



FERC Order 881 & Dynamic Line Ratings ANOPR Update

PJM Operating Committee
September 12, 2024

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❑ Dynamic Line Ratings (DLR) ANOPR

- Comment Deadline: October 15th
- Goal(s): Improved accuracy and transparency of transmission line ratings
- Potential Reforms:
 - Require transmission line ratings to reflect the impacts of solar heating & forecasts of wind conditions
 - Enhance data reporting practices related to congestion in non-RTO/ISO regions

❑ Order No. 881 Clean-Up Filing

- Targeted Filing Date: September 16th
- Goal(s): Promoting consistency throughout PJM's governing documents
- Proposed Revisions:
 - Operating Agreement, Schedule 1, sections 1.9.8 and 1.9.9(e), and the parallel provisions of Tariff, Attachment K-Appendix, sections 1.9.8 and 1.9.9(e)

1.9.8 Transmission Owner Responsibilities.

~~[Reserved.] All Transmission Owners shall regularly update and verify facility ratings, subject to review and approval by PJM, in accordance with the following procedures and the procedures in the PJM Manuals:~~

~~(a) Each Transmission Owner shall verify to the Operations Planning Department (or successor Department) of the Office of the Interconnection all of its transmission facility ratings two months prior to the beginning of the summer season (i.e., on April 1) and two months prior to the beginning of the winter season (i.e., on October 1) each calendar year, and shall provide detailed data justifying such transmission facility ratings when directed by the Office of the Interconnection.~~

~~(b) In addition to the seasonal verification of all ratings, each Transmission Owner shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection updates to its transmission facility ratings as soon as such Transmission Owner is aware of any changes. Such Transmission Owner shall provide the Office of the Interconnection with detailed data justifying all such transmission facility ratings changes.~~

~~(c) All Transmission Owners shall submit to the Operations Planning Department (or successor Department) of the Office of the Interconnection formal documentation of any procedure for changing facility ratings under specific conditions, including: the detailed conditions under which such procedures will apply, detailed explanations of such procedures, and detailed calculations justifying such pre-established changes to facility ratings. Such procedures must be updated twice each year consistent with the provisions of this Section.~~

1.9.9 Office of the Interconnection Responsibilities.

(a) The Office of the Interconnection shall perform seasonal operating studies to assess the forecasted adequacy of generating reserves and of the transmission system, in accordance with the procedures specified in the PJM Manuals.

(b) The Office of the Interconnection shall maintain and update tables setting forth Operating Reserve and other reserve objectives as specified in the PJM Manuals and as consistent with the Reliability Assurance Agreement.

(c) The Office of the Interconnection shall receive and process requests for firm and non-firm transmission service in accordance with procedures specified in the PJM Tariff.

(d) The Office of the Interconnection shall maintain such data and information relating to generation and transmission facilities in the PJM Region as may be necessary or appropriate to conduct the scheduling and dispatch of the PJM Interchange Energy Market and PJM Region.

~~(e) [Reserved.] The Office of the Interconnection shall maintain an historical database of all transmission facility ratings, and shall review, and may modify or reject, any submitted change or any submitted procedure for pre-established transmission facility rating changes. Any dispute between a Transmission Owner and the Office of the Interconnection concerning transmission facility ratings shall be resolved in accordance with the dispute resolution procedures in schedule 5 to the Operating Agreement; provided, however, that the rating level determined by the Office of the Interconnection shall govern and be effective during the pendency of any such dispute.~~

(f) The Office of the Interconnection shall coordinate with other interconnected Control Area as necessary to manage, alleviate or end an Emergency.

AREAS OF REFORM:

Revises
FERC regulations
and *pro forma*
Tariff to incorporate
new pro forma OATT
Attachment **M**

NOTE: To be Attachment
W in PJM's OATT

- 1 | Definition of Transmission Line Ratings
- 2 | Ambient-Adjusted Ratings (AAR)
- 3 | Seasonal Line Ratings
- 4 | Exceptions and Alternate Ratings
- 5 | Emergency Ratings
- 6 | Transparency Requirements
- 7 | Dynamic Line Ratings (DLR)

