



Draft Minutes of the Reliability Advisory Council Meeting

St. Paul, MN and Webex

August 17, 2022, 9:02 a.m. to 2:55 p.m. Central

*Notice for this meeting was electronically posted to the MRO website on July 20, 2022.
A final agenda, including advanced reading materials, was also posted on August 10, 2022.*

1. Call to Order and Determination of Quorum

The Reliability Advisory Council (RAC) Chair, Dick Pursley, called the meeting to order at 9:02 a.m. Pursley welcomed everyone and roundtable introductions were made. Reliability Analysis Administrator, Rebecca Schneider, advised the chair that a quorum of the RAC was present. A complete list of attendees is included as [Exhibit A](#).

2. Standards of Conduct and Antitrust Guidelines

Pursuant to Policy and Procedure 4, Bryan Clark, MRO Director of Reliability Analysis, highlighted MRO's Standards of Conduct, Conflict of Interest, and Antitrust Guidelines.

3. Chair's Remarks

Chair Pursley congratulated MRO on the remodeled office space. He also noted the nomination periods for the HERO Award and organizational groups at MRO. Pursley highlighted several NERC activities found on their website as follows: an event analysis of the Panhandle Wind Disturbance by NERC and Texas RE; the Winter Weather Prep webinar scheduled for September 1, 2022; a SPIDERWG white paper on simulation improvements and techniques related to distributed energy resources (DER) planning; and FAC-002-4 R6 proposal for new implementation/compliance guidance around the definition of a qualified change on the transmission system.

4. Diversity Initiative

MRO Assistant Corporate Secretary and Senior Counsel, Julie Peterson, provided an overview of an ongoing initiative of the Organizational Group Oversight Committee (OGOC) to increase diversity on MRO's organizational groups. Peterson highlighted examples of inherent and acquired diversity and the value of diverse teams. Ms. Peterson urged the RAC members to be an MRO diversity ambassador through the upcoming nomination and election process for the MRO organizational groups and board. The timeline for the nomination process at the MRO was also shared.

5. Consent Agenda

The RAC reviewed the consent agenda, which included draft minutes from the May 19, 2022 meeting and an updated charter. The charter was updated to remove language regarding the annual in-person meeting with the OGOC.

Upon a motion duly made and seconded, the RAC approved the consent agenda in its entirety.



6. Improving Outreach and Stakeholder Communications

MRO Director of Communications, Jessie Mitchell, provided an overview of the updated MRO website and the newsletter publication process. Mitchell highlighted the features of the new website including the resource library and the enhanced events and news page. Mitchell also discussed future website enhancements and the expected timeline for completion. Discussion ensued.

7. MRO Board of Directors, OGOC and General Update

Clark provided an overview of the Board of Directors and OGOC meetings on June 22-23, 2022. He thanked RAC members, Dick Pursley, John Stephens, CJ Brown, Dwayne Stradford, and Derek Brown for their contributions to the last two newsletters. Clark highlighted two noteworthy approvals from the OGOC meeting in June: RAC charter change and a new joint meeting format. In the new meeting format, one representative from each council will meet with the OGOC quarterly to discuss a risk roundtable topic. The next meeting will take place on September 21, 2022, and the topic is Variable Transmission Line Ratings. Discussion ensued.

8. Reliability and Security Technical Committee Overview and Highlights

NERC Principal Technical Advisor, Stephen Crutchfield, provided an overview of the Reliability and Security Technical Committee (RSTC) during the meeting. Crutchfield reviewed the timeline for the development of the RSTC as well as the current operating model. The main program areas for the RSTC subgroups are: performance monitoring, reliability and security assessment, and risk mitigation. He shared recent organization changes and the current organizational chart. Highlights from the June 2022 meeting included the endorsement of two Standard Authorization Requests (SARs) submitted by the Energy Reliability Assessment Task Force (ERATF) and the endorsement of a SAR submitted by the Inverter-Based Resource Performance Subcommittee (IRPS).

During the June 2022 meeting, the RSTC also approved two reference documents updated by the Real Time Operating Subcommittee (RTOS), accepted the Generating Availability Data System (GADS) Section 1600 Data Request to post for a 45-day public comment period, and approved two white papers submitted by the System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG). The RSTC also approved the System Protection and Control Working Group (SPCWG) recommendation to add GADS cause code amplification codes for outages related to frequency deviations identified in the *FERC, NERC and Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South Central United States*. In addition, two new Event Analysis Subcommittee (EAS) members were approved during the June meeting: Jake Bernhagen (MRO) and Freddy Garcia (ERCOT).

Crutchfield next provided an overview of actions in progress. The RSTC continues to review and update Reliability and Security Guidelines with metrics to assess the effectiveness of each guideline. The RSTC Executive Committee has developed a draft 2022-2024 Strategic Plan which will be considered by the full RSTC at the December 2022 meeting. The RSTC will also continue to monitor the CIP-002 Transmission Owners Control Centers Field Test. There was also a discussion around industry awareness of the guidelines and reference documents on the NERC website. Discussion ensued.



