

Memorandum

To: ISO Board of Governors
From: Neil Millar, Vice President of Infrastructure and Operations Planning
Date: July 13, 2022
Re: Transmission Maintenance Coordination Committee update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) held teleconference meetings on January 20, 2022, March 22, 2022, and April 21, 2022. The following were the main topics discussed:

January 20, 2022

1. Substation equipment monitoring at Western Area Power Administration;
2. NERC Reliability Standards, CIP and Compliance;
3. FERC Order No. 881 – Ambient Adjusted Line Ratings.

March 22, 2022

1. Nominate and confirm TMCC members for four open positions.

April 21, 2022

1. ISO Audit and Advisory Services findings;
2. NERC Reliability Standards, CIP and Compliance;
3. FERC Order No. 881 – Ambient Adjusted Line Ratings.

The next regular scheduled TMCC meeting will be held on October 20, 2022, at the ISO headquarters.

BACKGROUND

The TMCC is an advisory committee to ISO Management. TMCC membership includes one member representing each participating transmission owner (PTO) with transmission

facilities subject to the ISO transmission maintenance standards, two members representing organizations that represent labor interests, five members representing other organizations, and the ISO Vice President of Infrastructure and Operations Planning, or his or her designee, who serves as the Chair of the TMCC.

Members of the TMCC perform duties specified in Appendix C to the transmission control agreement focused on maintaining the availability of transmission facilities, including:

- Conveying transmission facility maintenance-related information to the ISO Vice President of Infrastructure and Operations Planning;
- Seeking input from participating transmission owners and interested stakeholders regarding the transmission maintenance standards; and
- Reviewing any proposed changes to the transmission maintenance standards submitted by the ISO, a participating transmission owner, or any interested stakeholder; and recommending revisions to the standards for submittal to the ISO Board of Governors for decision.

Summary of January 20, 2022 meeting

Substation equipment monitoring – Western Area Power Administration (WAPA) Sierra Nevada Region:

David Hahn, WAPA Maintenance Management Specialist, provided a presentation that described a battery monitoring system installed at one of WAPA's substations as a pilot program. Mr. Hahn described that the system was designed to be autonomous and employs battery parameters and algorithms to predict battery condition, including battery cell condition, state of health, risk factor, and true float current. Measurement data and analysis is done via built-in web server which is viewable on a desktop or mobile environment.

NERC Reliability Standards, CIP and Compliance:

Scott Vaughan, California ISO Manager Transmission Assets, briefed the committee members on developments in implementing the NERC recommendations on Inverter-Based Resources.

FERC Order No. 881 – Ambient Adjusted Line Ratings

Chris Hillman, California ISO Lead Grid Assets Engineer, briefed the committee members on the recently issued FERC Order No. 881 - Managing Transmission Line Ratings.

Summary of March 22, 2022 teleconference

The purpose of the conference call was for TMCC members to review nominations for four positions whose current members' terms were expiring on March 31, 2022. The committee

voted on the nominees and the following were appointed to the committee to serve until March 31, 2025:

- Renewal – Charles Mee, Senior Utilities Engineer - Specialist for California Public Utilities Commission;
- Renewal – David Hahn, Maintenance Management Specialist for Western Area Power Administration;
- New Member – Jed Ferguson, Apparatus & Testing Superintendent for Valley Electric Association;
- New Member – Ross Hohlt, Senior Asset Manager for LS Power Grid.

Summary of April 21, 2022 meeting

ISO Audit and Advisory Services findings:

Mr. Hillman presented on the California ISO's Audit and Advisory Services review of the ISO's transmission maintenance program procedures. Mr. Hillman explained that the auditors noted instances where PTOs did not submit required maintenance reports to the ISO in accordance maintenance procedure timelines. The audit report recommended that a formal escalation process should be established to provide documentation when target dates are missed.

The TMCC discussed potential measures that might help PTOs meet the timelines, which included;

- An agenda item for the January 2023 meeting to review upcoming submittal requirements,
- Email from the ISO reminding PTOs two weeks in advance of submittal deadlines,
- Formal follow up if reporting requirements missed,
- Escalation to vice presidents, and
- Establish a direct point of contact and/or compliance representative at the PTOs.

NERC Reliability Standards, CIP and Compliance:

Mr. Vaughan briefed the committee members on the implementation of PRC-027-1 Protective Relay Coordination. He discussed the baseline fault current methodology choices and asked which one was used by each PTO in determining its baseline fault current values. Mr. Vaughan also briefly discussed the NERC report titled "Multiple Solar PV Disturbances in CAISO". The report analyzed 4 events that occurred in the summer of 2021 involving inverter-based resources within the ISO balancing area. The report is located on NERC's website;

https://www.nerc.com/pa/rm/ea/Documents/NERC_2021_California_Solar_PV_Disturbances_Report.pdf

FERC Order No. 881 – Ambient Adjusted Line Ratings:

Mr. Hillman reviewed the requirements of FERC Order 881 and briefly described the ISO's proposed approach to comply with the Order. Mr. Hillman explained that the ISO is seeking stakeholder input to develop their compliance filing and will be posting draft Tariff language for stakeholder review.