

Board of Managers Meeting Minutes

August 5, 2024

A multiple-day virtual meeting of the PJM Interconnection, L.L.C. (PJM) Board of Managers (Board) was convened via Teams at approximately 11 a.m. on Monday, August 5, 2024.

The following Board members were present constituting a quorum:

- Manu Asthana, President and Chief Executive Officer (ex officio)
- Mark Takahashi, Chair
- Terry Blackwell
- Paula Conboy
- Jeanine Johnson
- Margo Loebel
- David Mills
- Dean Oskvig
- Charles Robinson
- Vickie VanZandt

Present for the meeting, or a portion of the meeting, were the following PJM personnel:

- Donnie Bielak, Director, Interconnection Planning
- Stu Bresler, Executive Vice President, Market Services and Strategy
- Mike Bryson, Sr. Vice President – Operations
- Joe Callis, Manager – Cyber Security Operations Center
- Carl Coscia, Vice President, Chief Risk Officer
- Lisa Drauschak, Sr. Vice President, Chief Financial Officer and Treasurer
- Craig Glazer, Vice President, Federal Government Policy
- Jim Gluck, Sr. Director – Enterprise Information Security
- Asim Haque, Sr. Vice President – Governmental & Member Services
- Brad Harris, Principal Business Continuity Consultant
- Scott Heffentrager, Executive Director, Physical Security, BCP & Facility Services
- Colleen Hicks, Managing Counsel
- Tim Horger, Sr. Director, Forward Market Operations & Performance Compliance
- Adam Keech, Vice President – Market Design & Economics
- Aftab Khan, Executive Vice President, Operations, Planning & Security
- Steve McElwee, Vice President, Chief Security Officer

- Paul McGlynn, Vice President – Planning
- Tom O'Brien, Sr. Vice President, Chief Information Officer
- Chris O'Hara, Sr. Vice President, General Counsel
- Ricardo Rodriguez, Executive Director – Internal Audit
- Lisa Salmon, Executive Assistant to the President & PJM Board
- Nora Swimm, Sr. Vice President – Corporate Client Services
- Stan Turtle, Sr. Physical Security Lead

Present for a portion of the meeting were the following non-PJM personnel:

- Brett Leatherman, Deputy Assistant Director, Cyber Operations Branch and Director, National Cyber Investigative Joint Task Force, Federal Bureau of Investigation

Strategy Session

- Stu Bresler introduced the strategy topics included in the Board materials, which included the Base Residual Auction (BRA) results and potential supply and demand conditions, large colocated load additions, interconnection queue enhancements, and necessary market enhancements.
- Paul McGlynn reviewed the Board materials with respect to resource adequacy projections including the BRA results. McGlynn reviewed how the BRA results projected unchanged capacity, which could result in certain generating units remaining at economic risk and the postponement of generating unit retirements.
- Tim Horger discussed the Board materials with respect to large colocated load additions. Horger discussed the differences in interconnection between network load and colocated load, the impact of the artificial intelligence and data centers, and the upcoming FERC technical conference on colocated loads.
- Manu Asthana discussed the potential pace and acceleration of the adoption of colocated loads and concerns regarding the payment for grid services used by colocated loads.
- Craig Glazer discussed the siting of colocated loads in PJM, principally for the availability of colocated generation assets and the regulatory concerns regarding behind-the-meter (BTM) load.

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- Bresler provided an overview of various stakeholder positions with respect to colocated load additions and the factors influencing the stakeholder positions.
- McGlynn introduced Donnie Bielak who reviewed the Board materials related to interconnection queue requests. Bielak reviewed the current status quo of the interconnection queue, projects that exited the queue, finance considerations, and alternative approaches to interconnection including the State Agreement Approach.
- Asim Haque discussed state regulatory feedback received regarding PJM's interconnection process.
- Adam Keech led a discussion on two high-priority market enhancements – reserve market enhancements and the review of Reliability Price Model (RPM) market parameters for the upcoming Quadrennial Review (QR).

- Keech discussed that reserve market reforms are necessary to align PJM's operational needs for reserves with the market and to establish transparent market-clearing prices that reflect the operating state of the grid. Keech further discussed that the efforts are underway in the stakeholder process but progressing slowly.
- Keech further discussed the need to align capacity market revenues with levels necessary to incentivize resources necessary to maintain resource adequacy. Keech discussed that current capacity revenues are indexed to the cost to build a combined cycle, and it is not clear that this will attract investors to build additional resources. Keech discussed PJM's plan to develop a new reference resource to send adequate price signals to attract new investment. Keech discussed the need for accelerated timing to develop parameters of the QR.

