

Memorandum

To: ISO Board of Governors
From: Keith Casey, Vice President of Market and Infrastructure Development
Date: March 12, 2014
Re: **Transmission Maintenance Coordination Committee update**

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The purpose of the memo is to update the Board as to recent activities of the Transmission Maintenance Coordination Committee (TMCC). The TMCC met on January 16, 2014 and discussed the following topics:

1. TMCC Membership;
2. Recent experiences involving North American Electric Reliability Corporation (NERC) Reliability Standards;
3. California Public Utilities Commission (CPUC) General Order 174 (Rules for Electric Utility Substations) and General Order 165 (Inspection Requirements for Electric Distribution and Transmission Facilities);
4. Critical Infrastructure Protection (CIP);
5. Major grid events;
6. Incorporation of ISO Availability metrics into maintenance programs; and
7. ISO Availability Metric modifications.

The next regular scheduled TMCC meeting will be held on April 17, 2014 at the CAISO Folsom 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 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 approval.

SUMMARY OF TMCC RECENT ACTIVITIES

TMCC Membership

On November 4, 2013, the ISO issued a market notice announcing a candidate search to fill four open TMCC member positions, whose three year terms will begin on April 1, 2014. The TMCC charter requires these open positions to be filled as follows:

- Three by participating transmission owners
- One by a labor organization

Steven Powell, Trans Bay Cable LLC (TBC) Director of Operations, was nominated by TBC to renew his position as TBC's TMCC representative.

Tom Wright, Pacific Gas & Electric (PG&E) Director of Substation Maintenance and Construction, was nominated by PG&E to renew his position as PG&E's TMCC representative.

Michael Palusso, Southern California Edison (SCE) Manager of Transmission/Substation Maintenance and Inspection, was nominated by SCE to renew his position as SCE's TMCC representative.

Landis Marttila, International Brotherhood of Electrical Workers Local Union 1245 (IBEW 1245) Business Representative, was nominated by IBEW 1245 to renew his position as IBEW 1245's TMCC representative.

The TMCC voted unanimously to accept the above four nominations.

Recent experiences involving North American Electric Reliability Corporation (NERC) Reliability Standards

The TMCC discussed the future enforcement of NERC Reliability Standards PRC-005-2 which requires Transmission Owners, Generation Owners and Distribution Providers to document and implement programs for the maintenance of all Protection Systems affecting the reliability of the Bulk Electric System.

CPUC General Orders 165 (Inspection Requirement for Electric Distribution and Transmission Facilities) and General Order 174 (Rules for Electric Utility Substations)

Ryan Yamamoto, CPUC Senior Utilities Engineer, stated the CPUC will conduct twice the number of substation and transmission audits this year. The CPUC will be adding two new Investor Owned Utilities (NV Energy and Bear Valley Electric Service) and the large municipalities (Imperial Irrigation District, Los Angeles Department of Water and Power, and Sacramento Municipal Utility District) to their audit schedule for 2014.

Critical Infrastructure Protection (CIP) Standards

Rodney Winter, San Diego Gas and Electric (SDG&E) Project Manager III, indicated SDG&E is hosting a conference call on January 28, 2014 and a peer workshop on February 24, 2014 to discuss and develop processes to prepare for the future enforcement of NERC Version 5 CIP Standards. All interested TMCC members were asked to submit contact information to Mr. Winters.

Mr. Winter and Cory Mitsui, SDG&E Operations and Engineering Manager of Substation Maintenance, indicated SDG&E would like to develop a peer workgroup on a continual basis to discuss, share experiences and develop processes for the CIP Version 5 Reliability Standards. Stephen Rutty, ISO Director of Grid Assets and acting TMCC Chairman, indicated the ISO would be willing to host future meetings at the ISO facility following the TMCC meetings. All TMCC members supported Mr. Rutty's offer.

Major grid events

Mr. Wright reported the PG&E Metcalf substation shooting is still under investigation.

Incorporation of availability metrics into maintenance programs

Mr. Mitsui opened a discussion on how the PTOs are incorporating the availability metrics into their maintenance programs. Mr. Mitsui indicated the availability metrics are good indicators for reliability and determining problem areas and noted that SCE uses the charts developed by the ISO from the detailed outage data to develop the availability metrics.

Availability metrics modifications

Duke Luu, ISO Sr. Grid Asset Engineer, and Jeff Evans, Sr. Interconnection Specialist, presented a proposal to streamline the process to develop the availability metrics. Over the last year (2013), in an effort to reduce workload, a subcommittee of the TMCC has been working to develop a more streamlined method to compile outage data used in the annual availability performance monitoring system. The availability performance monitoring system is a key element of the ISO transmission maintenance standards. Based on the subcommittee's recommendation, the ISO prepared and disbursed preliminary results to PG&E, SCE, and SDG&E that reflected the new streamlined process. Early indications show the new streamline method will result in a significant time and resource savings for the PTO's and ISO. No changes will be required to Appendix C of the Transmission Control Agreement and minimal changes will be required to the ISO Maintenance Procedures 2 and 5 to align with the new methodology. The TMCC voted unanimously to accept the proposed changes.