



**Reliability Risk Committee
Meeting Minutes
February 28–March 1, 2023
Virtual**

1. Welcome, Call to Order

Dede Subakti, Reliability Risk Committee (RRC) Co-chair, called the meeting to order at 1:05 p.m. MT on February 28, 2023. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

2. Review WECC Antitrust Policy

Vic Howell, Reliability Risk Management Director, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

3. Approve Agenda

Mr. Subakti introduced the proposed meeting agenda.

On a motion by Ali Yari, the RRC approved the agenda.

4. Review and Approve Previous Meeting Minutes

Mr. Subakti introduced the minutes from the meeting on October 20, 2022, and November 18, 2022.

On a motion by Chris Hofmann, the RRC approved the minutes from October 20, 2022, and November 18, 2022.

5. Review Previous Action Items

Nicole Lee, Administrative Coordinator, reviewed action items carried over from the RRC meeting on November 18, 2023. Action items that are not closed and will be carried forward can be found [here](#).

6. Committee Restructure and Implementation

Victoria Ravenscroft, Senior Policy and External Affairs Manager, summarized committee restructuring and implementation activities. Charters are being updated with quorum requirements and will be reviewed by the Joint Guidance Committee (JGC) on March 3, 2023, and by the parent committees in May 2023. Ms. Ravenscroft also noted that a process is being added to assist with maintaining membership lists.



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7. Discussion and Approval of the 2022 UFLS Assessment

Enoch Davies, Systems Stability Manager, presented the 2022 Underfrequency Load Shedding (UFLS) Program Assessment Report. It is a joint report being reported to the RRC and RAC. The assessment report was unable to demonstrate that it meets some of the performance characteristics in PRC-006-5. The UFLS Work Group (UFLSWG) is working with Planning Coordinators to investigate the cause of performance shortcomings and develop corrective action plans. Recommendations, conclusions, and progress reports will be provided to the RRC.

Enoch Davies confirmed that WECC will no longer be doing UFLS simulations, though, it will be assisting with collecting data. The UFLSWG is discussing how future assessments will be done.

By consensus, the RRC approved the UFLS Assessment with the caveat that they will present a tracking report to the RRC.

The draft report is posted on the [WECC website](#).

8. Discuss and Approve RRC Risk Management Process

Tim Reynolds, Risk Analysis Manager, and Grace Anderson, California Energy Commission (CEC), presented the RRC Risk Management Process.

On a motion made by Raj Hundal, the RRC approved the RRC Risk Management Process.

The presentation is posted on the [WECC website](#).

9. RRC Purpose and Responsibilities

Mr. Subakti led a discussion on the RRC's purpose and responsibilities. The RRC discussed the importance of engagement, some suggestions were to hold in-person meetings and joint meetings with the Reliability Assessment Committee (RAC).

The members of the RRC Steering Committee (RRCSC) also discussed they will review the risks that are reported, and the RRCSC would like each organization to provide their top three reliability risks. The RRC brings diverse perspectives and ideas, resulting in a complete list of risks, which assists with discussing how to address those risks.

10. Reliability Planning and Performance Analysis Redesign

Mr. Howell presented the Reliability Planning and Performance analysis (RPPA) redesign. Mr. Howell will add WECC staff names to the organization chart from today's presentation.

The presentation is posted on the [WECC website](#).



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11. Discuss Needs for Performance Analysis Support

James Hanson, Operations Analysis Manager, highlighted performance analysis efforts and made a request for volunteers to participate in a strike team to evaluate current performance analysis work products and to develop a strategy for future collaboration on improving the value provided by WECC's performance analysis function. Mr. Howell will send an email to the RRC requesting participation on this strike team.

The presentation is posted on the [WECC website](#).

12. Reporting ACE

Greg Park, Western Power Pool (WPP), provided information on the Reporting Area Control Error (ACE) Definition Change and Comment Form Project 2022-01 and encouraged entities with NERC voting rights to vote. The ballot is open through March 16, 2023.

The presentation is posted on the [WECC website](#).

13. 2022 Wildfire Data Request Analysis

Steve Ashbaker, Reliability Initiatives Director, presented the results of the 2022 Wildfire Data Request Analysis. Mr. Ashbaker informed the RRC that the 2023 Wildfire Data Request will be sent out in June or July 2023 .

Mr. Ashbaker answered questions on risk identification and mitigation of wildfires, data sources, and loss of load prevention.

Tim Reynolds, Risk Analysis, encouraged entities to communicate fire impacts using the GMS or RCOM messaging systems.

Mr. Ashbaker closed by asking for volunteers to participate on an RRC strike team whose focus will be extreme natural events based on the updated risk management process.

The presentation is posted on the [WECC website](#).

