

PJM Annual Meeting

Public Interest Environmental Organization Users Group (PIEOUG)

May 18, 2022

Consumer Advocates of the PJM States (CAPS) Presentation

The 16 Member Offices of CAPS

Delaware Division of the Public Advocate

District of Columbia Office of the People's Counsel

Illinois (1)Citizens Utility Board

(2)Office of the IL AG (Public Utilities Bureau)

Indiana Office of Utility Consumer Counselor

Kentucky Office of Rate Intervention

Maryland Office of People's Counsel

Michigan Department of Attorney General

New Jersey Division of Rate Counsel

North Carolina (1)Office of Attorney General, Utilities Section

(2) Public Staff - North Carolina Utilities Comm.

Ohio Office of the Ohio Consumers' Counsel

Pennsylvania Office of the Consumer Advocate

Tennessee Office of the Tennessee Attorney General -

Consumer Advocate & Protection Division

Virginia Office of the Attorney General - Division of

Consumer Counsel

West Virginia Consumer Advocate Division

Goals

- 1. Establishing reliability throughout the region at the most cost-effective prices.
- 2. Use our resources to provide awareness and improve our contributions to the stakeholder process.
- 3. Continue to expand dialogue with both demand and supply interests to seek consensus.

Thank You!

We thank the Board and PJM Staff for:

- Helping 65 million retail customers have a voice in the PJM stakeholder process; and
- Maintaining well-functioning operations during the unprecedented pandemic.

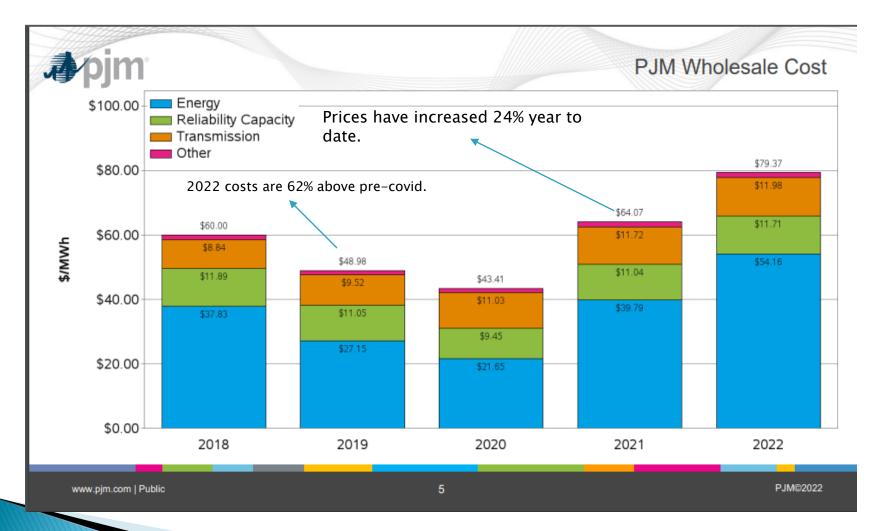
Priorities for PJM should remain

Keeping the lights on;

 Identifying the most efficient and cost-efficient improvements to the grid; and

Independence

Reasonable Prices - Our Perennial Concern



https://www.pjm.ea. /-/media/committees-groups/committees/mc/2022/20220425/20220425-item-06a-market-operations-reports

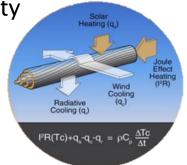
Transmission

Consumers are looking for PJM to be a leader in creating the grid of the future, yet, have concerns about the level of oversight and rising costs

Transmission Line Ratings

 maximum permitted electric energy transfer capability of each transmission line

 Used by RTOs in their market models to establish commitment and dispatch



- "transmission line ratings and the rules by which they are established are practices that directly affect the cost of wholesale energy, capacity, and ancillary services, as well as the cost of delivering wholesale energy to transmission customers." Docket No. RM20-16-000; Order No. 881
 - inaccurate transmission line ratings fail to reflect the true cost of delivering wholesale energy to transmission customers
 - As transfer capability declines, wholesale rates increase.
 - may result in Commission-jurisdictional rates that are unjust and unreasonable.

Dynamic Line Ratings (DLR)

- *DLR is a blanket term for the many different technologies and methodologies for determining conductor thermal ratings in a more-dynamic fashion using improved, more granular, or realtime data." *U.S. Department of Energy Report to Congress*, Dynamic Line Ratings, June 2019
- Beneficial because, ratings that reflect actual conditions:
 - Increase system transfer capability
 - Improved Congestion Management
 - Increased Reliability and Resilience
 - The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018, by FERC and NERC Staff Report July 2019
 - Southern Company dynamically rated the lines by applying temperature adjusted limits that were based on the facilities' ratings which effectively raised System Operating Limits thereby allowing more power to reliably flow
 - Lower Costs to Consumers
- FERC Definition of DLR:
 - (1) applies to a time period of not greater than one hour; and
 - (2) reflects up-to-date forecasts of inputs such as (but not limited to) ambient air temperature, wind, solar heating intensity, transmission line tension, or transmission line sag, and
 - (3) is calculated at least each hour, if not more frequently.

