

# MRO 2022 Hybrid CMEP Conference

**Moving Forward Together**

**Tuesday, July 26, 2022 | 9:00 a.m. to 4:00 p.m. Central**

*MRO Corporate Offices, King Conference Center*

*St. Paul, MN 55102*

*And Webex*



**MIDWEST  
RELIABILITY  
ORGANIZATION**

380 St. Peter St, Suite 800  
Saint Paul, MN 55102

651-855-1760

[www.MRO.net](http://www.MRO.net)

## HOSPITALITY ITEMS

### Breakfast

A hot breakfast will be available from 8:00 a.m. to 9:00 a.m. in the conference center lounge. If you have any dietary restrictions, please see the registration desk or the server in the lounge.

### Beverages

Hot and cold beverages will be available in the conference center, please help yourself.

### Lunch

A lunch buffet will be provided. If you have any dietary restrictions, please see the registration desk or the server in the lounge. Please follow the emcee's instructions for dismissal to lunch.

### Restrooms

Restrooms are located outside of the conference center, as well as on floor seven. If you choose to use a restroom on another floor, please take the elevators. The staircases only provides exit access on the first floor of the building.

### First Aid

There is a first aid kit at the front desk in the reception area should you need medical or first aid supplies.

### Conference Etiquette

As a courtesy to presenters and conference participants, please:

- Silence all of your electronic devices prior to sessions.
- Please defer to speakers' preferences for questions and wait for a microphone so those attending by web can hear.
- Be seated prior to the beginning of each session.

### Name Badges

Please wear your name badge at all times.

### Conference Evaluation

Your feedback is appreciated; a feedback form is included in this packet. Please complete the form and leave it at your seat or place it in the feedback form box at the registration table.

### Luggage

Storage for any size travel luggage is available in MRO's lobby by the registration desk. Please ask MRO staff for assistance.

### Lost and Found

An MRO representative will always be in the meeting room; however, personal belongings are left at your own risk. If you find or lose an item, please visit the registration desk. After the conference, please contact Lauren McClary at: [lauren.mcclary@mro.net](mailto:lauren.mcclary@mro.net)

### Power and WiFi

Power will be supplied at the tables. Please refrain from plugging into floor outlets to minimize the hazard from tripping. MRO's guest WIFI password can be found on the back of your nametag.

### Photographs

MRO may take videos or photos at its events for use on the MRO website or in MRO publications or other media produced by MRO. MRO reserves the right to use any image taken at any event sponsored by MRO, without the express written permission of those individuals included within the photograph and/or video.

To ensure the privacy of conference attendees, images will not be identified using names or personal identifying information without the express written approval from the individual shown. If you do not wish to have your image taken for future publication, please notify MRO event staff. By participating in this MRO event or by failing to notify MRO of your desire to not have your image taken by MRO, you are agreeing to allow MRO to use your image as described.



## EMERGENCY PROCEDURES

### SEVERE WEATHER

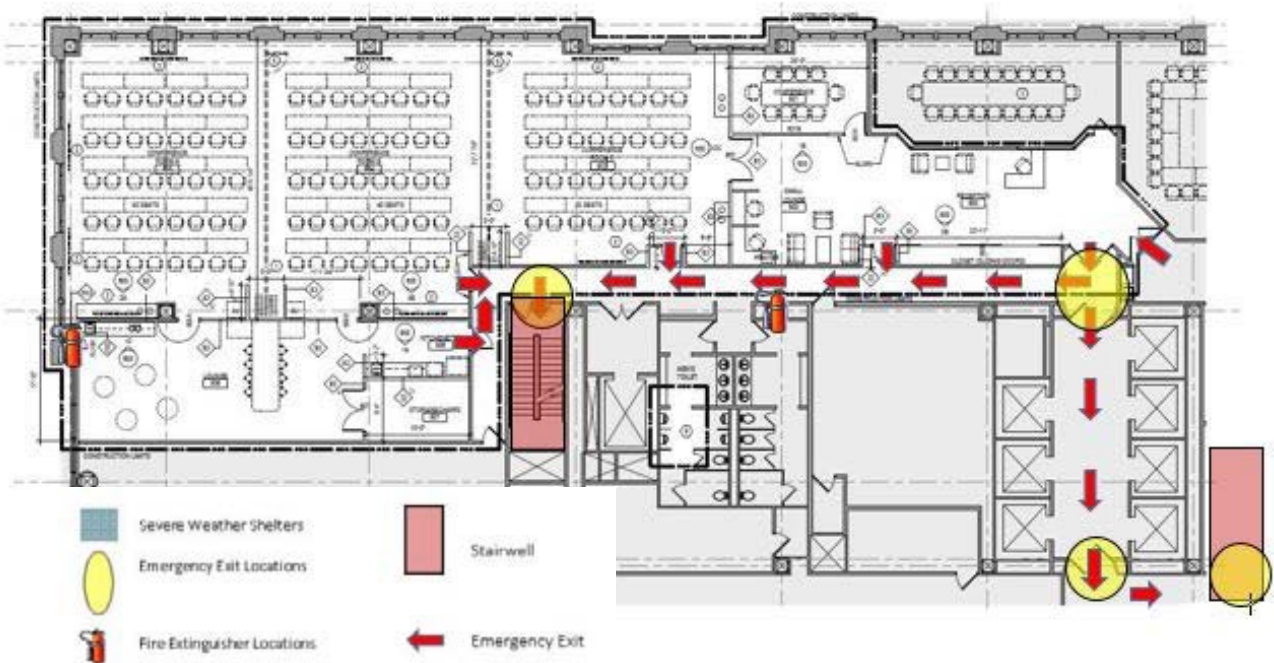
If the city of Saint Paul and/or Ramsey County sound the emergency sirens, Infor Commons building management will instruct employees to seek shelter immediately in an interior room of the building with no windows. **The building's interior corridors, stairwells, and restrooms have been designated as severe weather shelters.** Infor Commons building management will use the building's paging system to warn occupants of the need to take shelter, and will also notify occupants when it's safe to return to their offices by stating "all clear."

### FIRE

The Infor Commons Building is equipped with fire/strobe alarms and an automatic fire suppression and sprinkler system. Pursuant to local fire code, fire extinguishers are available for employee use in the event of an emergency. Infor Commons building management will provide instruction to building occupants in the event of a fire emergency. Fire emergencies usually do not require full evacuation.

### EVACUATION

In the event the building needs to be evacuated, Infor Commons building management will notify building occupants of the need to evacuate. Use the nearest stairwell and exit the building on the ground floor (please see the evacuation map below). MRO employees and guests are asked to gather at the open Impark Lot across the street from our building on the corner of Sixth and Wabasha streets.



## LOGISTICS

### WebEx Login

If any help is needed logging into WebEx please reach out to Michelle Olson at [michelle.olson@mro.net](mailto:michelle.olson@mro.net).

### Audio

Participants will be muted upon entry and will not be able to unmute themselves to speak.

### Questions

If you have questions for a speaker, please utilize WebEx's chat feature. Please submit all questions to the "Host & Presenter". If we are unable to get all questions asked/answered during the conference, a response will be provided after the conference either directly to the requestor or through another form of outreach.

### Presentations

All presentations from today's conference are available in this packet. The individual presentations and recordings from today's conference will be made available in the near future.

### Feedback

Your feedback is very important to us. Please utilize the [survey link](#) also at the end of this packet, to provide your feedback.

### Certificate of Attendance

If you would like to request a certificate of attendance for today's conference, please send your request to Michelle Olson at [michelle.olson@mro.net](mailto:michelle.olson@mro.net).





## AGENDA

Tuesday, July 26, 2022 | 9:00 a.m. to 4:00 p.m.

8:00 a.m. – 9:00 a.m.	<b>Registration and Hot Breakfast</b>
9:00 a.m. – 9:05 a.m.	<b>Conference Welcome and Introduction</b> <i>Tiffany Lake, Director, FERC &amp; NERC Compliance, Evergy, MRO CMEPAC Vice Chair</i> <i>Emcee: Joe DePoorter, Director, NERC Compliance &amp; Generation Operations, Madison Gas and Electric Company</i>
9:05 a.m. – 9:15 a.m.	<b>CMEPAC Plug</b> <i>Terri Pyle, Director, Utility Operational Compliance, Oklahoma Gas &amp; Electric, CMEPAC Chair</i>
9:15 a.m. – 9:30 a.m.	<b>Keynote Speaker: Assessing and Mitigating Regional BPS Risk</b> <i>Sara Patrick, President and CEO, MRO</i>
9:30 a.m. – 10:15 a.m.	<b>Geopolitical Tensions - Overview and SAC</b> <i>Brett Lawler, Senior Threat Intelligence Consultant, Xcel Energy</i> <i>Jennifer Flandermeyer, Director, Federal Regulatory Affairs, Evergy</i> <i>John Rhea, Vice President, Chief Ethics and Compliance Officer, Ameren</i> <i>Steen Fjalstad, Director of Security, MRO</i>
10:15 a.m. -10:25 a.m.	<b>Morning Break</b>
10:25 a.m. – 10:35 a.m.	<b>Align Tool Update</b> <i>Desirée Sawyer, MRO Align Change Agent, MRO</i>
10:35 a.m. – 11:05 a.m.	<b>Facility Ratings</b> <i>Curtis Crews, Director, O&amp;P Compliance and Risk Assessment, TexasRE</i> <i>Jeff Norman, Director of Compliance Monitoring, MRO</i>
11:05 a.m. – 11:50 a.m.	<b>Audit Best Practices and Preparations</b> <i>Charles Wicklund, Senior Compliance Specialist, Otter Tail Power Company</i> <i>Mark Buchholz, Compliance Manager, Western Area Power Administration</i> <i>Matt Caves, Senior Manager, Legal &amp; Regulatory Compliance, Western Farmers Electric Cooperative</i> <i>Shonda McCain, Principal Compliance Engineer, Omaha Public Power District</i>
11:50 a.m. – 12:00 p.m.	<b>Cold Weather - Practice Guide Overview</b> <i>Sam Zewdie, Senior Compliance Engineer, O&amp;P, MRO</i>
12:00 p.m. – 1:00 p.m.	<b>Lunch Break</b>



## 2022 ANNUAL MRO CMEP HYBRID CONFERENCE: AGENDA

1:00 p.m. – 1:30 p.m.	<b>Cold Weather - Inquiry/Generator Site Readiness Update</b> <i>Bryan Clark, Director of Reliability Analysis, MRO</i>
1:30 p.m. – 2:00 p.m.	<b>ERO Transformation Update</b> <i>Kiel Lyons, Senior Manager, Compliance Assurance, NERC</i> <i>Jeff Norman, Director of Compliance Monitoring, MRO</i>
2:00 p.m. – 2:30 p.m.	<b>Supply Chain - HERO Principles</b> <i>Bob Foote, Substation CIP Compliance Analyst, Minnkota Power Cooperative</i>
2:30 p.m. – 2:45 p.m.	<b>Afternoon Break</b>
2:45 p.m. – 3:30 p.m.	<b>Internal Controls Framework</b> <i>Rich Samec, Principal Compliance Engineer, O&amp;P, MRO</i> <i>Larry Johnson, Principal Compliance Auditor, CIP, MRO</i>
3:30 p.m. – 3:50 p.m.	<b>Moving Forward: Hybrid Audits</b> <i>Jess Syring, Compliance Monitoring Manager, CIP, MRO</i> <i>Julie Sikes, Compliance Monitoring Manager, O&amp;P, MRO</i>
3:50 p.m. – 4:00 p.m.	<b>Q&amp;A and Conference Closing</b> <i>Emcee: Joe DePoorter, Director, NERC Compliance &amp; Generation Operations, Madison Gas and Electric Company</i>



## SPEAKER BIOGRAPHIES

Tuesday, July 27, 2021 | 9:00 a.m. to 4:00 p.m. Central



### Bob Foote

*Substation CIP Compliance Analyst, Minnkota Power Cooperative*

Bob Foote is results-driven and appreciates logical and standardized processes. During his 20-year tenure on active-duty Air Force, he was involved in many process improvement events and upheld the highest nuclear standards. For the past 4.5 yrs as Minnkota Power Cooperative's Substation CIP Compliance Analyst, Bob has applied his skills within the NERC/CIP space. He recently obtained a Master's of Science in Cybersecurity from the University of North Dakota to augment his ever-expanding role in the Cooperative and is currently the Chair of the MPC Supply Chain Risk Assessment Working Group.

**Contact Bob:** [rfoote@minnkota.com](mailto:rfoote@minnkota.com)



### Brett Lawler

*Senior Threat Intelligence Consultant, Xcel Energy*

Brett Lawler is a Senior Threat Intelligence Consultant for Xcel Energy, a large Midwest utility company serving millions of customers in 8 states. In his current role, Brett is responsible for detecting and evaluating physical and cyber security threats, protective intelligence, as well as managing overall risks to the enterprise.

Prior to joining the energy sector, Brett worked in Law Enforcement for over 10 years serving as a Patrol Officer, Use of Force Instructor and Firearms Instructor. Brett was also in charge of hiring and training for Security at the Mall of America, the nation's largest retail and entertainment complex. He currently serves as Vice-President for the Minnesota Chapter of InfraGard and Chair of the Threat Forum for the Midwest Reliability Organization (MRO). Brett has a BA in Criminal Justice from the University of St. Thomas.

**Contact Brett:** [brett.w.lawler@xcelenergy.com](mailto:brett.w.lawler@xcelenergy.com)





## Bryan Clark

*Director, Reliability Analysis, Midwest Reliability Organization*

Bryan Clark is the Director of Reliability Analysis. This group is responsible for regional Reliability Assessments, Event Analysis, and Performance Analysis (Data Collection).

Prior to joining MRO in 2018, Bryan spent 8 years with Southwest Power Pool, as a transmission planning engineer, a market operations engineer and a Supervisor of the Day Ahead Operations department. Bryan also worked for Entergy as a Nuclear Operator where he was responsible for monitoring and operating various primary and secondary plant systems at Arkansas Nuclear One (Unit 2).

Bryan has a Bachelor of Science in Engineering from Arkansas State University, is a registered Professional Engineer in Arkansas and Minnesota, and is a member of the National Society of Professional Engineers.

**Contact Bryan:** [bryan.clark@mro.net](mailto:bryan.clark@mro.net)



## Chuck Wicklund

*Senior Compliance Specialist, Otter Tail Power Company*

Chuck Wicklund began working at Otter Tail Power Company in 2013. As Senior Compliance Specialist, he is responsible for the implementation of OTP's FERC and NERC Compliance programs, which includes oversight of Ops & Planning and CIP Standards. He serves as Lead Planner for OTP's GridEx participation and has briefed state Commissioners on preparations for cyber incident response.

Before joining Otter Tail Power Company, Chuck spent five years as an Internal Auditor with the parent company Otter Tail Corporation, working on audit projects ranging from wind tower manufacture to wholesale energy market participation. His duties included business risk management, Sarbanes-Oxley compliance, process and transaction auditing, internal control testing, and data analysis.

Chuck holds a Bachelor of Science in Economics and Business Administration from North Dakota State University and is a Certified Internal Auditor.

