



Approved Minutes of the Board of Directors Meeting

Webex

February 8, 2024, 1:30 p.m. to 3:24 p.m. Central

Notice for this meeting was electronically posted to the MRO website [here](#) on January 3, 2024. A final agenda, including advanced reading materials, was posted on January 25, 2024.

1. Call to Order and Determination of Quorum

MRO Board of Directors Chair, Dr. Dana Born, called the meeting of the MRO Board of Directors to order at 1:30 p.m. Central. Julie Peterson, Vice President General Counsel and Corporate Secretary, advised the chair that a quorum of the board 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, Peterson highlighted MRO's Standards of Conduct and Antitrust Guidelines.

3. Consent Agenda

The consent agenda included draft minutes from the board meeting held on December 14, 2023.

Upon a motion duly made and seconded, the board unanimously approved the consent agenda.

4. President's Report

Sara Patrick, President and Chief Executive Officer, congratulated Chair Born and Vice Chair Brummond on their new roles on the board. She welcomed new board members – Fred Meyer from Algonquin Power representing the Generator Power Marketer Sector, Michael Desselle from Southwest Power Pool representing the Transmission System Operator Sector, Sandra Johnson from Xcel Energy representing the Investor-Owned Utility Sector, and Paul Crist from Lincoln Electric System representing the Municipal Utility Sector. She also welcomed guest speaker Joe Marshall, Researcher at Talos, Cisco's Cyber Intelligence Unit, who would be providing a presentation on an innovative solution developed for the Ukrainian utility, Ukrenergo. She noted that Marshall's presentation is an excellent example of public/private partnerships in action to provide innovative solutions to new and emerging risks.

Patrick focused her remarks on the three focus areas MRO had identified for 2024 that support MRO's 2022-2024 Strategic Plan priorities of people, processes, and partnerships. Notable efforts under *partnerships* include MRO's 2024 Regional Risk Assessment (RRA), which had been published earlier in the week, and outreach efforts including engagement with state and federal regulators as well as policy makers. Among MRO's goals focused on *processes*, Patrick highlighted the congressionally mandated Interregional Transfer Capability Study (ITCS) and the associated transition to Energy Planning. She reflected tasks undertaken towards MRO's last focus area, *people*, such as a compensation study performed to ensure that MRO's pay practices and philosophy align with the level



of experience and expertise required by the work, the expansion of 360 reviews to all managers and directors, and an office space management strategy.

5. Chair's Remarks

Chair Born welcomed board members and attendees and thanked Joe Marshall for his presentation to the board. She highlighted the testimony provided by FBI Director Christopher Way before the House Select Committee, where he warned of the threat China poses to the energy industry. She noted the evolving risk landscape in the electricity industry, and how partnerships, processes, and people must be leveraged to address these risks. She further suggested a commitment to innovation and continued improvement would be key strategic objectives for MRO as it undertakes its strategic planning later in 2024.

The board recessed for a short break.

6. Ukrenergo & Mitigating GPS Signal Interference in Electric Systems

Joe Marshall, Researcher at Talos, Cisco's Cyber Intelligence Unit, presented on his involvement with Ukrenergo, the state-owned electricity transmission system operator in Ukraine and the sole operator of the country's high-voltage transmission lines. He provided an overview of the unique challenges faced by Ukrenergo in maintaining power in an active war zone due to Electronic Warfare (EW), as it pertains to the practice of GPS blocking.

Marshall explained that EW created disruptions in transmission grid operations, as global navigation satellite system (GNSS) time (or GPS time sync) is necessary to calculate Phasor Measurement Units, which are vital to power grid operations. He explained that he and a team of experts collaborated to create a solution – the IE5K – which provided an alternative time clock to GNSS and could easily be inserted into already existing systems. Marshall concluded that his efforts are far from over, as new challenges, such as GPS spoofing, require new and innovative solutions.

In response to questions, Marshall noted that there is no current commercial solution to these concerns, especially as facilities vary in their equipment and configurations.

Chair Born left the meeting.

7. Written Reports

Vice Chair Brummond referred board members to the written reports on operational activities, external affairs, and outreach.

In response to questions, Burt stated that all regional entities have a product like MRO's Regional Risk Assessment, and that MRO's risk ranking methodology had been adopted by the ERO and was consistent. There were no further questions.

8. Other Business and Adjourn

Vice Chair Brummond highlighted the upcoming meeting dates. Having no further business to discuss, the meeting was adjourned at 3:24 p.m.