Implementation Costs

- DLR implementation costs to transmission owners may outweigh the benefits in some circumstances
 - Early estimates across the country:
 - RTO-wide application could cost up to \$1.5 billion
 - \$1 million per line for DLRs
 - an additional \$100,000-\$500,000 annually due to increased SCADA communications
 - PJM proposed that RTOs/ISOs could rank the most congested transmission lines
 - · test impact of DLR implementation, and
 - DLRs should only be used on the most congested transmission lines.

Transparency

- "the current level of transparency into transmission line ratings and methodologies may result in unjust and unreasonable wholesale rates."
- "current transparency levels prevent the transmission provider and market monitor(s) from having the opportunity to assess the accuracy of transmission line ratings."
- "without accurate transmission line rating information, market participants operate without information that is important in making accurate economic decisions regarding where to build generation or where to site load"
- The Commission is currently asking what transparency measures should be required for DLR.

Limited Scope of Discussion at PJM

Vote on Issue Charge at the Operating Committee severely limited scope of DLR deployment.

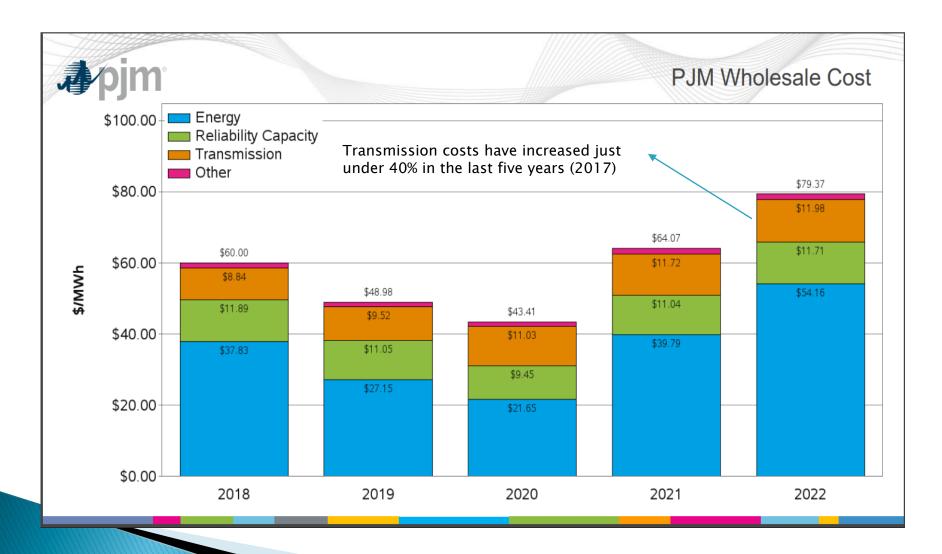
Modifications to the Operating Agreement, Tariff or Manuals that would infringe upon the terms of the Consolidated Transmission Owners Agreement. This would include requiring Transmission Owners to install and/or implement DLR, modifying the Transmission Owners'

authority to determine transmission line rating methodologies, and calculate transmission line ratings.

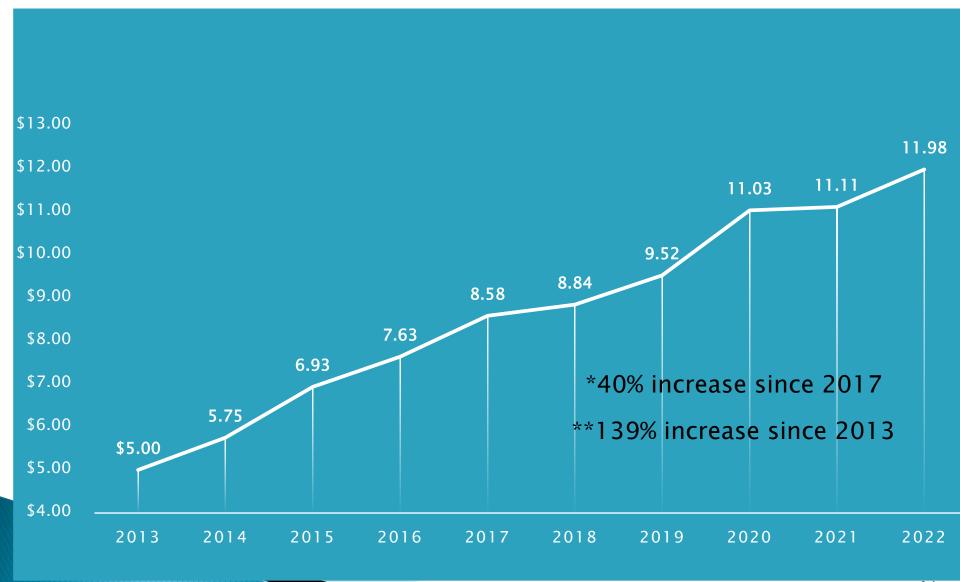
Compliance with Order No. 881. To avoid any doubt, this initiative is not in furtherance of compliance efforts with Order No. 881.

