



# FERC Order 881: Managing Transmission Line Ratings – Phase 2

Stakeholder call

December 21, 2022


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# Reminders

- This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO's permission.
- Today's meeting is structured to stimulate dialogue and engage different perspectives.
- Please keep comments professional and respectful.
- Please try and be brief and refrain from repeating what has already been said so that we can manage the time efficiently.

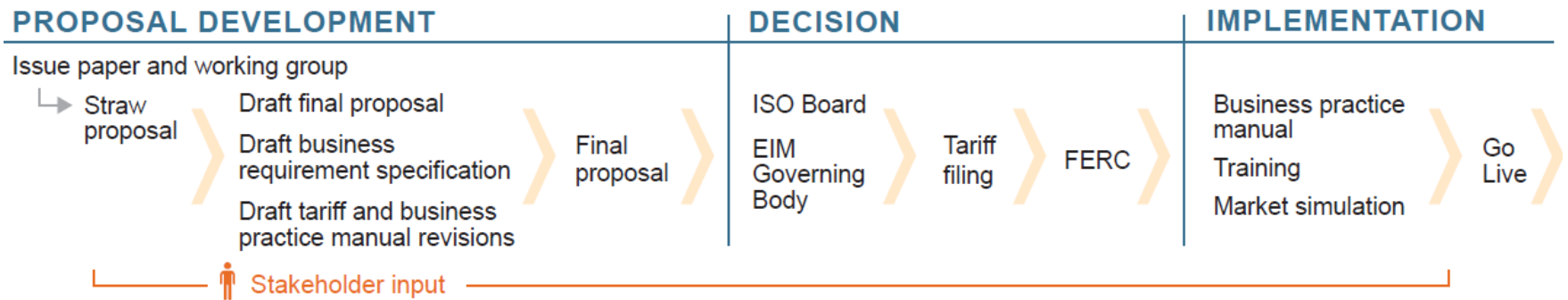
# Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the “call me” option, select the raise hand icon  located on the top right above the chat window.  
**Note:** #2 only works if you dialed into the meeting.
  - Please remember to state your name and affiliation before making your comment.
- If you need technical assistance during the meeting, please send a chat to the event producer.
- You may also send your question via chat to either Isabella Nicosia or to all panelists.

# Agenda

Topic	Presenter
Welcome & introduction	Isabella Nicosia
Initiative background & overview	Raja Thappetaobula
Implementation update: <ul style="list-style-type: none"><li>• FERC Order 881 Ambient Adjusted Ratings and Dynamic Line Ratings</li><li>• Project tracks</li></ul>	Raja Thappetaobula Tricia Johnstone
Next steps	Isabella Nicosia

# ISO Policy Initiatives Stakeholder Process



*This represents the typical process, and often stages of the process run in parallel.*

We are here

## Initiative background & overview

- FERC Order 881 requires ambient adjusted ratings (AAR) to be used in the evaluation or curtailment of near term (10 days or less) transmission service.
- It requires ISOs/RTOs to use AARs in their congestion management process and near term commitment markets.
- ISO filed a compliance filing on 7/12/2022
- Full compliance required by 7/12/2025

# Implementation update

- Formed an internal project team to work on the ISO's compliance filling and develop project tracks
- ISO initiating a public stakeholder process
  - Feedback from RC Data Exchange Working Group to also have small group discussions
- Three proposed tracks to develop our tools and processes to meet compliance requirements by 7/12/2025
  - Track 1: Real Time Reliability Applications
    - in progress; target 2023/2024
  - Track 2: Operational/EMS Model Data and Applications
    - target 2023/2024
  - Track 3: Market Applications and Look Ahead Applications
    - target fall 2025

# Project tracks

- **Track 1: Real Time Reliability Applications**
  - Plan to receive AAR data via Inter-Control Center Communications Protocol (ICCP)
  - Anticipate capability ready in 2023, but need to develop customer implementation timeline
- **Track 2: Operational/EMS Model Data and Applications**
  - Operational EMS model updates for CAISO BA and WECC wide areas (all RCs, all WEIM)
  - Anticipate multiple existing external system impacts as well as new transmission rating submission interface (i.e. UI, file upload, other TBD)



# Project tracks

- **Track 3: Market Applications and Look Ahead Applications**
  - Reviewing impacts to day-ahead market (DAM) and real-time market (RTM) processes
    - Align integration across market and look ahead system functionality, timing, and processes, impacts to transmission scheduling priorities
  - Will meet reporting requirements
  - Anticipate multiple existing external system impacts as well as new transmission rating submission interface(s) (i.e. API, UI), and new reports on OASIS, CMRI (current secure output for RC OPA input data might need additions/ updates and supports APIs for outputs), Market Participant Portal (or other)

# Implementation update

- ISO/RC West expects participating transmission owners (PTOs)/ Transmission Operators (TOPs) to perform temperature adjusted rating calculations and provide us the appropriate calculated hourly rating.
  - The ISO will coordinate with PTOs to ensure consistency in development of Transmission Line Rating methodologies
- ISO/RC West will utilize existing ICCP to receive AAR in real time.
- ICCP will not be utilized to acquire forecasted AAR. A new process will be developed to implement this.
- ISO/RC West expects AAR limits engineering unit (MVA/AMP) consistent with seasonal limits submitted during full network model submission.
- A draft white paper will be developed and shared with stakeholders.
- RC West could create a forum for TOPs to discuss how each company is contemplating to implement the AAR calculations.

# FERC Order 881 AAR and DLR Ratings:

- Examples of how industry is contemplating on calculating forecasted AAR ratings:
  - Utilize the 240 hour forecast from each airport and use the maximum temperature each hour to determine each hour's rating set. Adjusted rating manager process that will rerate lines using ambient temperature, date and hour of the day.
  - Utilize weather data from [api.weather.gov](http://api.weather.gov) which is provided according to a 2.5 km grid.

# Next steps

<b>Milestone</b>	<b>Date</b>
White paper & process drawings	Jan/Feb 2023
Project timeline	Jan/Feb 2023
Business requirement specification development	Jan - Jun 2023
IRO-010 and TOP-003 data spec development	Q2 2023
Track 1 data submission templates/guides posted	Q3 2023
External training	Q3 2023
Track 1 data submission + testing	Q4 2023

*\*All dates are tentative until confirmed through a notice in the Daily Briefing*

# Next steps

- The ISO will hold stakeholder calls to provide progress updates on the different project tracks, and answer questions.
  - Seeking stakeholder feedback on how frequent these calls should be.
- Please submit comments on today's stakeholder call discussion by end of day January 11 using the template provided on the initiative webpage:  
<https://stakeholdercenter.caiso.com/StakeholderInitiatives/FERC-order-no-881-managing-transmission-line-ratings>
- Stakeholders may submit additional comments or questions related to the implementation of FERC Order 881 to be considered in a future call to [ISOStakeholderAffairs@caiso.com](mailto:ISOStakeholderAffairs@caiso.com).