14. Managing Congestion in Real Time

Kristie Cocco, Adam Bow, Doug Campbell, Matthew Kura, Arizona Public Service Company (APS), and Mr. Subakti presented on managing congestion in real time.

An RRC member clarified challenges of the EIM and real-time operator challenges.

The presentation is posted on the [WECC website](#).

15. Three-year Work Plan Review and Progress

The following individuals gave reports on progress toward three-year work plan items:



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- a. Vic Howell, Director Reliability Risk Management, provided an RRC outreach update. The RRC discussed outreach efforts and agreed that it would be beneficial for the RRC to share the committee’s purpose and responsibilities to other committees, subcommittees, and work groups, along with internal WECC meetings. Mr. Howell asked the RRC to think about outreach opportunities and provide feedback to him or Mr. Subakti.

The document plan is posted on the [WECC website](#).

- b. Mr. Reynolds, gave an update on the development of an initial list of reliability and security risks. He encouraged the RRC and other committees to report risks to the RRC through the Risk Registry Initiation Form associated with the RRC Risk Management Process. Mr. Reynolds will send information on where to find the reporting form and how the process works.
- c. Mr. Howell gave an update on the committee restructure. It is still being completed. Further outreach will be done to assist with a smooth transition.
- d. Mr. Ashbaker stated that a strike team is being developed to address the three-year work plan item “Identify Strategic Initiatives for Extreme Natural Events.” He encouraged members of the RRC to contact him if they would like to participate or if anyone has feedback to provide.
- e. Lenin Maran, Cyber Security Forum (CSF) Chair and John Graminski, Senior Cyber Security Specialist, presented on cybersecurity best practices and timeline development. A task force will be created in the next few weeks to help write an updated list of risks. The list will be reviewed by the CSF before presenting to the RRC. Another task force will review and document how the risks are being addressed.

The presentation is posted on the [WECC website](#).

- f. Greg Park, Western Power Pool (WPP), presented and update about best practices regarding inverter-based resources. The Event and Performance Analysis Subcommittee (EPAS) will have the plan developed by April. SMEs will be asked to help, and additional assistance will be needed. Contact Mr. Park if interested.

The presentation is posted on the [WECC website](#).

- g. Mr. Reynolds gave an update on examining the effects of variable energy resources (VER) on operations reliability. A strike team is being created and lead by the Performance Work Group (PWG) and the EPAS along with assistance from WECC staff. The goal is to determine whether there are any interconnection-level variances



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occurring due to renewable generation. The task is expected to be complete by the end of the summer.

- h. Rich Hydzik, Avista Corporation, and Dan Baker, Southwest Power Pool (SPP), presented on investigating long-duration frequency deviations. The intent is to review the work plan and begin moving forward.
- i. Mr. Subakti gave an update on examining the energy adequacy assessment practice. The RRC and RAC leadership decided to wait until a resource adequacy group is formed to take on this item.
- j. Mr. Hanson presented the NERC Inverter-based Resource Performance Subcommittee (IRPS) information sharing. A subgroup is working on commissioning guidelines. A new standard is under development for inverter event reporting. There is also a concerted effort to improve the inverter-based resources (IBR) interconnection process, which includes modifications to standards and requirements in the interconnection agreement. An update will be provided by an IRPS representative to the RRC in June.
- k. Mr. Henneberg presented an update for the Remedial Action Scheme Review Subcommittee (RASRS). The three-year work plan is on schedule.

The presentation is posted on the [WECC website](#).

16. Public Comment

No comments were made.

17. Review New Action Items

- Consider joining a strike team to assess current performance analysis products and determine how ongoing performance analysis efforts should be supported by the RRC committee structure. Vic Howell will send an email to the RRC requesting volunteers
 - Assigned To: RRC and Vic Howell
 - Due Date: June 20, 2023
- Add names to the organization chart on the RPPA Redesign presentation
 - Assigned To: Vic Howell
 - Due Date: June 20, 2023

18. Upcoming Meetings

June 20–22, 2023Salt Lake City, UT

October 24–26, 2023Salt Lake City, UT



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19. Adjourn

Mr. Subakti adjourned the meeting without objection at 12:20 p.m.



