

Minimum Offer Price Rule

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Pennsylvania Senate Environmental
Resources & Energy Committee
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RELIABILITY

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Markets

- Energy
- Capacity
- Ancillary services

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Operations

- Grid operations
- Supply/demand balance
- Transmission monitoring

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Regional Planning

- 15-year outlook

Interconnectedness

As part of the Eastern Interconnection, PJM can share energy with neighboring systems

Resource Construction

Facilities in PJM are constructed to operate in cold weather because they expect to

Capacity Market

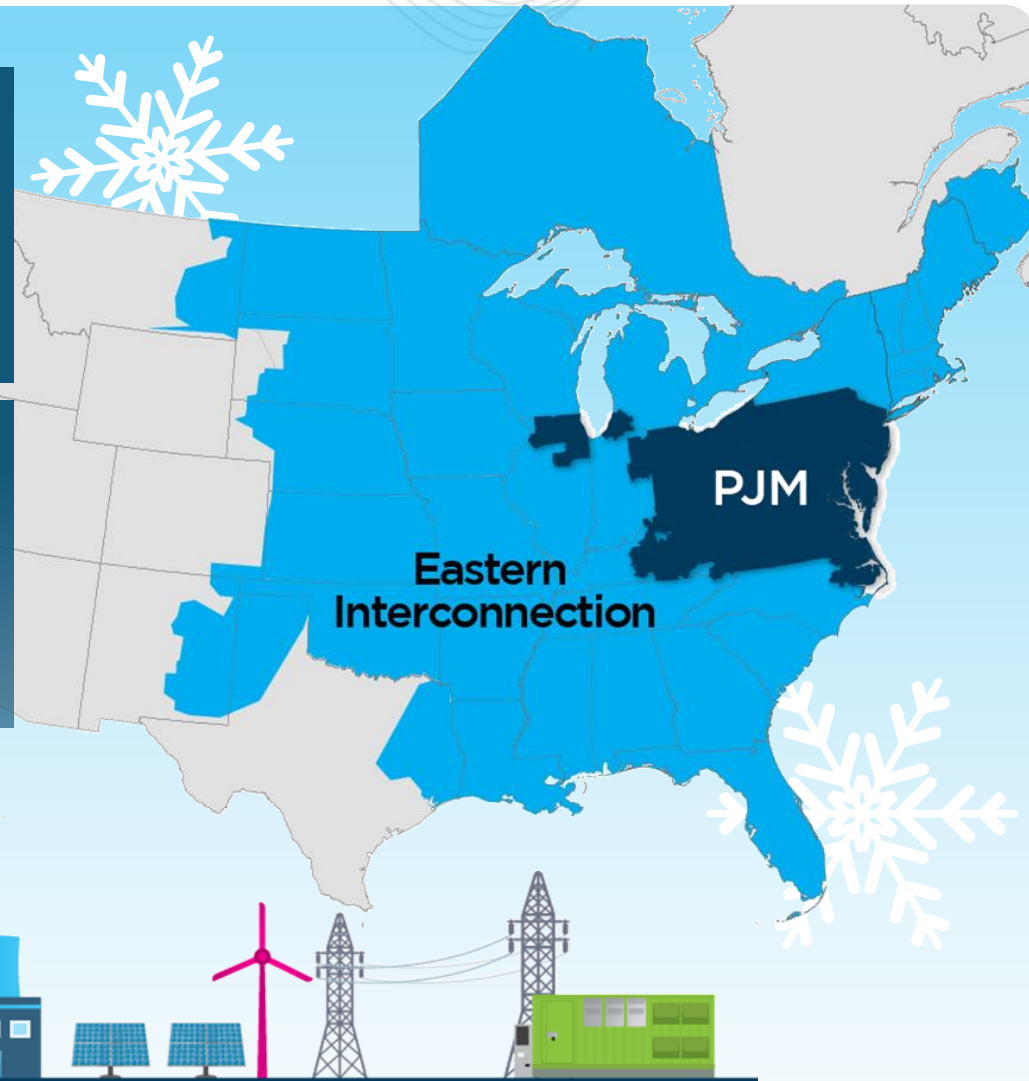
Procures the generation expected to be needed three years into the future

