



Overarching Philosophy

- Objectives:**
- Foster stakeholder and regulator confidence
 - Ensure stakeholders have sufficient information to:
 - participate more fully in the PJM stakeholder process;
 - make informed decisions about PJM matters; and
 - evaluate and analyze the impact of RTO operations on their interests.

Guiding Principle:

PJM will strive to provide relevant data and information to stakeholders to the extent practicable, recognizing that certain data and/or information may not be disclosed due to the following concerns:

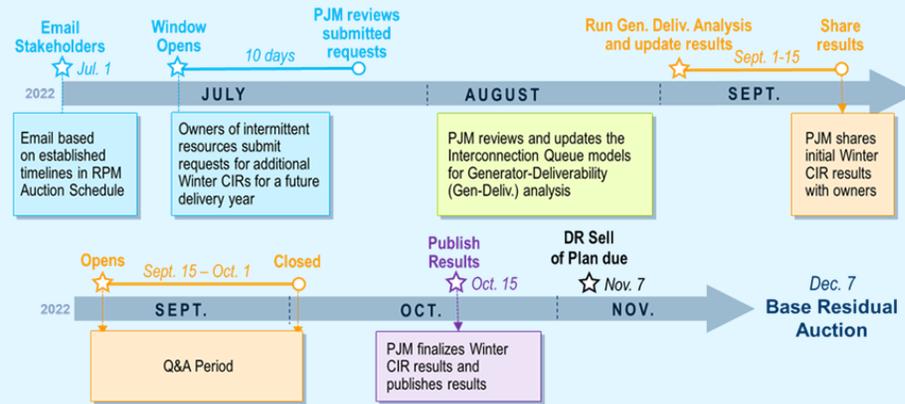
 Maintain Independence	 Respect Confidential and Market Sensitive data/Information	 Respect Privileged information	 Availability of data or information
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RESPONSE

PJM worked with specific customers who have raised the concern.

A process flow and timeline with actions, responsible parties, touchpoints and expected deliverables was created for the 2024/25 Winter CIR Study.

Process Flow & Timeline for 2024 Study



Winter CIR study result postings to align with DR Pre-Registration in RPM auction schedule: PJM should avoid confusion by establishing a formal date in the auction schedule that is consistent with the DR Pre-Registration window date, if not earlier.

PJM issued the Winter CIR requests solicitation email on July 1, 2022 which included a high-level timeline schedule for the study (shown at left). With this email and timeline, PJM is communicating the following to the Winter CIR customers:

- Specific open window period for Winter CIR requests
- Model build and study activity period
- Period for PJM to share preliminary results with customers
- Q&A period between customer and analysis group
- Timeline ensures that PJM finalizes Winter CIR study results and publishes them prior to the DR Sell Offer Plan in time for BRA

PJM held several check-in and status update meetings with the requestor in 2022; the latest was on Aug. 8. In these meetings, PJM shared communication improvements and study timelines.

Similar communication will be provided for future Winter CIR study periods.

	RESPONSE
<p>Publish annually a report that details supply and demand assumptions for PJM RTO <i>(i.e., ERCOT's CDR, ISO-NE's CELT Report or NYISO's Gold Book).</i></p>	<p>Much, if not all, of the data provided in other RTO reports is published in various PJM reports including the PJM Load Forecast Report, the Reliability Requirement (or IRM) Study, the EIA-411 and the OATF Seasonal Assessments published prior to each summer and winter season.</p> <p>A listing of all PJM generators and their ratings is posted as part of the RPM Auction information.</p> <p>PJM also posts a projected reserve margin graph on the PJM website.</p> <p>As this data is updated at different times, PJM provides the most current information to stakeholders in the relevant reports throughout the year (rather than in one consolidated report that would not necessarily be current).</p>
<p>Operational data: We identify the following gaps in PJM data that we would like to be shared – notification when a new (unlisted) contingency binds.</p> <p><i>Market participants in our sector have highlighted data types that are not available today and would increase transparency and competition in PJM. Some other ISOs/RTOs provide data publicly or behind a secure area accessible only by market participants.</i></p>	<p>Changes to post the contingency file more frequently are being evaluated.</p>
<p>Capacity market pricing outcomes and retirements: Price transparency at the resource level post-auction and provide increased transparency on unit retirements.</p>	<p>Publication of the requested information is not permitted under Manual 33 and Operating Agreement section 18.17 rules. If members wish to evaluate changes to those rules, then a problem statement and issue charge should be brought forward, so all sectors can engage in that discussion.</p>

RESPONSE

Operational data: We identify the following gaps in PJM data that we would like to be shared – More transparency on non-branch/transformer constraints (e.g., circuit breakers).