**Contact Chuck:** [cwicklund@otpc.com](mailto:cwicklund@otpc.com)





## Curtis Crews

### *Director, O&P Compliance and Risk Assessment*

Curtis Crews has been with Texas RE since early 2010 when he joined as a reliability engineer in the Reliability Services department. In 2012, Mr. Crews became the director of compliance assessments where he leads a team of managers, engineers, and analysts. Mr. Crews currently serves as the Director, O&P Compliance and Risk Assessment for Texas RE. Prior to joining Texas RE, he was the network model manager for ERCOT and was responsible for ensuring accurate and available Bulk Electric System (BES) data models were prepared for reliable planning and operation of the ERCOT Interconnection. Previously, he was the operations engineering supervisor for the Lower Colorado River Authority, which included responsibilities for day-to-day operations in support of System Operators. Mr. Crews earned a Bachelor of Science in Electrical Engineering from Texas A&M University in College Station, Texas and is a licensed professional engineer in Texas.

**Contact Curtis:** [Curtis.Crews@TEXASRE.org](mailto:Curtis.Crews@TEXASRE.org)



## Desirée Sawyer

### *Compliance Monitoring Coordinator, MRO*

Desirée Sawyer joined MRO in November 2012 as a Compliance Administrator. Ms. Sawyer transitioned to the role of Compliance Monitoring Coordinator in January 2018.

Prior to joining MRO, Ms. Sawyer was a paralegal doing simple and complex work within both small and large firms. Ms. Sawyer worked in the personal injury (plaintiff and defense), subrogation (creditor), workman's compensation (defense), bankruptcy (creditor's interest) and toxic tort (defense) litigation fields. Ms. Sawyer has an excellent working knowledge and practice of confidentiality and high ethical standards.

Ms. Sawyer attended Brown Mackie College where she graduated *cum laude* with an Associate's of Applied Science degree in Paralegal Studies. She also attended Bellevue University where she graduated *magna cum laude* with a Bachelor's of Science degree in Project Management. Ms. Sawyer is a Certified Compliance and Ethics Professional (CCEP), from the Society of Corporate Compliance and Ethics.

**Contact Desirée:** [desiree.sawyer@mro.net](mailto:desiree.sawyer@mro.net)







## Jeffery R. Norman

*Director of Compliance Monitoring, MRO*

Jeff Norman joined MRO in January 2012 as a Senior Compliance Engineer, in 2014 transitioned to the role of Senior Risk Assessment and Mitigation Engineer, in 2017 was promoted to Risk Assessment and Mitigation Principal, and in August 2018 was named the Director of Compliance Monitoring.

Prior to joining MRO, Mr. Norman had over eight years of experience as a Transmission Planning Engineering Consultant. He worked as a Transmission Planning Engineer for Power System Engineering, for two years, and for Excel Engineering, for over six years. He also worked for MAPPCOR as a Student Engineer.

Mr. Norman attended the University of Minnesota where he earned a Bachelor of Science degree in Electrical Engineering in 2002 and then earned a Master of Science degree in Electrical Engineering in 2003. Mr. Norman then earned his Masters of Business Administration from Carlson School of Business Management in 2016. Mr. Norman is also a registered professional engineer (PE) in the State of Minnesota, Wisconsin, Michigan, Missouri and Arkansas. He is also a Certified Compliance and Ethics Professional (CCEP), from the Society of Corporate Compliance and Ethics.

**Contact Jeff:** [jeff.norman@mro.net](mailto:jeff.norman@mro.net)



## Jennifer Flandermeyer

*Director, Federal Affairs, Evergy*

As Director, Federal Affairs, Ms. Flandermeyer is focused on federal regulatory activities related to reliability, resilience, and security. While the regulatory actions are primarily with FERC and NERC, because the advocacy role is dedicated to reliability, security and resilience, the role continues to broaden as Evergy engages other departments and agencies of the federal government tasked with critical infrastructure protection.

In 1999, she joined Evergy bringing with her several years of finance and accounting experience coupled with knowledge of the energy industry. Since joining the company, she has held positions in Internal Audit and led the Strategic Business Planning and Financial Management in Delivery (T&D) Operations. In 2009, she accepted the opportunity to lead the company's FERC and NERC compliance team responsible for the company-wide regulatory compliance function establishing a new program for the company. The program was eventually expanded to include additional regulatory bodies and functions. In 2015, she was promoted to her current role to focus on strategy and policy advocacy for federal affairs.

Ms. Flandermeyer holds a Bachelor of Science degree in Accountancy from William Jewell College, a master's degree in Business Administration from Rockhurst University and certifications in Risk Management as well





as Compliance and Ethics. Ms. Flandermeyer serves as a Director for the Midwest Reliability Organization. She serves in several roles on NERC Committees, including the Vice Chair of the NERC Member Representatives Committee. Ms. Flandermeyer is active in the industry serving in roles for several organizations including Southwest Power Pool's Reliability Compliance Advisory Group and the North American Transmission Forum Risk, Controls and Compliance Practices Group. Ms. Flandermeyer previously served as the President of the Rose Brooks Center Board of Directors, an organization dedicated to breaking the cycle of domestic violence, in addition to many other community activities.

**Contact Jennifer:** [jennifer.flandermeyer@evergy.com](mailto:jennifer.flandermeyer@evergy.com)



### **Jessica N. Syring**

*Compliance Monitoring Manager, CIP*

Jessica Syring joined MRO in December 2015 as a CIP Compliance Engineer. Ms. Syring transitioned to the role of Compliance Monitoring Manager, CIP, in January 2020.

Ms. Syring joined the MRO compliance team after working nine and a half years for Open Systems International, Inc. (OSI). While at OSI she assisted with EMS SCADA server system design, implementation, training, testing and commissioning. She also assisted with technical troubleshooting of power system critical issues as well as upgrading systems with vendor software.

Ms. Syring is a graduate of the University of Minnesota, with a Bachelor of Science degree in Computer Engineering.

**Contact Jess:** [jess.syring@mro.net](mailto:jess.syring@mro.net)



### **Joe DePoorter**

*Director, NERC Compliance & Generation Operations, Madison Gas & Electric Company, CMEPAC Member*

Joe joined Madison Gas and Electric Company (MGE) in 2001 after a 21 year career in the U.S. Marine Corps. He started as a Distribution Operator gaining his Reliability Coordinator NERC System Operator certificate in 2003. Joe then transitioned to becoming a System Operator for the MGE Control Area mainly working in the functional areas of Reliability, Balancing and Generation Operations. When MGE became a Midcontinent ISO Market Participant, Joe was instrumental at assuring that the BA functions were equally divided between the Midcontinent ISO and MGE (along with other Market Participants). Early in 2007, Joe took the position of Manager – Reliability Compliance. Since that time Joe has volunteered to be a member of the NERC Readiness Evaluation team, became the Vice Chair of Project 2009- 01, Disturbance and Sabotage Reporting Standard



Drafting Team, Chairs the Midcontinent ISO Balancing Authority Committee, Chairs the MRO's NERC Standards Review Forum, Chairs the MRO's Performance and Risk Oversight Subcommittee, and has presented at NERC and MRO Compliance and Standards workshops as well at the NERC MRC/BOT meetings. Joe has personally briefed several FERC Chairs and multiple FERC Commissioners on several occasions, all concerning the impacts of NERC Reliability Standards and their impacts on small (low risk) entities.

Joe is now the Director – NERC Compliance and Generations Operations for MGE where he has established a strong set of internal controls that systematically review compliance evidence in order to reasonably assure that MGE's positive compliance posture is not weakened. Joe holds a BA degree from Campbell University with a focus in Management and a minor in Economics.

**Contact Joe:** [jdepoorter@mge.com](mailto:jdepoorter@mge.com)

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### John Rhea

*Vice President, Chief Ethics & Compliance Officer*

John leads Ameren's enterprise ethics and compliance program to help ensure adherence to all applicable laws and regulations and to reinforce Ameren's culture of Integrity with a focus on preventing and detecting ethical misconduct while encouraging and expecting co-workers to speak up. John is also responsible for developing Ameren's enterprise governance structure to facilitate consistent and effective enterprise policies and procedures including records management policy oversight. He also serves in the role of Privacy Officer for Ameren.

**Contact John:** [jrhea@ameren.com](mailto:jrhea@ameren.com)

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### Julie R. Sikes

*Compliance Monitoring Manager, O&P*

Julie Sikes joined MRO in June 2008 as a Principal Compliance Associate. Ms. Sikes transitioned to the role of Compliance Monitoring Manager, Operations and Planning, in January 2020.

Ms. Sikes joined the MRO compliance team after having worked for five years with Midwest ISO-St. Paul. While at Midwest ISO she held the positions of Reliability Coordinator, Regional Generation Dispatcher and Senior Scheduler. Preceding her career at Midwest ISO, Ms. Sikes worked for Xcel Energy/Northern States Power for five years as a System Operator and Scheduler in Energy Marketing and Gas Operations.

Ms. Sikes is from Minneapolis, Minnesota and received her Bachelor's degree from the University of Minnesota and is NERC certified for System Operator at the Reliability Coordinator level.

**Contact Julie:** [julie.sikes@mro.net](mailto:julie.sikes@mro.net)





## Kiel Lyons

*Senior Manager, Compliance Assurance, NERC*

Kiel is the Senior Manager of Compliance Assurance at NERC. The Compliance Assurance group's primary focus is to further the reliability and security of the Bulk Electric System by providing oversight, guidance, and coordination of the ERO Enterprises' risk-based compliance monitoring program. In this position, Kiel manages operations, planning, and compliance subject matter experts responsible for the ERO Enterprise compliance monitoring program, oversight of the Regional Entities, NERC-led compliance monitoring activities, Certifications, compliance guidance, and training. Most recently, Kiel was a co-lead of the 2021 Joint FERC/NERC/Regional Entity Cold Weather Inquiry into the cold weather event in the south-central United States in February 2021 and was awarded the Chairman's Certificate of Appreciation by FERC Chairman Glick for his leadership.

Kiel joined NERC in June 2015. Prior to joining NERC, Kiel worked at FERC as an Electrical Engineer in the Division of Compliance in the Office of Electric Reliability. He has lead and participated on a variety of activities at the Commission, including FERC performance audits, evaluation of ERO Enterprise initiatives, regular reviews of ERO Enterprise enforcement activities, and drafting FERC orders.

Kiel received his Bachelor of Science in Electrical Engineering from Geneva College of Pennsylvania.

**Contact Kiel:** [lyonsk@nerc.net](mailto:lyonsk@nerc.net)



## Larry A. Johnson

*Principal Compliance Auditor, CIP, MRO*

Larry Johnson joined MRO in July 2018 as a Senior CIP Compliance Auditor. Mr. Johnson transitioned to the role of Principal Compliance Auditor in January 2020.

Prior to joining MRO Mr. Johnson worked for ALLETE/Minnesota Power for over 30 years in Duluth, MN. He has held various IT related positions as a Computer Programmer on their Energy Management System, a Network and Systems Administrator, Information Technology Security Analyst, and Lead Information Systems Auditor. Mr. Johnson has led several compliance initiatives such as; NERC CIP and HIPAA, has taught evening computer and security related courses for Wisconsin Indianhead Technical College, and has presented at several national security conferences such as; CSI, EEI, InfoSec World and IT Security World plus local events on various compliance, security, and SCADA related topics. He maintains



CISSP, CISA, and CSSA certifications and is a member of the local IIA, InfraGard, ISACA, ISSA and OWASP Minnesota chapters.

Mr. Johnson is a graduate of the University of Minnesota – Duluth with a Bachelor of Applied Science degree in Industrial Electronics Technology with a minor in Mathematics.

**Contact Larry:** [larry.johnson@mro.net](mailto:larry.johnson@mro.net)

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### Mark Buchholz

#### *Compliance Manager, Western Area Power Administration*

Mr. Buchholz is a 1988 graduate of South Dakota State University. Following completion of a Bachelor of Science Degree in Electrical Engineering, Mr. Buchholz has been employed with the U.S. Department of Energy, Western Area Power Administration (WAPA) serving in various operations and maintenance positions at WAPA's Headquarters Office in Lakewood, CO; the WAPA-Upper Great Plains Region (WAPA-UGPR) South Dakota Maintenance Office; the WAPA-UGPR Maintenance Engineering Office; and the WAPA-UGPR Watertown Operations Office.

Since May 2010, Mr. Buchholz has served as a Compliance Manager for WAPA's Upper Great Plains Region. Mr. Buchholz is a member of the NERC Compliance and Certification Committee; the Midwest Reliability Organization (MRO) CMEP Advisory Council; the Mid-Continent Compliance Forum (MCCF) Steering Committee; the MRO Performance Risk Oversight Subcommittee; and the Southwest Power Pool (SPP) Reliability Compliance Advisory Council.

Mr. Buchholz's duties as Compliance Manager, includes providing technical expertise to WAPA management and employees on NERC Reliability Standard compliance issues as they relate to power systems operation and maintenance, transmission planning, physical security, and cybersecurity. Mr. Buchholz serves as WAPA-UGPR's technical expert on the NERC Reliability Standards and provides internal guidance and outreach to WAPA employees on the interpretation of Reliability Standards and their application to ensure WAPA-UGPR meets compliance with the requirements of the NERC Standards applicable to its registrations in the Eastern and Western Interconnections. Mr. Buchholz's duties also include oversight of the WAPA-UGPR System Operators Training Program and Facility Management of the Watertown Operations Office Complex.

**Contact Mark:** [Buchholz@WAPA.GOV](mailto:Buchholz@WAPA.GOV)







## **Matt Caves**

*Senior Manager, Legal & Regulatory Compliance, Western Farmers Electric Cooperative*

Matt Caves currently serves as the Corporate Compliance Officer and Senior Manager of Legal and Regulatory Compliance for Western Farmers Electric Cooperative (WFEC), a generation and transmission cooperative located in Anadarko, Oklahoma. Prior to joining WFEC, Matt spent almost 15 years as a state regulator and in private practice handling a wide variety of regulatory compliance, permitting, enforcement and litigation issues.

Matt is an active member of the Reliability Compliance Working Group (RCWG), Markets and Operations Policy Committee (MOPC), and Strategic Planning Committee (SPC) of the Southwest Power Pool (SPP). Matt obtained his Bachelor of Science degree in Wildlife and Fisheries Ecology from Oklahoma State University and his Juris Doctorate degree from The University of Oklahoma, College of Law.

**Contact Matt:** [matt.caves@wfec.com](mailto:matt.caves@wfec.com)

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## **Richard F. Samec**

*Principal Compliance Engineer, O&P, MRO*

Richard Samec rejoined MRO in January 2020 as Principal Compliance Engineer and Auditor in Operations and Planning, after holding the position of Senior Compliance Engineer at MRO from October 2015 through April 2018, where he was in auditor in both CIP and Operations and Planning.

Prior to joining MRO, Mr. Samec had a combined 14 years of experience as an Electrical Engineer and Senior Project Manager in the areas of Capacity Planning, Substation Engineering, Metering, SCADA, and CapX2020 Regional Transmission Development. Mr. Samec also had a combined 9 years of experience as an Electrical Engineer and Consulting Engineer, overseeing the design and construction of electrical facilities associated with pipeline facilities, including stations and terminals.

Mr. Samec attended the University of North Dakota, where he earned a Bachelor of Science degree in Electrical Engineering in 1991. Mr. Samec is also a registered professional engineer (PE) in the state of Minnesota.

**Contact Rich:** [rich.samec@mro.net](mailto:rich.samec@mro.net)





## **Samuel S. Zewdie**

*Senior Compliance Engineer, O&P, MRO*

Samuel Zewdie joined MRO in September 2013 as a Staff Engineer and became a Compliance Engineer in May 2018. Mr. Zewdie transitioned to the role of Senior Compliance Engineer in January 2020.

