

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market & Infrastructure Development

Date: September 1, 2010

Re: **Transmission Maintenance Coordination Committee Activity Update**

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) met on July 15, 2010 and discussed the following significant topics:

- CPUC Staff proposed *General Order for Substation Inspection*;
- CPUC *Proposed Rule Changes for Rulemaking R.08-11-005* on fire safety hazards;
- California Air Resources Board proposed SF₆ regulation requirements;
- Recent TMCC experiences with North American Electric Reliability Corporation (NERC) reliability standards;
- Major grid events; and
- Proposed edits to the *TMCC Charter*.

The TMCC will meet on October 21, 2010 to decide on the minutes of its July 15, 2010 meeting. Minutes are posted at <http://www.caiso.com/pubinfo/BOG/documents/grid/mcc/archives.html>.

BACKGROUND

CPUC Staff proposed *General Order for Substation Inspection*

CPUC Utilities Engineer, Jesse Ante, Southern California Edison Company Manager of Transmission/Substation Maintenance and Inspection, Michael Palusso, and Los Angeles Department of Water and Power Superintendent of Electrical Station Maintenance Support Services, Mr. Haerle, provided

the current status on the development of the *General Order for Substation Inspection*. They indicated there were no or minimal responses from utilities other than those who had previously participated with the California Consumer Protection and Safety Division (CPSD) in the development of the 11/13/2009 draft *General Order for Substation Inspection*. There have been no meetings between the stakeholders and the CPSD since the last TMCC meeting. Mr. Ante stated he would keep the TMCC members informed if there was any further movement in the processing of this document.

CPUC Proposed Rule Changes for Rulemaking R.08-11-005 on fire safety hazards

International Brotherhood of Electrical Workers Local Union 1245 Business Representative, Landis Marttila, and ISO Transmission Asset Engineer, Tom Halford, led the discussion on proposed rule changes regarding the CPSD's activity on facilitating Phase 2 of a rulemaking effort to reduce fire safety hazards in California. Mr. Marttila focused on the distribution portion of this effort (joint use pole loading, vegetation management clearances, and mapping of high fire threat areas). Mr. Halford addressed transmission facilities and indicated there was no change to the language added to the proposed rule for the existing *State of California General Order 165*. The proposed rule for allowing the CPUC to have access to all transmission facility inspection and maintenance records remained the same. A CPSD workshop report is scheduled to have consensus rule changes and multiple alternative proposals catalogued by July 26 and ready for submittal as a final workshop report to the CPUC on August 13. Mr. Halford indicated the CPUC may have a decision by November 2010.

California Air Resources Board proposed SF₆ regulation requirements

Mr. Haerle informed the Committee of the current status of the State Assembly Bill AB32 that mandates the California Air Resources Board (ARB) to develop regulations to achieve greenhouse gas emission reductions. A proposed regulation for reducing sulfur hexafluoride (SF₆) emissions from gas insulated switchgear was adopted by the ARB at their February 25, 2010 meeting, subject to appropriate modifications by the ARB staff.

A modified version of this regulation is scheduled to be released sometime this summer for a 15-day public review and comment period. Current status information can be found at:

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

Mr. Haerle also mentioned the federal government's Environmental Protection Agency (EPA) has a proposed rule under development that will also require reporting of SF₆ emissions but in a different format. Comments for this proposed rule were due on June 11, 2010. Although it may be too late Mr. Haerle suggested that affected utilities submit suggestions to the EPA regarding this rule that would allow for standardizing the annual reports (state and federal) to cause efficient reporting of the same data. EPA expects to publish the final rule in 2010 so that data collection for this source category can begin on January 1, 2011, and be reported by March 31, 2012. For more information and status on the EPA's Mandatory Reporting Rule on Green House Gases see this link:

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

Recent TMCC experiences with NERC reliability standards

Mr. Palusso stated the NERC Reliability Standard *PRC-005-2 (Protection System Maintenance and Testing)* comment period was open until 7/17/2010 and suggested, because this version is more prescriptive and allows no deviations on the prescriptions, that it would be prudent for the affected organizations to send in comments. After further discussion, San Diego Gas & Electric Substation Construction and Maintenance Manager, Frank Johnson, stated he would send in comments regarding the clarification on the “No Deviation” policy. Mr. Palusso stated the week of July 18, 2010 was set aside by NERC to consider the comments on PRC-005-2 and he would be participating in that activity. The current status of *PRC-005-2* can be found at the following NERC website address:

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

Grid Assets System Protection Engineer, Louis Fonte, stated *NERC Reliability Standard PRC-023-01 (Transmission Relay Loadability)* became effective on July 1, 2010 and its role is to establish minimum loadability criteria for relays to minimize the chance of unnecessary line trips during a major system disturbance. This standard applies to transmission owners, generation owners, distribution providers, and planning coordinators. As a planning coordinator, the ISO has already received requests for ratings on lines under their operational control and will eventually sign off on the relay protection ratings they agree upon. The ISO is currently developing a process to handle this standard and any future requests that come its way to ensure the confidentiality of the ratings in the Transmission Register. For more detail on this standard go to this link: <http://www.nerc.com/filez/standards/Relay-Loadability.html>

Mr. Fonte also briefed the Committee members on the future *NERC Reliability Standard PRC-006-01 (Automatic Underfrequency Load Shedding)* that would establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures. Currently this standard is written to allow the planning coordinators to set the design and documentation requirements and establish the UFLS programs. Coordination regarding the UFLS programs and associated data needs to occur with appropriate transmission owners, distribution providers, UFLS entities, and other planning coordinators. For more detail on this standard go to this link:

http://www.nerc.com/filez/standards/Underfrequency_Load_Shedding.html

Major grid events

Transmission Line Asset Strategy Field Support Supervisor (PG&E), Chuck Stinnett, indicated the 500kV Moss Landing-Los Banos and Tracy-Los Banos line conductor hardware failures were due to lack of sufficient hardware articulation on the cold end of the outside phase single string insulator assemblies. This lack of sufficient articulation led to a reduced number of stress points (4 to 2 or 1) on the Y-ball clevis that eventually caused the cap to fracture where the cap joins the shank of the clevis. Over 800 structures required replacement of the existing hardware with double articulated hardware. To date approximately 600 of those structures have had their hardware replaced. Mr. Stinnett also indicated there were a number of structures where the hot end of the insulator strings was experiencing rust problems due to corona affects. Without corona rings the hot end insulator sacrificial rings were slowly eaten away by the corona thus

allowing subsequent rusting of galvanized parts. Currently the process to replace the hardware lacking sufficient articulation also includes replacement of the rusted insulator assemblies with all new parts inclusive of appropriate corona rings.

On July 13, 2010 PG&E's middle phase "V-string" insulator assembly on the 500kV Tesla-Metcalf line broke on one side of the assembly approximately 10 insulator bells down from the cold end. An ongoing study is underway to determine the cause for this line failure. PG&E will report back to the TMCC when the study is completed.

Proposed edits to *TMCC Charter*

ISO Assistant Corporate secretary, Stacey Karpinen, informed the Committee that all advisory committee charters within the ISO were being modified to reflect the corporate policy on structure and plain English style and to update them to reflect current practices and requirements. The modified version distributed at this meeting reflected that effort. The TMCC charter was also modified to include the past requirements, provide more flexibility on percentage of voting members approved annually, add a confidentiality section, and add a section to clarify telephonic participation at TMCC meetings. The Committee discussed the draft charter to be presented to the Board of Governors at a future meeting and Ms. Karpinen noted the charter would be updated to incorporate suggestions made at this meeting regarding the intended use of the telephonic participation section and will better reflect the interpretation of voting member experience requirements.