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Exhibit A: Attendance List

Members in Attendance

Margaret Albright.....Bonneville Power Administration—Transmission
Rachel Allen Tacoma Power
Grace Anderson California Energy Commission
Scott Anderson.....Salt River Project
Robin Arnold..... Renewable Northwest
Ruben Arredondo.....Regime LLC
Hamid Atighechi Powerex, Inc.
Tim Beach California Energy Commission
Jeff BingamanSalt River Project
Adam Bow Arizona Public Service Company
Robert Bray Arizona Electric Power Cooperative, Inc. (Arizona G&T Cooperatives)
Tanner Brier..... Bonneville Power Administration
Darren Buck..... Platte River Power Authority
Toxie Burriss..... Modesto Irrigation District
Earl Campbell..... Arizona Public Service Company
Lorissa Cardoza Bonneville Power Administration
Dinah CiscoSalt River Project
Kristie Cocco..... Arizona Public Service Company
Stephanie Conn.....Salt River Project
Kevin Conway..... Pend Oreille County PUD #1
Alexis CortezTransmission Agency of Northern California
Karen Demos..... NextEra Energy Resources, LLC
Jacob Flores.....Salt River Project
John Gross.....Avista Corporation
Angela Hall..... Pend Oreille County PUD #1



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Brett Hallborg..... British Columbia Hydro and Power Authority
David Hardy..... Tri-State Generation & Transmission–Power Management Division
Gene Henneberg..... NV Energy
Mark Hesters..... California Energy Commission
Jennine Hinkle..... City of Riverside
Chris Hofmann..... Salt River Project
Raj Hundal..... Powerex, Inc.
Richard Hydzik..... Avista Corporation
Linda Jacobson-Quinn..... Farmington Electric Utility System
Michael Jang..... Seattle City Light
Pete Jones..... Arizona Public Service Company
King Kwan Keung..... Alberta Electric System Operator
Chelsea Loomis..... Western Area Power Administration
Lenin Maran..... Sacramento Municipal Utility District
Chris Mclean..... California Energy Commission
Greg Park..... Western Power Pool (formerly Northwest Power Pool Corporation)
John Phipps..... California Energy Commission
Luz Ramos..... El Paso Electric Company
Sam Rugel..... Tucson Electric Power
Tim Schiermeyer..... Transmission Agency of Northern California
Trevor Schultz..... Idaho Power Company
Kenneth Silver..... Avantus
Dede Subakti..... California Independent System Operator
Brier Tanner..... Bonneville Power Administration
Muhammed Tayyab..... Western Area Power Administration
Chifong Thomas..... Thomas Grid Advisor
Juan Vincente..... El Paso Electric Company
Diana Wilson..... Alberta Electric System Operator



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Ali Yari San Diego Gas and Electric
 Jessica Zamonis Western Power Pool (formerly Northwest Power Pool Corporation)

Organizations not in Attendance

AltaLink Management Ltd., British Columbia Ministry of Energy and Mines, British Columbia Utilities Commission, California Department of Water Resources, Cambridge Energy Solutions, Cascade Renewable Transmission, LLC, Cat Creek Energy, LLC, City of Burbank, City of Pasadena, Clearway Energy Operating, LLC (NRG), Colorado Springs Utilities, Copia Power DevCo, LLC, CP Energy Marketing (US) Inc., DataCapable Inc., Delta-Montrose Electric Association, DesertLink, LLC, Electric Power Research Institute, Eugene Water & Electric Board, FortisBC, Inc., Grid Numerics, Grid Subject Matter Experts, Gridforce Energy Management, LLC, Guy Van Uytven, Guzman Power Markets, LLC, Hetch Hetchy Water and Power, Imperial Irrigation District, Los Angeles Department of Water and Power, MATL Canada L.P., MCE, Open Access Technology International, Oregon Public Utility Commission, Pacific Gas and Electric Company, Pacific Northwest National Laboratory, PacifiCorp, PacifiCorp Merchant Function, Portland General Electric Company, Power System Consultants, Inc., Public Service Company of Colorado (Xcel Energy), Public Utility District No. 1 of Cowlitz County, Public Utility District No. 1 of Snohomish County, Public Utility District No. 2 of Grant County, Puget Sound Energy, Inc., Quanta Technology, LLC, Southern California Edison Company, TransCo Energy, LLC, Tri-State Generation and Transmission—Reliability, Turlock Irrigation District, Utah Division of Public Utilities, Utilicast L.L.C., Utility Services, Inc., Washington Department of Commerce—State Energy Office, Western Interstate Energy Board.

Others in Attendance

Chelsea Andrews WECC
 Steve Ashbaker WECC
 Peter Ashcroft WECC
 Enoch Davies WECC
 John Graminski WECC
 James Hanson WECC
 Nick Hatton WECC
 Curtis Holland WECC
 Vic Howell WECC
 Nicole Lee WECC
 Evan Paull WECC
 Kirha Quick WECC



Victoria Ravenscroft.....WECC
Tim ReynoldsWECC
Gustavo Ribeiro Andritz
Trevor RomboughBlack Hills Corporation
Richard Shiflett Advanced Energy Solutions
Matt VeghtePattern Energy Group
Alan Wahlstrom.....Southwest Power Pool
Karen Wilson..... Siemens Energy, Inc
Sharon MayersWorley

