California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President of Market and Infrastructure Development

Date: December 7, 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 October 21, 2010 and discussed the following significant topics:

- Recent TMCC experiences with North American Electric Reliability Corporation (NERC) reliability standards;
- Congestion Revenue Rights impact one year after implementation;
- 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 SF_6 regulation requirements; and
- Major grid events.

The TMCC will meet on January 20, 2011 to decide on the minutes of its October 21, 2010 meeting. Minutes are posted at http://www.caiso.com/pubinfo/BOG/documents/grid/mcc/archives.html.

BACKGROUND

Recent TMCC experiences with NERC reliability standards

Southern California Edison Manager of Transmission/Substation Maintenance and Inspection, Mike Palusso, stated the NERC Reliability Standard *PRC-005-2 (Protection System Maintenance and Testing)* definition for "Protection System" was voted in and approved with 84% in favor. However, the rest of the

standard was still out for ballot. Mr. Palusso suggested it would be prudent for affected organizations to send in comments when comment periods are opened. The current status of *PRC-005-2* can be found at: 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 with its purpose to establish minimum loadability criteria for relays to minimize the chance of unnecessary line trips during a major system disturbance. The ISO received very few requests as a planning authority approver regarding this standard. An additional requirement of this standard where the ISO is also involved becomes effective in the latter part of 2011. For more detail on this standard go to this link: http://www.nerc.com/filez/standards/Relay-Loadability.html

Western Area Power Administration (WAPA) Sierra Nevada Region Maintenance Manager, Charles Cooper, addressed WAPA's Upper Great Plains area audit by Western Electricity Coordinating Council (WECC) that occurred approximately five months ago. Mr. Cooper indicated the audit process was different from the process used in the PTO audits because the auditors came from a different region. WAPA's Upper Great Plains audit process appeared to be more detailed and required more information to be made available.

Los Angeles Department of Water and Power (LADWP) Superintendent of Electrical Station Maintenance Support Services, David Haerle, indicated the WECC audit of the LADWP looked for in place systems that automatically issued reports identifying if non-compliance with the standards was about to occur. This was slightly different from past WECC audit experiences with the PTOs where the audit process focused on reviewing existing records to see if PTOs were compliant.

Mr. Cooper addressed an October 7, 2010 NERC Alert on facility ratings. The alert was a recommendation to owners of transmission circuits greater than or equal to 200kV to submit an action plan via the filling out of a questionnaire by December 15, 2010. The results of the questionnaire would provide a plan on how to ensure actual field conditions support current facility ratings. The same owners using this plan would need to complete in-field inspections no later than April 2011 and complete any needed corrective actions by October 2012. The discussion indicated that performing all in-field inspections and analyzing the data by April 2011 would be difficult at best. A webinar on this alert occurred on October 28, 2010 that provided an overview of this issue. The registration link to view this webinar is at: https://cc.readytalk.com/r/dd8amgsvvoq

Congestion revenue rights impact one year after implementation

ISO Grid Assets Senior Transmission Engineer, Jim McHan described how various applications at the ISO are used to support the market process and maintain reliability of the grid. Mr. McHan indicated the Resource Interconnection Management System (RIMS) information is used to add, modify, or remove facilities from the full network model, the ISO outage modeling tool is used to add temporary derates or outages of existing facilities, and the congestion revenue rights full network model is used to award CRRs. This led to the introduction of ISO Market Information Manager, Alan Isemonger, who provided an update on the CRR program implemented in 2009. In 2009 the TMCC was involved in the development of the timeline to create maintenance outages that allowed the CRR program to work effectively while maintaining a reliable grid.

Mr. Isemonger indicated:

- The revenue adequacy of CRRs had been low a couple of months but high enough in other months that during the first year of operation there was no net charge to PTOs;
- The 30 day notice outage process was working as expected and his staff was able to identify specific transmission elements and time frames that allowed for greater flexibility in outage control;
- The ISO is making an effort to model outages more efficiently and constrain PTOs less; and
- The ISO will more than likely re-open the stakeholder process to address the following market/outage issues:
    - Earlier submittal of 7 day notice outages; and
    - Forced outage increases or decreases.