Market participants in our sector have highlighted data types that are not available today and would increase transparency and competition in PJM. Some other ISOs/RTOs provide data publicly or behind a secure area accessible only by market participants.



PJM posts circuit breaker constraints in the same manner as branch and transformer constraints.

[DA constraints](#) | [RT constraints](#)

Operational data: We identify the following gaps in PJM data that we would like to be shared – earlier publications of the previous day's real-time congestion reports.

Market participants in our sector have highlighted data types that are not available today and would increase transparency and competition in PJM. Some other ISOs/RTOs provide data publicly or behind a secure area accessible only by market participants.



RT constraints are already posted as they bind.

.....
The data requested is made available upon LMP verification; verified data could not be made available earlier.
.....

This could only be done with a disclaimer that the data is preliminary.

.....
It does not seem that the effort for this is warranted, as only preliminary data could be posted earlier, and it is available as final next day anyway.
.....

More specifics on exactly what congestion data is being requested have been sought from the requestor but have not been received.

RESPONSE

Operational data: We identify the following gaps in PJM data that we would like to be shared – post alternatively produced wind/solar/load forecasts by zone in addition to the operator selected forecast

Market participants in our sector have highlighted data types that are not available today and would increase transparency and competition in PJM. Some other ISOs/RTOs provide data publicly or behind a secure area accessible only by market participants.



The forecast is an ensemble of approximately a dozen different “sub-forecasts” produced, which may or may not be adjusted for the DA and current day. There is only one wind and one solar forecast used in the ensemble forecast.

The nature of the available data and the enormous amount that is requested make this request impractical.

Related, useful information may be found at the following links:

[7-Day posted hourly](#) | [Data Dictionary – "Forecast"](#)

Education on forecasting methodologies has been provided at the Operating Committee:

<https://www.pjm.com/-/media/committees-groups/committees/oc/2020/20200109/20200109-item-11-load-forecasting-education.ashx>.

Operational data: We identify the following gaps in PJM data that we would like to be shared – wind/solar actual generation output by zone.

Market participants in our sector have highlighted data types that are not available today and would increase transparency and competition in PJM. Some other ISOs/RTOs provide data publicly or behind a secure area accessible only by market participants.



This data is already posted on zonal level at the following links:

https://dataminer2.pjm.com/feed/solar_gen/definition

https://dataminer2.pjm.com/feed/wind_gen/definition

Posting wind/solar data at this granularity may not be permitted by Operating Agreement section 18.17 and Manual 33 requirements.

Development of this new report, including coding and OA/M33 compliance verification would cost at least \$10,000, and PJM views it to be of limited value. That is because data at this granularity level could be posted only for zones where there are sufficient resources/owners within the zone to meet OA/M33 requirements. This could change on a daily basis – some zones could be shown, while others could not.

Stakeholders could alter OA/M33 rules for this specific exception if they wished, but it creates a discriminatory playing field where some generators would have their output known and others not.

If the participant/sector wishes to proceed, they may either request stakeholders to vote on whether they agree that it is a prudent expenditure or bring a problem statement/issue charge to alter the OA/M33 rules.

		RESPONSE
<p>Market interventions taken by PJM</p>		<p>PJM reviews all shortage (i.e. scarcity) pricing events that occur at the MC Webinar.</p> <p>.....</p> <p>PJM posts the actual reserves, dispatched reserves and reserve requirements for each interval.</p> <p>.....</p> <p>https://dataminer2.pjm.com/feed/off_cost_ops/definition</p> <p>https://dataminer2.pjm.com/feed/ops_init_commit/definition</p> <p>.....</p> <p>This is broad enough to be a case-by-case response vs. a blanket action.</p>
<p>Triggers for scarcity pricing</p>		<p>The rules for triggering Scarcity Pricing may be found at the following location: OA, Schedule 1, section 2.5.1: Declaration of Shortage Pricing.</p> <p>.....</p> <p>Real-Time Shortage Intervals can be queried in Data Miner 2 by selecting Ancillary Services then Dispatched Reserves. The Dispatched Reserves data set includes a Shortage Indicator flag to aid in narrowing the search.</p> <p>.....</p> <p>Additionally, all shortage events are reviewed in the Markets Report portion of the monthly Members Committee Webinar.</p>
<p>LAS-related weather data</p>		<p>This has been addressed previously through the Planning Committee and Load Analysis Subcommittee.</p> <p>.....</p> <p>PJM's contract with the vendor prohibits release of the data.</p> <p>.....</p> <p>The weather data we purchase from IHS is proprietary to IHS. However, there are numerous websites that make historical weather data available for free. One such website is https://www.wunderground.com/history.</p>

RESPONSE

Posting of data to promote market efficiency



There is no specific request made, rather a request to provide more data whenever possible.

PJM will review more specific requests when made.

