



FERC Order 881: Managing Transmission Line Ratings – Phase 2


Data Submission Working Group
April 13, 2023

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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.
- If you need technical assistance during the meeting, please send a chat to the event producer.

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 bottom of your screen.

Note: #2 only works if you dialed into the meeting.

- Please remember to state your name and affiliation before making your comment.
- You may also send your question via chat to either Isabella Nicosia or to all panelists.

Agenda

Topic	Presenter
Welcome & introduction	Isabella Nicosia
White paper discussion	Raja Thappetaobula
Track 1: Real Time Reliability Applications	Raja Thappetaobula
Project timelines by track	Rajesh Nayyar
Working group schedule & next steps	Isabella Nicosia

FERC Order No. 881 CAISO/RCWEST White Paper

- CAISO/RCWEST has posted a technical white paper that documents our efforts related to the process/tools implementation timelines for Order No. 881 compliance.

FERC Order No. 881 CAISO/RCWEST White Paper

- Transmission owners are required to calculate both instantaneous AAR and 240 hours (10 days) of look ahead AAR. These AAR ratings needs to be updated at least hourly.
- As shown in the next slide, look ahead ambient adjusted ratings for transmission lines should reflect 240 hours of hourly granularity submitted each hour valid for the next 240 hours on a rolling basis

FERC Order No. 881 CAISO/RCWEST White Paper

	Hour 1	2	3	4	5	240
Submitted at 7:00 AM	8 AM	9 AM					

	Hour 1	2	3	4	5	240
Submitted at 8:00 AM	9 AM	10 AM					

	Hour 1	2	3	4	5	240
Submitted at 9:00 AM	10 AM	11 AM					

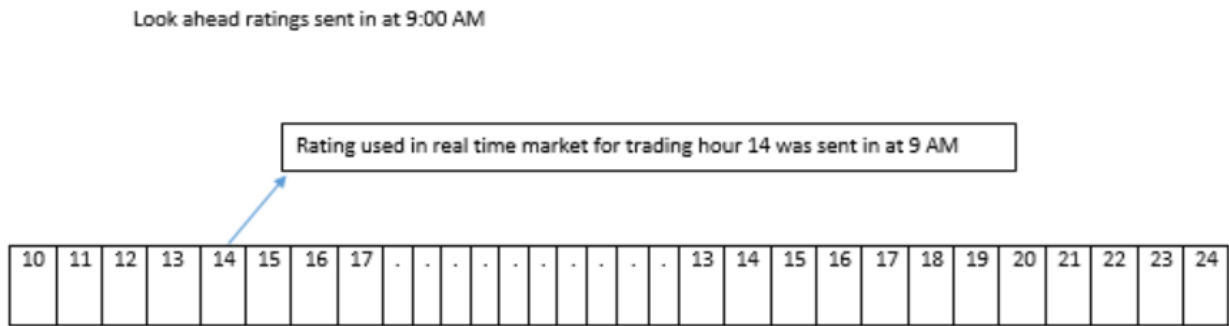
FERC Order No. 881 CAISO/RCWEST White Paper

- As part of the ISO's compliance filing, we have proposed the below timelines for look ahead ratings that would be utilized in the day-ahead and real-time markets.
- Look ahead ratings that are submitted no later than 9 a.m. on the day before the applicable trading day will be utilized in the day-ahead market processes.