9. MRO Representatives on NERC Subgroups

NERC Electric Gas Working Group (EGWG) – Jaimin Patel

NERC Inverter Based Resource Performance Subcommittee (IRPS) – David Brauch

NERC System Planning Impacts from DER Working Group (SPIDERWG) – Wayne Guttormson

NERC System Protection and Control Working Group (SPCWG) – Mark Gutzmann

NERC Energy Reliability Assessment Task Force (ERATF) – Tom Whynot

The NERC Representatives from the EGWG, SPIDERWG and SPCWG provided written reports to the RAC. Wayne Guttormson, SaskPower Corp. and Mark Gutzmann, Xcel Energy were present at the meeting and also provided oral reports to the RAC. Discussion ensued.

10. NERC Representative Assignments

Bryan Clark assigned each RAC member to a NERC organizational group to create better alignment and help promote outreach efforts. The groups were instructed to meet before the fourth quarter RAC meeting in November 2022. Assignments are as follows:

- Electric Gas Working Group (EGWG): CJ Brown, Binod Shrestha, Bryn Wilson
- Inverter-Based Resource Performance Subcommittee (IRPS): Derek Brown, Jeremy Severson, Dick Pursley
- Energy Reliability Assessment Task Force (ERATF): John Stephens, Dwayne Stradford, Andy Witmeier
- System Protection Control Working Group (SPCWG): Ron Gunderson, Dallas Rowley, Nandaka Jaysekara
- System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG): Jason Weiers, Gayle Nansel, Durgesh Manjure

To accommodate scheduling conflicts, Chair Pursley moved the Reliability Coordinator Updates (Agenda Item 12a.-c.) ahead on the agenda. These minutes reflect the order in which the reports were provided.

11. Reliability Coordinator Updates

Midcontinent Independent System Operator (MISO)

Durgesh Manjure, RAC member, provided an oral report. Summer has been relatively quiet with no extreme weather events. Average load is 86 gigawatts. Peak load was set in June at 121 gigawatts. The forecasted peak for August is slightly higher at 122 gigawatts. A new wind peak set in January was 23.6 gigawatts (10 percent of total energy).

A new solar peak set in July was 2.1 gigawatts. MISO's energy transition continues at a slow, steady pace. Since summer 2019, MISO has seen a 2 to 3 percent decrease in energy from coal and gas. Wind contribution has increased as expected. Solar penetration is very small but is expected to grow. The retirement of older assets presents a challenge for MISO as additional megawatts are lost on the system. Long-term projections continue to show an increasing gap between what is needed to meet capacity reserve margins and what is available. MISO has identified some concerns with coal deliveries from their members. Manjure noted that MISO proposed a change to the resource adequacy construct which is pending a decision by FERC. The change proposes moving from an annual capacity



review to a seasonal review. Manjure highlighted several initiatives for MISO including a workshop on September 21, 2022 to review attributes needed to maintain a reliable system, and modifications to the accreditation for wind/solar hybrid projects and Load Modifying Resources (LMRs). Manjure reported that MISO's fall forecast shows adequate capacity to handle both probable and high load projections. Discussion ensued.

Saskatchewan Power Corporation (SPC)

Binod Shrestha, RAC member, was not present at the meeting and no report was provided.

Southwest Power Pool (SPP)

CJ Brown, RAC member, provided an oral report. SPP set a new peak load in July at 53,337 megawatts (4 percent increase in load). The peak resource mix was gas (43%), coal (38%), wind (13%) and hydro (4%). Brown noted that they were operating in conservative operations for most days in July and were very close to issuing Emergency Energy Alerts (EEAs) for several days in July. He mentioned that SPP has been denying planned maintenance at generation plants and transmission facilities, and he has concerns with planned maintenance being delayed. Moving into fall, Brown noted that planned maintenance schedules are continuing to be a challenge and stakeholder discussions are underway about coal supply concerns.

The SPP forecast for the fall season shows sufficient capacity to serve load. Brown shared a slide showing planning reserve margin (PRM) vs. operating capacity margin and noted that SPP has increased their PRM from 12 to 15 percent that will become effective in the summer of 2023. Discussion ensued.

12. 2022 Work Plan Update

Action Item Review

Chair Pursley reviewed the action items in the 2022 work plan. Updates were made accordingly. Discussion ensued.

Reliability Risk Matrix Updates

Mr. Clark reported that the Reliability Risk Matrix is at the RISC for review. In June 2022, the RISC developed a small team to discuss possible ways in which the matrix can be applied to future risk assessments.