Compliance
Filings

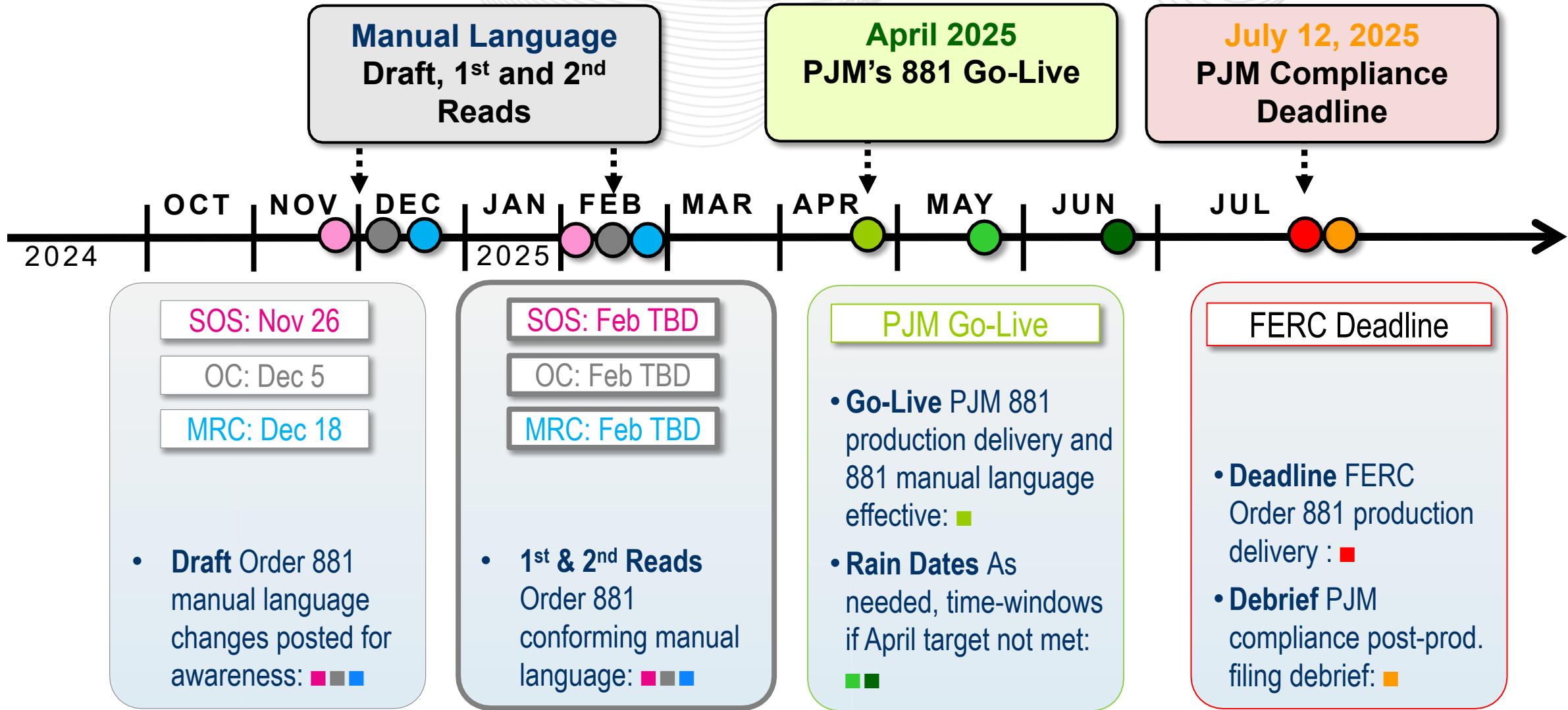
[12 Jul 2022](#)

[18 Jul 2023](#)

[29 Sep 2023](#)