FERC Order No. 881 CAISO/RCWEST White Paper

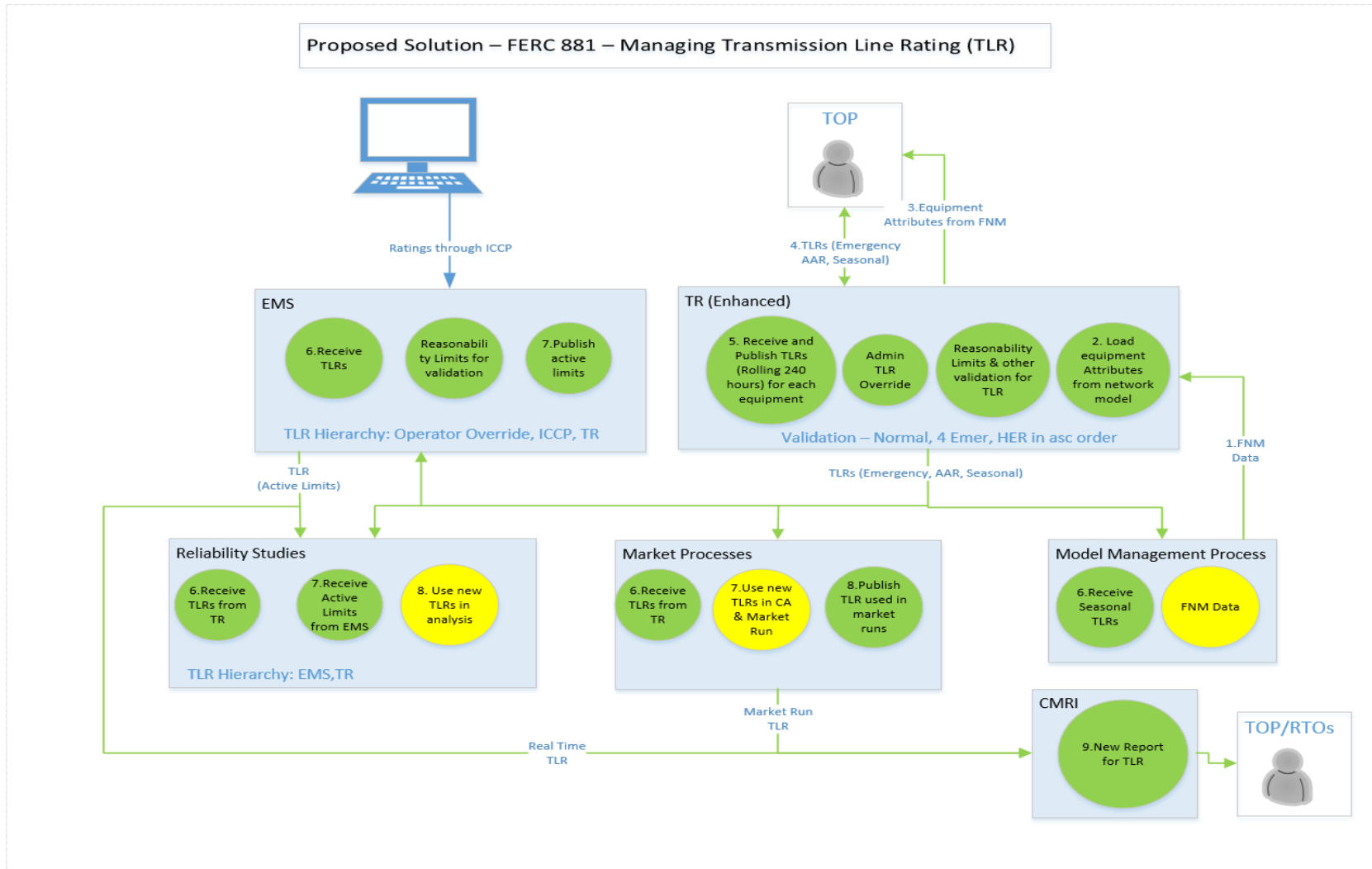
- Look ahead ratings that are submitted 5 hours before the applicable trading hour will be utilized in the real-time market processes.



FERC Order No. 881 CAISO/RCWEST White Paper

- The technical white paper documents the ISO's three main project tracks.
- As part of the FERC 881 implementation plan, the ISO is proposing to enhance the Transmission Register application with the following changes:
 - New user interface to submit and/or retrieve transmission line ratings
 - New web services interface to programmatically submit and/or retrieve ratings
 - Data validations, including reasonability checks, will be enforced
 - Standard certificate-based authorization and authentication protocol

FERC Order No. 881 CAISO/RCWEST White Paper



- **Track 1: Real Time Reliability Applications**

- This track is intended to develop our processes/tools to receive real time ambient adjusted ratings from transmission owners. These ratings will be utilized in our real-time reliability monitoring processes.
- We plan to receive AAR via Inter-Control Center Communications Protocol (ICCP)
- Target capability will be ready in Q4 2023 and CAISO/RCWEST will work with transmission owners as they are ready to send the data to us.
- CAISO/RCWEST will include training and testing sessions after tool development and our current expectations are that these sessions will be scheduled in Q1 2024.

