

Memorandum

To: ISO Board of Governors
From: Keith Casey, Vice President of Market and Infrastructure Development
Date: March 17, 2016
Re: Transmission Maintenance Coordination Committee update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) met on October 15, 2015 and January 21, 2016. The following were the main topics discussed:

October 15, 2015

1. SDG&E presentation on its underground transmission inspection program;
2. WAPA presentation on its insulator washing program;
3. PacifiCorp presentation on its avian mitigation program;
4. PG&E presentation on its substation animal abatement program;
5. NERC reliability standards and compliance; and
6. Major grid events.

January 21, 2016

1. PG&E presentation on its grass roots safety program;
2. SCE presentation on the fire safety rulemaking (R) 08-11-005 and (R) 15-05-006;
3. SDG&E presentation on monitoring and maintenance of obstruction lights; and
4. NERC reliability standards and compliance discussion.

The next regular scheduled TMCC meeting will be held on April 21, 2016 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 Board for decision.

SUMMARY OF TMCC RECENT ACTIVITIES – October 15, 2015

SDG&E presentation on its underground transmission inspection program:

Monica Curry, Transmission, Construction & Maintenance Engineer for San Diego Gas & Electric, gave a presentation on SDG&E's underground transmission inspection program. SDG&E inspects their underground system utilizing digital and infrared cameras. Inspections are able to be completed with the cables in-service. During the inspections, GPS coordinates and pictures are taken to be later added to their asset information system.

WAPA presentation on its insulator washing program:

David Hahn, Supervisory Maintenance Management Specialist for Western Area Power Administration's Sierra Nevada office, gave a presentation on WAPA's insulator washing program, including source of contaminants, wash cycles and methodologies.

PacifiCorp presentation on its avian mitigation program:

Jack Vranish, Director Asset Management for PacifiCorp, gave a presentation on PacifiCorp's avian mitigation program, including mortality surveys and mitigation procedures.

PG&E presentation on its substation animal abatement program:

Tom Wright, Director Substations Maintenance & Construction, gave a presentation on PG&E's substation animal abatement program including scope, methodologies, and current progress.

NERC reliability standards and compliance:

Raymond Fugere, Manager of Compliance Strategy for SCE, and Tom Wright (PG&E) shared their experiences from their recently completed NERC audits.

Major grid events:

Landis Marttila, Business Representative for IBEW 1245, and Tom Wright (PG&E), provided a briefing of a PG&E transmission tower failure that resulted in the closure of Highway 101 in Burlingame, CA on August 28, 2015.

SUMMARY OF TMCC RECENT ACTIVITIES – January 21, 2016

PG&E presentation on their grassroots safety program:

Tom Wright gave a presentation on PG&E's grass roots safety program. This safety program is focused on prevention and not on assigning blame for accidents or near misses. Divisional safety teams are comprised of front line field staff as well as office personnel and managers. Safety teams are focused on giving PG&E employees the skills and resources to work safely.

SCE presentation on fire safety rulemaking (R) 08-11-005 and (R) 15-05-006:

Raymond Fugere gave a presentation on the revisions to California Public Utility Commission General Orders 95, 165 and 166 focused on fire prevention measures. Mr. Fugere explained that after the 2007 fire season in California, the California Public Utility Commission, with input from stakeholders, developed new GO95, GO165 and GO166 rules to protect the public from fires and other hazards that could be caused by electric utility or communications infrastructure providers' facilities. Workshops aimed at further enhancing fire safety are planned and could be completed in Q3 of 2016.

SDG&E presentation on monitoring and maintenance of obstruction lights:

Monica Curry gave a presentation on SDG&E's approach to monitoring and maintenance of obstruction lights. SDG&E monitors over 600 tower lighting systems in their service territory. The FAA regulations require the visual or automatic monitoring of obstruction lights at least once every 24 hours. To comply with the regulations, SDG&E employs a wireless low power communication network to monitor the status of obstructions lights via a web based application in real time. SDG&E has found the system provides more efficient maintenance, increased reliability and a reduction in risk.

NERC reliability standards and compliance:

Tom Wright and Tyson Swetek, Manager of Substation Operations for SDG&E, each briefly discussed their recent experience with the NERC audit at their respective organizations.