

Memorandum

To: ISO Board of Governors

From: Laura Manz, Vice President of Market and Infrastructure Development

Date: December 8, 2008

Re: *Transmission Maintenance Coordination Committee Activity Update*

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The purpose of this memo is to keep the Board informed of recent activities of the Transmission Maintenance Coordination Committee (TMCC), which met on October 16, 2008 and addressed the following significant topics:

1. Maintenance management within or outside of *rights-of-way*;
2. California Independent System Operator Corporation (the ISO) *Maintenance Procedure 2* revision;
3. Congestion revenue rights;
4. California Public Utilities Commission (CPUC) proposed general order for substation inspections;
5. Recent TMCC experiences with North American Electric Reliability Corporation (NERC) reliability standards;
6. The Institute of Electrical and Electronics Engineers, Inc. (IEEE) *Maintenance/Inspection Data Guide*; and
7. Major grid events concerning Southern California Edison Company (SCE), San Diego Gas and Electric Company (SDG&E), Bonneville Power Administration (BPA), and Western Area Power Administration (WAPA) from June through September 2008.

The TMCC scheduled their next meeting for January 15, 2009 and at that meeting will approve the official minutes of the October 16, 2008 TMCC meeting.

BACKGROUND

Congestion revenue rights

ISO Senior Grid Asset Engineer Jim McHan briefed TMCC participants on the September 15, 2008 congestion revenue rights 30-day rule workshop conducted at ISO Folsom headquarters. The workshop addressed changes in the outage approval process. Mr. McHan also went over workshop participants' written comments. One attendee urged transparency in the posting of outages, specifically participating transmission owner outage information. Mr. McHan also stated that the *Business Practice Manual for Outage Management* (Version 5) regarding congestion revenue rights changed the *less than 24-hour outage* definition to encourage off peak outages. Mr. McHan provided an electronic copy of this revised manual to TMCC members after the meeting and referred them to the following website location for other related manuals: <http://www.caiso.com/1840/1840b2cc23580.html> .

Maintenance management within or outside of rights-of-way

The TMCC unanimously voted at the October meeting to recommend the *ISO Transmission Maintenance Support Policy* for maintenance done within or outside of *rights-of-way*.

This policy document was then given signature approval by Management and posted at the following ISO website location to assist participating transmission owners in performing maintenance:
<http://www.caiso.com/207b/207b93648a0.pdf>

CPUC proposed general order for substation inspections

CPUC's Raymond Fugere presented the reason to develop and implement a general order to address substation inspections. Currently, some substations not under the jurisdiction of the ISO, Western Electricity Coordinating Council (WECC), or NERC are not regularly inspected. This was evident when an event in Northern California on December 20, 2003 caused an outage during peak Christmas shopping hours, leaving many businesses and residents out of service. The CPUC investigated the failure and found this substation was not inspected and maintained on a regular schedule. The main goal of the proposed general order is to inspect substations currently not inspected by the ISO, WECC, or NERC to ensure the safe operation and maintenance of these substations.

Currently the proposed general order on substation inspections is in the draft stage. A stakeholder meeting was scheduled for open discussion and input at the CPUC Los Angeles office building October 23, 2008. Most utility TMCC members and ISO Grid Asset Engineer Tom Halford will attend that meeting

Recent TMCC experiences with NERC reliability standards

WAPA Maintenance Manager Charles Cooper stated their Phoenix office will be audited by WECC the week beginning October 20, 2008, followed by their Loveland, Colorado office in November 2008. In preparation, his organization conducted internal audits and concluded that all documentation and processes are in place. Mr. Cooper stated that it is important to make information readily available to the auditors, rather than to make them look for it.

SCE Manager of Transmission/Substation Maintenance and Inspection Mike Palusso stated his organization self-reported non-compliance to NERC standard PRC-005-1 when his organization did not conduct a relay maintenance routine. SCE submitted a mitigation plan, which was rejected by NERC, concluding SCE was in compliance with their relay maintenance program.

BPA's Jim Jackson stated that his organization submitted a mitigation plan for NERC standard PRC-005-1 to NERC in June and has not received approval of the mitigation plan since there is currently a backlog at NERC.

Maintenance Procedure 2 revision

Maintenance Procedure 2 is the *Outage Data File Format for the ISO Availability Performance Monitoring System*.

All participating transmission owners stated they would favor using the scenario and language revision to *Section 2.3.6 Maintenance Procedure 2* that would allow qualified owners to use ten years of forced line outage data that occurred only while they were with the ISO as the base for calculating future control chart limits. The ISO uses the control chart limits as thresholds to measure the effectiveness of a participating transmission owner's maintenance practices. The revision also adds *Other* to the list of available *secondary cause codes* to allow classification of outages that have secondary causes not listed in the secondary cause code list.

After further discussion the TMCC unanimously voted in favor to recommend the revised *Maintenance Procedure 2*. It is posted at the following ISO website location:

<http://www.caiso.com/docs/2005/10/08/2005100817555415240.html>

IEEE Maintenance/Inspection Data Guide

Mr. McHan passed the current draft copy of the *Guide for Collecting and Managing Transmission Line Inspection and Maintenance Data* to the TMCC members at the meeting to see if they were interested in obtaining any additional information. Mr. McHan stated that the committee crafting this document would have a final draft available in November 2008 and intends to finalize the guide in January 2009.

Major Grid Events

Mr. Palusso indicated fires affecting the Southern California Edison area primarily involved distribution facilities and the San Fernando fire was contained.

SDG&E Substation Construction & Maintenance Manager Frank Johnson indicated SDG&E was looking to make the various black, red, and yellow flag resource fire plans better by removing overkill and duplication. Currently the yellow flag allows SDG&E to bring a line back in after it has gone out once, the red flag requires SDG&E's reclosing activity to cease and send personnel out to investigate the outage, and the black flag requires SDG&E to turn the power facilities off.

Mr. Jackson briefed TMCC members on results of the six WECC directives imposed on BPA after a tree contact on a 230kV transmission line on June 08, 2008. Mr. Jackson indicated BPA reached a tentative agreement with WECC on approved processes to minimize vegetation clearance events and completed all six directives in 56 days at a cost of 6.5 million dollars. The most significant directive imposed required BPA to comprehensively inspect all their bulk power transmission *rights-of-way*. Mr. Jackson stated that the WECC was very pleased with BPA's response but indicated that BPA needed an improved vegetation quality assurance and control program. Mr. Jackson stated that one of the possible outcomes of this event was an addition of contracted vegetation management crews to conduct inspection and maintenance of transmission *rights-of-way* instead of having only their line crews do all the transmission line and vegetation inspection and maintenance.

Mr. Cooper indicated their utility experienced a flashed-over insulator event at their Tracy substation while washing an energized circuit breaker. The outage took out a portion of the 69 kV electric bus and distribution load and affected another utility. The breaker manufacturer recommended a longer insulator be

installed on the breaker. Mr. Cooper also stated their Lawrence-Livermore 230 kV line tripped out five times in one week and was restored back to normal activity after the line was washed.

Los Angeles Department of Water and Power's David Haerle indicated they had a transformer insulator blow up at their Hyperion substation.

The TMCC approves the official minutes for the October 16, 2008 TMCC meeting and details of the above topics at the January 15, 2009 TMCC meeting. Official minutes for TMCC meetings appear at this link: <http://www.caiso.com/pubinfo/BOG/documents/grid/mcc/archives.html>.