

FERC Order 881 Conforming Manual Changes

Ryan Nice
Sr. Manager, EMS Support

PJM Markets & Reliability Committee
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- PJM's filing and solution for Order 881 has been exhaustively reviewed and honed within the stakeholder process over the past several years.
- 2025 January 9th OC featured a presentation "FERC Order 881 Conforming Manual Changes"
- The M03 and M03A revision content has not changed since those early 2025 presentations.
- Targeting MRC endorsement on 2/19/2026 to position to publish conforming language on 3/4/2026 go-live.

- Order 881 requires:
 - Hourly ratings from present to 10 days/240 hours out and be ambient temperature adjusted as derived from forecasts.
 - PJM will build to 248 hours for Compliance buffer
 - Seasonal ratings beyond 10 days out, at least four seasons.
 - PJM will have 12 monthly “seasons”, for more granular/accurate studies.
- Order 881 allows for use of:
 - AAR Exceptions
 - Temporary Conditional Ratings
 - DLRs

- PJM's existing use of Ambient Condition Lookup Tables is allowed under Order 881.
 - Certain expansions and controls for Order 881 Compliance added.
- PJM has historically independently employed weather forecasts to determine ambient conditions (aka, Temp Set):
 - 881 enforces strict, programmatic hourly usage, but functionally still very similar

Manuals changed for Order 881:

- M03A, EMS Model Updates & QA
 - Section 3.3 PJM Transmission Facility Ratings Database (eDART TERM), expanded for new Temp Set requirements.
- M03, Transmission Operations
 - Expanded to incorporate new maintenance responsibilities, approaches to DLR, and short-term emergency ratings within the Thermal Operating Guidelines

Section 3.3, PJM Transmission Facility Ratings Database [\[revised\]](#):

- *AAR* (including DLR subset) & *AAR Exception* Facility Types.
 - FERC Order 881 AAR 5°F bands, -55°F to 130°F, w/ day/night.
 - AAR Extreme Temp Set (-55°F, -50°F, 125°F & 130°F) use and M-03 1.5.6 process reference.
- PJM Default Durations by Rating Type, and TO obligation to provide deviations from same.
 - Example: PJM's default Long Term Emergency duration is 4hrs. If a TO deviates from that for a given facility, it should be communicated via eDART TERM.

Section 3.3.1, Conditional Ratings [NEW]:

- Conversion of M-03B MVA ratings into new Conditional Rating tables, where appropriate.
 - Ports conditional ratings into PJM's Transmission Facility Ratings Database
 - Shared responsibility between PJM and the TO
 - Requires the Rating Set to be distinguishable from other rating sets
 - Examples include: directional ratings, common trench, loss of cooling, etc.

Section 3.3.2, TO SCADA Zone and AAR Transmission Facility Mapping [NEW]:

- TO SCADA Zones (i.e., AAR thermal regions) will be defined by their:
 - Stations (aka, B1 Substations)
 - Weather Stations
- AAR Ambient Conditions (Temp Sets) will be applied against all AAR Transmission Facilities that reside (in full or part) within the TO SCADA Zone.

Section 3.3.3, AAR Ambient Conditions [NEW]:

- TOs can opt to provide Hourly/Seasonal AAR Ambient Condition.
- PJM weather services to be the AAR Ambient Condition provider of last resort. [A widely-utilized one.]
 - Ambient Condition determined independently hourly/Seasonal for each TO SCADA Zone.
 - Hourly based on weather forecasting and Seasonal based on historic temperatures and in-use Temp Sets.

Section 3.3.4, Rating Set Hourly and Seasonal Derivation [NEW]:

- Hourly derived for 10-days. Seasonal derived for next 24 months.
- PJM shall derive Rating Sets in the following priority order, highest denoted first:
 1. Manual Overrides
 2. Projected Conditional Ratings
 3. AAR Exceptions
 4. DLR
 5. AAR Ambient Condition Manual Overrides
 6. **(Default/Common)** AAR at the Facility level

Section 3.3.5, Transmission Facility Rating Transparency [NEW]:

- All eDART users will have access to the data, including:
 - TO Transmission Facility Rating Methodologies
 - TO SCADA Zone definitions
 - Transmission Facility Types and metadata
 - Lookup Tables, including Conditional Ratings
 - In-use and forecasted hourly/Seasonal Transmission Facility Rating Sets & AAR Ambient Conditions.
- Data history: 5 years, commencing with go-live.

Section 1.5.6, Monitored Transmission Facility [\[revised\]](#):

- Update maintenance responsibilities involved around Rating Set Lookup Tables.
 - AAR as the default type
 - AAR Exception designation option
 - Allowance for use of temporary Conditional Ratings, for safety and reliability
 - DLR obligations
- Temp Set 10°F Margin Requirements for new high/low actual temperatures.

Section 2.1.1.1, Ambient Condition: Temp Set [\[revised\]](#):