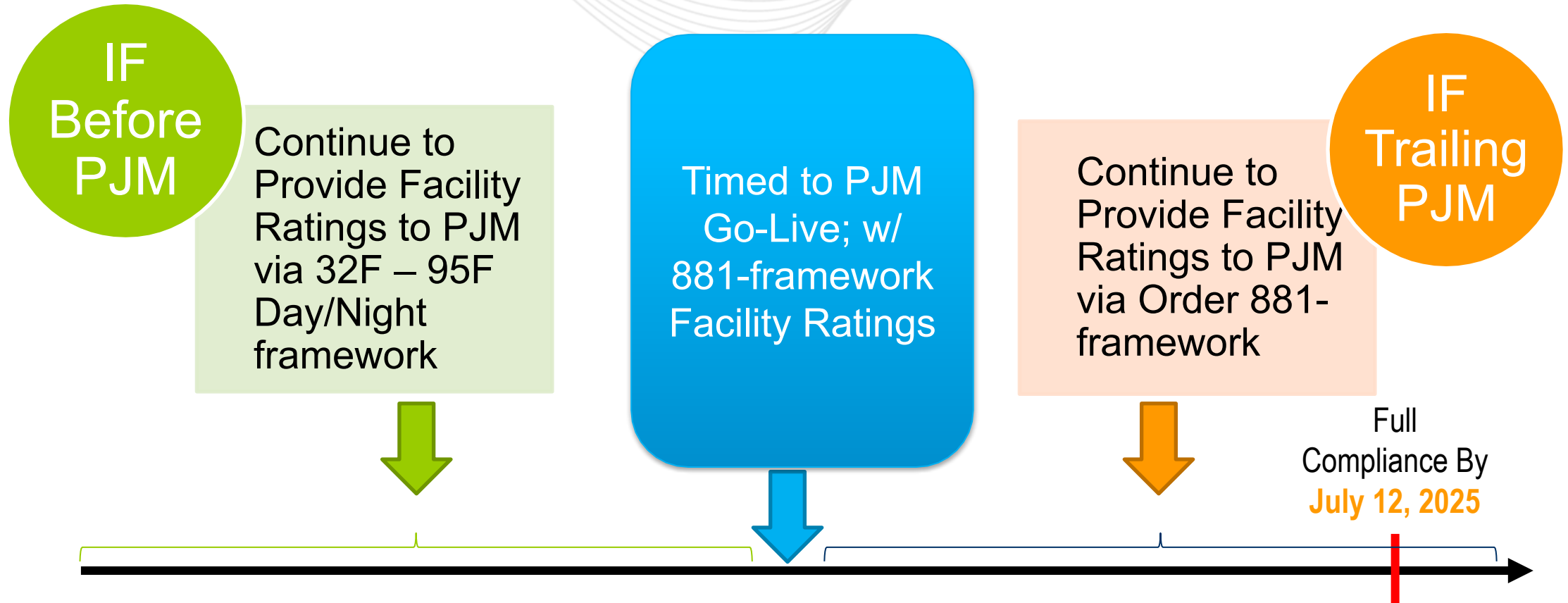
Full
Compliance By
July 12, 2025

PJM 881 Go-Live Timeline: 2024 into 2025



- Across 2024 Q2 & Q3, PJM had bi-directional one on one outreach with 881-impacted Facility Owners.
- Varying states of readiness exist.
- Likelihood of a singular RTO-wide Go-Live is small.
- PJM's 881-framework will not support the existing (pre-881) construct.
 - i.e., Regardless of TO-readiness for full 881 implementation, PJM would need ratings to be provided in its 881-framework for PJM to Go-Live.
 - This aligns with member approaches to deltas today such as Summer/Winter or day/night vs. PJM's full 32F – 95F day/night framework.

PJM Go-Live vs. PJM TO 881 Go-Live & Facility Ratings *conversion*



NOTE: While PJM can assist a member Facility Ratings conversion, PJM is a Facility Ratings consumer, not a Facility Ratings provider.

- ❑ Vendor delivery (EMS, AAR Forecasting & Market Tools)
- ❑ PJM delivery (eDART, Weather, AFC/ATC, and other internal tools)
- ❑ Competing priorities for same resources
- ❑ Limited test-bed/window vs. complex system dependent upon external inputs
- ❑ Facility Owner readiness:
 - Facility Rating calcs / conversion into 881 Lookup Tables
 - Temporary Operating Procedures, if any

Planned release for October 2024

- Builds on 2023 Order 881 schema release, including ratings database downloads and User Interface
- Fulfills AAR & Transparency obligations of the Order
- Follow-up release will be announced, if needed
- Updates via PJM Tech Change Forum and/or eDART Forums

Presenters/SME:

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FERC Order 881 & DLR ANOPR Update



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eDART & eDART XML Forums

- Site [here](#).
- Speaking to our December 2023 release around Order 881 [here](#).
- eDART SCHEMA information [here](#), for those looking to test automation around inputs. (See FERC Order 881 section, available in eDART Train/Sandbox environment.) Outputs planned late Q3 or early Q4 of 2024.
- eDART 881-only presentation, focused around our overall expected eDART Changes (inputs & outputs), [here](#).

PJM Tech Change Forum

- Presentations on eDART-related product roadmap can be tracked at the [PJM Tech Change Forum](#).

PJM Operating Committee

- Majority of the presentations, working through the initial problem, were at PJM OC within Special Sessions.
- Final non-Tariff focused presentation (Special Sessions – Order 881 Compliance, Apr-Jun 2022) [here](#). OC update around telemetry and FTR impact [here](#).

PJM Tariff Changes

- Filings can be found [here](#).
 - Searchable by *Docket Number*, typing in “ER22-2359”, and clicking *Apply*.