

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President of Market and Infrastructure Development

Date: September 12, 2017

Re: Transmission Maintenance Coordination Committee update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) held conference calls on March 13, 2017 and July 20, 2017 and met on April 20, 2017. The following were the main topics discussed:

March 13, 2017

1. Nominate and confirm TMCC members for 5 open positions.

April 20, 2017

- 1. PacifiCorp presentation on its115kV post insulator failures;
- 2. Western Area Power Administration presentation on its bird excrement issues at Maxwell Switching Station;
- 3. NextEra Energy presentation on its emergency preparedness procedures for Hurricane Matthew:
- 4. ISO Transmission Maintenance Standards:
- 5. Major grid events.

July 20, 2017

1. Review and approve revisions to Maintenance Procedures 1,3,4 and 7.

The next regular scheduled TMCC meeting will be held on October 17, 2017 at the ISO Folsom Headquarters.

BACKGROUND

The TMCC is an advisory committee to ISO Management. TMCC membership includes one member representing each participating transmission owner 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 responsible for transmission maintenance, 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, including:

- Convey transmission facility maintenance related information to the ISO vice president responsible for transmission maintenance;
- Seek input from other participating transmission owners and interested stakeholders regarding the ISO transmission maintenance standards; and
- Review any proposed changes to the ISO transmission maintenance standards, submitted by the ISO, a participating transmission owner, or any interested stakeholder; and recommend revisions to the ISO transmission maintenance standards for submittal to the ISO Board of Governors for decision.

Summary of March 13, 2017 meeting

The purpose of the conference call was to review nominations and confirm TMCC members for 5 positions. The open TMCC positions were filled by three existing members and two new members:

- Renewal Landis Marttila, Business Representative for International Brotherhood of Electrical Workers Local Union 1245;
- Renewal Steven Powell, Vice President of Operations for Trans Bay Cable;
- Renewal Tom Wright Jr., Director of Substation Project Delivery for Pacific Gas and Electric:
- New Roni Meija, Senior Project Manager for Southern California Edison; and
- New Jim Useldinger, Vice President of Operations for GridLiance West Transco

Summary of April 20, 2017 meeting

PacifiCorp presentation on its 115kV post insulator failures:

Jack Vranish, Director of Asset Management for PacifiCorp, gave a presentation on PacifiCorp's investigation into the failures of porcelain post insulators experienced on their system. Mr. Vranish explained that light detection and ranging (LiDAR) surveys uncovered tension differences in adjacent spans resulting in unbalance loading on the insulators. The unbalanced loading resulted in prying failures to the insulator end cap.

Western Area Power Administration presentation on its bird excrement issues at Maxwell Switching Station:

Steve Tuggle, Supervisor of Transmission Operation and Maintenance Programs for Western Area Power Administration Sierra Nevada Region (WAPA SNR), presented on problems with European Starlings roosting on the Maxwell 500kV Series Compensator. Mr. Tuggle reported that feces accumulates on the cap banks resulting in reliability and health hazard problems, and has also been found to destroy the insulator coatings. WAPA SNR has tried squawk boxes and manual application or methyl anthraniate as deterents with limited success and are currently investigating the use of lasers, enclosure fencing, falconry or replacing the existing capacitor banks with fuseless capacitors to mitigate the issues.

NextEra Energy presentation on its emergency preparedness procedures for Hurricane Matthew in 2016:

James Alligan, NextEra Energy Transmission's Project Director, presented on procedures that were implemented at Florida Light & Power (FL&P) in the wake of Hurricane Wilma in 2005. Mr. Alligan explained that by establishing staging sites and pre-staging personnel prior to the landfall of Hurricane Matthew, FL&P was able to complete restoration in 4 days.

ISO Transmission Maintenance Standards:

Chris Hillman, California ISO Lead Grid Asset Engineer, outlined a schedule to update the Transmission Maintenance Standards by the end of October 2017.

Major grid events:

Tom Wright Jr. shared Pacific Gas & Electric's (PG&E) emergency preparedness efforts in the event of an Oroville Dam Spillway breach.

Summary of July 20, 2017 meeting

The purpose of the conference call was to review and approve minor revisions to the transmission maintenance procedures. The maintenance procedures reviewed and approved were:

- Procedure 1 Purpose of ISO Maintenance Procedures
- Procedure 3 Standard Maintenance Reporting System
- Procedure 4 ISO Maintenance Reviews
- Procedure 7 Preparing, Submitting, and Amending Maintenance Practices