Prepared by: Carolina Margaría, Assistant Corporate Secretary and Governance Administrator

Reviewed and submitted by: Julie Peterson, Vice President General Counsel and Corporate Secretary



Exhibit A – Meeting Attendees

MRO Board of Directors Present	
Name	Sector
Dr. Dana Born, <i>Chair</i>	Independent Director
James (JP) Brummond, <i>Vice Chair</i>	Investor Owned Utility Sector
Ben Porath	Cooperative Sector
Daryl Maxwell	Canadian Utility Sector
Dehn Stevens	Investor Owned Utility Sector
Eric Miller	Transmission System Operator Sector
Eric Schmitt	Independent Director
Fred Meyer	Generator and/or Power Marketer Sector
Iqbal (Q) Dhami	Canadian Utility Sector
Jeanne Tisinger	Independent Director
Jennifer Flandermeyer	Regional Director
JoAnn Thompson	Investor Owned Utility Sector
John Rhea	Generator and/or Power Marketer Sector
Lloyd Linke	Federal Power Marketing Agency Sector
Maurice Moss	Municipal Utility Sector
Michael Desselle	Transmission System Operator Sector
Paul Crist	Generator and/or Power Marketer Sector
Sandra Johnson	Investor Owned Utility Sector
Tom Finco	Transmission System Operator Sector
Thomas Graham	Independent Director
MRO Board of Directors Not Present	
Darcy Neigum	Investor Owned Utility Sector
Priti Patel	Cooperative Sector



Other Attendees	
Name	Company
Anne Richards	Midwest Reliability Organization
Benjamin Widder	Madison Gas & Electric
Becky Holien	Midwest Reliability Organization
Bobbi Welch	Midcontinent Independent System Operator
Bryan Clark	Midwest Reliability Organization
Bryn Wilson	Oklahoma Gas & Electric
Carolina Margaria	Midwest Reliability Organization
Courtney Vetter	Montana Dakota Utilities
Cris Zimmerman	Midwest Reliability Organization
Daniel Graham	Basin Electric Power Cooperative
Daniel Moore	Western Farmers Electric Cooperative
Desiree Sawyer	Liberty Utilities
Eric Graftaas	Midwest Reliability Organization
Farid Shallal	Midwest Reliability Organization
Gina March	Midwest Reliability Organization
Glenn Sanders	Department of Homeland Security
Jess Syring	Midwest Reliability Organization
Jessie Mitchell	Midwest Reliability Organization
Julie Peterson	Midwest Reliability Organization
Kabir Dogubo	Midwest Reliability Organization
Karla Schiller	Midwest Reliability Organization
Kasey Borboa	Minnkota Power Cooperative
Kelly Crist	Engie
Ken Burruss	Midwest Energy



Ken Gartner	Midwest Reliability Organization
Kristine Albrecht	Midwest Reliability Organization
Lam Chung	Midwest Reliability Organization
Kurt Hoffmann	Black Hills Energy
Larry Heckert	Alliant Energy
Lee Felter	Midwest Reliability Organization
Lisa Stellmaker	Midwest Reliability Organization
Lori Frisk	Minnesota Power
Margaret Eastman	Midwest Reliability Organization
Marissa Falco	Midwest Reliability Organization
Mark Flanary	Midwest Reliability Organization
Mark Tiemeier	Midwest Reliability Organization
Mary Agnes Nimis	Federal Energy Regulatory Commission
Michael Bowman	City Utilities of Springfield Utilities
Michael Spangenberg	Midwest Reliability Organization
Mike Fones	Manitoba Hydro
Natalia Giraldo	Manitoba Hydro
Nazra Gladu	Manitoba Hydro
Paul Mehlhaff	Sunflower Electric Power Corporation
Ray Bergmeier	Sunflower Electric Power Corporation
Rebecca La Plant	MidAmerican Energy Company
Richard Burt	Midwest Reliability Organization
Ryan McNamara	Midwest Reliability Organization
Rochelle Brown	NextEra Energy
Rocky Tolentino	Southwest Power Pool
Sara Patrick	Midwest Reliability Organization
Sara Smith	Midwest Reliability Organization



Shawn Eck	Liberty Utilities
Shawn Keller	Midwest Reliability Organization
Steen Fjalstad	Midwest Reliability Organization
Tasha Ward	Midwest Reliability Organization
Terry Harbour	MidAmerican Energy Company
Willaim Steiner	Midwest Reliability Organization

*The above list may not reflect all meeting attendees
as the meeting was open for observation via Webex.*