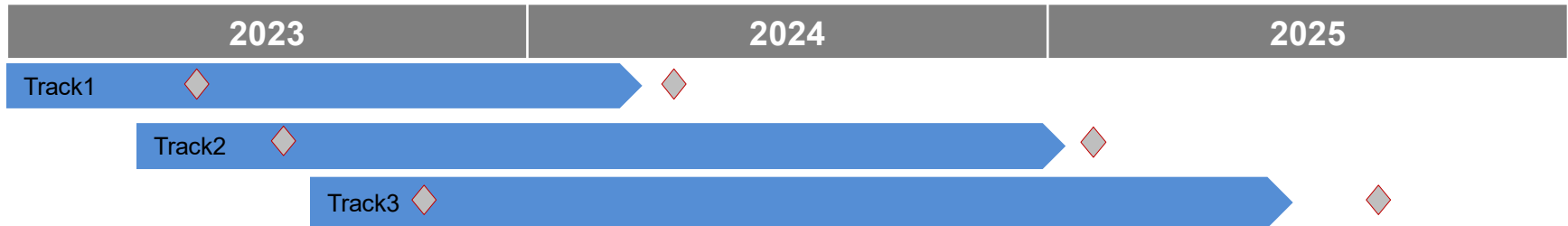
FERC Order No. 881 CAISO/RCWEST White Paper

- **Track 2: Operational/EMS Model Data and Applications**

- This track is intended to develop our tools and processes to receive look ahead AAR (240 hours AAR) from transmission owners.
- Target capability ready in 2024.
- CAISO/RCWEST will share the data formats and process details with stakeholders after our business requirements and technology is finalized before the actual implementation. We expect the business requirements and finalization of technology to complete in Q2 2023.
- Our current expectations are that these tools will be developed internally. CAISO/RCWEST is planning to enhance existing Transmission Register tools interface. This new enhanced Transmission Register interface will be utilized to interface with both CAISO PTO's and RCWEST TOP's and acquire look ahead AAR.

- **Track 3: Market Applications and Look Ahead Applications**
 - This track is intended to develop our tools and processes to utilize the look ahead AAR in the ISO's real-time and day-ahead markets and RCWEST's look ahead reliability studies.
 - Develop reporting and data posting requirements that are mandated by FERC Order No. 881.
 - Target earlier than July 2025 to meet compliance deadline.
 - CAISO/RCWEST will include training and testing sessions after tool developments are complete.

FERC 881 Project Timelines by Tracks



- **Track 1 – Real Time Reliability Applications**
 - Estimated - Target capability to be ready by Dec 2023 (Q4 2023)
 - Q1 2024 - Training and testing after tool development
- **Track 2 – Operational/EMS Model Data and Applications**
 - Mid-June 2023 - Complete business requirements
 - Close of planning phase (Q2 2023)
 - Estimated - Target capability to be ready in 2024
 - Q4 2024 – Training and testing after tool development
- **Track 3 – Market Application and Look Ahead Applications**
 - Q3 2023 – Complete business requirements
 - Close of planning phase (Q3 2023)
 - Estimated - Target capability to be ready in Q2 2025

Upcoming meetings

- May 1, 2023: Data submission working group
- May 11, 2023: Quarterly initiative update
- Working group materials will be posted prior to each meeting on the FERC Order 881 – Managing Transmission Line Ratings Phase 2 [initiative webpage](#).

Next steps

- Please submit comments on the technical white paper and today's working group discussion by end of day April 27 using the template provided on the [initiative webpage](#).
- Stakeholders may submit additional comments or questions related to the implementation of FERC Order No. 881 to be considered in a future working group to ISOStakeholderAffairs@caiso.com.