

1. Welcome, Call to Order

Bill Middaugh, Protection and Control Subcommittee (PCS) Chair, called the meeting to order at 8:00 a.m. MT on December 5, 2024. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

2. Review WECC Antitrust Policy

James Hanson, Operations Analysis Manager, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

3. Approve Agenda

B. Middaugh introduced the proposed meeting agenda.

By consensus, the PCS approved the agenda.

4. Review and Approve Previous Meeting Minutes

B. Middaugh introduced the minutes from the meeting on October 3–4, 2024.

By consensus, the PCS approved the minutes from October 3–4, 2024.

5. Review Previous Action Items

Maya Brimhall, Administrative Coordinator, reviewed action items carried over from the PCS meeting on October 4, 2024. Action items that are not closed and will be carried forward can be found [here](#).

6. Standing Committee Updates

Curtis Holland, Senior Reliability Specialist, reported on the Event and Performance Analysis Subcommittee (EPAS).

Gene Henneberg, NV Energy, reported on the Remedial Action Scheme Reliability Subcommittee (RASRS).

G. Henneberg reported on the IEEE Power System Relaying Committee.

B. Middaugh and David Beach, Portland General Electric Company (PGE), reported on the System Protection and Control Working Group (SPCWG).

D. Beach reported on the Short-circuit Modeling Work Group (SCMWG).

J. Hanson reported on the Event Analysis Subcommittee (EAS).

7. Debrief of Annual Report Approach

B. Middaugh debriefed the PCS on the development of the Annual Report. Members shared their perspectives on the Annual Report.

8. BESS Events in the West

C. Holland reported on the BESS events in the West.

9. Traveling Wave Protection

Daniel Marquis, Public Service of New Mexico, presented on traveling wave protection. D. Marquis led a successful Q&A session.

10. Review of System Performance Data Portal

Peter Ashcroft, Senior Data Scientist, shared how to access and navigate the System Performance Data Portal with the PCS.

11. Reduced Fault Duty due to IBR Penetration

Greg Park, Risk Analysis & Data Services Manager, reported on the reduced fault duty due to inverter-based resource (IBR) penetration. He shared various statistics relating to several organizations attending the PCS.

12. PGE Short-circuit Approach

D. Beach discussed PGE's short-circuit approach.

13. Broken Conductor Detection Technology

Bryan Diemer, Sacramento Municipal Utility District, presented on broken conductor detection technology.

The presentation can be found on the WECC website.

14. Closed Session

The PCS reviewed Q3 2024 Misoperation Submissions and conducted a roundtable discussion.

15. Review New Action Items

- Reach out to Joe Livingston to present on NATF SPPG.
 - Assigned To: Bill Middaugh



PCS Meeting Minutes—December 4-5, 2024

- Due Date: March 7, 2024
- Reach out to NWE about broken conductor research/experience.
 - Assigned To: James Hanson
 - Due Date: March 7, 2024

16. Upcoming Meetings

March 6–7, 2025..... Salt Lake City, Utah

June 5–6, 2025 Salt Lake City, Utah

17. Adjourn

B. Middaugh adjourned the meeting without objection at 11:02 a.m. MT on December 6, 2024.



Exhibit A: Attendance List

Members in Attendance

David Beach..... Portland General Electric Company
Dean Bender Bonneville Power Administration—Transmission
Orion Chan British Columbia Hydro and Power Authority
Ryan Chun..... Los Angeles Department of Water and Power
Kevin Damron..... Avista Corporation
Bryan Diemer Sacramento Municipal Utility District
James Hanson..... WECC
Gene Henneberg NV Energy
Luke Hoffmann..... PacifiCorp
Kawika Lawlor..... San Diego Gas and Electric
Donald Loftis..... Colorado Springs Utilities
Pamela Mendoza Public Service Company of Colorado (Xcel Energy)
Bill Middaugh Tri-State Generation and Transmission—Reliability
Rafael Pineda..... Pacific Gas and Electric Company
Nick Podany U.S. Bureau of Reclamation
Curtis Sanden..... Southern California Edison Company
Stephen Smith Salt River Project
Masahiko Taniguchi..... Los Angeles Department of Water and Power
Jonathan Trejo El Paso Electric Company

Members not in Attendance

Alejandro Castro..... El Paso Electric Company
Xing Chen British Columbia Hydro and Power Authority
Jason Hall..... Puget Sound Energy, Inc.
David Heffernan PacifiCorp
Lucy Lin Alberta Electric System Operator
Josh Moyers Western Area Power Administration



PCS Meeting Minutes—December 4-5, 2024

Claire Patti Portland General Electric Company
Blake Peck Idaho Power Company
Harjinder Sidhu AltaLink Management Ltd.
Tyler Smith Idaho Power Company

Others in Attendance

Peter Ashcroft WECC
Melvin Bowekaty Public Service Company of New Mexico
Maya Brimhall WECC
Chelsea Collette Public Service Company of New Mexico
Dave Grover WECC
Curtis Holland WECC
Daniel Marquis Public Service Company of New Mexico
Jorge Muralles Los Angeles Department of Water and Power
Greg Park WECC
Mark Willis WECC