Keech indicated that independent Board action may be required to achieve these enhancements, as stakeholder consensus may not be achievable and if so, within the necessary time frame.

The meeting recessed at 1:37 p.m.

The meeting resumed at 2 p.m. Joe Callis, Jim Gluck, Scott Heffentrager, Brett Leatherman and Stan Turtle joined the meeting.

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The meeting adjourned on August 5, 2024, at 3 p.m.

August 7, 2024

The virtual Board meeting reconvened (Via Teams) at approximately 1:30 p.m. on August 7, 2024.

The following Board members were present constituting a quorum:

- Manu Asthana, President and Chief Executive Officer (ex officio)
- Mark Takahashi, Chair
- Terry Blackwell
- Paula Conboy
- Jeanine Johnson
- Margo Loebel
- David Mills
- Dean Oskvig
- Charles Robinson
- Vickie VanZandt

Present for the meeting, or a portion of the meeting, were the following PJM personnel:

- Foluso Afelumo, Sr. Director, IT Operations & Data Solutions
- Stu Bresler, Executive Vice President, Market Services and Strategy
- Mike Bryson, Sr. Vice President – Operations
- Susan Buehler, Chief Communications Officer
- Angela Cabezas, Manager – Corporate Goals & Business Planning
- Joe Callis, Manager – Cyber Security Operations Center
- Carl Coscia, Vice President, Chief Risk Officer
- Michael Coyle, Chief Diversity, Equity & Inclusion Officer
- Lisa Drauschak, Sr. Vice President, CFO and Treasurer
- Craig Glazer, Vice President, Federal Government Policy
- Asim Haque, Sr. Vice President – Governmental & Member Services
- Brad Harris, Principal Business Continuity Consultant
- Scott Heffentrager, Executive Director, Physical Security, BCP & Facility Services
- Colleen Hicks, Managing Counsel
- Adam Keech, Vice President – Market Design & Economics
- Gwen Kelly, Sr. Director – Credit Risk & Collateral Management
- Aftab Khan, Executive Vice President, Operations, Planning & Security
- Steve Lawson, Assistant Treasurer
- Kathy McElwaine, Corporate Insurance Manager – Risk Management

- Steve McElwee, Vice President, Chief Security Officer
- Paul McGlynn, Vice President – Planning
- Tom O'Brien, Sr. Vice President, Chief Information Officer
- Chris O'Hara, Sr. Vice President, General Counsel
- Ricardo Rodriguez, Executive Director – Internal Audit
- Lisa Salmon, Executive Assistant to the President & PJM Board
- Nora Swimm, Sr. Vice President – Corporate Client Services
- Jen Tribulski, Executive Director, Member Services
- Stan Turtle, Sr. Physical Security Lead

Cybersecurity Drill

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Susan Buehler, Joe Callis, Brad Harris, Heffentrager, Gwen Kelly, Steve Lawson, Kathy McElwaine, Jen Tribulski and Stan Turtle exited the meeting. The meeting recessed at 2:38 p.m.

The meeting reconvened at 3:30 pm. Foluso Afelumo, Angela Cabezas and Michael Coyle joined.

Security/Diversity Moment

- Michael Coyle introduced Afelumo and Cabezas, who provided security and diversity moments, respectively.

Afelumo, Cabezas and Coyle exited the meeting at 3:51 p.m.

Administration

Upon a motion duly made and seconded, the Board unanimously approved the minutes (including public versions) of its May 10, 2024, May 20, 2024, May 23, 2024, and July 16, 2024, meetings.

Preliminary PJM 2025 Annual Budget Targets

- Lisa Drauschak reviewed the 2025 PJM preliminary budget targets, including net operating expenses, capital budget projections, changes from the 2024 operating expense forecast and key areas of investment.
- Drauschak further reviewed a comparison of PJM's budget to the other RTO/ISO budgets.
- Manu Asthana discussed PJM's complexity and factors adding to the complexity, including regulatory drivers, stakeholder engagement and compliance risk.

Energy Efficiency

- Stu Bresler reviewed the Energy Efficiency (EE) enhancement materials included in the Board materials.

