qualification of capacity resources

- Start times, winterization specifications and fuel supply, among others

Re-examining RPM's performance penalties – including the triggers for performance assessments and the exemptions for non-performance.

- Provide more transparency and predictability in performance expectations

- Changes to this area may impact the resource adequacy target.
  - As an example, the requirement to winterize may reduce winter risk and therefore lead to the need to procure less capacity.

## The proposed reform to evaluate all aspects surrounding the appropriate level of capacity procurement includes:

1. Examine the demand curve shape and choice of reference unit (Quad Review scope)
2. To the extent necessary, further refining PJM's load forecasting method. PJM recently completed work in this area.
3. Evaluating the consideration of correlated risks of extreme weather beyond what we have previously experienced, loss of fuel, equipment failures and other factors in the determination of the appropriate level of resource adequacy.
4. Evaluating a shift in focus from the capability to serve load on the peak day to the ability to serve load in all hours of the year.
5. Examining the variation in seasonal capacity needs and how this could be accounted for in setting capacity requirements and/or qualifying resources to provide seasonal capacity
6. Examining whether an expectation of an amount of uncleared capacity should be incorporated into the capacity auctions and, if so, whether this capacity should have any must-offer requirements

The proposed reform to consider clean capacity/energy auctions as an option to allow states and customers to procure the desired level of clean resources may include:

- Evaluating forward clean energy and/or capacity auctions
- Evaluating opportunities for capacity procured bilaterally or through external auctions to be reflected in the PJM capacity market

The proposed reform to evaluate the need for the procurement of additional reliability-based services includes:

- Working with stakeholders over the longer term to develop products to ensure that PJM is able to procure and compensate for the needed flexible products and services PJM will need to maintain reliability given a fleet with an increasing level of intermittent and distributed resources.
- These products could be procured on a forward basis in the capacity market or separately as new products to be procured through PJM's ancillary service markets.

April 2021

July 2021

## MSOC

Briefs due May  
2021

## MOPR

Filing in mid-to-late July

### July 2021 – October 2022: Procurement Levels

2022 Quad Review – Demand curve shape, E&AS offset, Reference resource

Potential Planning Committee and Load Analysis Subcommittee Work

- IRM calculation changes (extreme events, uncleared resources, etc.)
- Further load forecast refinement

### July 2021 – TBD: Phase 2

Remaining topics

- Definition and performance requirements
- Clean capacity/energy auctions
- Additional reliability-based services
- Other stakeholder-identified topics subject to further scoping discussions

PJM suggests that the Procurement Levels phase of discussion includes:

- **Quadrennial Review**
  - Reference resource
  - VRR curve shape
  - E&AS offset
  - Timing: Consultant's analysis begins this summer, with stakeholder discussion beginning early 2022 at the latest (will look for opportunity to engage stakeholders earlier in the process)
- **Planning Committee & Load Analysis Subcommittee: Resource adequacy target and load forecasting discussions**
  - Do we allow uncleared resources to meet capacity needs, and if so, what requirements must they follow?
  - Consideration of correlated outages
  - More extreme weather studies
  - Does the IRM need to be supplemented with other metrics to assess resource adequacy?
  - Timing: Begin work in near future in order to feed any changes to IRM into the Quadrennial Review

PJM suggests that the Phase 2 discussion includes:

- Competitive procurement of public policy resources
- Capacity resource definition
- Performance assessments
- Procurement of additional reliability-based services
- Other stakeholder-proposed items as identified through scoping discussions

- Is there support for pausing work on certain other issue charges in the stakeholder process to:
  - Create time for meetings on the calendar?
  - Free up time to focus on these important issues?
  
- PJM is evaluating what meetings could be moved in the short-term to free up calendar space.

- Gather stakeholder feedback on the proposed path forward
- Determine what stakeholder process to use for MOPR, as laid out in the prior slides
- First meeting will be held on April 7, 2-4 PM after the MIC meeting
- Other meetings will be noticed in the near term – see potential schedule on prior slides
- PJM anticipates holding a discussion for determining stakeholder process, sequencing and timing for the remaining issues in the near term