FERC Order 881: Ambient Adjusted Ratings

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Technologies

PJM Operating Committee
March 18, 2022
AREAS OF REFORM:

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)

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

Compliance Filing Due
July 12, 2022

Full Compliance By
July 12, 2025
### Ratings Approaches & Min Requirements

<table>
<thead>
<tr>
<th>Centralized</th>
<th>Traditional temp set approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed</td>
<td>DLR approach for AAR</td>
</tr>
</tbody>
</table>
| Hybrid      | • Centralized approach for some facilities  
            | • Distributed approach for other facilities |

#### Potential Approaches for Consideration

- **Centralized**
- **Distributed**
- **Hybrid**

#### Minimum Requirements

- Next 10 days hourly, minimum
- Seasonal, minimum of 4 periods
- Posted on PJM OASIS; TO methodology posted

#### Required End State
Centralized Temp Sets: Traditional

- PJM determines required temperature set framework.
- PJM equipment owners calculate and submit temperature set data per equipment to PJM.
- PJM sets active temperature set based on the weather conditions.
- Equipment owner queries ratings from their own temperature sets and forecasts.
- PJM and equipment owner compare ratings when evaluating trends and exceedances, and during mitigation for same.

Considerations/ Benefits

- Ensure TP obligations in Order 881 Attachment M do not conflict with TO requirements.
- Deferece to DLR, where applicable.
- Familiar practice and minimal change to most facilities.
- PJM evaluation of existing temperature forecasts and alignment with members on application per zone/facility.
- Historic temp sets across the PJM footprint.

Centralized: Traditional

TO Temp Sets

PJM TERM

PJM & TO apply per weather/timespace
Distributed: DLR-like

- PJM equipment owner determines their applicable temp set range.
- PJM equipment owners calculate and submit seasonal ratings and rolling 10-day hourly ratings.
- PJM uses ratings as appropriate per time horizon of end-use.
- Equipment owner uses ratings per hour where appropriate.
- Equipment owner must notify PJM if in-use rating is inaccurate.

Considerations/Benefits

- Reduced ambiguity on rating alignment.
- Loss of ICCP strategies become more important.
- Increased volume of ICCP data exchange and more SCADA processing.
- Cut-in data submission timeline might change.
- 10-day requirement and historic temperature set ranges fall squarely upon equipment owner.
Hybrid: Both Options
Mixed approach

Considerations/Benefits
• Will exist with traditional and DLR-like approach.
• Considerations/benefits of each apply.
• May allow for easier transition to DLR for a given company.
• Owner determines their approach per facility.
• Deadlines for notice of changes to approach.
• Tie line coordination issues might arise if companies use different strategies for each end.
PJM will be reaching out to our Transmission Owners to get alignment on compliance approach in regard to FERC Order 881. Potential questions below:

<table>
<thead>
<tr>
<th>Q1</th>
<th>Does your company seek to directly telemeter one or more real-time facility ratings to PJM? [YES/NO]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO Comment:</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Q2</th>
<th>For any facilities for which you will seek to directly telemeter real-time facility ratings to PJM, will your company provide rolling 10-day hourly forecasted ratings for each of these facilities to PJM? [YES/NO]</th>
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</thead>
<tbody>
<tr>
<td>TO Comment:</td>
<td></td>
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<tr>
<th>Q3</th>
<th>Excluding seasonal ratings, for any facilities for which you will seek to directly telemeter real-time facility ratings to PJM, will your company be requiring PJM-derived temperature set frameworks, such as those traditionally provided via TERM, for any facility? [YES/NO]</th>
</tr>
</thead>
<tbody>
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<tr>
<th>Q4</th>
<th>For any facilities for which you will seek to directly telemeter real-time facility ratings, how will you coordinate your ratings with your neighboring TOs inside and outside of PJM?</th>
</tr>
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<td>TO Comment:</td>
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</table>
NOTE: Beyond the above, PJM will collaborate with additional stakeholder bodies such as TOPWG, RSCS, DTS and others as needed to work towards requirements and compliance objectives.
Contact

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FERC Order No. 881

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