Prior to joining MRO, Mr. Zewdie worked for MAPPCOR as a Transmission Planning Engineer. While at MAPPCOR, he worked on regional assessment, planning studies, voltage stability studies, transfer studies, and design of UFLS program for the MAPP region. Mr. Zewdie also briefly worked for Great River Energy where he focused on substation bus bar analysis, PSS/E model building and areal planning.

Mr. Zewdie is a graduate of the University of Minnesota with a Bachelor of Science and a Master of Science in Electrical Engineering with minor in Industrial Engineering. He is a registered professional engineer (PE) in the state of Minnesota and member of Eta Kappa Nu - HKN (National EE Honor Society) and IEEE.

**Contact Sam:** [sam.zewdie@mro.net](mailto:sam.zewdie@mro.net)

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## **Sara Patrick**

*President and CEO, MRO*

Sara Patrick joined MRO in August 2008 as Director Regulatory Affairs and Enforcement and was promoted to Vice President Enforcement and Regulatory Affairs soon after. In 2016 she became the Vice President Compliance Monitoring and Regulatory Affairs, and in June 2018 the MRO Board of Directors named Patrick President and CEO.

Prior to joining MRO, she served as the Director of Government Affairs for Explore Information Services, LLC, a leading service provider to the property and casualty insurance industry. Patrick also served as an Assistant Attorney General for the State of Arizona under both the administration of Janet Napolitano (D) and Grant Woods (R).

Patrick is a graduate of the Lee Honors College of Western Michigan University in Kalamazoo, MI and received her doctor of jurisprudence (J.D.) from the Indiana University School of Law in Bloomington, IN. She is licensed to practice law in Minnesota and Arizona, and is a Certified Information Privacy Professional, Certified Compliance and Ethics Professional, and a member of the Energy Bar Association. Additionally, she completed the University of Idaho Utility Executive Course in June 2013.

**Contact Sara:** [sara.patrick@mro.net](mailto:sara.patrick@mro.net)





## Shonda McCain

*Principal NERC Compliance Engineer*



Ms. McCain started at Omaha Public Power District (OPPD) in 2011 with 6 years of US Army technical communications' operation and maintenance experience. Since her start, she has helped stand up the substation PRC-005 program, implemented a relay setting database, worked as a Protection and Automation Engineer, and transitioned to NERC Compliance in 2019. In compliance, she has worked with both CIP and O&P standards from implementation to advising SMEs. Now as Principal, she is responsible for the NERC Cold Weather standards, implementing a GRC tool, following standard development, as well as the internal primary compliance contact for the COM, PER, PRC, and TPL families of standards.

Ms. McCain earned her Bachelor's in Electrical Engineering from Iowa State University in 2011 and her Professional Engineering (PE) license in 2016. Additionally, Shonda is an MCCF board member, a member of IEEE, HKN, and is involved in many industry groups.

**Contact Shonda:** [smmccain@oppd.com](mailto:smmccain@oppd.com)

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## Steen Fjalstad

*Director of Security, MRO*



Steen Fjalstad is Director of Security at Midwest Reliability Organization (MRO) and is part of the Critical Infrastructure Protection team helping to secure the North American Electric Grid ('the Grid'). He oversees MRO's efforts to share information and mitigate both physical and cyber security threats and vulnerabilities to the Grid - working closely with industry partners, local, state, and federal agencies, and other critical infrastructure sectors. In his thirteen years with MRO, Steen has supported the security work of numerous utility organizations, helping those entities become more aware of and reduce security risk to their individual systems. Prior to joining MRO, Steen obtained significant experience securing, designing, implementing, and auditing technology systems. Steen has served over two-hundred different organizations spanning three continents. He holds a Masters Degree from the University of Minnesota-Twin Cities in Security Technologies and a Bachelors degree from the University of Wisconsin-Whitewater in Management Computer Systems.

**Contact Steen:** [steen.fjalstad@mro.net](mailto:steen.fjalstad@mro.net)





## **Terri Pyle,**

*Director Utility Operation Compliance, Oklahoma Gas and Electric, MRO CMEPAC Chair*

Terri Pyle is the Director of Utility Operational Compliance (“UOC”) and NERC Compliance Officer at Oklahoma Gas and Electric and sets the strategic direction and oversees the compliance assurance program activities in the electric reliability and environmental compliance disciplines. The OGE UOC NERC Compliance Team partners with Subject Matter Experts across the business to assure the NERC Operations and Planning (“O&P”) and Critical Infrastructure (“CIP”) Reliability Standards are monitored and understood and processes and controls are fully developed and implemented to assure compliance with the requirements.

Terri serves as a voting member of the SPP Reliability Compliance Working Group (“RCWG”) and a core team member for the North American Transmission Forum (“NATF”) Risk, Controls, and Compliance. She is also an active member of the EEI Reliability Executive Advisory Committee.

She has been with OGE since 2011 and has held various compliance leadership roles within T&D, Legal & Corporate Compliance, and Operations. Prior to joining OGE, she was the Compliance Manager at Oklahoma Municipal Power Authority (“OMPA”) responsible for all NERC, environmental, and safety compliance. Prior to that, she was the Corporate Environmental Manager at Delta Faucet Company responsible for environmental compliance and process control at all manufacturing facilities in North American and China.

Terri earned a Bachelor of Science degree in Chemistry at the University of Oklahoma, a Master of Science degree in Environmental Science and Engineering at the University of Oklahoma, and a Master of Business Administration degree from Colorado State University.

**Contact Terri:** [pyleta@oge.com](mailto:pyleta@oge.com)



## MRO DISCLAIMER

Midwest Reliability Organization (MRO) is committed to providing outreach, training, and non-binding guidance to industry stakeholders on important industry topics. Subject Matter Experts (SMEs) from MRO's organizational groups and the industry may develop materials, including presentations, provided as a part of the event. The views expressed in the event materials are those of the SMEs and do not necessarily express the opinions and views of MRO.



## PRESENTATIONS

**All presentations for today's conference are included in order of presentation. Some presentations may have changed slightly after the print deadline.**





MIDWEST  
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ORGANIZATION

# Assessing and Mitigating Regional BPS Risk

CMEP Conference, July 26, 2022

CLARITY

ASSURANCE

RESULTS



# Sara Patrick

## President and CEO

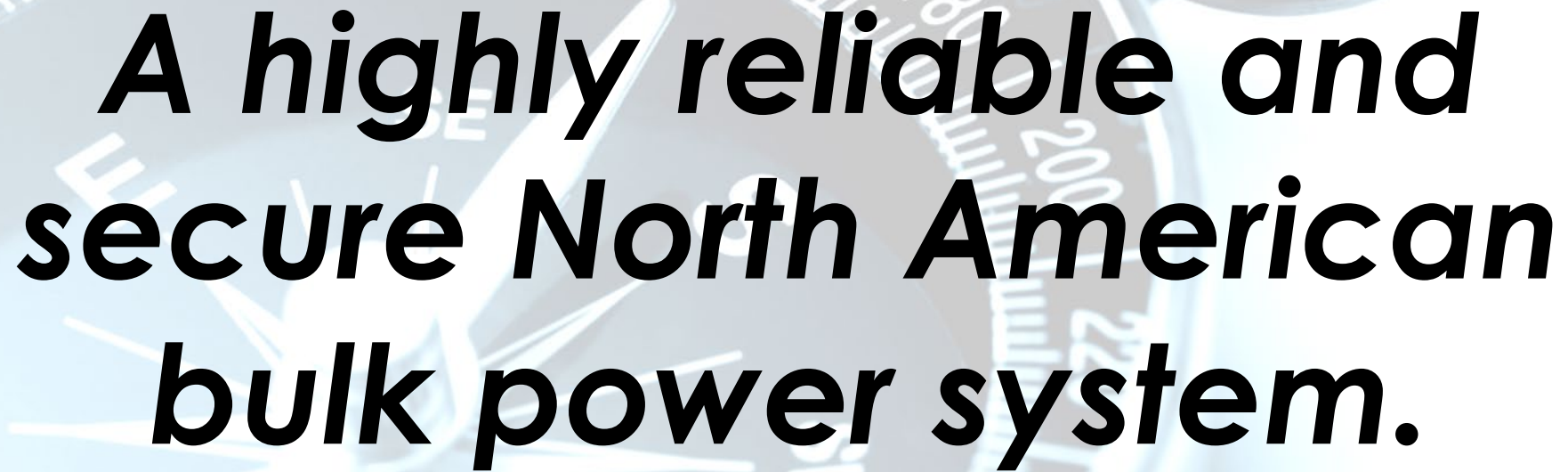
Sara Patrick joined MRO in August 2008 as Director Regulatory Affairs and Enforcement and was promoted to Vice President Enforcement and Regulatory Affairs soon after. In 2016 she became the Vice President Compliance Monitoring and Regulatory Affairs, and in June 2018 the MRO Board of Directors named Patrick President and CEO.

Prior to joining MRO, she served as the Director of Government Affairs for Explore Information Services, LLC, a leading service provider to the property and casualty insurance industry. Patrick also served as an Assistant Attorney General for the State of Arizona under both the administration of Janet Napolitano (D) and Grant Woods (R).

Patrick is a graduate of the Lee Honors College of Western Michigan University in Kalamazoo, MI and received her doctor of jurisprudence (J.D.) from the Indiana University School of Law in Bloomington, IN. She is licensed to practice law in Minnesota and Arizona, and is a Certified Information Privacy Professional, Certified Compliance and Ethics Professional, and a member of the Energy Bar Association. Additionally, she completed the University of Idaho Utility Executive Course in June 2013.







***A highly reliable and  
secure North American  
bulk power system.***

**Our Shared Vision**

# The ERO Enterprise

- **The ERO Enterprise offers a unique, wide-area view of risk across North America**
  - Rapidly evolving resource mix
  - Energy assurance
  - Extreme weather events
  - Cyber and physical security
  - Supply chain vulnerabilities
  - Bulk power system modeling accuracy



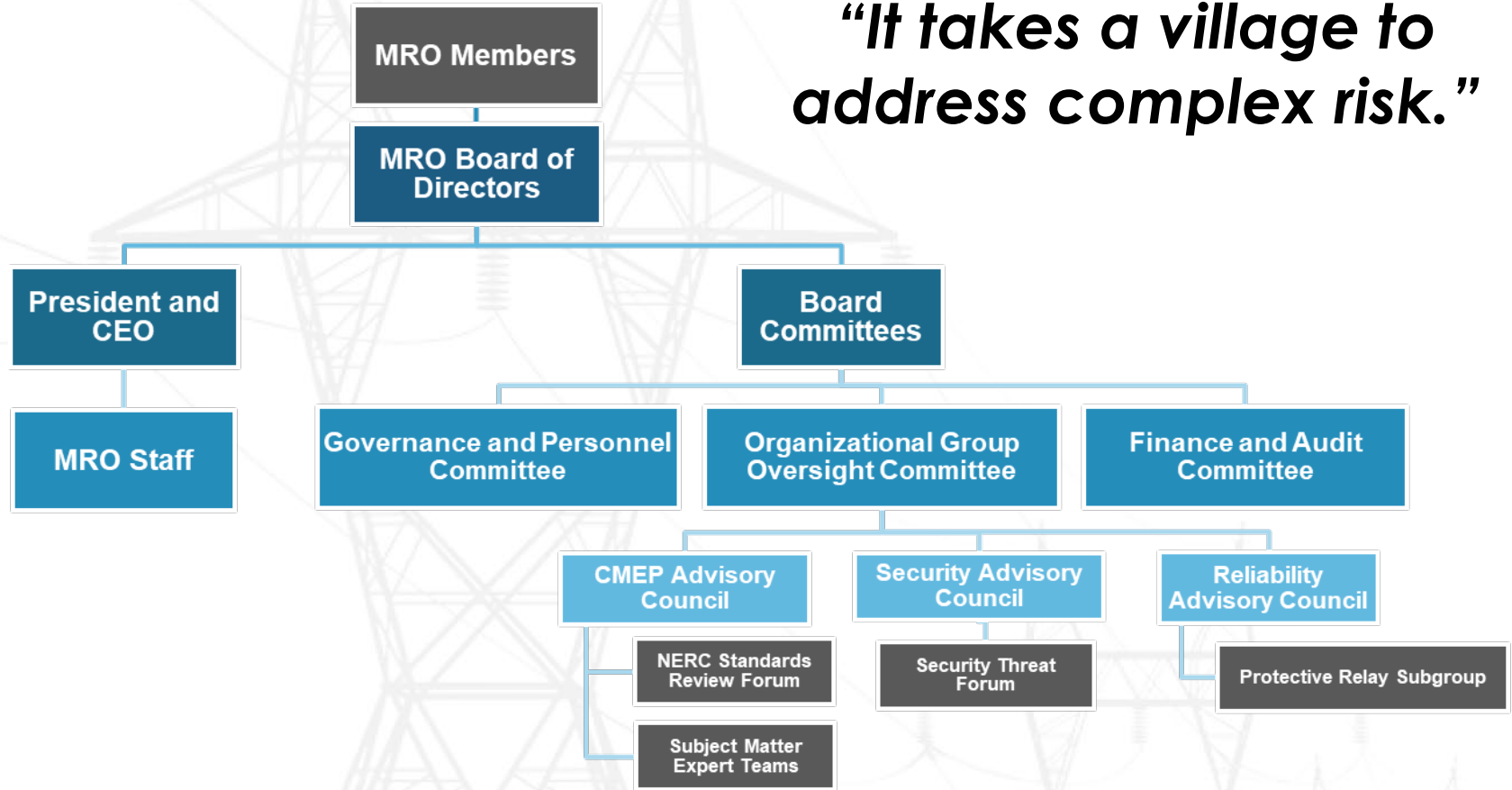
# MRO's Value Proposition

- **As part of the ERO, MRO offers a targeted, regional view of risk**
  - Winter planning reserve margins
  - Generation availability during severe cold weather
  - Lack of energy assurance assessments
  - Supply chain vulnerabilities
  - Insider threats, malware and ransomware
  - Bulk power system modeling accuracy



# **MRO Value Proposition – Bridging the Gap**

***“It takes a village to address complex risk.”***



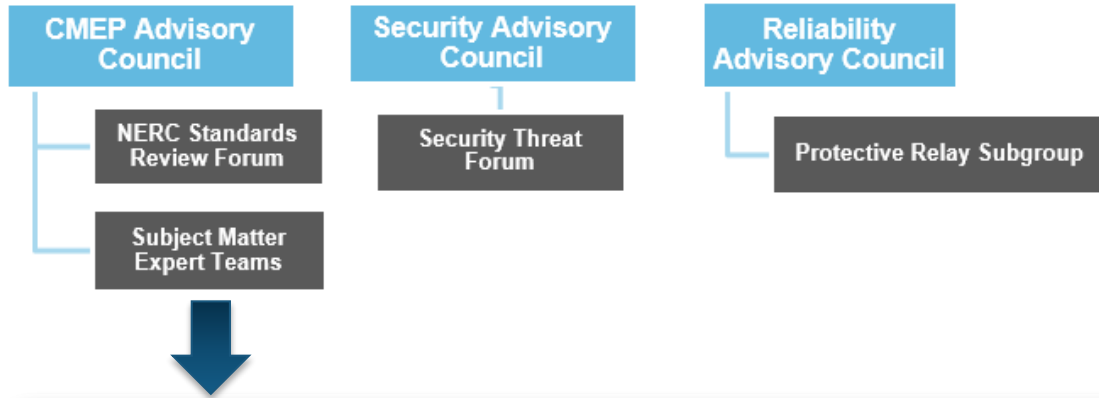


## Role of the MRO Board





## Role of MRO Leadership and Staff



- **Serve as subject matter experts to MRO's board, members, registered entities, and staff:**
  - Propose new, modifications to, or retirement of NERC Reliability Standards based on risk.
  - Maintain MRO's Standards Process Manual and develop standard application guidance when needed.
  - Provide input on MRO's CMEP Implementation Plan and feedback to staff on CMEP activities.
  - Expand outreach efforts to promote compliance and help registered entities become more aware of and understand regulatory requirements and related tools.

