

Memorandum

To: ISO Board of Governors

From: Jim Detmers, Vice President, Operations

Date: September 2, 2009

Re: *Transmission Maintenance Coordination Committee Activity Update*

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (Committee) met on July 16, 2009 and addressed the following significant topics:

1. Pacific Gas & Electric Company (PG&E) and Western Area Power Administration (WAPA) corona camera experience;
2. California Public Utilities Commission (CPUC) proposed general order for substation inspections and maintenance oversight;
3. California Independent System Operator Corporation (ISO), Western Electricity Coordination Council (WECC), North American Electric Reliability Corporation (NERC), and CPUC overlapping maintenance standards;
4. Recent Committee experiences with NERC reliability standards; and
5. Major grid events.

The Committee will meet on October 22, 2009 and approve the official minutes of the July 16, 2009 Committee meeting. Minutes are posted at the following link:

<http://www.caiso.com/pubinfo/BOG/documents/grid/mcc/archives.html>.

BACKGROUND

PG&E and WAPA corona camera experience

PG&E Transmission Line Regional Superintendents, Scott Rose and Eric Barron, and WAPA Transmission Maintenance Management Specialist, David Hahn, presented their respective organization's use of corona cameras to locate corona. Corona is an electrical discharge produced by the ionization of nitrogen in the air surrounding energized electrical facilities. PG&E and WAPA are using cameras at a few locations on their electrical systems to test their ability to find high levels of corona on critical facilities. High levels of corona may cause electrical components to deteriorate rapidly, indicate significant damage to components, and indicate deterioration of electrical insulation.

Repair or replacement of components subject to high corona levels should take place as soon after discovery as possible. This new technology is labor intensive and coupled with more experience, utilities will determine if making periodic corona inspections on all of their electrical facilities is effective.

CPUC proposed general order for substation inspections and maintenance oversight

CPUC Utility Safety and Reliability branch Electrical Engineer, Paul Penney, briefed the Committee on the status of a substation working group's draft general order to address oversight of substation inspections and maintenance under CPUC jurisdiction. Current draft language allows overlap between CPUC oversight of substation inspection and maintenance and ISO reviews of substation inspection and maintenance. However, the working group verbally agreed to eliminate overlap, aiming to prevent an inefficient, redundant inspection and maintenance oversight process.

Mr. Penney indicated the CPUC's Order Instituting Rulemaking (OIR) process would begin when the CPUC submitted their proposal, after the substation working group met in San Francisco on July 22, 2009. Those not in agreement with the CPUC proposal would have the opportunity during the OIR process to make changes. Because there were unresolved language issues remaining after the July 22, 2009 meeting the OIR process has not begun.

ISO, WECC, NERC, and CPUC overlapping maintenance standards

TMCC Acting Chair and ISO Senior Grid Assets Engineer, James McHan, described where and to what degree the *ISO Transmission Maintenance Standards* may overlap with WECC, NERC, and CPUC maintenance standards.

ISO Management noted that, because of WECC and NERC scheduled intervals every third or fifth year, our records review may partially overlap. WECC and NERC currently schedule three to five year intervals for performing record audits of the transmission owner maintenance programs for transmission facilities. These are limited to WECC/NERC "Path", "Voltage Level", or "Critical to the reliability of the electric system in the region" definitions. Currently, WECC and NERC annual field site reviews and facility performance monitoring does not overlap with the ISO. Overlap possibilities with the CPUC were addressed in the section above. ISO Management will investigate whether it is possible to reduce duplication of records review and if so, how to do it.

Recent Committee experiences with NERC reliability standards

SDG&E Substation Construction & Maintenance Manager, Frank Johnson, reported that he is participating with the WECC Bulk Electric System Task Force assigned to defining the reliability standards phrase *bulk electric system* (BES). The task force defines BES as elements operating at a voltage greater than or equal to a threshold value (100kV). The task force also defines BES as including elements that operate at less than the threshold value and have a material impact on the bulk electric system reliability.

The task force was expected to meet by teleconference through the month of July and to meet offsite in the future in Salt Lake City, Utah to conclude the effort. Interested Committee parties were invited by Mr. Johnson to participate in this effort. The task force had their teleconference meetings in July without coming to agreement on the BES definition.

Major Grid Events

Southern California Edison (SCE) Manager of Transmission/Substation Maintenance and Inspection, Michael Palusso, updated the Committee on the status of the root cause investigation of a yoke plate failure on SCE's 500kV Midway-Vincent #1 line, which was forced out of service, February 20-21, 2009. Mr. Palusso mentioned no other similar yoke plates have failed. He expects the investigation to be completed and reviewed by the end of July 2009. The results of this investigation may be shared with the Committee at the October 22, 2009 Committee meeting.