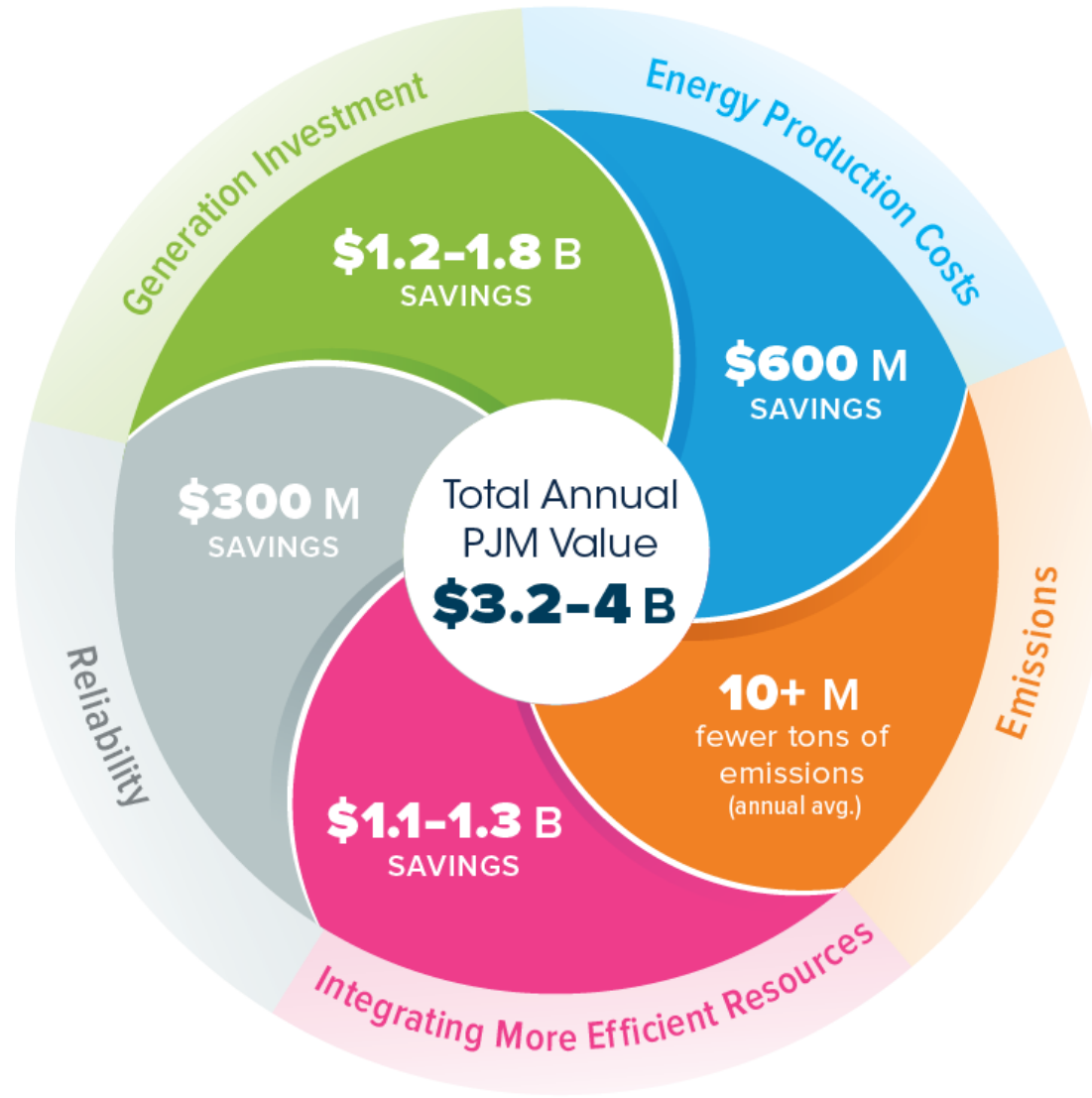
Winterization Efforts

Following the Polar Vortex of 2014, PJM took measures to ensure generators are prepared for winter

