



FERC Order 881: Managing Transmission Line Ratings – Phase 2

Quarterly Initiative Update


May 11, 2023

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Reminders

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- 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
Quarterly update	Raja Thappetaobula
Next steps	Isabella Nicosia

FERC Order No. 881 quarterly initiative update

- ISO initiated a public stakeholder process
 - Quarterly initiative updates
 - Data submission working group
 - Methodology working group
- 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

FERC Order No. 881 quarterly initiative update

- FERC Order No. 881 requires at minimum utilization of 4 seasonal ratings.
 - ISO PTOs will need to follow the ISO transmission registry process to utilize 4 seasonal ratings.
 - RC West TOPs will need to follow the RC West IRO-010 data specification process to utilize 4 seasonal ratings.
- Real time AAR from both ISO PTOs and RC West TOPs will be acquired through Inter-Control Center Communications Protocol (ICCP) protocol.
- New interface to acquire look ahead Ambient adjusted ratings(240 hours).

FERC Order No. 881 quarterly initiative update

- CAISO/RCWEST has posted the technical white paper that documents our efforts related to the process/tools implementation timelines for FERC Order No. 881 compliance.
- The paper is available on the [initiative webpage](#).

FERC Order No. 881 CAISO/RCWEST white paper

- Feedback aligns with our goal of achieving alignment between TO's on transmission line rating methodologies and alignment of seasons definitions.
- More clarification needed on rating validation checks.

Status update on methodology working group

- Good discussion surrounding ambient adjusted rating exceptions.
- The applicable facility rating shall equal to the most limiting applicable equipment rating of the individual equipment that comprises the facility as per NERC FAC-008 standard.
- Terminal equipment includes all other series equipment that must be considered in rating and completing an electrical circuit including breakers, cables, switches, current transformers, jumpers, wave traps, switches.
- Operating conditions can affect facility ratings.

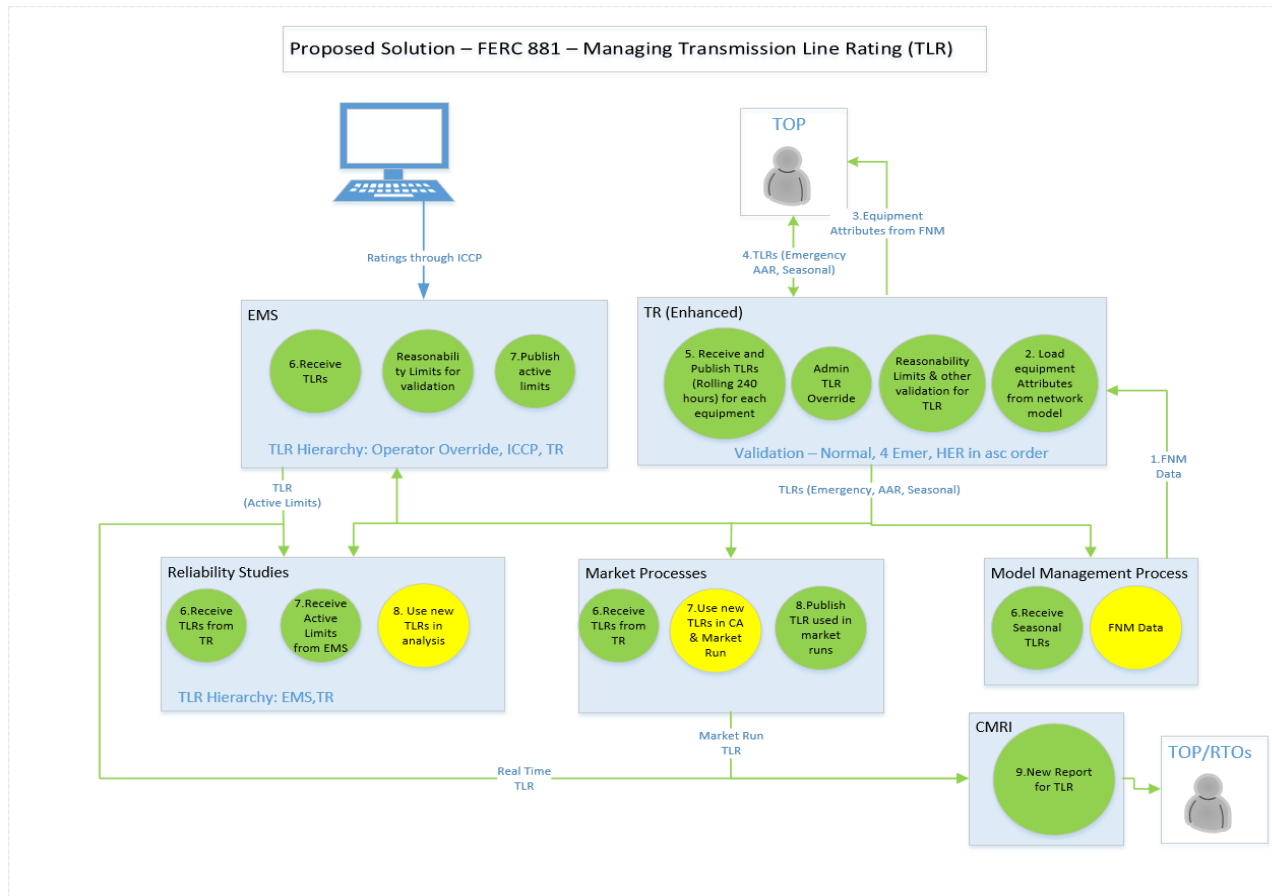
Status update on methodology working group