The Market Data Working Group evaluated many types of postings and expanded the data available. This stakeholder process ran its course, until new requests could not be met due to OA section 18.17 and Manual 33 restrictions, or cost/impracticality of requests made them infeasible.

If members wish to evaluate changes to those rules, then a problem statement and issue charge should be brought forward, so all sectors can engage in that discussion.

We also suggested there be consideration as to whether an outside consultant could provide useful insight and information in detailing the data held in PJM's systems and in comparing its availability to other ISOs, RTOs and similar market structures.



PJM hired a consultant to undertake exactly this exercise in 2014. The analysis found that there were very few data sets available from other FERC jurisdictional RTOs/ISOs that were not available from PJM and that, on the whole, PJM had far more data available than any other RTO/ISO.

A high-level benchmark against ERCOT was performed in March 2021. The results confirmed the 2014 analysis. There are some data sets posted in ERCOT that are not permitted in PJM due to OA and Manual 33 requirements.

Furthermore, the Market Data Working Group evaluated data postings and expanded the data available. This stakeholder process ran its course, until new requests could not be met due to OA and Manual 33 restrictions, or cost or the impracticality of requests made them infeasible.

If members wish to evaluate changes to OA section 18.17 and/or Manual 33 rules, then a problem statement and issue charge should be brought forward, so all sectors can engage in that discussion.

		RESPONSE
<p>Post scheduled meeting dates of PJM Board, including meetings with OPSI, IMM and any others.</p>		<p>Starting with the December 2021 meeting, Board meeting dates, agendas and abbreviated minutes are available on a new pjm.com page under About PJM > Who We Are > Board of Managers > Board Meetings.</p> <hr/> <p>The IMM meets with the Board at every CMC meeting.</p> <p>OPSI meets with PJM Board twice a year.</p>
<p>Interconnection procedures: As PJM contemplates queue reforms, some sector members believe it is critical in 2022 that PJM clarify its interconnection procedures effectively in the Tariff, manuals and other documents.</p> <p><i>Currently, members of our sector have identified that these materials are highly inadequate to ensure consistent treatment. These practices are too important to leave to manager discretion. Everyone would benefit from clarity and transparency.</i></p>		<p>This was accomplished through the work of the Interconnection Process Reform Senior Task Force. The Members Committee endorsed the proposed Queue reform proposal in April 2022, as amended at the May 17, 2022 Members Committee meeting.</p>
<p>Post PJM organizational chart behind password-protected section of pjm.com.</p>		<p>PJM will post a high-level functional org chart semiannually on one of the About PJM pages, only visible to a user that is logged in on PJM.com.</p> <p>This chart will not include names (below VP level) or contact info. The posting will include caveat not to contact staff directly but use established hotlines.</p>

RESPONSE

FAQ and help desks: Adopting a CRM for interconnection managers could be a huge timesaving tool for PJM, while also improving response times to PJM members.

PJM staff spend significant time and resources responding to member questions. We are eternally grateful for their expertise. Knowing that PJM staff spend such time, we highlight that PJM may wish to continue to evolve its FAQ and CRM tools. In particular, interconnection managers rely on emails to maintain collaboration across dozens of projects. Often, members of our sector find that response times can be extremely slow and inconsistent.



This is not a transparency issue – it is a process and communication issue.

PJM resources have been actively engaged in reformation of the Interconnection Queue Process. PJM is evaluating implementation of a CRM tool for interconnection developers and expects to reach conclusion of its evaluation by end of Q1 2023. Implementation of any chosen CRM tool will follow.

Move Finance Committee meetings to a WebEx so you can see who is actually participating on the calls (if that is not possible for some reason, can do a roll call at the beginning).



Finance Committee meetings have been converted to Webex Events with secure registration.

		RESPONSE
<p>PJM should provide FERC or State filings before filing (Providing for at least some input when there is time.) (e.g., adders, ANOPR)</p> <p>PJM should provide FERC or State filings before filing (providing for at least some input when there is time).</p>		<p>PJM has committed to provide stakeholders with information regarding intended filings when the timing permits.</p> <p>.....</p> <p>This is accomplished on standard filings through the normal stakeholder process.</p> <p>.....</p> <p>The compliance filings protocol (Manual 34 Appendix I) applies, and PJM has committed to doing page turns on significant filings (compliance or otherwise) when time permits (e.g. interconnection reform).</p> <p>.....</p> <p>Also, PJM provides a heads-up notice at committee meetings when we plan to make other significant filings.</p> <p>.....</p> <p>The MC Webinar regulatory report also highlights filings.</p>
<p>Transparency of Board discussions? (e.g., Sector meetings with the Board)</p>		<p>Summaries of sector meetings with the Board are published on the Board Communication page. Summaries of all regular board meetings are also posted on pjm.com.</p>
<p>Post list of PJM staff future engagements with federal and state policymakers (i.e. Glazer and Haque teams).</p>		<p>Such meetings or interactions most often happen on short notice, and such a list would likely change on a daily basis.</p> <p>.....</p> <p>Production of such a list may hinder PJM's ability to act in an independent manner.</p>
<p>Transparency around PJM's annual goals</p>		<p>PJM's strategy refresh was presented and posted in March 2021.</p> <p>.....</p> <p>The strategy guides PJM's overall activities in the 3–5 year horizon.</p> <p>PJM's corporate goals are aligned with the strategy refresh. PJM is developing a Roadmap as a resource for PJM and stakeholders to guide issues in the stakeholder process. The Roadmap will include PJM's views regarding the initiatives that should be undertaken to achieve operations, planning, markets and risk-related objectives.</p>