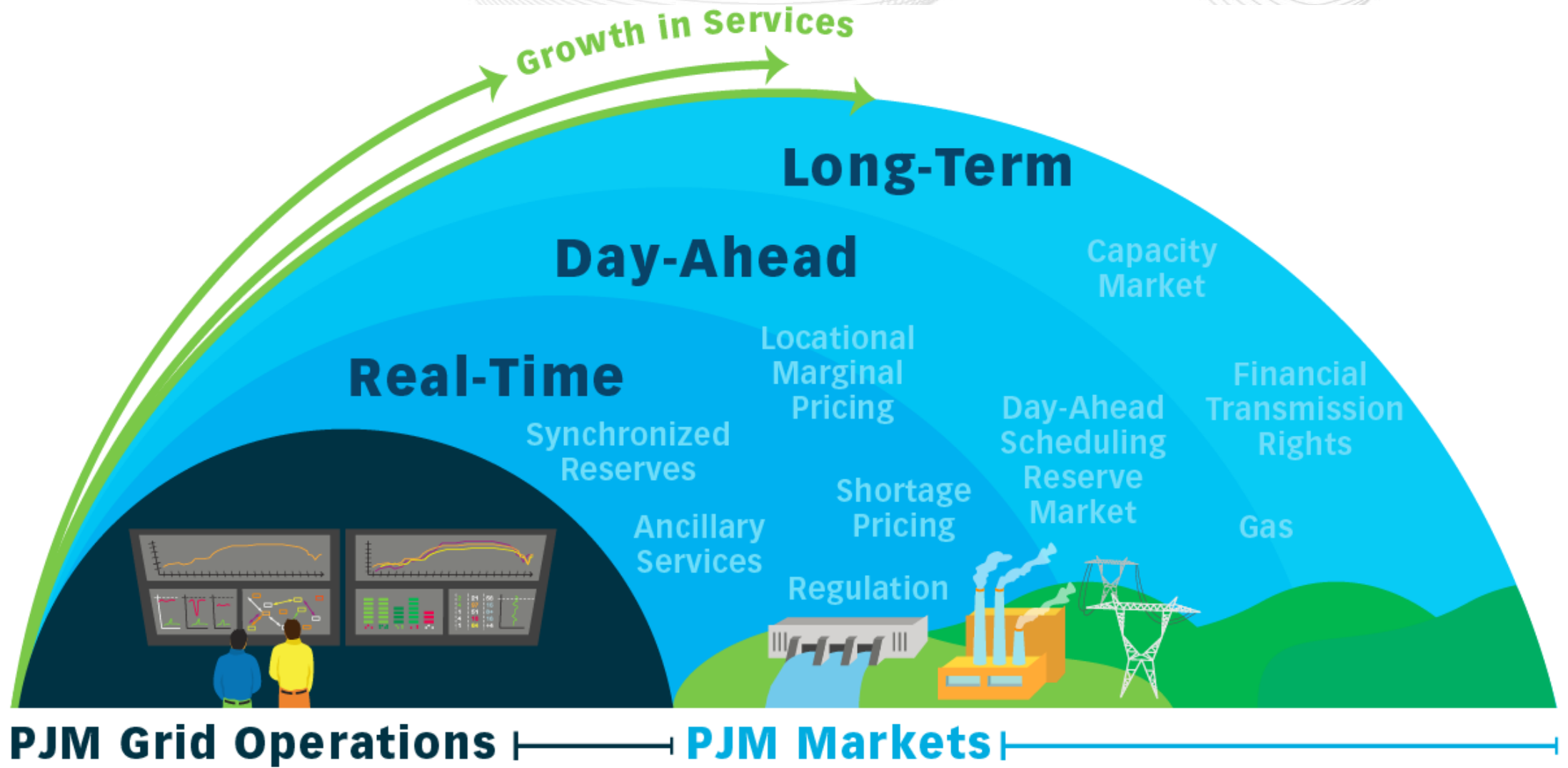
Gas-Electric Coordination

PJM prioritizes coordination with the gas industry





— All numbers are estimates. —



Function

Portion of wholesale electricity cost:

	Function	Portion of wholesale electricity cost:
PJM Energy Market	<p>Secures electricity to meet consumer demand in real time and near-term</p> <p>Includes: Real-Time and Day-Ahead markets</p>	50 percent (2020)
PJM Capacity Market	<p>Ensures the future availability of power supplies three years in advance</p>	22 percent (2020)
PJM Ancillary Services Markets	<p>Helps balance the system as it moves electricity from generating resources to consumers</p> <p>Includes: Regulation, Reserve Markets</p>	3 percent (2020)

Minimum Offer Price Rule:

- Applicable only to the Capacity Market
- Implements a minimum capacity auction offer price roughly equivalent to a generator's unsubsidized costs
- Designed to address buyer-side market power and conditioned state support that can result in uneconomic price suppression

Buyer-Side Market Power:

- Ability of market participant(s) with a load interest to suppress market clearing prices for the overall benefit of their portfolio
- Requires ability and incentive

Conditioned State Support:

- Out-of-market payments conditioned on a resource clearing in any PJM capacity auction
- May improperly interfere with bidding in PJM's capacity market and FERC's rate-making authority

PJM Minimum Offer Pricing Rule Timeline

December 2019

FERC signs
“Expanded MOPR.”

April 2021

Chairman Glick states PJM must reform MOPR by Dec ‘21 auctions or FERC could/would require action under 206 filing.

June 30, 2021

PJM Members vote on nine different MOPR reform proposals.
PJM’s proposal receives the highest sector-weighted vote tally of each sector.

July 30, 2021

PJM updates MOPR filing and reverts to pre-Dec ‘19 MOPR requirements.

Feb–April 2021:

PJM hosts four workshops to receive feedback from stakeholders including states and consumer advocates about next steps for MOPR proposal.

April–June 2021

PJM launches process to receive input and propose changes to the MOPR rule.
Between April and June PJM hosts seven meetings to hear from stakeholders.

Sept 28, 2021

Estimated implementation date of PJM proposal.