- For operating limitations due to equipment failure or malfunction, temporary facility ratings could be established.
- Line flow on a transmission line could be limited due to local/regional voltage stability or transient stability. In those instances, the rating of the equipment is not thermally limited.
- We expect TOP identify these exceptions in the transmission line rating methodology and communicate the exception list to CAISO/RCWEST.
- Discussion about tie line rating coordination and coordination on seasonal definitions coordination in upcoming WG meetings.

Status update on data submission working group

- Shared draft templates that will be utilized to receive real time AAR through ICCP.
- Draft changes for RC procedures were also discussed.

Proposed solution for managing AAR



Proposed solution for managing AAR

- 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

RC0120A draft changes discussion

Section	Category	Req #	Responsible Party	Data Item	Data Transfer Method	Data Update Frequency	Data Request Effective Date	Related NERC Standards (including but not limited to)	CAISO Guidance Document
1	Real-time Network Measurement Data	1.13	Transmission Operator	Dynamic equipment ratings including all facilities with ratings that vary with real-time system or ambient conditions (temp-driven Facility Ratings, Topology-driven Facility Ratings)	ICCP (if available)	10 sec	Shadow Ops 5/1/19 for 7/1/19 go-live; Shadow Ops 9/1/19 for 11/1/19 go-live		

- Data Item – if needed update the description
- Method - remove the “if available”
- Frequency – 4 seconds?
- Effective date - 7/1/2025
- CAISO Guidance Document – should point to a draft template which describes submission in accordance w/ the model timeframes

RC0120A draft changes discussion

Section	Category	Req #	Responsible Party	Data Item	Data Transfer Method	Data Update Frequency	Data Request Effective Date	Related NERC Standards (including but not limited to)	CAISO Guidance Document
6	Power System Modeling Information	6.1	Transmission Operator or Balancing Authority	Network topology changes (additions, changes, removals) for generation, transmission, and load equipment and facilities plus ICCP SCADA mapping	CIM file or equivalent file(s) with sufficient model details uploaded to RIMS; if modeling method may impact SE solution (i.e. double modeling), submit required switch positions via WebOMS until facility is placed into service	In accordance with Full Network Model Schedule posted RC Portal > Western Interconnection Model library	1/1/2020		RIMS User Guide Modeling Submission Checklist WebOMS User Manual, RC 0630A

Potentially add clarification re: the ICCP SCADA mapping

Updates will be needed to corresponding items in the RIMS User Guide and Modeling Submission Checklist

Next steps

- Please submit comments on today's working group discussion by end of day May 25 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.