		RESPONSE
<p>PJM should not sign contracts where data cannot be shared with stakeholders.</p> <p>PJM should not sign contracts with contractors where data relevant to stakeholder interests cannot be shared with stakeholders – with the exception of confidential information.</p>		<p>This is not always possible, due to proprietary nature of data generated and/or owned by vendors (trade secrets, confidential and/or market sensitive data).</p> <hr/> <p>PJM will attempt to negotiate terms for release of data when possible.</p> <p>Interested stakeholders may approach vendors to purchase data directly when PJM may not release.</p>
<p>All Members should be provided notice when PJM signs (CCIAs) Common Interest Agreements with Transmission Members or other Members.</p> <p><i>PJM has stated that the General Counsel and the Board will receive notice when a CIA is signed.</i></p>		<p>PJM has committed to disclose to the Board Governance Committee the expansion of any existing CCIAs or the execution of any new CCIAs in the future.</p>

RESPONSE

Marginal emissions rate data:

Members of our sector note that PJM began sharing marginal emissions rate data this year. This information may be useful to achieving state, local and corporate environment goals and unlocking new market designs.

This is a great example of how PJM can leverage its expertise in markets to provide greater societal value. As we all learn from this data source, we encourage PJM to continue to explore how to leverage this data more effectively.



PJM was pleased to make this information available. Current marginal emissions rate data may be found in [Data Miner 2](#).

PJM's intention with this information was to provide it for others to explore. Thus PJM is hopeful that interested parties will further explore the information, potentially combining it with other data and, from there, seek the potential value.

ELCC resource data: PJM could develop a simple tool that allows for several inputs and which generates the capacity value of a battery or solar-battery hybrid. Members of our sector request greater information on the assumptions in the ELCC resource class forecasts to better understand the likelihood of future ELCC class values materializing.



Development of such a calculator would be expensive and would provide only an estimate of the capacity value for affected resources.

Potential changes to accreditation methods are currently being developed in the Resource Adequacy Senior Task Force.

Once rules around accreditation are developed, PJM will provide additional training and documentation for resource owners to be able to calculate capacity values.

RESPONSE	
<p>Non-ELCC Resource data: As PJM explores capacity accreditation more broadly, such as extending ELCC to all resources in Phase 2 of capacity reforms, members of our sector desire transparent information regarding the frequency and intensity of correlated outages among current non-ELCC resources by class of resource type. As an initial data request, members of our sector request PJM to share data files on Non-ELCC resource performance by generation type during this same set of hours.</p>	<p style="text-align: center;">This is being reviewed in the RASTF</p> <hr style="border-top: 1px dotted black;"/> <p> In Key Work Activity #2: Determine the types of reliability risks and risk drivers to be considered by the capacity market and how they should be accounted for. In Key Work Activity #5: Determine the qualification and accreditation of capacity resources.</p>
<p>Post list of ad hoc ongoing studies that PJM is working on per stakeholder requests, including details on inputs and assumptions.</p>	<p>Stakeholder-requested studies are generally requested either through Board letters or via the stakeholder process.</p> <hr style="border-top: 1px dotted black;"/> <p> PJM posts when a Board letter is received, as well as responses from the Board.</p> <p>Other studies requested through the stakeholder process are well known through meeting information and/or posting with meeting materials.</p>

RESPONSE

Designated Entity

Agreements: Sector members have asked for information to help understand how much money and how many projects are involved. In addition, what type of situations would be covered by these letters of credit, and what would happen in these situations?

PJM does not require incumbent Transmission Owners to provide a letter of credit of 3% for transmission construction projects despite the fact it appears from the Tariff competitors and incumbents should be submitting 3% letters of credit.



An [FAQ document](#) addressing questions raised in this request was posted with materials for the May 25, 2022, Markets & Reliability Committee meeting.

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N.B. – Letters of credit are required for all projects that proceed from a competitive process, regardless of the party developing the project.