# Role of MRO Org Groups and the CMPAC

# CMEPAC Roster

Our Future Is  
BRIGHT!



Name	Role	Company	Term End
Terri Pyle	Chair	Oklahoma Gas and Electric	12/31/2023
Tiffany Lake	Vice Chair	Evergy, Inc.	12/31/2023
Ashley Stringer	Member	Oklahoma Municipal Power Authority	12/31/2023
Bryan Dixon	Member	Xcel Energy	12/31/2024
Carl Stelly	Member	Southwest Power Pool, Inc.	12/31/2024
Eric Ruskamp	Member	Lincoln Electric System	12/31/2023
Fred Meyer	Member	Algonquin Power & Utilities Corp	12/31/2022
Kevin Lyons	Member	Central Iowa Power Cooperative	12/31/2024
Larry Heckert	Member	Alliant Energy	12/31/2024
Mahmood Safi	Member	Omaha Public Power District	12/31/2022
Mark Buchholz	Member	Western Area Power Administration	12/31/2022
Matt Caves	Member	Western Farmers Electric Cooperative	12/31/2022
Paul Mehlhaff	Member	Sunflower Electric Power Cooperative	12/31/2022
Theresa Allard	Member	Minnkota Power Cooperative	12/31/2023
Trevor Stiles	Member	American Transmission Company	12/31/2024



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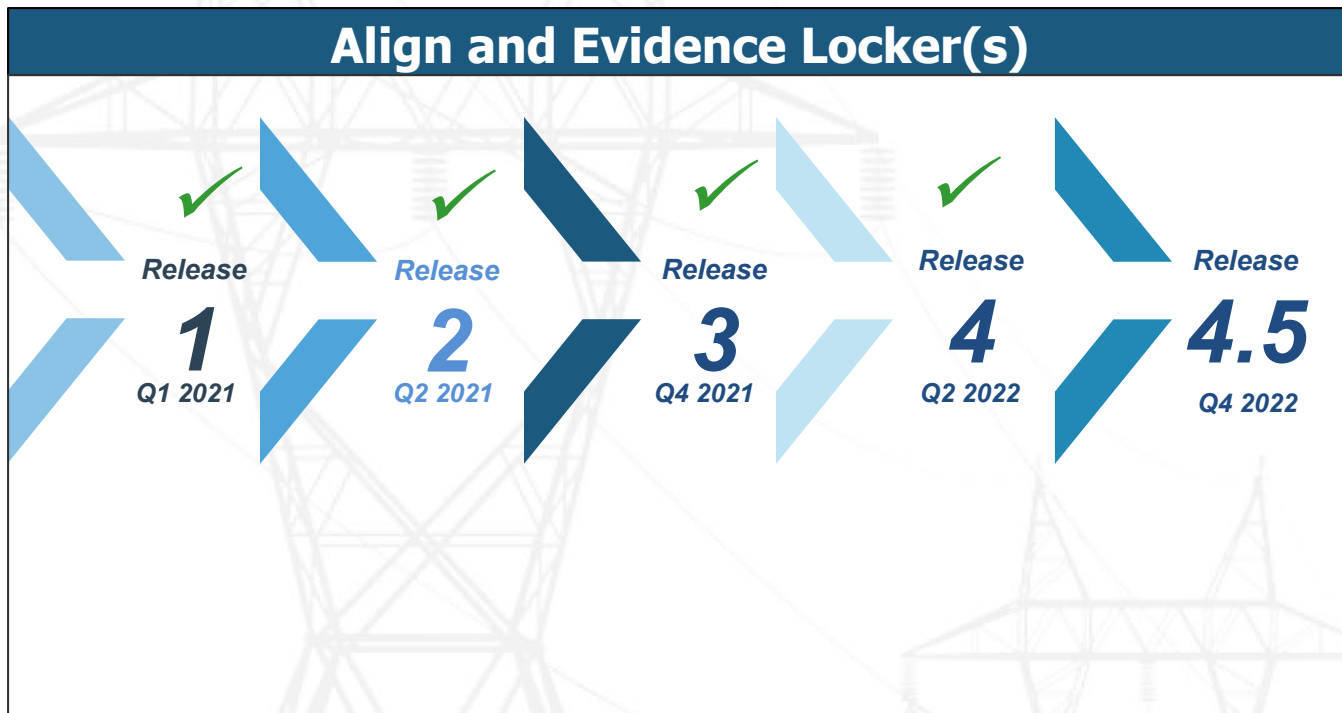


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# Align Updates

Desirée Sawyer  
MRO Align Change Agent

# Align Release Overview





# Align Release 4/4.5: What to Expect As a Registered Entity

## Stakeholder Group

*Registered Entities*



## Functionality

- Enhanced Audit and Scheduling functionalities
- Compliance Planning (Inherent Risk Assessment (IRA), and Compliance Oversight Plan (COP))
- Expand Requests for Information (RFIs) for Compliance Planning

# Canadian Update

- **Draft project schedules have been created to implement all provinces with base functionality**
- **MRO Provinces: planned go-live October 2022**



# Secure Evidence Locker

- CIP-014 evidence submitted via ERO SEL
- Do not include sensitive information in the file name as this will be included in the manifest that is emailed to the submitter
- ERO SEL extended hours

	Start (Pacific)	Stop (Pacific)	Start (Mountain)	Stop (Mountain)	Start (Arizona)	Stop (Arizona)	Start (Central)	Stop (Central)	Start (Eastern)	Stop (Eastern)
Standard Time (XST)	5:00 AM	8:00 PM	6:00 AM	9:00 PM	6:00 AM	9:00 PM	7:00 AM	10:00 PM	8:00 AM	11:00 PM
Daylight Savings (XDT)	6:00 AM	9:00 PM	7:00 AM	10:00 PM			8:00 AM	11:00 PM	9:00 AM	12:00 AM



# Periodic Data Submittals

## Self-Certifications

- **Respond to Questions**

- Need to assign questions
- Click to respond

- **Attestations**

- One attestation submitted per NCR, region, function
- Refresh to see completed attestation(s)

- **Submit**

- With data
- Without data



# Mitigation Management

- **Entity is responsible for submitting the mitigation record in Align**
- **PNC records and Mitigation records are linked but separate records in Align**
  - Must create mitigation milestones within the mitigation record and submit the record to the CEA for RAM to review
  - Mitigation record must be completed before the finding can be fully processed in Align



# Contacts vs Users

## Contacts

- **Primary Compliance Contact (PCC)**
  - Only contact role that receives automatic user permissions
- **Alternate Compliance Contact (ACC)**
- **Primary Compliance Officer (PCO)**
- **Entity Admin**

## Users

- **Align Submitter**
  - Includes ERO SEL Submitter
- **Align Editor**
- **Align Reader**



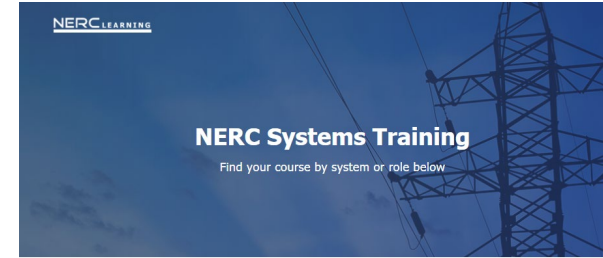


# Align Contacts and Users

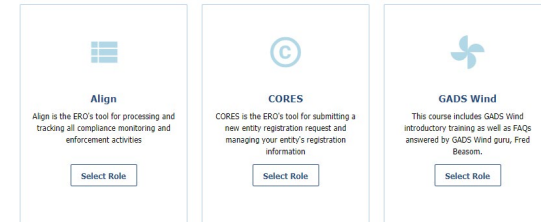
- Entity is responsible for updating in both webCDMS and CORES
- Updating Contacts in CORES
  - Video 13 Contact Roles  
<https://training.nerc.net/Home/ViewApplicationVideos?system=CORES&role=Registered%20Entities>
- Updating user permissions in CORES
  - [https://trn.nerc.com/User%20Guide/RE\\_TTT\\_User\\_Access.pdf](https://trn.nerc.com/User%20Guide/RE_TTT_User_Access.pdf)
- Permissions may take up to 24 hours to activate

# Training and Resources

- [MRO Align website](#)
- [NERC Training Videos](#)
- General Questions for MRO
  - [align@mro.net](mailto:align@mro.net)
- Enhancement Suggestions to NERC
  - [askalign@nerc.net](mailto:askalign@nerc.net)



NERC TRAINING COURSES  
What system do you want to learn today?





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# Preview of upcoming Facility Ratings: Common Themes and Lessons Learned

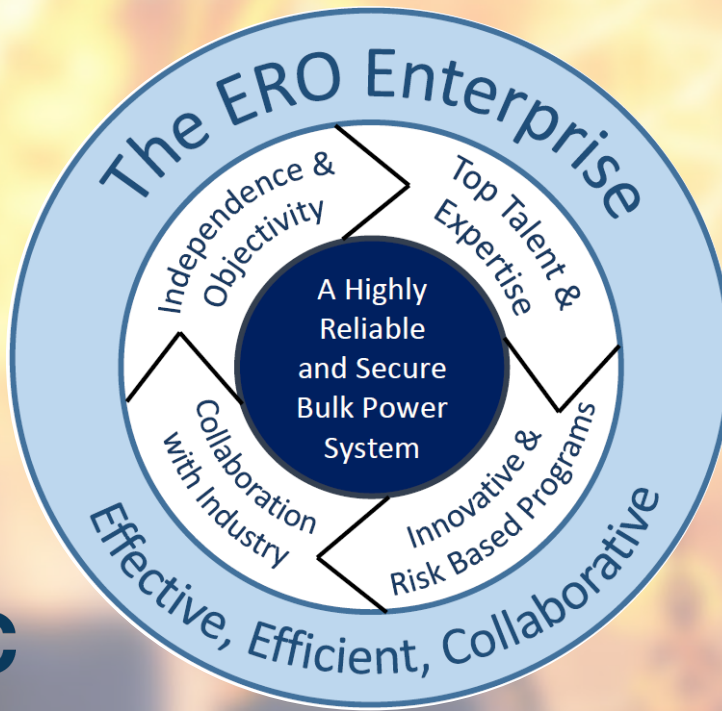
Jeff Norman, Director of Compliance Monitoring, MRO

Curtis Crews, Director, O&P Compliance and Risk Assessment, Texas RE



# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION



# Why a Report Now?

- Risk-based process
- Increase in FAC-008 opportunities across the ERO Enterprise
- Awareness
- Importance





# Who Came Up with Report?

- **Initial seed was from SERC**
  - <https://www.serc1.org/docs/default-source/industry-issues/2022-serc-facility-ratings-themes-lessons-learned-final.pdf>
- **The entire ERO Enterprise created the report in the spirit of collaboration**
- **Report is still in draft format, but on track to be published in late Q3 2022**



# Theme 1: Lack of Awareness

- Lack of awareness is primarily associated with inadequate internal controls
- Accurate inventory
- Change management
- Effectiveness of program
- Communication (internally and externally)
- Sustainability of program



# Theme 1: Best Practices

## Senior Management:

- Develops the culture
- Sets clear expectations
- Clarity defines the program
- Establishes Facility Ratings program sponsor

## Program has:

- Clearly defined process, with clear roles & responsibilities
- Training for all departments and contractors involved

## Test the program:

- All equipment is identified
- Validate and verify accuracy of documentation
- Field verification

## Establish a Corrective Action Program

- Risk management and continuous improvement



# Theme 2: Inadequate Asset and Data Management

- **Accurate Equipment Ratings lead to accurate Facility Ratings**
- **Asset management**
  - Identification, management, and tracking of physical equipment.
- **Data management**
  - Collecting, validating, and storing of all data associated with equipment.
- **Effective and efficient asset and data management of equipment is the foundation for accurate Facility Ratings**



# Theme 2: Challenges

- **Quantity of equipment and Facility Ratings data to manage (both large and small)**
- **Age of equipment (from a documentation perspective)**
- **No singular controlled database**
- **Defined roles and responsibilities for process**
- **Verification efforts**
- **Reliance on third party contractors lacking training on internal process and effective oversight**

# Theme 2: Best Practices

- **Official Master Database**
- **Communicate location of database to all relevant personnel**
- **Clear process to obtain and update information from the field**
- **Reinforce with training, and workflow diagrams**
  - Process for updating Official Master Database
  - Use of Official Master Database for down stream processes
- **Peer review to ensure data is entered correctly**
- **Implement strict access controls**
- **Contractor management should be included**





# Theme 3: Inadequate Change Management



# Theme 3: Challenges

- Emergency restoration
- Inventory management
- Mergers/acquisitions
- Database vendor changes
- Coordination between departments
- Equipment “removed from service”
- Changes to existing equipment
- Commissioning of new equipment
- Contractor work verification
- Local office redlines
- Underbuilds/encroachments
- Consistency in development and maintenance of a Facility Rating
- Methodology or support documents



# Theme 3: Best Practices

- **“Change” process checklist/flowchart**
- **Document current state and future state**
- **Quality Assurance Reviews after any change**
  - Data entry verification
  - Onelines/Elevation Drawings/EMS/GMS/SCADA/Model verification
  - Verify as built is used rather than as designed for new facilities
  - Confirmation that change has been implemented as planned
- **Effective documented approval process for key steps**
- **Automate notifications when a change is implemented**
- **Validation through periodic reviews of process and data**
- **Periodic and systematic walk-downs especially after restoration**



# Internal Controls for Sustainability

*“Internal Controls are the processes and tools an entity uses to meet identified objectives.”*

- **Controls to ensure that Facility Ratings are up-to-date include:**
  - Change management path and communication channel with expected timings
  - Roles/responsibilities
  - Inventory maintenance
  - Internal risk-based self-audits/periodic reviews
  - One-line/elevation drawing maintenance
  - Document Change management

# Additional Observation

- **Inconsistent development and application of Facility Rating methodologies**
  - Multiple methodologies between departments
  - Different methodologies on joint owned facilities

# ERO Enterprise – Risk Based Approach

## ● Next steps

- Continued use of risk-based approach
  - Monitoring activity for entities that have not had a recent CMEP activity related to Facility Ratings
  - Continued emphasis of FAC-008 in planned 2022 compliance monitoring activities (CMEP Implementation Plan)
  - Consider activities in 2023 and beyond
  - Enforcement dispositions based on risk to BES
- Continued outreach
- Alignment of priority with stakeholders and regulators



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# **Audit Best Practices and Preparation**

**Charles Wicklund, Senior Compliance Specialist, Otter Tail Power Company**

**Mark Buchholz, Compliance Manager, Western Area Power Administration**

**Matt Caves, Senior Manager, Legal & Regulatory Compliance, Western Farmers  
Electric Cooperative**

**Shonda McCain, Principal Compliance Engineer, Omaha Public Power District**



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# **OPPD Audit Best Practices and Preparation MRO CMEP Conference 2022**

