

TRANSMISSION MAINTENANCE COORDINATION COMMITTEE (TMCC) MINUTES January 19, 2017 Meeting from the ISO Headquarters Folsom, California

Steve Ruty, Acting Chairperson of the Transmission Maintenance Coordination Committee (TMCC), called the meeting to order at approximately 9:30 a.m.

ATTENDANCE

The following TMCC members attended:

Tibor Foki (International Brotherhood of Electrical Workers Local Union 47 (IBEW 47))
Steve Ruty (California Independent System Operator Corporation (ISO)) – Acting Chairperson
Jamie Patterson (California Energy Commission (CEC))
Tom Wright Jr. (Pacific Gas & Electric (PG&E))
James Alligan (NextEra Energy Transmission)
David Hahn (Western Area Power Administration (WAPA))
Steve Powell (Trans Bay Cable (TBC))
Tyson Swetek (San Diego Gas & Electric (SDG&E))

The following TMCC members were not in attendance:

David Haerle (Los Angeles Department of Water & Power (LADWP))
James Andresen (Valley Electric Association (VEA))
Landis Marttila (International Brotherhood of Electrical Workers Local Union 1245 (IBEW 1245))
Ryan Yamamoto (California Public Utilities Commission (CPUC))
Raymond Fugere (Southern California Edison (SCE))
Jack Vranish (PacifiCorp)

The following members of the public were in attendance:

Chris Hillman (ISO)
Scott Vaughan (ISO)
Lou Fonte (ISO)
Kevin Meagher (TBC)
Karen Mills (California Farm Bureau Federation (CFBF))

The following agenda items were addressed:

Opening Comments:

Tibor Foki (IBEW 47) began a discussion on current industry news. The discussion focused in the following points;

- Carbon capture
- Impact of federal regulations
- Closer of San Onofre Nuclear Generating Station in contrast to Watts Bar Unit 2 and continued nuclear research

Decision on 10/20/16 General Session Minutes:

The October 20, 2016 meeting minutes were reviewed and approved with no objections noted.

2017 – 2020 TMCC Membership Renewal / Replacement:

Chris Hillman, California ISO Lead Grid Asset Engineer, informed the group that 4 member positions (3 Participating Transmission Owner and 1 Labor Organization) are up for renewal or replacement this year. Nomination letters for term renewals or replacements should be directed to Steve Ruty. The CAISO will be posting a market notice soliciting candidates interested in open positions next week. A conference call will be scheduled for mid-March to vote on membership.

Alternatives to SF6 Discussion:

Chris Hillman, California ISO Lead Grid Asset Engineer, presented on new insulating gas offered by Alstom and ABB as an alternative to SF6. The new insulating gas is a fluoroketone based mixture with similar insulating properties to SF6 but with a significantly less global warming potential. The new gases cannot be used as a direct replacement for SF6 but some new installations in Europe are exploring the option.

ISO Transmission Maintenance Standards:

Chris Hillman, California ISO Lead Grid Asset Engineer, requested the TMCC review the ISO transmission maintenance standards and submit any updates or proposals for revisions.

Recent Experiences with NERC Reliability Standards and compliance processing:

Tyson Swetek, SDG&E's Substation Operations and Engineering Manager, reported that protocol converters are excluded from cyber assets even though it has microprocessors because they are simply switched and not configurable.

Steve Powell, TBC's Director of Operations, added that voice over internet protocol is presently excluded from the critical cyber assets definition.

Briefing on major grid events:

Draft

Released: March 16, 2017

PG&E provided an update on the manufacture's recommendations related to the 500/230kV 420 MVA transformers failures they reported.

PG&E reported that their Embarcadero Project, which included a submarine cable, was energized in September.

SDG&E updated that the cracked 230kV bushings discovered were due to an isolated lot issue and not a manufacturing defect.

WAPA SNR is investigating revising their Motor Operated Disconnect maintenance practices and the frequency of greasing and adjustments.

TBC reported that they experienced a DC Reactor failure which resulted in an outage. They discovered the failing reactor prior to catastrophic failure due to audible "clicking". They noted that nothing was observed in their most recent IR scan.

Open discussion items:

Discussion on the Burlington Electric phishing attack.

New Business Issues and Future Agenda Items:

Acting TMCC Chairperson Steve Ruddy asked the members to work with the CAISO over the next few months to decide which topics they would like to discuss at the next TMCC meeting.

PG&E offered to provide a future presentation on the transformers failures.

TMCC MEMBER ACTION ITEMS

- ISO will draft the minutes for this meeting and post as a document for the April 20, 2017 TMCC meeting;
- ISO will post the minutes approved for the October 20, 2016 TMCC meeting on the ISO website;

The meeting was adjourned with no objections noted.