CPUC Staff proposed *General Order for Substation Inspection*

CPUC Senior Utilities Engineer, Ben Brinkman, provided the current status on the development of the *General Order for Substation Inspection*. Mr. Brinkman indicated an *Order Instituting a Rulemaking (OIR) R.10-09-001* to implement this general order was issued for comments on September 8, 2010. Comments were due within 30 days of issue and replies to those comments were due 15 days after the 30 day comment period. Mr. Brinkman indicated that this OIR should be approved sometime in 2011, and that he would send out a data request to all affected organizations to find out what station facilities were under ISO operational control or NERC jurisdiction and those that were not. Mr. Rutty indicated the ISO currently had a tool (transmission register) in place that could be used to help in the development of that list. Mr. Haerle recommended the CPUC in finishing the document try to stay with definitions of terms that were currently used in the industry such as NERC or FERC definitions (e.g. bulk electric system).

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

Mr. Brinkman provided the current status of the proposed change to the *State of California General Order 165* regarding the California Consumer Protection Safety Division's activity on facilitating Phase 2 of *OIR R.08-11-005* to reduce fire safety hazards in California. The proposed change to General Order 165 for allowing the CPUC to have access to all transmission facility inspection and maintenance records is expected to be implemented in the first part of 2011. Mr. Brinkman indicated he would be making a data request from the affected transmission owners to list all of their lines that are under ISO operational control or NERC jurisdiction and those that are not.

California Air Resources Board proposed SF_6 regulation requirements

Mr. Haerle informed the Committee of the current status of State Assembly Bill AB32 that mandates the California Air Resources Board (CARB) 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 CARB at their February 25, 2010 meeting.

A modified version of this regulation was submitted this summer with a 15 day public review comment process completed on September 24, 2010. The state has yet to issue the final outcome of that process. The utilities are currently seeking further penalty guidelines from the state and are in disagreement with the fine structure. The current structure could have an annual minimum fine of $365,000 or a maximum of $91,000,000. The utilities would be vulnerable to fines in two areas; excessive leakage and paperwork/recordkeeping. The leak rate formula for tracking unaccounted for gas is based on average daily nameplate capacity and ownership. The ownership language within the regulation on owner shared facilities still lacks clarity. Current status information can be found at: http://www.arb.ca.gov/cc/sf6elec/sf6elec.htm

Mr. Haerle also mentioned the federal Environmental Protection Agency (EPA) proposed rule requiring the reporting of SF6 emissions has yet to be approved, there is no fine structure currently written in the language of the document, and an annual report is required. The annual report requires the results of a leak rate formula similar to that used for the CARB report except it's based on operational control versus ownership. This means two different report results will occur. The EPA expects to publish the final rule in 2010 so that data collection for this source category can begin on January 1, 2011 and report by March 31, 2012. More information and status on the EPA's Mandatory Reporting Rule on Green House Gases is found at: http://www.epa.gov/climatechange/emissions/ghgrulemaking.html

Major grid events

Mr. Cooper applauded the ISO for cancelling an outage scheduled for September 27, 2010 on the 500kV Captain Jack-Olinda line due to very hot weather. This cancellation later averted any additional outages that might have occurred due to the eventual tripping open both of the Round Mountain-Table Mountain lines due to a fire burning under both lines. It also provided an opportunity for their line crews to better understand why outages sometimes need to be cancelled at the last hour.

PG&E Substation Maintenance and Construction Director, Raj Beasla, indicated they will report back to the Committee when a study is completed regarding the July 13, 2010, failure of the middle phase "V-string" insulator assembly on the 500kV Tesla-Metcalf line approximately 10 insulator bells down from the cold end.