**Shonda McCain**

**Omaha Public Power District (OPPD)**

**July 26, 2022**

# Disclaimer

**The Midwest Reliability Organization (MRO) Compliance Monitoring and Enforcement Program Advisory Council (CMEPAC) is committed to providing training and non-binding guidance to industry stakeholders regarding existing and emerging security topics. Subject Matter Experts (SMEs) developed any materials, including presentations, through the MRO CMEPAC from member organizations within the MRO Region and other government and industry security experts. The views in this presentation are presented by these MRO CMEPAC SMEs, government, and industry experts, and do not express the opinions and views of MRO.**

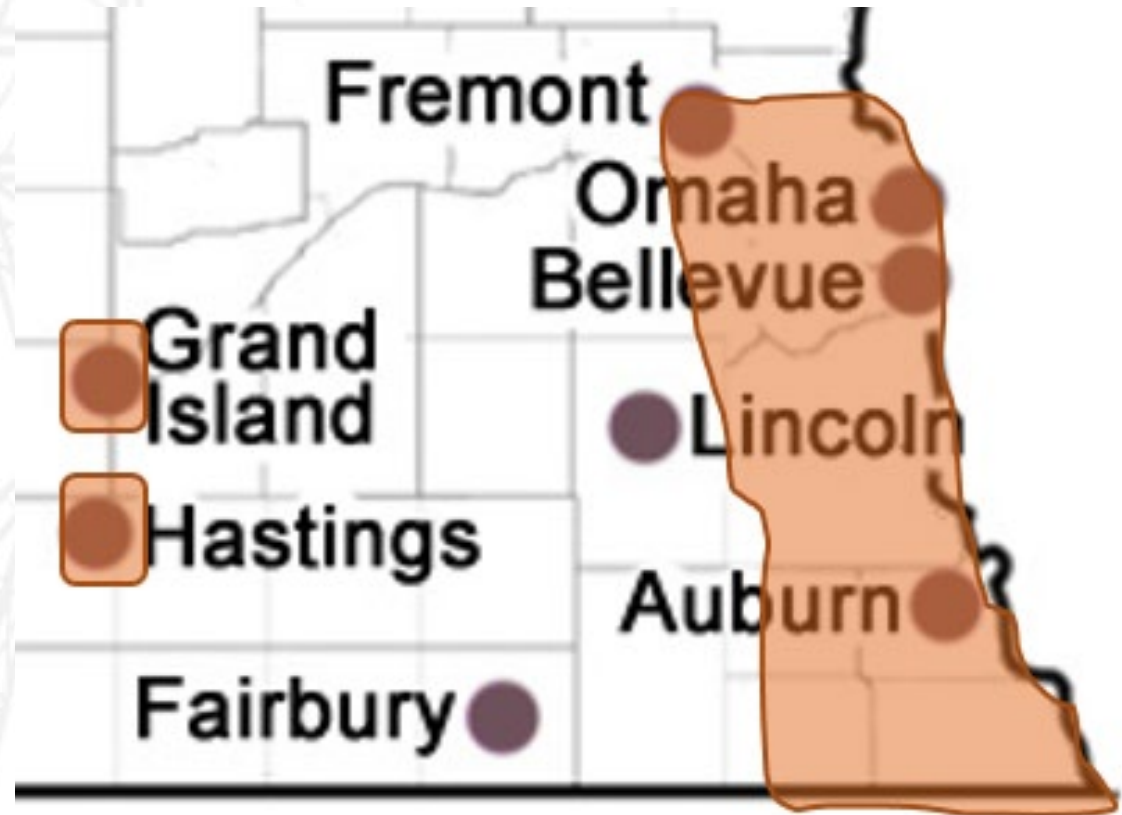


## Registrations:

1. Transmission Owner (TO)
2. Transmission Operator (TOP)
3. Generator Owner (GO)
4. Generator Operator (GOP)
5. Distribution Provider (DP)
6. Resource Planner (RP)
7. Transmission Planner (TP)



# TOP Operations Area with Grand Island and Hastings





# How did you prepare your team, yourself, your SMEs?

- **Prior:**

- SMEs & leadership Training
- Outside resources – year prior to audit
- Received updated Compliance Oversight Plan (COP) Fall 2021

- **During:**

- Utilized Audit Checklist
  - Timeline, accountability, etc.
- Scope Review by the Compliance team



# Audit

- **On-Site Combo (O&P/CIP) audit – 6/27 - 7/1**
  - Audit Notice 2/7
  - Audit Period 12/27/2018 - 2/7/2022 (off-site began 6/6)
  - 16 auditors (on/off site)
- **Scope**
  - Operationally focused
  - Newer standard
  - Data intense due to the type of requirements





# Positive Observations

- **Professionalism of the MRO audit team**
  - Cooperative and flexible with schedules and RFIs
  - Audit Team Lead (ATL) discussions started prior to the audit notification (120 days notice)
- **Audit scope within the COP**
  - Followed up on prior audit Area(s) of Concern and Recommendations
    - One requirement was within the audit scope



# Positive Observations

- **The 120 days Audit Notification process allows more time for better**
  - Preparation
  - SME timelines on RFIs
    - Data intense due to the type of requirements subject to the audit



# Learning Opportunities

- **Most Data intense requirements in the scope**
  - Audit scope should consider separating these requirements in different outreach forms
- **CIP Evidence Request Tool (ERT) may need more training**



# What would you do differently next time?

- **Newer O&P standard in scope**
  - Discussions to target scope and types of evidence
- **Documentation improvements**



# 2022 MRO CMEP Conference

## Registered Entity Compliance Programs

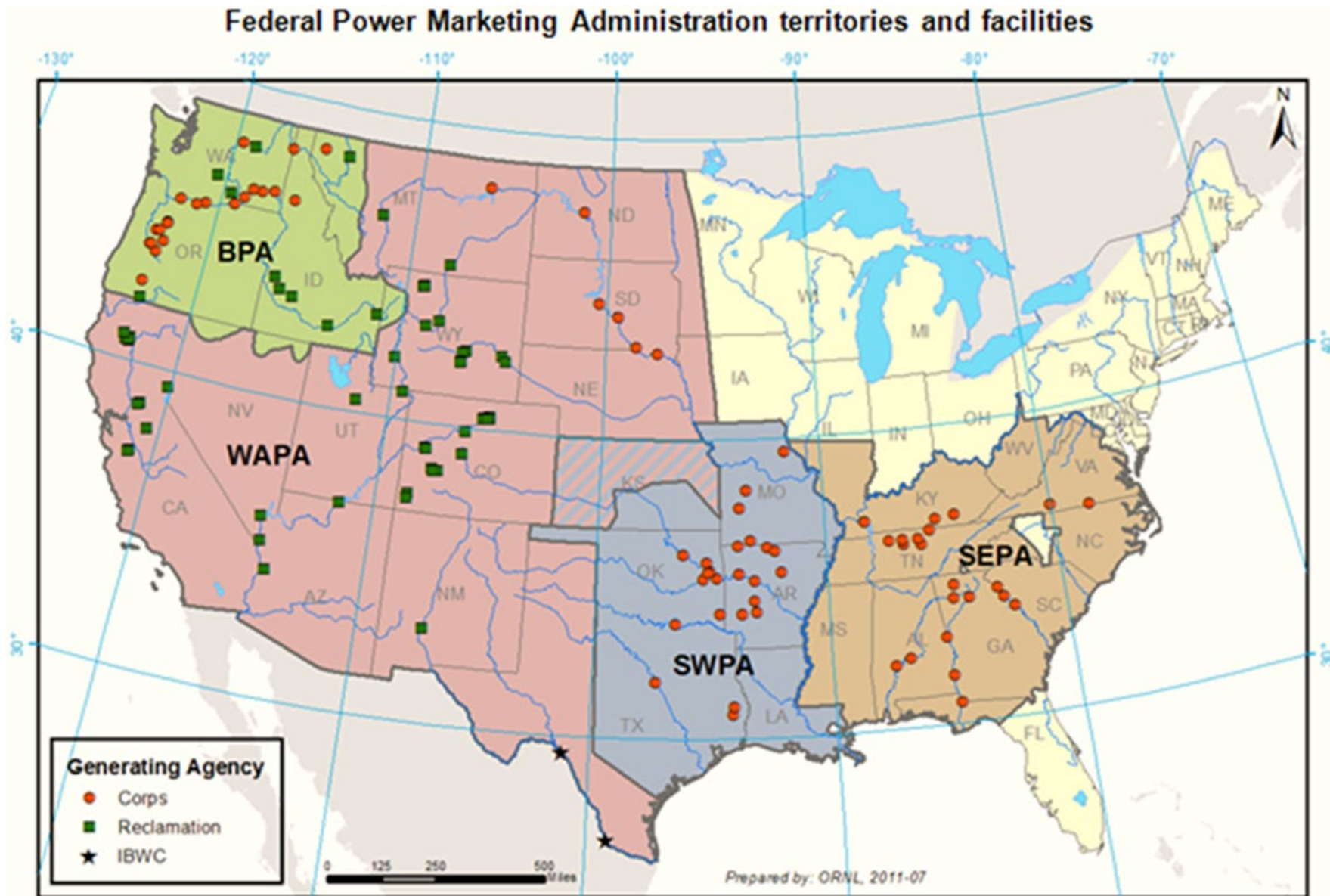
Mark Buchholz

Western Area Power Administration

July 26, 2022







## Federal Power Marketing Administrations



# What is WAPA?

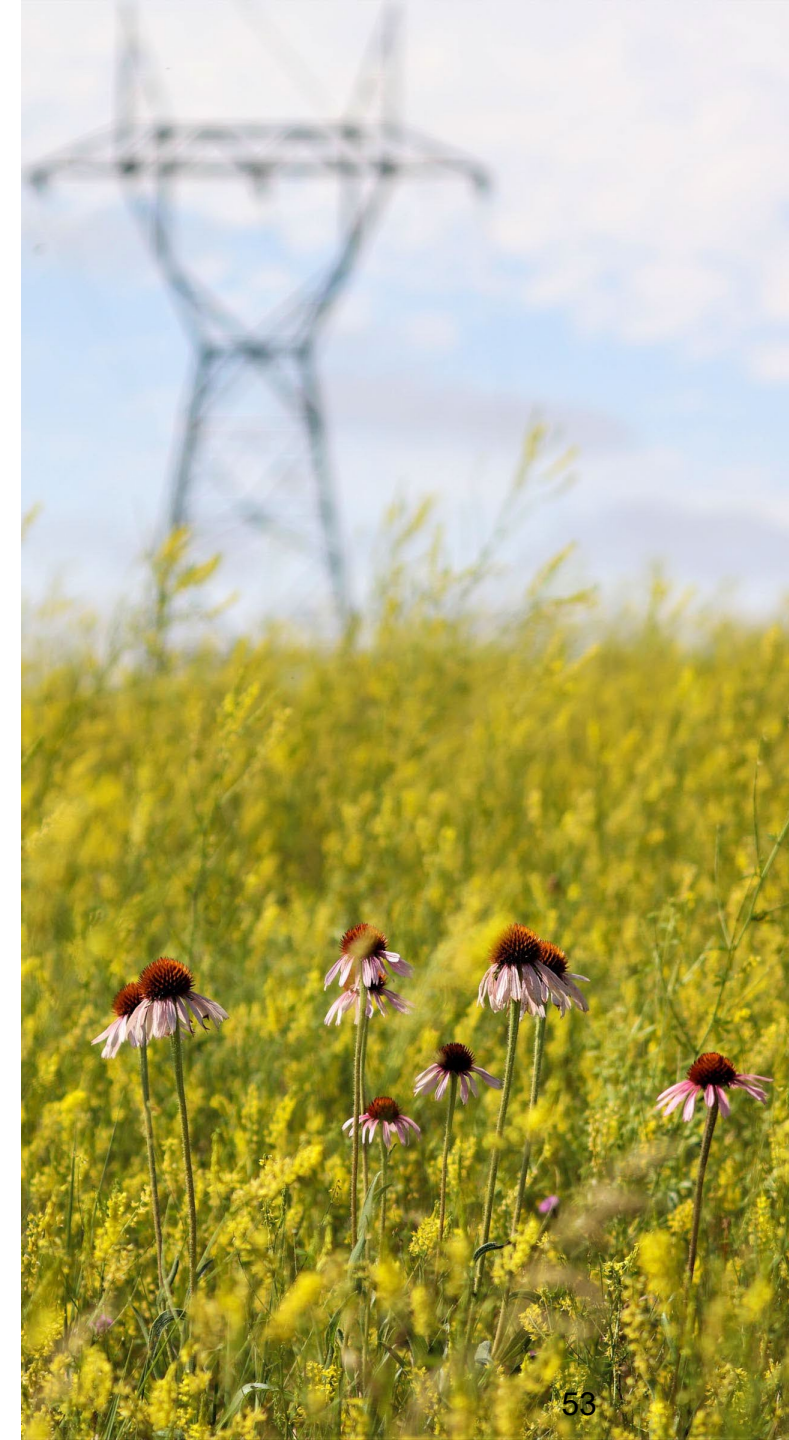
Wholesale Power Supplier for 14 Federal Water Projects

Serves more than 700 long term, firm power, preference customers

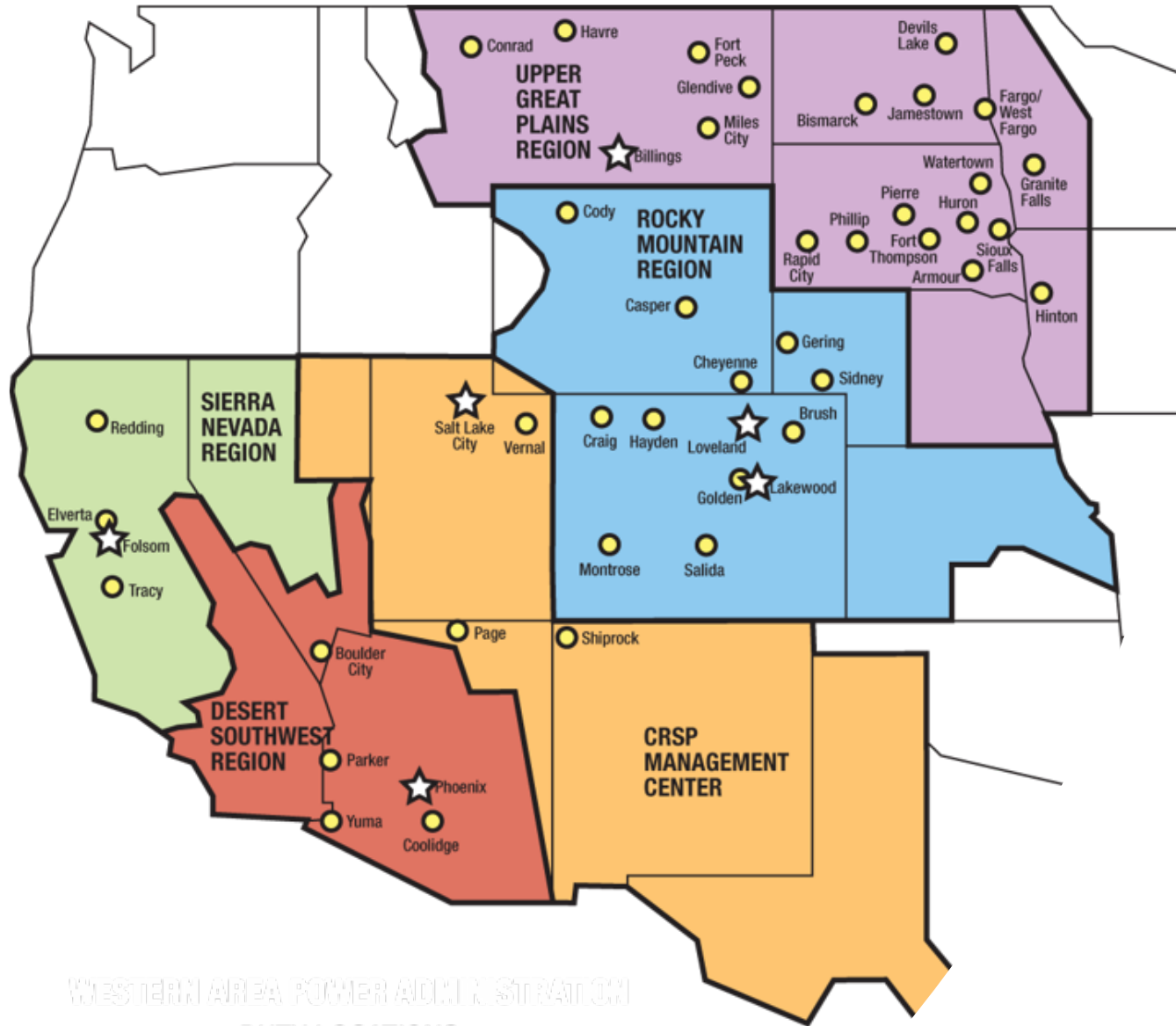
15 State Footprint in the Central and Western United States

