

Memorandum

To: ISO Board of Governors

From: Neil Millar, Vice President of Infrastructure and Operations Planning

Date: July 10, 2024

Re: Transmission Maintenance Coordination Committee update

This memorandum does not require ISO Board of Governors action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) held meetings on January 18, 2024, March 4, 2024, and April 18, 2024. The following were the main topics discussed:

January 18, 2024

- High voltage circuit breaker non-SF6 pilot program update;
- High voltage circuit breaker analysis program.

March 4, 2024

- Nominate and confirm TMCC members for four open positions.

April 18, 2024

- Participating transmission owner substation inspection and maintenance practices survey results;
- Review of two components of the California Independent System Operator Corporation's (ISO) transmission maintenance standards – the standardized maintenance reporting system and the transmission line availability measures.

The next regular scheduled TMCC meeting is scheduled for October 24, 2024, 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 representing 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 18, 2024 teleconference

High voltage circuit breaker non-SF6 pilot program update

Rama Reddy, Pacific Gas and Electric's (PG&E) Manager of Substation Standards, presented an overview of PG&E's SF6 gas replacement program including a review of manufacturers, differences in physical size between traditional SF6 and new non-SF6 circuit breakers, industry developments and activities as well as PG&E's current pilot program. Ms. Reddy specifically discussed PG&E's ongoing pilot program using a vacuum type non-SF6 circuit breakers.

High voltage circuit breaker analysis program

Mark Christensen, Southern California Edison's (SCE) Manager of Substation Apparatus and Maintenance, presented on the the history of SCE's circuit breaker analysis (CBA). Mr. Christensen discussed the tools, methods and some of the findings from the program over the years. In addition, automated collection of CBA data has been progressing through SCE's circuit breaker online monitoring program.

Summary of March 4, 2024 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, 2024. The committee voted on the nominees and the following were appointed to the committee to serve until March 31, 2027:

- Renewal – Tibor Foki, IBEW 47, Local Union Business Representative;
- Renewal – James Alligan, NextEra Energy, Project Director;
- Renewal – Ross Hohlt, DesertLink, Director, Asset Management at LS Power;
- New Member – Christain Henderson, San Diego Gas and Electric, Compliance and Engineering Manager

Summary of April 18, 2024 meeting

Participating transmission owner substation inspection and maintenance practices survey results

Justin Flores, PG&E's Principal, Substation Asset and Maintenance Strategy, presented an overview of the results of PG&E's maintenance practices survey that was conducted in 2023 among the ISO's participating transmission owners (PTOs). Mr. Flores discussed the results which included frequency and types of substation inspection being performed by the PTOs.

Review of two components of the ISO's transmission maintenance standards – the standardized maintenance reporting system and the transmission line availability measures.

Scott Vaughan, ISO's Senior Manager of Transmission Assets, provided an overview of the standardized maintenance reporting system (SMRS) program that all PTOs participate in. This included recent trends and potential areas of enhancement as well as a discussion of the ISO's use of the historical trends and unscheduled repair data to track maintenance trends and effectiveness. The ISO committed to discussing individual SMRS results and PTO needs during each PTO's respective upcoming annual ISO maintenance reviews.

Kingsley Tenjoh, ISO's Lead Transmission Assets Engineer, provided an overview of the ISO's annual transmission line availability measures process which included a review of the process steps and handoffs needed to complete the availability analysis. Mr. Tenjoh led a discussion with the TMCC members to identify challenges and possible refinements to the process. Challenges identified included inconsistencies between PTO and ISO identified outages, transmission line naming conventions, types of outages considered as forced outages, and extension requests associated with meeting process timelines. The ISO committed to discussing the issues further during each PTO's respective upcoming annual ISO maintenance reviews.