- Bresler discussed current issues with EE, including the recent FERC complaints regarding EE, compliance risk, credit risk and an ongoing FERC investigation of a Market Participant active in PJM's RPM Market.
- Bresler discussed EE's historical participation in PJM's capacity market and the current EE solution options in the ongoing stakeholder proceedings.
- Bresler reviewed the options for an EE path forward included in the Board materials. PJM management will return to the Board with a proposal after further stakeholder votes and additional information is available from utilities and state commissions.

Paula Conboy left the meeting at 4:50 p.m.

Competitive Markets Committee (CMC) Report

- David Mills reported on the CMC meeting held on August 6, 2024, and the materials included therein.
 - The CMC reviewed and endorsed a proposed revision to the 2024 Advanced Market Reform corporate goal to redirect resources from the development of the market design construct for future capacity market reforms to working with a selected vendor to produce an internal draft report to support the development of the reference resource for the Quadrennial Review. PJM's preparations for the Quadrennial Review include a review of the reference technology, cost to construct, the methodology for calculating energy and ancillary services, and the shape of the demand curve. Mills requested that the Board endorse the proposal to reallocate resources to work on the Quadrennial Review.

Upon the request of Mills, the Board, by acclamation, approved a change to the 2024 Advanced Market Reform corporate goal to eliminate the development of the market design construct for future capacity market reforms and to add working with the selected vendor to produce an internal draft report to support the development of the reference resource for the Quadrennial Review by Q4 2024.

- Mills reported that the CMC received reports on:
 - The 2025/2026 Base Residual Auction (BRA) results and the timeline for the 2026/2027 BRA,
 - The Gas-Electric Coordination efforts including:
 - The growth of natural gas use as a fuel source in PJM and associated risks,
 - PJM's preparations for cold weather operations and related operational risks,
 - The RTO Gas-Electric White Paper published in February 2024 by PJM, ISO-NE, MISO and SPP,
 - Stakeholder efforts, including the Reserve Certainty Senior Task Force (RCSTF) and the Electric Gas Senior Task Force (EGCSTF), and
 - Energy Efficiency stakeholder efforts in the Markets Implementation Committee.

Mills further reported that the CMC had a joint meeting with PJM and the Independent Market Monitor (IMM) to discuss perspectives on market enhancements targeted at better aligning market results and reliability needs to limit the use of Reliability Must-Run (RMR) contracts.

Reliability & Security Committee (RSC) Report

Terry Blackwell reported on the RSC meeting held on August 6, 2024, and the materials covered therein.

- The RSC reviewed and endorsed changes to:
 - The status of the 2024 Regional Transmission Expansion Plan (RTEP), including new reliability baseline upgrades, baseline project scope changes and baseline project cancellations, and
 - Recommendations for Installed Reserve Margin for the Forecast Pool Requirements for the upcoming 2026/2027 Delivery Year.

Upon a motion duly made and seconded, the Board unanimously endorsed the proposed resolution approving the additions and changes to the 2023 RTEP resulting in an overall net increase of approximately \$618.06 million, and associated cost allocations in accordance with the Tariff, Schedule 12, as such may be modified by the Federal Energy Regulatory Commission (FERC) (Attachment A).

Upon a motion duly made and seconded, the Board unanimously endorsed the proposed resolution approving the Installed Reserve Margin used to establish the Forecast Pool Requirement for the 2026/2027 Delivery Year as follows: Installed Reserve Margin of 18.6% and Forecast Pool Requirement of 0.9367 (Attachment B).

- Blackwell further reported that the RSC received reports on:
 - PJM security threats, security budget, cybersecurity metrics and performance and received a cybersecurity update from the IMM,
 - The status of PJM's interconnection queue and interregional coordination,
 - The plan for a midyear load forecast update to the annual 15-year load forecast,
 - PJM Operations, including geomagnetic disturbances, peak loads and generator deactivations,
 - PJM's Compliance Program, including NERC-approved cold weather standards,
 - Transmission Owner (TO) funding of Network Upgrades and the recent issuance of a FERC Order to Show Cause related to a TO having the right to unilaterally elect to self-fund the capital cost of network upgrades,
 - PJM Consolidated Transmission Owners Agreement (CTOA) filings and the responses to the filings,
 - FERC Order No. 1977 related to FERC's exercise of siting authority over transmission projects within the National Interest Electric Transmission Corridors,
 - Capacity obligations for forecasted large load adjustments (COLA), Reserve Certainty and Resource Flexibility Incentives and efforts to enhance Capacity Interconnection Rights (CIR) Transfer Efficiency, and
 - Proposed education on AI strategy during the next Board meeting.
- Blackwell further reported that the RSC reviewed the cybersecurity dashboard, PJM drills for GridX, and implications from the CrowdStrike software issue and potential impacts to PJM.