Now you know in PJM in particular, and throughout the other RTOs as well that use MOPR-type programs, it's becoming increasingly apparent that these programs are not sustainable, in large part because again, we're not focusing on accommodating the states, which I think we need to do. Instead of attacking, we're trying to block the state programs, the energy programs.

I think we have an obligation under the Federal Power Act to act where rates and terms of these markets are unjust and unreasonable. In my opinion, as I've said several times before, they are, and certainly in PJM.

And so if for whatever reason PJM and the stakeholders aren't able to act, in my opinion ***I think we need to do it for them.***





Position of Organization of PJM States, Inc. (OPSI)

OPSI recommends four core principles to guide discussion about the evolution of market design in the PJM region, including:

- 1 State procurements or competitive solicitations, policy choices, emissions levels, or clean energy requirements must be respected and accommodated, rather than overridden or made infeasible by PJM market rules.
- 2 States should have the option of specifying the clean energy, emission levels, or other content of their own resource mix, in whole or in part, which the PJM market would then account for or procure on a competitive, least-cost basis, consistent with reliability.
- 3 Because states retain primary authority for resource adequacy under the Federal Power Act, any re-imagined resource adequacy solution must continue to allow states the option of meeting resource adequacy through a mechanism independently, similar to the current Fixed Resource Requirement.
- 4 Effective and appropriate market power mitigation is imperative for a properly functioning market design and for PJM-administered markets generally.

States in Support

- DE PSC
- MI PSC
- TN PUC
- PSC of D.C.
- NJ BPU
- VA SCC
- IN URC
- NC UC
- PSC of WV
- KY PSC
- PUC of OH
- MD PSC
- PA PUC


This letter was adopted on Dec. 17, 2020, by the OPSI Board of Directors.



MOPR PJM Member Voting Analysis

CIFP-MOPR June 30, 2021, Members Committee Voting Results

Sector	PROPOSAL SPONSOR								
	PJM	LS Power	Calpine	E-Cubed	Exelon	PSEG	IMM	AMP	DE DPA
End-Use Customer	1.00	0.18	0.06	0.27	0.31	0.00	0.65	0.80	1.00
Transmission Owner	0.90	0.00	0.00	0.00	0.78	0.30	0.11	0.44	0.33
Generation Owner	0.54	0.13	0.22	0.24	0.40	0.12	0.15	0.48	0.31
Electric Distributor	1.00	0.00	0.00	0.10	0.00	0.03	0.07	0.97	0.87
Other Supplier	0.74	0.12	0.16	0.25	0.33	0.24	0.11	0.56	0.47
Total	4.18	0.43	0.44	0.87	1.82	0.68	1.08	3.25	2.98

 Represents the top vote-getter in each sector

At a High Level, the PJM Board's Filing:

- Accommodates state policy and self-supply business models
- Avoids the costs of double-procurement by load
- Addresses actual exercises of buyer-side market power, and reflects the fundamentals of supply

Risks of Status Quo:

- States order withdrawal from the capacity market, which:
 - would reduce the benefit of regional scale
 - would serve to penalize further competitive generators/markets
- FERC effectively designs a solution themselves using their 206 authority
- Future capacity auctions may be delayed, and uncertainty creates additional issues for competitive generators



The Board and PJM remain very supportive of competitive markets. PJM operates some of the leading wholesale power markets in the nation. The capacity market in particular has delivered significant benefits to consumers in Pennsylvania and throughout the PJM footprint...

In our April 6 letter initiating the CIFP process, *we expressly identified “embracing competitive principles and sending appropriate price signals for efficient entry and exit”* as a key principle in designing any capacity market reforms.





There is no question that the increased deployment of highly efficient natural gas combined cycle generating units in the PJM region underscore the increasing interdependency of the electric system and natural gas production and delivery systems.

In our region, natural gas is a highly reliable abundant fuel source. The PJM region also contains an abundance of natural gas storage fields and a rich and diverse set of natural gas pipelines delivering natural gas from the Marcellus and Utica shale gas regions to generation facilities throughout the PJM region.

All of these factors have led to a ***significant increase in development of new highly efficient natural gas combined cycle units.***



Following the filing of the MOPR proposal, the PJM Board asked stakeholders to undertake additional capacity market topics including:

- Evaluating the appropriate level of capacity procurement
- Examining the need to strengthen the qualification and performance requirements on capacity resources
- Considering clean capacity/energy auctions as an option to allow for procurement of clean resources
- Evaluating the need of additional reliability based services, in the face of the changing resource portfolio and increased penetration of intermittent resources
- Other stakeholder-proposed items as identified through scoping discussions

PJM will continue to partner with Pennsylvania to maintain world-class system reliability and effective markets as our industry evolves

- Reliability Is Job #1
- PJM Remains Committed to Market-Based Solutions
- MOPR Reform Is in FERC's Hands
- PJM Asks for the Commonwealth's Partnership as We Enter Phase 2 of Capacity Market Discussions

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