1.3 Million Square Mile Service Territory

Providing Reliable Power to 40 Million Americans





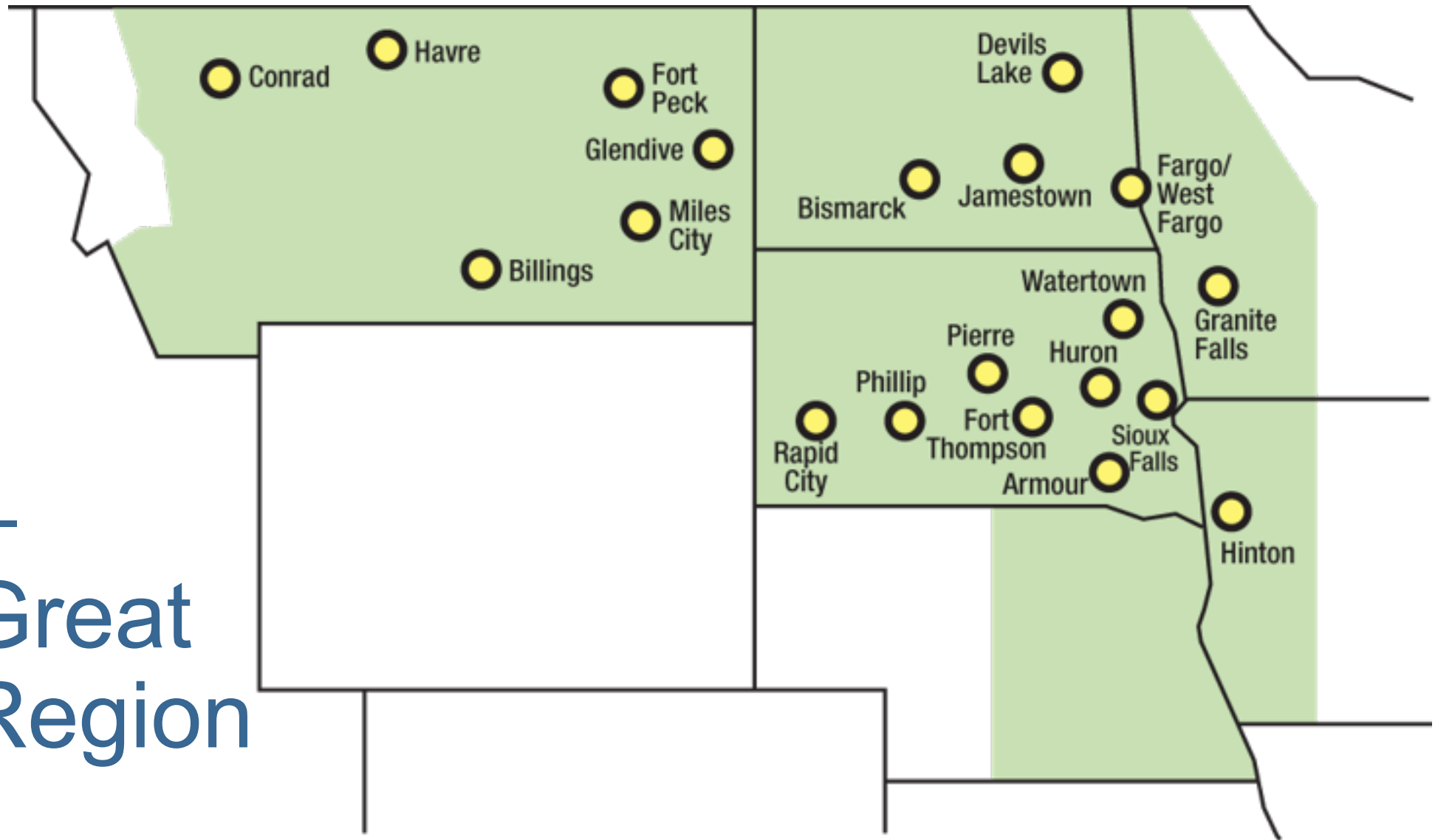


# WAPA Regional Offices

WESTERN AREA POWER ADMINISTRATION  
DUTY LOCATIONS



# WAPA – Upper Great Plains Region





# WAPA – Upper Great Plains Region Operations





# WAPA – Upper Great Plains Region Maintenance



# WAPA-UGPR NERC Registrations

Balancing Authority (BA)

Transmission Owner (TO)

Transmission Operator (TOP)

Transmission Planner (TP)

Resource Planner (RP)



# WAPA-UGPR – What Works for Us

Tone from the Top

Reliability Standards Compliance Team  
(RSCT)

Compliance Specialists, Reliability Standard  
Owners & Subject Matter Experts

Data Request Team





# WAPA-UGPR – What Works for Us

Training

Central Repository for Compliance -  
SharePoint

Preparation – Compliance is a Journey, not a  
Destination

Communication





# WAPA-UGPR – 2022 Audit

Audit Notice – November 9, 2021

Audit Period – November 7, 2018, thru November 8, 2021

Revised Compliance Oversight Plan – December 3, 2021

Combined MRO/WECC Audit (14 Auditors, 5 Observers)

Combined O&P/CIP Audit Performed Off-Site Due to COVID



# WAPA-UGPR – 2022 Audit

10 Standards, 20 Requirements

11 Interviews, 30 Requests for Information

Pre-Audit Data Requests for O&P

Included Follow Up of Recommendations and Areas of Concern from the 2019 Audit

Evidence Request Tool Used for Pre-Audit CIP Data



# WAPA-UGPR – 2022 Audit Observations

Professional

Flexible

Evidence Request Tool for CIP

Internal Controls Discussions

COVID Restrictions



Mark Buchholz

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[www.wapa.gov](http://www.wapa.gov)



# AUDIT BEST PRACTICES AND PREPARATION

Chuck Wicklund, Otter Tail Power Company



# WHO WE ARE



Investor-owned electric utility providing electricity and energy services in Minnesota, North Dakota, and South Dakota.

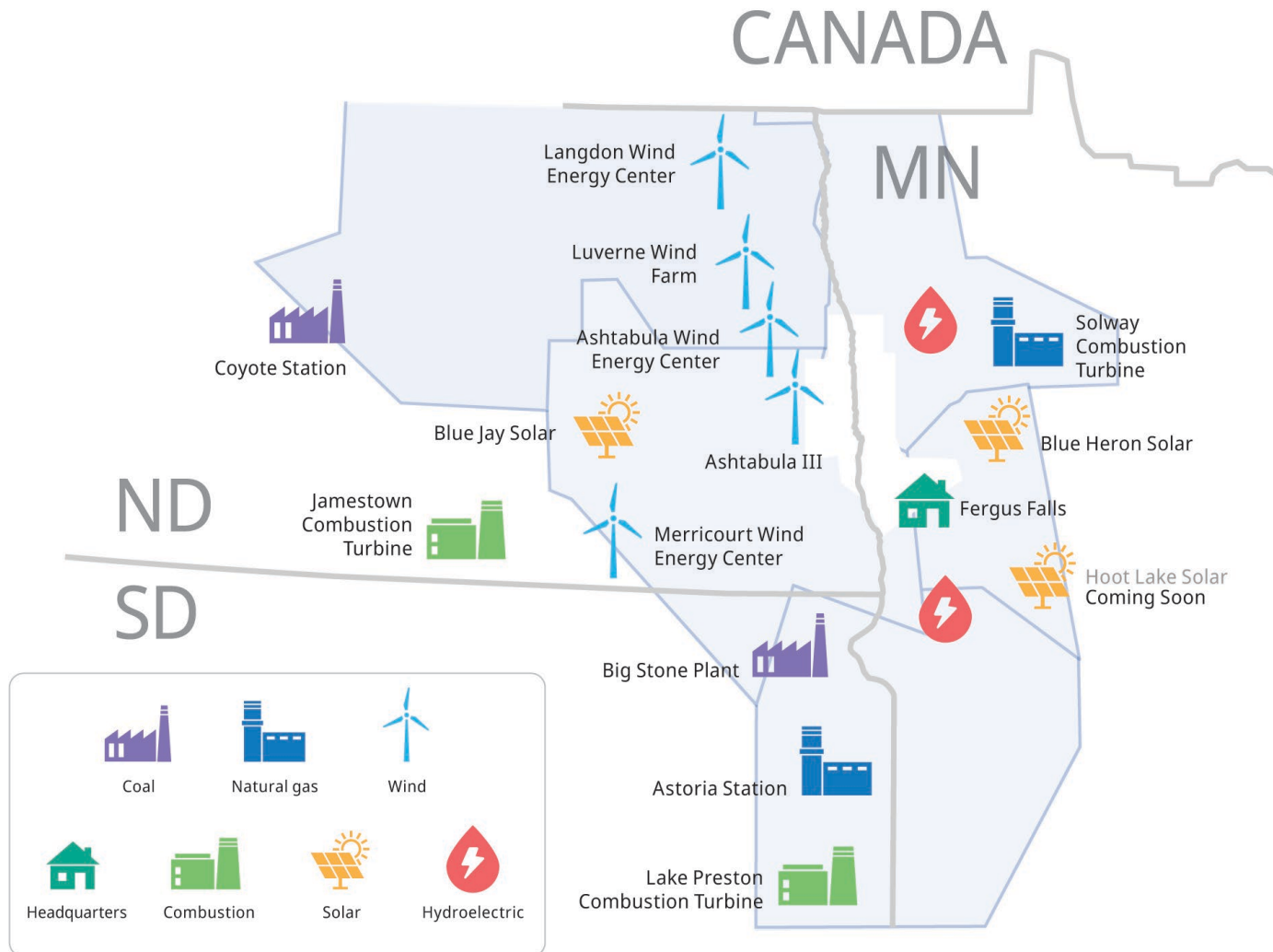
## NERC Registered Functions

- Balancing Authority
- Distribution Provider
- Generator Owner
- Generator Operator
- Resource Planner
- Transmission Owner
- Transmission Operator
- Transmission Planner

## Last audited in May 2022

- Combined CIP / O&P with FERC observers

# WHO WE SERVE





# AUDIT PREPARATIONS

## Prepare your program

- Compliance program supports culture of compliance.
- Start early, check often, and work toward the test.

## Prepare your team

- Encourage/enforce standard ownership
- Support new Standard Owners / SMEs

## Prepare yourself

- Dedicate appropriate time and resources for the audit tasks
- Review applicable standards and guidance
- Don't forget to sleep

# HOW IT WORKS AT OTTER TAIL

- Formalized program with direct involvement from executive and middle management
- Designated Standard Owners supervising Subject Matter Experts
- Guidance and oversight from compliance staff
- Additional support from regulatory filings team
- Evergreen RSAWs and evidence examples

# CONTINUOUS IMPROVEMENT

- Document and institutionalize RFI receipt and response process.
  - Include CIP Responses as much as possible
- Formal communications plan for pre-, intra-, and post-audit messaging.
- Internal controls



[otpc.com](http://otpc.com)  
[otpsustainability.com](http://otpsustainability.com)



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# Cold Weather - Practice Guide Overview

**Sam Zewdie, Sr. Compliance Engineer, O&P**

CMEP Conference, July 26, 2022

# Cold Weather Preparedness Questionnaire

- **Why is MRO sending a Cold Weather Preparedness Questionnaire as part of the audit?**
  - Significant cold weather events in the last decade
  - Actions were taken by FERC and the ERO Enterprise
  - ERO Enterprise identified a need for cold weather preparedness reviews
  - Encourage open and transparent dialogue



# **Cold Weather Preparedness Questionnaire worksheet**

- **Based on the “Cold Weather Preparedness v1.0” CMEP Practice Guide**
- **Applicable functional registrations:**
  - Reliability Coordinator (RC)
  - Transmission Operator (TOP)
  - Balancing Authority (BA)
  - Generator Owner (GO)
  - Generator Operator (GOP)
  - Planning Coordinator (PC)

# Process for Completing Questionnaire

- **MRO sends the questionnaire before Audit**
- **Entities return the completed questionnaire and any applicable documents**
- **There may not be an answer to some questions**
- **Audit staff will review responses**
  - RFI(s) and SME interview(s) may be needed
- **Not assessing compliance to standards that are not effective**
  - EOP-011-2, IRO-010-4, TOP-003-5 effective April 1, 2023



# Process for Completing Questionnaire

- **We understand that some entities may still be developing and implementing relevant processes and procedures**
  - Important for MRO CMEP staff to understand:
    - Practices and controls
    - Plans and progress
    - Upcoming cold weather standards
- **This may affect future monitoring activities, including adjustments to the entity's Compliance Oversight Plan (COP)**



# How to Complete the Questionnaire

- **Share the questionnaire internally**
- **Go through the entire questionnaire**
  - The questionnaire is broken into six sections:
    - Reliability Coordinator (RC)
    - Balancing Authority (BA)
    - Transmission Operator (TOP)
    - Generator Owner (GO)/Generator Operator (GOP)
    - Planning Authority/Planning Coordinator (PA/PC)
    - BA, TOP, GO, and GOP

# The Future of the Questionnaire

- **All entities on the audit schedule will receive the questionnaire this year**
- **MRO compliance staff will evaluate the current approach at the end of the year**
  - Lessons learned will be identified
  - Process improvements will be implemented as appropriate



[heros@mro.net](mailto:heros@mro.net)



