

Memorandum

To: ISO Board of Governors

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

Date: July 3, 2013

Re: Transmission Maintenance Coordination Committee Update

This memorandum does not require Board action.

EXECUTIVE SUMMARY

The Transmission Maintenance Coordination Committee (TMCC) met on April 18, 2013 and discussed the following topics:

- Recent experiences involving North American Electric Reliability Corporation (NERC) Reliability Standards;
- 2. California Public Utilities Commission (CPUC) General Order 174 (Rules for Electric Utility Substations) and General Order 165 (Inspection Requirements for Electric Distribution and Transmission Facilities):
- 3. California and Federal Agency SF₆ regulation requirements;
- 4. California Energy Commission (CEC) Electric Program Investment Charge (EPIC) Program
- 5. Major grid events;
- 6. Availability metrics modifications;
- 7. TMCC Charter changes on size of TMCC; and
- 8. Costs associated with ISO grid outages.

The next regular scheduled TMCC meeting will be held on July 18, 2013 at the ISO Folsom Headquarters. Minutes are posted to the ISO website meeting pages at: http://www.caiso.com/Documents/Transmission%20Maintenance%20Coordination%20Committee%20meetings

BACKGROUND

The TMCC is an advisory committee to ISO Management. TMCC membership includes one member representing each participating transmission owner with 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 serves as the Chair of the TMCC.

Members of the TMCC perform 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

Recent experiences involving North American Electric Reliability Corporation (NERC) Reliability Standards

Southern California Edison Manager of Transmission/Substation Maintenance and Inspection, Mike Palusso, reported that the NERC Reliability Standard for Protection System Maintenance and Testing revision 3 (PRC-005-3), with a mandate from the FERC in Order No. 758 to include maintenance and testing of reclosing relays that can affect the reliable operation of the Bulk-Power System, is under review. Mr. Palusso indicated the comment period was open from April 5, 2013 – May 6, 2013 with the initial ballot expected in June 2013.

PacifiCorp Director of Asset Management, Jack Vranish, requested from others at the meeting if they would discuss their prior experiences with NERC critical infrastructure protection reliability standard audits because PacifiCorp was scheduled to be audited the week of April 22nd. Mr. Palusso and Trans Bay Cable LLC Senior Engineer, Steven Powell, shared their recent experiences.

CPUC General Order 165 (Inspection Requirement for Electric Distribution and Transmission Facilities) and General Order 174 (Rules for Electric Utility Substations)

Although not in attendance, CPUC Utilities Engineer, Ryan Yamamoto, provided a brief written update in advance of the April 18, 2013 TMCC meeting that was shared with those in attendance. Mr. Yamamoto indicated in his report that the CPUC would be finishing up audits on the investor owned utilities and starting audits of municipal utilities this year with regard to both General Order 165 and General Order 174.

California and federal agency SF6 regulation requirements

Los Angeles Department of Water and Power Superintendent of Electrical Station Maintenance Support Services, Dave Haerle, provided a quick update on the latest California Air Resources Board and US Environmental Protection Agency efforts regarding SF₆ regulations. Mr. Hearle indicated that both the California and Federal agencies are currently looking at the enforcement aspects of their programs. The links for the California Air Resources Board and the United States Environmental Protection Agency efforts and associated reporting details are located at: http://www.arb.ca.gov/cc/sf6elec/sf6elec.htm and http://www.epa.gov/ghgreporting/reporters/subpart/dd.html

CEC Electric Program Investment Charge (EPIC)

CEC Senior Electrical Engineer, Jamie Patterson, provided a presentation describing how the portion of the EPIC Program administered by the Energy Commission will provide funding for applied research and development, technology demonstration and deployment, and market facilitation for clean energy technologies and approaches for the benefit of ratepayers of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison. This funding (approximately \$418.7 million through 2014) will be used collaboratively between the investor owned utilities and the CEC to perform the following phases necessary to complete approved energy initiatives:

- Applied Research and Development (\$158.7M)
- Technology Demonstration and Deployment (\$129.8M)
- Market Facilitation (\$43.3M)
- Program Administration (\$36.9M)
- Funding for solar energy systems on new construction (\$50M)

A summary of the investment plan includes 1) a vision for the investment plan, 2) framework for selection of proposed initiatives, 3) details on administration and the competitive process, and 4) a detailed explanation of initiatives.

Subsequent to the April TMCC meeting, on May 24, 2013 CPUC Administrative Law Judge Smith issued a draft decision to approve the CEC EPIC program.

Major grid events

Mr. Vranish and Bonneville Power Administration Redmond District Manager – South Region, Adam Mikulski, both discussed recent 500kV reactor failures.

PG&E, SCE and SDG&E indicated they would each report on major grid events at the July 2013 TMCC meeting.

Availability metric modifications

The TMCC discussed and agreed to establish a subcommittee to review the current ISO transmission maintenance standards requirements for developing the annual availability metrics report. The goal for this subcommittee is to look at possible solutions to make this effort less cumbersome for each participating transmission owner without requiring changes to the Transmission Control Agreement.

TMCC Charter changes on size of TMCC

TMCC Chairman, Stephen Rutty, led a discussion on the size and representation makeup of the TMCC. As discussed in the background section above, the TMCC Charter requires that TMCC membership includes one member representing each participating transmission owner with 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 serves as the Chair of the TMCC. Originally the TMCC membership included three participating transmission owners (SCE, SDG&E and PG&E). Over time three additional participating transmission owners have been added (Western Area Power Authority, Trans Bay Cable, and Valley Electric Association) and it is anticipated that the number of participating transmission owners with facilities subject to the ISO transmission maintenance standards will continue to grow. This change has led to the participating transmission owners having an increasingly stronger voice in voting matters that come before the TMCC. Mr. Rutty suggested that the TMCC review the current TMCC charter representation requirements to determine if any changes are appropriate. TMCC members agreed to consider this issue and engage in further discussion at the July TMCC meeting.

Costs associated with ISO grid outages

ISO Director of System Operations, Nancy Traweek, and Director of Operating Engineering, Dede Subatki, gave a presentation on the impact transmission facility outages can have on market costs. Examples were provided where market costs (congestion, unit commitment, and energy offset) due to transmission facility outages reached into the millions of dollars. The presentation did acknowledge the necessity of transmission facility outages to perform necessary maintenance and upgrades, but emphasized the need to reduce market costs through improved planning and communication prior to taking a transmission facility outage.