RAC Charter Update

The RAC charter was reviewed during the discussion of the 2022 Work Plan. An additional edit to revise language regarding the reporting requirements by the chair and vice chair to the OGOC was proposed.

Upon a motion duly made and seconded, the RAC approved an additional revision to the charter not previously included in the Consent Agenda.

13. Western Area Power Administration – Upper Great Plains Region Oahe Event Review

Bob Soper, Lead Electrical Engineer, WAPA, provided an overview of the Oahe Island event that occurred in 2021. Discussion ensued.

14. 2022 MRO Regional Risk Assessment – Operational and Planning Risks

MRO Regional Risk Assessment (RRA)



Bryan Clark provided an overview of the MRO 2022 Regional Risk Assessment (RRA). The top four operation and planning risks were reviewed. There was a robust discussion about several of the risks identified in the 2022 RRA and if these risks are increasing or decreasing with time. Discussion ensued.

15. NERC Standards Review Forum Update

RAC member, Gayle Nansel, had nothing to report.

16. Protective Relay Subgroup Update

MRO Senior Systems Protection Engineer, Jake Bernhagen, provided an update on the activities of the Protective Relay Subgroup (PRS). The PRS held its third quarter meeting on August 16, 2022. The highlights included a technical presentation by Kevin W. Jones from Xcel Energy. He presented a study regarding concerns around traditional load shedding programs as more renewable resources are interconnected to the grid. The RAC members requested this information be presented to them at a future meeting. There was also a recap of the Protection System Commissioning webinar from July 2022. Bernhagen noted that the PRS is considering a recurring agenda item for future PRS meetings that covers the topic of best practices to be used while commissioning. The PRS also discussed the retirement of analog communication circuits and the decreasing security risks as more utilities are now installing their own fiber circuits. Discussion ensued.

17. 2022 Meeting Dates

Chair Pursley reviewed the remaining 2022 meeting dates for the RAC, as well as the other councils and subgroups. Pursley noted the upcoming Security Conference in October 2022 and asked the RAC members to help promote the event within their organizations. Clark noted that the timing for the 2023 Reliability Conference will likely be May. Clark also mentioned that MRO may schedule the RAC, SAC and CMEPAC meetings back-to-back for at least one quarter in 2023.

18. RAC Member Roundtable

Chair Pursley invited member participants to share other relevant industry observations. Topics discussed included:

- Reliability Issues Steering Committee (RISC) Summit in January 2023, Washington, D.C.
- The Q4 RAC meeting will include Planning Coordinator updates from the MRO region.

19. Other Business and Adjourn

Having no further business to discuss, the meeting was adjourned at 2:55 p.m.

Prepared by: Rebecca Schneider, Reliability Analysis Administrator

Reviewed and Submitted by: Bryan Clark, Director of Reliability Analysis



Exhibit A – Meeting Attendees

Reliability Advisory Council Members Present	
Name	Organization
Dick Pursley, Chair	Great River Energy
Jason Weiers, Vice Chair	Otter Tail Power Company
Andy Witmeier	MISO
C.J. Brown	Southwest Power Pool, Inc.
Durgesh Manjure	MISO
Dwayne Stradford	American Electric Power
Gayle Nansel	Western Area Power Administration
Jeremy Severson	Basin Electric Power Cooperative
John Stephens	City Utilities of Springfield Missouri
Nandaka Jayasekara	Manitoba Hydro
Ron Gunderson	Nebraska Public Power District
W. Bryn Wilson	Oklahoma Gas & Electric
MRO Staff Present	
Name	Title
Bryan Clark	Director of Reliability Analysis
Rebecca Schneider	Reliability Analysis Administrator
Michelle Olson	Compliance Monitoring Administrator
Salva Andiappan	Principal Reliability Assessment Engineer
Jake Bernhagen	Senior Systems Protection Engineer
Max Desruisseaux	Senior Power Systems Engineer
Dianlong Wang	Senior Power Systems Engineer
Jessie Mitchell	Director of Communications
Julie Peterson	Assistant Corporate Secretary and Senior Counsel



Cris Zimmerman	Manager of Outreach & Stakeholder Engagement
Joshua Hebert	Senior Compliance Engineer/Auditor, O&P
Guests	
Name	Organization
Mark Gutzmann	Xcel Energy
Stephen Crutchfield	NERC
Wayne Guttormson	Saskatchewan Power Corporation
Tom Whynot	Manitoba Hydro
Mary Agnes Nimis	FERC
Boris Voynik	FERC
Norris Henderson	FERC
John Roemen	Western Area Power Administration
Chris Colson	Western Area Power Administration
Robert Soper	Western Area Power Administration
Mark Buccholz	Western Area Power Administration
Daniel Moore	WFEC
Jeremy Harris	Evergy
Kyle Wright	Evergy
Terry Harbour	MidAmerican Energy
Larry Brusseau	Corn Belt Power Cooperative