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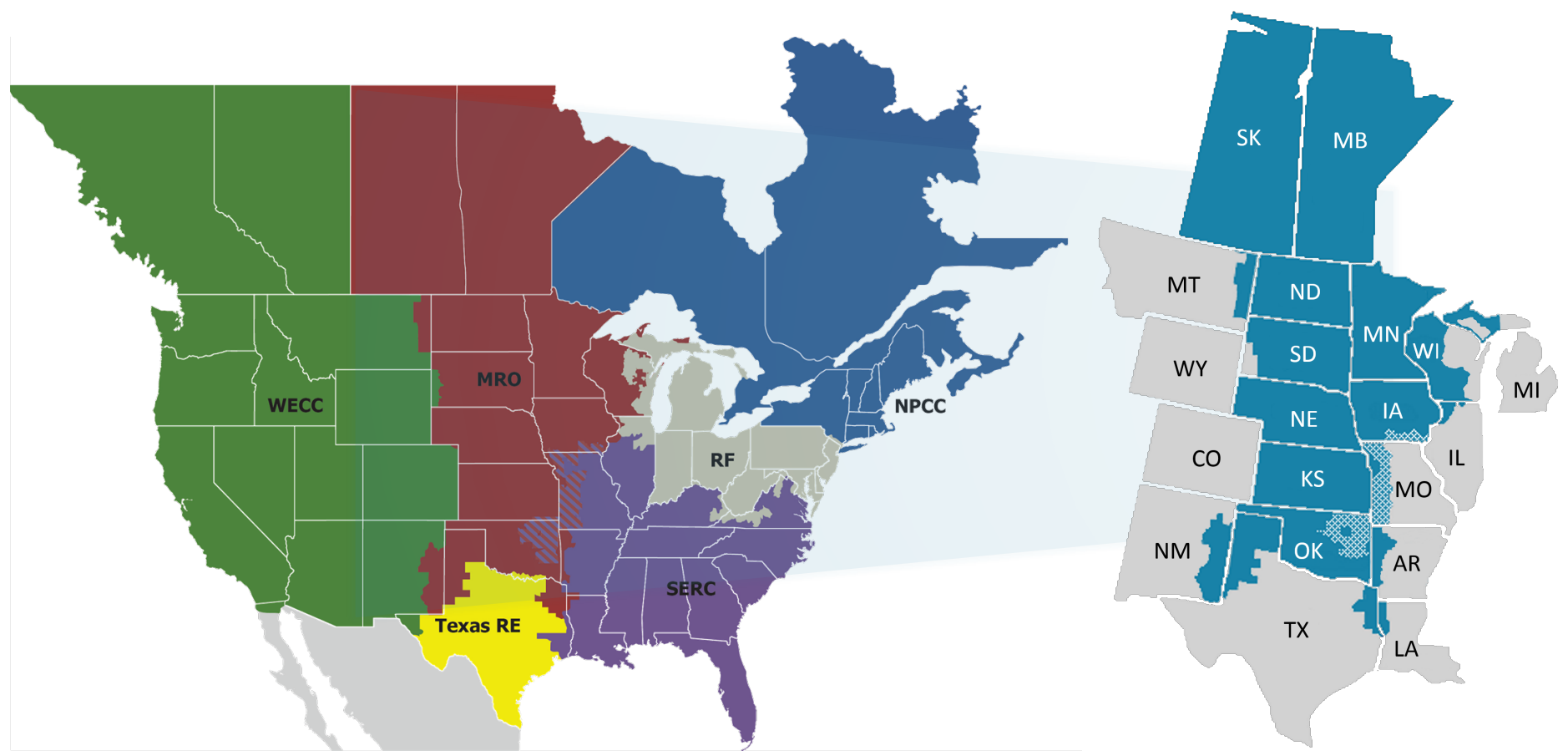




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# Generator Winterization Program 2022

Bryan Clark, P.E.  
Director of Reliability Analysis  
July 26, 2022



# The ERO Enterprise and MRO

# 2018 Cold Weather Event

- **January 15-19, 2018**
  - South Central States
    - Including MISO and SPP
  - 14,000 MW
    - Curtailments
    - Outages
    - Failure to Start
  - 33,500 MW total generation unavailable



# Three-Pronged Approach

- **Development or enhancement of one or more NERC Reliability Standards**
- **Enhanced outreach to Generator Owners and Generator Operators**
- **Market rules where appropriate**



## Reliability Guideline

Suggested approaches or behavior in a given technical area for the purpose of improving reliability. Guidelines are not enforceable, but may be adopted by a responsible entity in accordance with its own policies, practices, and conditions.



## NERC Alert: Level 2-3

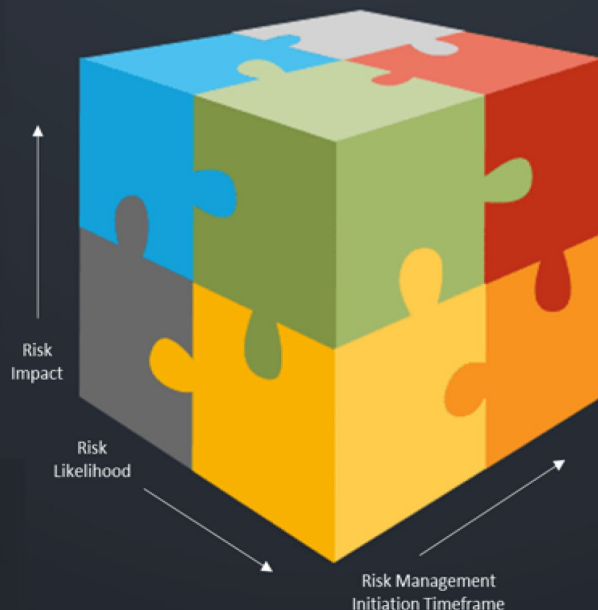
NERC alerts are divided into three distinct levels, 1) Industry Advisory, 2) Recommendation to Industry, and 3) Essential Action, which identifies actions to be taken and require the industry to respond to the ERO.



## Technical Engagement

Technical Engagement is a catch-all for a variety of technical activity that is conducted between the ERO and entities. This includes, technical committee activities, technical reference documents, workshops and conferences, assist visits, joint and special studies, etc.

# Electric Reliability Organization: Reliability Risk Mitigation Toolkit



## Reliability Standards



NERC Reliability Standards define the mandatory reliability requirements for planning and operating the North American BPS and are developed using a results-based approach focusing on performance, risk management, and entity capabilities.

## Reliability Assessment



NERC independently assesses and reports on the overall reliability, adequacy, and associated risks that could impact BPS reliability. Long-term assessments identify emerging reliability issues that support public policy input, improved planning and operations, and general public awareness.

## NERC Alert: Level 1



NERC Alerts are divided into three distinct levels, 1) Industry Advisory, 2) Recommendation to Industry, and 3) Essential Action, which identifies actions to be taken and require the industry to respond to the ERO.



CLARITY

ASSURANCE

RESULTS

# 2021 Timeline

- **Review previous year's GADS Data**
- **Identify sites to visit and survey**
- **Site visits beginning in Q3 and ending in Q4**



# 2021 Cold Weather Event

- **Largest controlled firm load shed event in U.S. history (23,418 MW)**
- **Fourth event in the past 10 years which jeopardized bulk-power system reliability due to unplanned generating outages which escalated due to cold weather**

# 2021 GWP Results

- **Completed 4 Site Visits**
  - 2 visits in September, 2 visits in October
- **Provided entities with 4 Site Reports**
- **Reviewed 10 entity Cold Weather Survey Responses and met with all 10 entities to discuss the survey**
- **Published newsletter article in Q2 with general findings**



# GWP Survey

## Generator Winterization Program

[Home](#) / [Program Areas](#) / [Reliability Analysis](#) / [Generator Winterization Program](#)

### Program Overview

Periodically, North America experiences severe cold weather events that result in unexpected operating constraints on facilities, including fuel resource limitations and both scheduled and unscheduled outages. The ERO Enterprise has increased its focus on reducing severe cold weather-related risks. As part of these efforts, MRO developed and implemented its Generator Winterization Program (GWP).

All forms of generation, regardless of location, are susceptible to the impacts of cold weather. While units in the northern portions of the MRO regional footprint may have been designed for sub-zero temperatures, there are still critical components that can be affected by climate. The units in the south were not always designed for exposure to colder temperatures, so processes and procedures need to be in place to minimize the impact of cold weather on performance.

The purpose of the GWP is to identify generator winterization best practices and areas for improvement that can be shared with stakeholders across MRO's regional footprint.

### Program Implementation

MRO will send the [GWP Survey](#) to select entities each year to collect information on individual winterization plans for review. Outside of this review, all generating facilities are encouraged to download a copy of the survey to perform their own self-assessment of plans for winterization.



# MRO GWP 2022 Focus Areas

- **Focus Areas during visit and surveys**
  - NERC Generating Unit Winter Weather Readiness Guideline
    - Winterization Plan with seven components: (1) Safety, (2) Management Roles & Expectations, (3) Processes and Procedures, (4) Evaluation of Potential Problem Areas with Critical Components, (5) Testing, (6) Training, (7) Communications
  - FERC/NERC Inquiry Recommendations
  - NERC Alert Recommendations



# 2022 GWP Plan

- **Expand program from 4 to 6 site visits**
- **Determine and confirm site visits by end of Q2**
- **Begin site visits in Q3/Q4**



# Potential 2023 Deliverables

- **Work towards developing a general report with best practices available to all registered entities**
- **Outreach to discuss general findings and the progress**
- **Annual update to specific councils if requested**



**Questions regarding the  
program can be submitted to:**  
[GWP@MRO.net](mailto:GWP@MRO.net)



# Questions



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# ERO Enterprise Update

**Kiel Lyons, Senior Manager, Compliance  
Assurance, NERC**

**Jeff Norman, MRO Director of Compliance  
Monitoring, MRO**

# Disclaimer

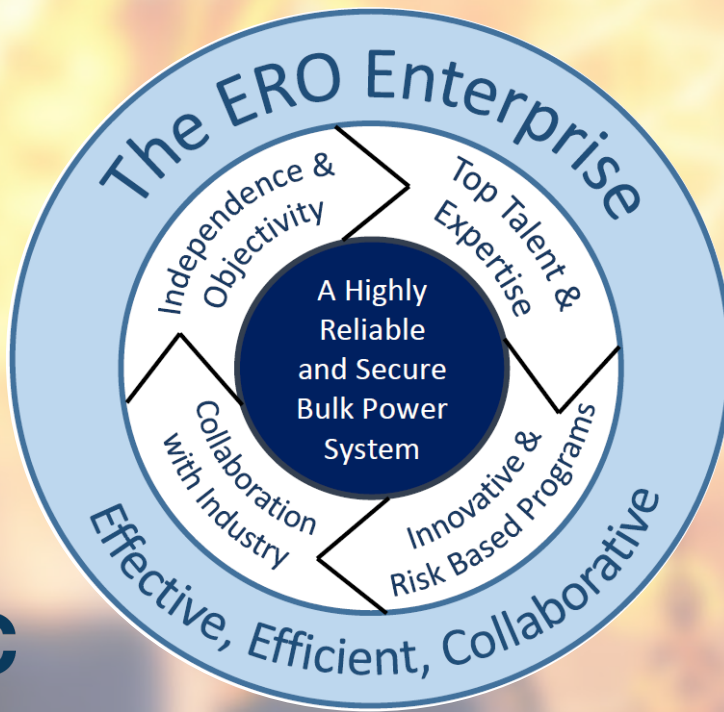
**The Midwest Reliability Organization (MRO) Compliance Monitoring and Enforcement Program Advisory Council (CMEPAC) is committed to providing training and non-binding guidance to industry stakeholders regarding existing and emerging security topics. Subject Matter Experts (SMEs) developed any materials, including presentations, through the MRO CMEPAC from member organizations within the MRO Region and other government and industry security experts. The views in this presentation are presented by these MRO CMEPAC SMEs, government, and industry experts, and do not express the opinions and views of MRO.**





# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION



# ERO Aspirations

- **The ERO Enterprise is viewed as a benefit that supports industry's continuous improvement in support of the reduction of risks to the Reliability and Security of the bulk-power system.**



# **ERO Continuous Improvement Examples**

- **ERO Endorsed Guidance**
- **Cold Weather Initiatives**
- **Facility Rating Outreach**
- **Integration of Internal Controls within monitoring activities**





# MRO support

- SAC Treat Forum
- CMEPAC Monthly Call
- Conferences, Newsletter Articles, Webinars
- Standard Application Guides (SAG)
- [HEROs@mro.net](mailto:HEROs@mro.net)
- [AskCMEPAC@mro.net](mailto:AskCMEPAC@mro.net)



# ERO Aspirations

- **The ERO Enterprise, Registered Entities, and industry stakeholders have strong and constructive relationships in working together as partners on key Reliability and Security initiatives.**



# Industry Collaboration

- **NERC**

- RISC
- CCC
- ...

- **MRO**

- CMEPAC
- RAC
- SAC
- RRA



# ERO Aspirations

- The ERO Enterprise operates cohesively program across all business units, with a shared context of purpose and understanding by all participants.
- NERC collaboration groups
- ERO Guidance
- Align



# ERO Aspirations

- **Efforts are coordinated and resources optimized across the ERO Enterprise**
- **Top talent**
- **Coordinated training**
- **NERC collaboration groups**
- **Joint Projects**
  - COVID 19 response
  - CIP-014 assessment
  - FAC-008 outreach



# ERO Aspirations

- **Assessment and Oversight** activities have evolved toward effective, efficient and timely monitoring, identifying, and mitigating known and future risks to the Reliability and Security of the bulk-power system
- **Risk Based Monitoring**
- **Comprehensive integration of Internal Controls within monitoring activities**
- **COP**
- **IRA**
- **Compliance Exceptions**





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# Supply Chain Risk Management Program

“A security perspective fosters compliance”



**Minnkota Power**  
**COOPERATIVE**

A Touchstone Energy® Cooperative 

# Reason For Brief

- MPC completed 2022 MRO Audit
- Program took different **perspective** than others requiring explanation
- Audit team appreciated MPC's efforts: Requested we explain our process & note **areas** where some plans fall short

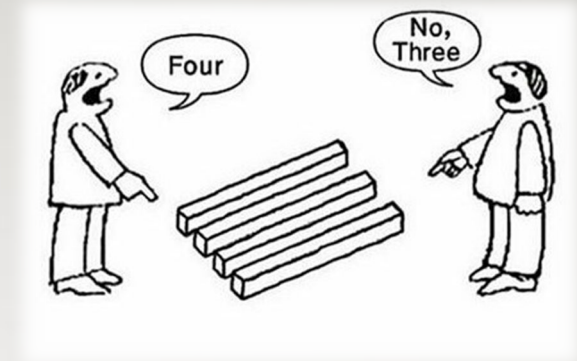


Fig 1. Perspective. Retrieved from [https://rentapress.com/images/uploaded/3v4\\_disagreement.jpeg](https://rentapress.com/images/uploaded/3v4_disagreement.jpeg)

# MPC's CIP-013 Fast Facts

- MPC employs 390 people, 2 High-, 6 Medium- & 35 Low-Impact cyber systems
- Created Risk Assessment Working Group (RAWG): ~10 people as cross section of MPC
- Did not hire outside assistance or additional personnel

# Defined Risk to MPC

- Kept things simple for corporate buy-in
- Single risk: Threat of malicious code
- Goal to expand program in future, not to just meet short-term compliance
- Treated Low-Impact same as higher systems

# Vendor & Risk List

- Listed all potential vendors used across cyber systems, assessed 62
- Included TCAs, inventory, patches & freeware
- After defining applicability, larger list pared down to ~35 in-scope vendors

# Supply Chain Risk Mgmt Program

- Did not want an **overwhelming** program doc
- Broke into 4 parts:
  1. Assessment Tools
  2. Risk Identification Methodology
  3. Supply Chain Risk Management Plan
  4. Guideline