- Because the potential benefits are so great, the burden should be on TO's to show why DLR savings will not outweigh costs.
- Methodology should be transparent and involve input from IMM and NERC Standards
- DLR technology should be subject to minimum standards set by PJM

A Snapshot of Wholesale Transmission Costs



The Rise of Wholesale Transmission Costs over the years



From a Consumer Perspective

Consumer participation in the PJM stakeholder process

Slide purposely blank

Consumer Advocates will provide perspectives

Understanding the Influence of Consumers in PJM voting matters:

- Sr. level ("voting members" or "sector weighted voting")
 - Five Sectors: Transmission Owners, Electric Distributors, Generation Owners, Other Suppliers and End-Use

Overall Voting Influence by Level	Senior Level	Standing Committee Level
Consumer Advocates	6%	1.4%
EUC Sector (Industrial customers + Consumer Advocates)	20%	4.09%
Load (EUC+Public Power)	~40%	8.4%

- Standing Committee level:
 - 1028 overall voting, affiliate and ex officio votes
 - Consumer influence drops more every year at the lower levels with sector challenges and as membership grows.

Markets

89 FERC ¶ 61,285

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 35

[Docket No. RM99-2-000; Order No. 2000]

Regional Transmission Organizations

(Issued December 20, 1999)

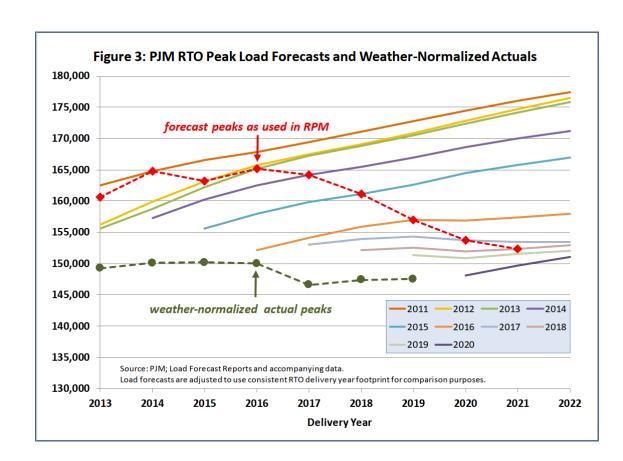
The Basic Independence Principle

In the NOPR, the Commission reiterated its earlier statement that "the principle of independence is the bedrock upon which the ISO must be built" and that this standard

James F. Wilson

Wilson Energy Economics

February 2020



Fifth Review of the Variable Resource Requirement Curve

PRELIMINARY ASSESSMENT OF THE VRR CURVE SHAPE

DECEMBER 8, 2021



OVERVIEW

Preliminary/directional recommendations

Eliminate upward bias in the load forecast



Energy Price Formation Senior Task Force Charter

<u>Mission</u>

The Markets and Reliability Committee (MRC) approved the creation of the Energy Price Formation Senior Task Force to evaluate proposals to enhance energy market and reserve market pricing.

Forbes

ENERG

Texas Ratepayers Are Being Saddled With Nearly \$38 Billion In Excess Energy Costs From Winter Storm Uri

Robert Bryce Contributor ○

I write about energy, power, innovation, and politics.

Listen to article 8 minutes





On February 16th, the Texas Public Utility Commission issued a now-infamous order that wholesale electricity prices in the state should be set at \$9,000 per megawatt-hour. The claim was that the high price was needed to incentivize electricity production during the week that Winter Storm Uri was hammering the state and millions of Texans were blacked out due to a shortage of juice. The order declared that such a high price was needed because "energy prices should reflect scarcity of supply."

That's exactly what happened: energy prices skyrocketed. Now, as the dust is settling and the Texas Legislature has adjourned after passing several bills that

"On February 16th, the Texas Public Utility Commission issued a nowinfamous order that wholesale electricity prices in the state should be set at \$9,000 per megawatt-hour....

The claim was that the high price was needed to incentivize electricity production during the week [of] Winter Storm Uri... Texas ratepayers will ultimately be saddled with about \$37.7 billion in excess energy costs."

Contact Information

Greg Poulos, Executive Director, CAPS

Phone: 614-507-7377

E-mail: poulos@pjm-advocates.org

Appendix

What is CAPS?

Who We Are

Established in 2013, Consumer Advocates of the PJM States, Inc., (CAPS) is a nonprofit organization whose members represent over 61-million consumers in the 13 PJM states and the District of Columbia. Regulatory rules vary greatly across our jurisdictions, but in each the electricity costs paid by consumers is at least partly determined by the tariff and rules under which PJM operates. PJM and its stakeholders set those rules and CAPS' engagement is necessary to ensure that consumers' voices are heard.

Mission

Our mission is to actively engage in the PJM stakeholder process and at the Federal Energy Regulatory Commission to ensure that the prices we pay for reliable, wholesale electric service are reasonable.