

Memorandum

To: ISO Board of Governors
From: Keith Casey, Vice President of Market and Infrastructure Development
Date: May 9, 2012
Re: Transmission Maintenance Coordination Committee Update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) met on March 27 and April 19, 2012 and discussed the following topics:

1. TMCC Candidate Approval;
2. Smart Grid at the ISO;
3. CPUC Staff proposed General Order for Substation Inspection;
4. CPUC General Order 165;
5. California Air Resources Board proposed SF₆ regulation requirements;
6. Recent TMCC experiences with North American Electric Reliability Corporation (NERC) reliability standards; and
7. Grid events and analysis.

The TMCC will meet on July 19, 2012 to decide on the minutes of its April 19, 2012 meeting. Minutes are posted to the meeting pages at:

<http://www.caiso.com/Documents/Transmission%20Maintenance%20Coordination%20Committee%20archive>.



BACKGROUND

In April 1998, in compliance with a Federal Energy Regulatory Commission order and a Board resolution, the California Independent System Operator Corporation established an advisory committee to the Board called the Maintenance Coordination Committee, subsequently renamed the Transmission Maintenance Coordination Committee. On October 18, 2011, FERC approved the ISO filing to change the TMCC to be an advisory committee to ISO Management.

Membership must include one member representing each participating transmission owner that has 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 shall serve as the Chair of the TMCC.

Members of the TMCC shall perform all 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 Candidate Approval

TMCC Chair, Stephen Ruty, facilitated the TMCC approval of six members whose memberships were scheduled to expire on March 31, 2012. Final votes were taken on each individual renewal and replacement. Under the voting procedures, a seated member is recused from voting on his or her own membership renewal. Six membership renewals were approved as unopposed, four of whom were approved for three year terms and the remaining two were approved for two year terms. All six members began their new terms on April 1, 2012. The TMCC voting membership is currently at twelve with one position representing other organizations remaining vacant. Mr. Ruty expressed the ISO's appreciation for the value the TMCC provides.

The six members with new terms are:

Voting Member	Organization	Type	Interest Group
David Haerle	Los Angeles Department of Water and Power	3 year Renewal	Muni
Frank Johnson	San Diego Gas and Electric	3 year Renewal	PTO
Tibor Foki	International Brotherhood of Electrical Workers Local 47	3 year Renewal	Labor Union
Jorge Somoano	City of Burbank Water and Power	3 year Renewal	Muni
James Alligan	Trans Bay Cable	2 year Renewal	PTO
Tom Wright	Pacific Gas and Electric	2 year Replacement	PTO

Briefing on the SMART GRID by the ISO

The ISO Smart Grid Technology and Strategy Director, Heather Sanders, and her staff provided an overview from the ISO’s Tech Center of the ISO smart grid technology program. Some of the more important concepts discussed were voltage stability analysis, use of synchrophasors, demand response, and energy storage. The details behind these concepts are demonstrated in the ISO Tech Center for public and employee viewing.

Briefing on CPUC Draft General Order for Substation Inspections

CPUC Utilities Engineer, Jesse Ante, provided the current status on the development of the *General Order for Substation Inspection*. The purpose of this general order is to formulate, for the State of California, uniform requirements for substation inspection programs, the application of which will promote the safety of workers and the public and enable adequacy of service. As currently drafted, substation facilities subject to the ISO’s operational control and/or subject to FERC reliability standards and customer substations will be exempt from this General Order. Administrative Law Judge Douglas Long has been assigned to write a proposed decision which is still pending. The Order Instituting a Rulemaking R.10-09-001 to implement this general order is on hold until the proposed decision is issued



Briefing on CPUC General Order 165

Mr. Ante provided the current status of the implementation of the section under General Order 165 allowing the California Public Safety Division of the CPUC to review the transmission facility inspection and maintenance performed by utilities under their jurisdiction. The safety division has scheduled reviews with PG&E in May and with Southern California Edison in July. SDGE indicated they are expecting the safety division to schedule a review of their facilities sometime in this upcoming fall season.

Briefing on California Air Resources Board proposed SF₆ Regulation Requirements

ISO Grid Asset Transmission Asset Engineer, Tom Halford, informed the TMCC that Gas Insulated Switchgear owners were mandated to complete their first SF₆ report to the California Air Resources Board by June 1, 2012, delineating their emission rates and demonstrating compliance with greenhouse gas emission reduction regulations (California Code of Regulations Title 17 Sub Article 3.1 Sections 95350-95359).

The link for this effort and associated reporting details is located at:

<http://www.arb.ca.gov/cc/sf6elec/sf6elec.htm>

Information and status on the EPA's Mandatory Reporting Rule on Green House Gases can be found at:

<http://www.epa.gov/climatechange/emissions/subpart/dd.html>

Briefing on Recent TMCC Experiences with NERC Reliability Requirements

SCE corporate representative Sam Stonerock stated that NERC Reliability Standard PRC-005-2 (Protection System Maintenance and Testing) passed ballot, but the drafting team chose to modify the standard based on stakeholder comments. The drafting team anticipates posting the standard and associated documents in May for a 30-day formal comment period concurrent with a 10-day initial ballot. It is the belief of the drafting committee that this standard will pass final vote this year. The current status of PRC-005-2 can be found at:

http://www.nerc.com/filez/standards/Protection_System_Maintenance_Project_2007-17.html

Briefing on Grid Events and Analysis

PG&E Substation and Transmission Reliability Manager, Chuck Stinnett, provided a presentation on insulator assembly failures that occurred on their 500kV lines in 2010. Mr. Stinnett stated that to resolve this issue, the hardware connecting the insulator strings to the tower steel was redesigned.



PG&E Substation and Transmission Maintenance Director, Tom Wright, indicated their 500kV Midway Bank 13 insulator bushing for phase “B” failed. This was the 2nd transformer of the same manufacturer that had an insulator bushing failure.

Bonneville Power Administration Redmond District Manager – South Region, Adam Mikulski, indicated they initiated a remedial action scheme operation at their Malin substation due to the clearing of the 500kV south operating bus. BPA agreed to make a presentation providing more details on this event at the July 2012 TMCC meeting.

SCE plans to brief the TMCC during the July 2012 TMCC meeting regarding the root cause analysis of an insulator cap failure on their 500kV Midway-Vincent #1 line.