

# **TRANSMISSION MAINTENANCE COORDINATION COMMITTEE (TMCC) MINUTES**

## **April 20, 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  
Tom Wright Jr. (Pacific Gas & Electric (PG&E))  
James Alligan (NextEra Energy Transmission)  
David Hahn (Western Area Power Administration (WAPA))  
Tyson Swetek (San Diego Gas & Electric (SDG&E))  
Jim Useldinger (GridLiance West Transco (GWT))  
Jack Vranish (PacifiCorp)  
Ryan Yamamoto (California Public Utilities Commission (CPUC))

##### ***The following TMCC members were not in attendance:***

David Haerle (Los Angeles Department of Water & Power (LADWP))  
Jamie Patterson (California Energy Commission (CEC))  
James Andresen (Valley Electric Association (VEA))  
Landis Marttila (International Brotherhood of Electrical Workers Local Union 1245 (IBEW 1245))  
Roni Mejia (Southern California Edison (SCE))  
Steve Powell (Trans Bay Cable (TBC))

##### ***The following members of the public were in attendance:***

Chris Hillman (ISO)  
Scott Vaughan (ISO)  
Lou Fonte (ISO)  
Andrew Gazdziak (SDG&E)  
Jim Higgins (WAPA)  
Steve Tuggle (WAPA)

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;

- Solar curtailments
- Greening the grid
- Power plant purchases
- Storage of nuclear waste from SONGS

***Decision on 1/19/17 General Session Minutes:***

The January 19, 2017 meeting minutes were reviewed and approved with one correction noted;

- In the Opening Comments, the minutes should have reflected the “Closure” of San Onofre Nuclear Generating Station as opposed “Closer”

***PacifiCorp presentation on 115kV Post Insulator Failures:***

Jack Vranish, Director of Asset Management for PacifiCorp, shared their findings from an investigation into three porcelain post insulator failures they experienced over the course of three months. The failures were observed to be end cap failures resulting from prying. Laboratory electrical and mechanical testing confirmed that the insulators were relatively good for their age and met the required specifications. LiDAR surveys identified unbalanced conductor tensions and field assessments observed pole twisting resulting from offset loading on the insulators. PacifiCorp identified 17 structures deemed critical and replaced in late 2016.

***Western Area Power Administration presentation on Bird Excrement Issues at their Maxwell Switching Station:***

Steve Tuggle, Supervisor of Transmission Operation and Maintenance Programs for WAPA Sierra Nevada Region, presented on problems with roosting on the Maxwell 500kV Series Compensator. Steve reported that between 3000 – 5000 European Starlings, attracted by nearby orchards, roost during winter months on the capacitor banks. The problem started 12 years ago and has resulted in 10 outages but in recent years the number of outages has increased to 3 per year on average. Feces accumulates on the cap banks resulting in reliability and health hazard problems and has also been destroying the insulator coatings. Steve reports WAPA has tried squawk boxes and methyl anthranilate (grape seed fog) with limited success. They are investigating the uses of lasers, fencing, fuse less capacitors and last taking the capacitors offline to mitigate the issues.

***NextEra Energy presentation on Emergency Preparedness for Hurricane Matthew:***

James Alligan, NextEra Energy’s Transmission Project Director, reported on Florida Light & Power’s (FLP) experiences in preparing for hurricanes along the Florida coastline. After hurricanes in 2004 & 2005, FLP invested \$2 billion in storm hardening their system. They implement rapid

response patrols by prestaging personnel aimed at inspecting all lines with 16 hours post storm. James reported that they followed the path of the storm establishing staging sites and logistics for restoration teams. Following Hurricane Matthew, FLP completed restoration within 4 days compared to 12 – 18 for the 2004 & 2005 hurricanes. Communications to customers and the public were handled via robo-calls and the local media. FLP is focusing on process improvements to further enhance their emergency preparedness.

***ISO Transmission Maintenance Standards:***

Chris Hillman, California ISO Lead Grid Asset Engineer, outlined a schedule to update the Transmission Maintenance Standards. Chris proposed to review and revise Procedures 1, 3, 4 and 7 by the end of July and then review and revise Procedures 2, 5 and 6 by the end of October.

***Recent Experiences with NERC Reliability Standards and compliance processing:***

SDG&E reports that MOD 25-2 is in effect this year and requires specific testing for dynamic reactive power sources, specifically synchronous condensers.

The ISO reported they were currently in the middle of a FERC audit.

NOPR on variable generation pending

***Briefing on major grid events:***

PG&E spoke to their emergency preparedness efforts in the event of an Oroville Dam Spillway breach. They unstrung several spans immediately below the spillway and completed risk assessments at 41 stations with flooding potential.

Discussion on 3000 MW of wind generation in SPP balancing area due to phenomena described as a vertical wind.

***Open discussion items:***

Discussion on managing reverse flow on Load Tap Changer controls.

***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.

**TMCC MEMBER ACTION ITEMS**

- ISO will draft the minutes for this meeting and post as a document for the October 17, 2017 TMCC meeting;
- ISO will post the minutes approved for the January 19, 2017 TMCC meeting on the ISO website;

The meeting was adjourned with no objections noted.