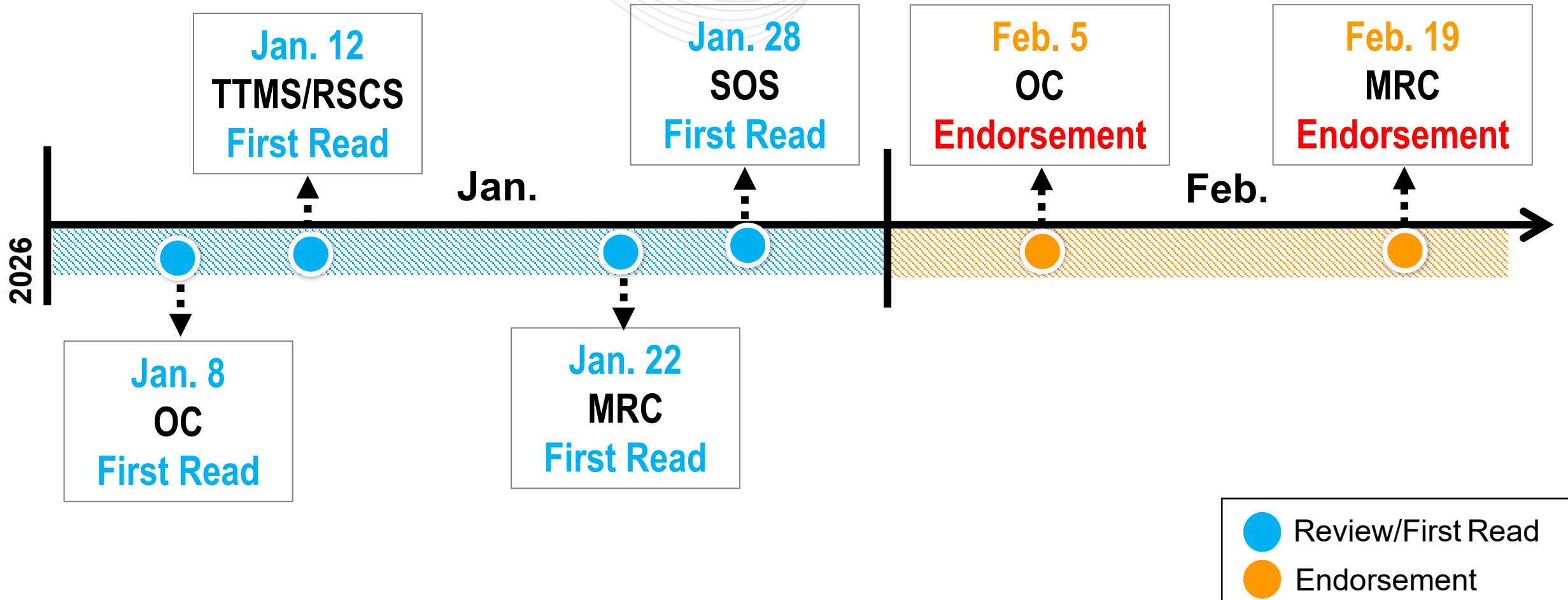
- FERC Order 881 5°F bands, -55°F to 130°F, w/ day/night.
- AAR (includes the DLR subset) & AAR Exception Facility Types.
- Tiering/Priority of Manual Overrides, Conditional Ratings, AAR Exceptions, DLR & AAR. (Reinforced in M-03A.)
- Move away from PJM Operator driven EMS ratings to consumption of hourly ratings.

Section 2.1.1.2, Ambient Condition: DLR [\[revised\]](#):

- DLR owners have the option to either expand to cover the entire 10-day hourly window or defer to AAR for hourly beyond existing DLR forecast obligation, up to the 10-day hourly window.
- For DLR outages: Now giving an option to defer to AAR or Seasonal, if appropriate.

Section 2.1.2, Short Term Emergency Ratings [\[revised\]](#):

- eDART TERM (PJM's Transmission Facility Ratings Database), instead of M-03 Attachment F, is the source for facilities with distinct STE and durations from that of LTE.



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Proposed conforming changes are the completion of a long review process for FERC Order 881.	Revisions updates and appends text for equipment ratings and related processes based on 881 changes.	Target to publish endorsed revisions on March 4th, coordinated with Order 881 go-live.

Presenters/SME:

Ryan Nice, Ryan.Nice@pjm.com

881 Outreach:

Order881@pjm.com

eDART881@pjm.com

FERC Order 881 Conforming Manual Changes

A green speech bubble containing a white question mark, positioned above a blue speech bubble with three horizontal lines, which is in turn positioned above a yellow circle containing the 'Member Hotline' information.

?

Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

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. (See FERC Order 881 section, available in eDART Train/Sandbox environment.)
- 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*.

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](#)

[16 Sep 2024](#)

[12 Nov 2024](#)

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Full
Compliance By
March 4th, 2026

Appendix A [\[TO BE revised\]](#):

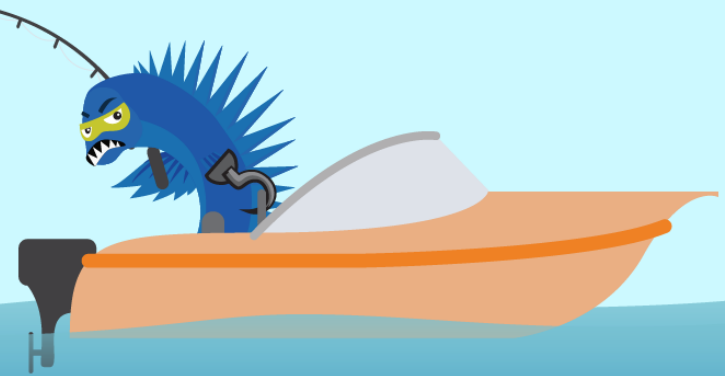
- **Changes are not included at this time.**
- Conceptually, the constructs will remain unchanged.
- Temporary Ticket use should be substantively reduced, due to the addition of Conditional Ratings.
 - NOTE: Any real-time Temporary Ticket will require *the nature and basis* for its use to be documented by the owner to comply with FERC Order 881, paragraph 234.

We require that such postings document the nature of and basis for each such exception or alternate rating, as well as the date(s) and time(s) of initiation and(if applicable) withdrawal for the exception or the alternate rating.

**PROTECT THE
POWER GRID**
**THINK BEFORE
YOU CLICK!**



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MALICIOUS PHISHING
EMAILS**



Report suspicious email activity to PJM.
Call (610) 666-2244 or email it_ops_ctr_shift@pjm.com