

FERC Order 881 Markets Implementation Update and Extension Request

Ray Fernandez

Sr. Principal Consultant

Market Implementation Committee

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- FERC Order 881 was issued on December 16, 2021.
- Purpose: *To improve the **accuracy** and **transparency** of “transmission line” ratings.*
- The Order requires Transmission Service Providers to utilize Ambient-Adjusted Ratings on “transmission lines”:
 - Hourly ratings, over the next 10 days (240 hour period)
 - Seasonal ratings, no fewer than 4/year, beyond 10 days out through a year

Ambient-Adjusted Ratings [AAR] implementation

- Day and Night temperature sets ranging from -55°F to +130°F at 5 degree increments
- Transmission Owners are responsible for providing PJM with the lookup table rating sets
- Effective hourly ratings are determined on a rolling basis across the next 10 days based on forecasted temperatures

- Day-Ahead Market Clearing Engine (DA MCE)
- Real-Time Markets
 - RT Security Constrained Economic Dispatch (RT SCED)
 - Locational Pricing Calculator (LPC)
 - IT SCED
 - Ancillary Service Optimizer (ASO)
- Financial Transmission Rights (FTR)

- The legacy DA MCE uses ratings from the quarterly network model build
- Day and Night temperature sets with 8 distinct temperatures at 9°F increments from 32°F to 95°F
- DA operator bridges the zonal forecasted temperatures to select the appropriate rating
- Zonal forecasted temperatures can change hourly

- GEV will implement Order 881 changes in the nGEM DA MCE
 - Utilize hourly Ambient Adjusted Ratings(AARs) in Day-Ahead Market clearing
 - AARs are sourced from eDART based on hourly forecasted temperatures
 - 24 hourly rating values for each transmission facility based on zonal temperature forecasts
 - Seasonal Ratings are a back up if AARs are not available

- RT SCED – Will continue to obtain effective ratings from EMS, no changes required
- LPC – No changes required since ratings are obtained from reference RT SCED case
- IT SCED and ASO – Look-ahead intervals will utilize the effective AARs for the target time of the interval. AARs will be sourced from eDART.
- GEV working on the changes to IT SCED and ASO in the legacy system

- FERC Order 881 does not mandate the use of AARs or seasonal ratings in the FTR Market
- Due to the financial and long-term nature of the FTR Market, the use of conservative ratings from the model build process will continue
- Challenges exist in the use of model build ratings due to the Common Information Model (CIM) format change
- PJM and GEV have reached agreement on implementation design

- Manual 11 – Energy & Ancillary Services Market Operations
 - PJM to review and make necessary changes for stakeholder approval

- PJM has been targeting the end of Q1 2025 for the nGEM DA MCE implementation
- Currently in Site Acceptance Testing, but defect correction has slowed progress
- With uncertainty in the Go Live date for the nGEM DA MCE, PJM will be seeking a delay in the Order 881 implementation
 - Upcoming filing will note a ‘no later than’ date of Spring 2026, working toward a Fall 2025 Go Live
 - PJM will continue to provide updates to members while seeking to avoid implementation during summer/winter months

Chair:

Foluso Afelumo, Foluso.Afelumo@pjm.com

Secretary:

Stefan Starkov, Stefan.Starkov@pjm.com

SME/Presenter:

Ray Fernandez, Raymond.Fernandez@pjm.com

FERC Order 881: PJM Markets Update



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

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