Regulatory Committee (RC) Report

In the interest of time, Conboy indicated that the report on the RC meeting held on August 5, 2024, would be provided through the minutes and the materials of that meeting.

- The minutes note that the RC received reports on:
 - FERC Order No. 1920, FERC’s new long-term regional transmission planning and cost allocation rule,
 - Recent U.S. Supreme Court decisions, including *Loper Bright Enterprises v. Raimondo*, which overturned the *Chevron* doctrine, which provided deference to an agency’s interpretation of federal legislation,
 - Potential impacts of the upcoming 2024 elections, and
 - A recent FERC order affirming PJM’s ability to deny membership to a potential PJM applicant.

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Executive Session

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Closed Session

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The Board adjourned at approximately 7 p.m.

Respectfully submitted,

Colleen Hicks
Assistant Secretary

Resolution for the Meeting of the Board of Managers

August 7, 2024

2023 Regional Transmission Expansion Plan

WHEREAS, Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., Schedule 6, section 1.6 (a) provides that the PJM Board of Managers shall approve additions and changes to the Regional Transmission Expansion Plan (RTEP), in accordance with the requirements of Operating Agreement, Schedule 6 and cost allocations for transmission enhancements and expansions consistent with PJM Open Access Transmission Tariff, Schedule 12 (Tariff, Schedule 12);

WHEREAS, the Transmission Expansion Advisory Committee (TEAC) has reviewed and been provided the opportunity to comment on the elements of the changes to the 2023 RTEP; and

WHEREAS, the Board of Managers has reviewed the RTEP material developed by PJM in consultation with the TEAC, including the proposed transmission expansions and enhancements and cost allocations related to the proposed additions and changes to the 2023 RTEP, and the recommendations of the Board of Managers Reliability and Security Committee.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Managers hereby approves the additions and changes to the 2023 RTEP resulting in an overall net increase of approximately \$618.06 million, and associated cost allocations in accordance with Tariff, Schedule 12, as such may be modified by the Federal Energy Regulatory Commission (FERC), resulting from:

- (a) New baseline projects totaling approximately \$447.51 million comprised of: PJM reliability criteria enhancements totaling approximately \$303.23 million, operational performance enhancements totaling approximately \$60.95 million, and transmission owner FERC Form 715 planning criteria enhancements totaling approximately \$83.33 million;
- (b) Scope and cost changes to two (2) existing approved RTEP baseline projects totaling approximately a \$194 million net increase;
- (c) Cancellation of three (3) existing approved RTEP baseline projects totaling approximately a \$23.45 million net decrease;

The Board of Managers further directs PJM to file with the FERC under Federal Power Act section 205, within 30 days of the date of this approval, the cost allocations for each approved RTEP baseline project as required pursuant to the PJM Tariff, Schedule 12, section (b)(viii).

Resolution for the Meeting of the Board of Managers

August 7, 2024

Installed Reserve Margin

WHEREAS, Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Schedule 4, section B, provides that the PJM Board of Managers (Board) is responsible for annually establishing the Forecast Pool Requirement (FPR), including the PJM Region Installed Reserve Margin, no later than 75 days in advance of each Base Residual Auction for a Delivery Year based on the projections described in Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Schedule 4, section C, and after consideration of the recommendation of the Members Committee;

WHEREAS, Reliability Assurance Agreement among Load Serving Entities in the PJM Region, Schedule 4.1, also provides that the Board is responsible for annually establishing the Forecast Pool Requirement based on the Board-approved Installed Reserve Margins;

WHEREAS, PJM has developed the proposed Installed Reserve Margin and Forecast Pool Requirement for the 2026/2027 Delivery Year;

WHEREAS, the Members Committee has reviewed the proposed Installed Reserve Margins and Forecast Pool Requirements and endorsed by acclamation with 0 objections and 0 abstentions; and

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby approves the Installed Reserve Margin used to establish the Forecast Pool Requirement for the 2026/2027 Delivery Year, as follows:

Delivery Year: 2026/2027

- Installed Reserve Margin = 18.6%
- Forecast Pool Requirement = 0.9367