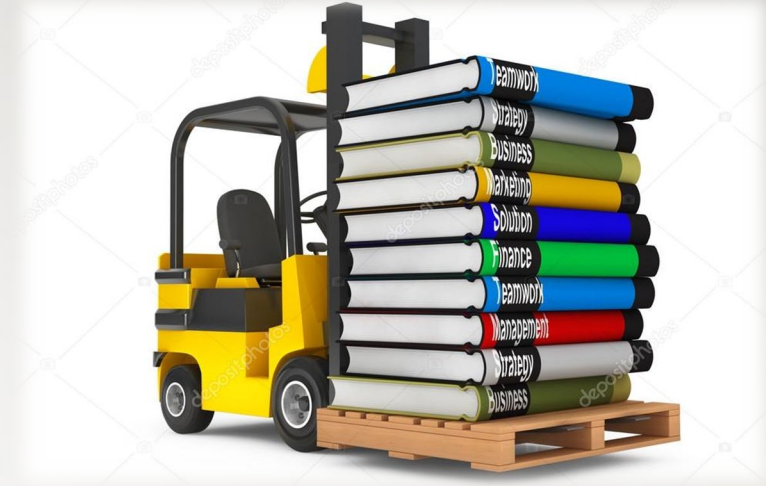


Fig 2. Forklift w/books. Retrieved from <https://st2.depositphotos.com/1187563/7129/i/950/d...5813-stock-photo-forklift-with-stack-of-books.jpg>

# 1. MPC's Assessment Tools

- Built tools to assess/document vendor risk
  - a. Vendor Questionnaire
  - b. Vendor Assessment Workbook
  - c. CIP-013 Cybersecurity Contract Addendum



## a. Tools- Questionnaire

- Vendor Questionnaire- Called VQ
- Fillable form w/under 45 questions
- Main focus is malicious code risk

## b. Tools- Vendor Workbook

- Consolidates all vendor assessment data, including risks and mitigations
- Main tool used by everyone procuring something

# Vendor Risk Summary

- Located in Vendor Assessment Workbook
- Summary of how vendor is used by MPC
- Provides brief info on overall risk to BES
- Fosters understanding by anyone in company



Fig 3. Word Collage. Retrieved from <https://tbgssecurity.com/wordpress/wp-content/uploads/2020/10/vendor-risk-management-538x218.jpeg>

## c. Tools- Cybersecurity Addendum

- Not all vendors use/require contracts
- Addendum document treated as an additional mitigation tool
- Addresses all of R1.2 requirements
- All addendum items mapped to questionnaire & mitigations

## 2. Risk Identification Methodology

- CIP-013 allowed a lot of latitude: How to efficiently narrow the focus?
- Methodology explains how MPC defined risk
- Aligned our tools with NATF checklist & documented MPC rationale for each question
- Philosophy: Leverage security & reliability best practices = inherently meets compliance

### 3. Risk Management Plan

- Affectionately called SCRiMP
- Directly addresses all CIP-013 requirements
- Defines what a “procurement” is

# MPC's Procurement Definition

- Procure means to get possession of something; to obtain by particular care and effort. A procurement may or may not involve the exchange of money. Therefore, this plan must be followed for applicable procurements made by any means, including but not limited to the following:
  - Requisitions/Purchase orders
  - Auto-Generated Inventory Replenishment
  - Loans, Trades and Freeware
  - Credit Card Purchases
  - Vendor Transitions
  - Emergency Procurements



# Procurement Applicability

- For each of previous procurement types, **explain when the plan is applied** which defines the start point
- **Focus is needed on:** vendor transfers, renewal agreements, extensions, and/or service subscriptions
- All interactions with vendor treated like procurement

# Emergency Procurements

- Process should be scalable and applicable in “emergencies”
- Simply assess vendor with public info to understand risk & assign mitigations
- Document these actions in plan



Fig 4. Emergency Exit. Retrieved from <https://images.smartsign.com/img/sm/S/fire-no-emergency-exit-sign-s-1518.png>

## 4. Guideline

- A detailed “living” document for anyone involved in Procurement processes
- Includes anyone involved in mitigations:
  - Warehouse personnel
  - Patch managers
  - Supervisors & more

# Focus On Residual Risk

- All vendors have **inherent risk**, so what risks can we minimize?
- All **residual risk** then requires mitigation

## Inherent risk vs. residual risk

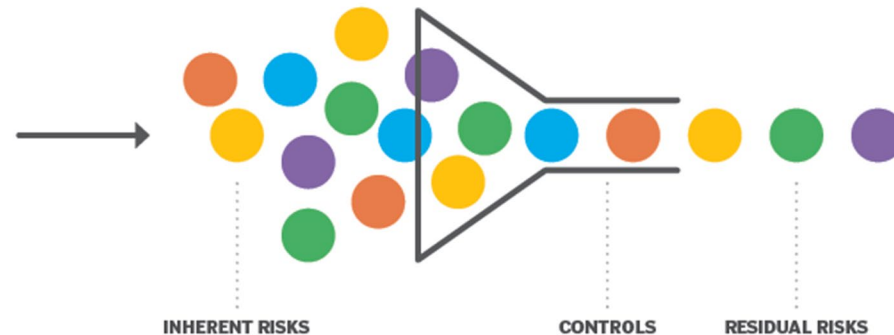


Fig 5. Risk Funnel. Retrieved from [https://cdn.ttgtmedia.com/rms/onlineimages/inherent\\_risk\\_vs\\_residual\\_risk-f.png](https://cdn.ttgtmedia.com/rms/onlineimages/inherent_risk_vs_residual_risk-f.png)

# Risk Mitigation

- VQ questions have pick list of mitigations based on MPC processes
- All 4 & 5 risk scores (out of 5) are assigned mitigations
- Procurement process requires that mitigations are reviewed before purchase

# Internal Controls

- Integrate Supply Chain Risk Management into corporate procedure
- Living process requires **rebalance**
- Created recurring internal controls
  - CIP-013 triggers in Procurement system
  - Annual mitigation pick list review with SME's
  - Forecast for 3-yr vendor reassessment dates
  - Periodic training & document reviews



Fig 6. Risk Balance. Retrieved from <https://www.corporatecomplianceinsights.com/wp-content/uploads/2020/01/risk-blocks.jpg>

# Summary

- High level info: specifically left out a lot of program details
- Focused on **potential weak areas** MRO has noted in past audits
- Ideas easily integrated into any program:
  - Risk Summaries for vendors
  - Apply process to similar low impact vendors & TCAs
  - Internal Controls for reassessments



# MPC Supply Chain Risk Contact

- Bob Foote

Substation CIP Compliance & Cybersecurity

CIP-013 RAWG Chair

(701) 795-4338

[rfoote@minnkota.com](mailto:rfoote@minnkota.com)



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# Internal Controls Framework

July 28, 2022

**Larry Johnson - Principal Compliance Engineer/Auditor (CIP)**  
**Rich Samec - Principal Compliance Engineer/Auditor (O&P)**



# Larry Johnson

## Principal Compliance Engineer/Auditor (CIP)

Larry Johnson joined MRO in July 2018 as a Senior CIP Compliance Auditor. Mr. Johnson transitioned to the role of Principal Compliance Auditor in January 2020.

Prior to joining MRO Mr. Johnson worked for ALLETE/Minnesota Power for over 30 years in Duluth, MN. He has held various IT related positions as a Computer Programmer on their Energy Management System, a Network and Systems Administrator, Information Technology Security Analyst, and Lead Information Systems Auditor. Mr. Johnson has led several compliance initiatives such as; NERC CIP and HIPAA, has taught evening computer and security related courses for Wisconsin Indianhead Technical College, and has presented at several national security conferences such as; CSI, EEI, InfoSec World and IT Security World plus local events on various compliance, security, and SCADA related topics. He maintains CISSP, CISA, and CSSA certifications and is a member of the local IIA, InfraGard, ISACA, ISSA and OWASP Minnesota chapters.

Mr. Johnson is a graduate of the University of Minnesota – Duluth with a Bachelor of Applied Science degree in Industrial Electronics Technology with a minor in Mathematics.





# Rich Samec

## Principal Compliance Engineer/Auditor (O&P)

Richard Samec rejoined MRO in January 2020 as Principal Compliance Engineer and Auditor in Operations and Planning, after holding the position of Senior Compliance Engineer at MRO from October 2015 through April 2018, where he was an auditor in both CIP and Operations and Planning. Prior to joining MRO, Mr. Samec had a combined 14 years of experience as an Electrical Engineer and Senior Project Manager in the areas of Capacity Planning, Substation Engineering, Metering, SCADA, and CapX2020 Regional Transmission Development. Mr. Samec also had a combined 9 years of experience as an Electrical Engineer and Consulting Engineer, overseeing the design and construction of electrical facilities associated with pipeline facilities, including stations and terminals.

Mr. Samec attended the University of North Dakota, where he earned a Bachelor of Science degree in Electrical Engineering in 1991. Mr. Samec is also a registered professional engineer (PE) in the state of Minnesota.



# Recent Outreach

- **July 2021 CMEPAC Conference**
  - *Internal Controls Frameworks, Concepts, and Positive Examples*
- **April 2022 Webinar**
  - *MRO CMEPAC Internal Controls Question and Answer Session*

# Key Themes Today

- **Refresher on Frameworks and Common Language**
- **Assessing Maturity of an Internal Controls Program**
- **Examples of Audit Approach**
- **Q&A**



# Definition of an Internal Control

Internal controls are the processes, practices, policies or procedures, system applications and technology tools, and skilled human capital an entity employs to address risks associated with the reliable operation of its business.

***“How do you ensure that what you want to happen happens, and what you don’t want to happen doesn’t happen?”***





# ***“What can we lean on to establish, communicate, enhance, monitor, and assess our Internal Controls Program?”***

## **Established Internal Controls Frameworks and Standards**

- COSO
- Green Book
- Yellow Book (GAGAS)



# COSO

- Framework

## Green Book

- Standard
- Informs Entities

## Yellow Book (GAGAS)

- Standard
- Informs Auditors



## Five Components and seventeen Principles

### How does an entity use the Green Book?



## Chapter 8 – Performance Assessments

***Assess Activities, Sufficient Evidence, and Identify Deficiencies***

# Common Language



# Prior Key Takeaways

- Established frameworks and standards are available and adaptable to our industry
- Common language will improve the flow of controls development and discussion
- Effective controls may utilize sophisticated tools, or not

# Assessing Maturity

An ERO Internal Controls Task Force is working to develop a Maturity Model

An example of maturity levels within a Maturity Model Framework:

**Initial**

**Developing/Repeatable**

**Defined**

**Managed**

**Optimized**

*Source: Carnegie Mellon University*



# Internal Controls System

## *Maturing to an Entity-Wide Vision*

**A comprehensive inventory which defines and tracks a detailed vision of the desired end state of a system of Internal Controls.**

### ***Entity-Wide Risk Areas***

↳ ***Associated Control Descriptions***

↳ ***Whether Implemented***

↳ ***Whether Documented***

↳ ***Whether Review, Training, Periodicity are Involved***

↳ ***Names of Associated Documents***

↳ ***Narrative of Issues***



# Audit Approach Examples

## ***“What can I expect during an audit?”***

- **Notification Packet (ICP Questionnaire) helps inform MRO on an Entity’s Compliance Program**
- **Pre Audit Overview**
- **Fieldwork Kickoff Presentation**
- **Entity-wide Internal Controls vs. those specific to Standards and Requirements**
- **Document Review**
  - **Inquiry**
  - **Examination/Inspection of Evidence**
  - **Observation/Walkthrough**





# ***“How is an Internal Control Assessed?”***

- **Risk(s)**
- **Objective(s)**
- **Design**
- **Activities**
- **Implementation**
- **Testing and Conclusions**

## **Assessment Approach**



# Some Positive Attributes of an Internal Control

- Risk is Identified, Tied to the Objective
- Activity / Process is Documented and Communicated
- Achievement of Objective Tied to Risk Reduction
- Control Activities are Well Designed
- Control Activities are Implemented and Effective
- Segregation of Duties to Reduce Risks and Increase Effectiveness



# Example 1

## Global Internal Controls for a Large Organization

### Internal Control Assessment

- **Risk(s)**
  - Risk of Non-compliance
- **Objective(s)**
  - Improved Tracking and Reporting
- **Design**
  - Customized Application
- **Activities**
  - Track Reports, Meetings, Include Automation
- **Implementation**
  - Training and Utilization of Application
- **Testing and Conclusions**
  - Observation

### Maturity Assessment

- **Initial**
- **Developing/Repeatable**
- **Defined**
- **Managed**
- **Optimized**



# Example 2

## Global Internal Controls for a Small Organization

### Internal Control Assessment

- **Risk(s)**
  - Risk of Non-compliance
- **Objective(s)**
  - Improved Tracking and Reporting
- **Design**
  - Standard Office Application(s)
- **Activities**
  - Track Meetings, Status
- **Implementation**
  - Training and Utilization of Application
- **Testing and Conclusions**
  - Observation

### Maturity Assessment

- **Initial**
- **Developing/Repeatable**
- **Defined**
- **Managed**
- **Optimized**



# CIP-010-3 R2 – Configuration Monitoring

*Implementing a common industry tool which facilitates configuration and change management, and checks integrity*

- The entity utilized Tripwire to create a *Configuration Checklist* which is used to set up an asset
- The tool will automatically detect changes to the asset configuration
- The tool is able to revert to the correct baseline configuration if an unintentional change was made

# Example 3

## CIP – CIP-010-3 R2 – Configuration Management

### Internal Control Assessment

- **Risk(s)**
  - Insufficient criteria for monitoring of a baseline
- **Objective(s)**
  - Ensure the criteria for monitoring is functioning properly
- **Design**
  - Criteria is tested, changes update the criteria
- **Activities**
  - Periodically run on test system
- **Implementation**
  - Automated tool like tripwire
- **Testing and Conclusions**
  - Review of evidence, re-performance



# FAC-008-3 Facility Ratings

*Controls to facilitate the extent of collection, flow and accuracy of information*

## Field Elements

↳ *“Record Drawings”*

↳ *Facility Ratings Database*

↳ *EMS*

↳ *Planning Models*

↳ *SOL Methodology*



# Example 4

## O&P – FAC-008

### Internal Control Assessment

- **Risk(s)**
  - Operating with incorrect facility ratings
- **Objective(s)**
  - Ensure Facility Ratings are correct throughout the system
- **Design**
  - Application to link engineering drawings with EMS database
- **Activities**
  - Verification, Automated Transfer
- **Implementation**
  - Develop and Maintain
- **Testing and Conclusions**
  - Observation





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# Moving Forward – Hybrid Audits

**Jess Syring, CIP Compliance Manager**

**Julie Sikes, O&P Compliance Manager**

CMEP Conference, July 26, 2022

# Topics Covered

- **NERC and FERC expectations**
- **Audit preparation**
- **Documentation review**
- **Onsite travel considerations**

# NERC and FERC Expectations

- **FERC Order on Rules of Procedure (ROP) proposals**
  - RC/BA/TOP three-year audit requirement has not changed
  - Still requires an on-site visit during that time

A photograph of a man in a dark suit pointing his right index finger upwards. The word "GOVERNANCE" is superimposed in large, bold, dark blue capital letters over the image.

**GOVERNANCE**

# Audit Preparation

- **Audit Team Lead (ATL) will reach out to understand any COVID restrictions in place for the community or the registered entity**
  - This would only affect onsite audit planning and not audit scope
- **This could occur prior to the Audit Notification Packet (ANP) going out**

# Audit Preparation

- **Although not due to COVID, changes were made during the pandemic**
  - 120 day ANP notification
  - 3 work weeks of offsite documentation review
    - Holidays do not add additional days
  - 1 work week of onsite work and an exit presentation





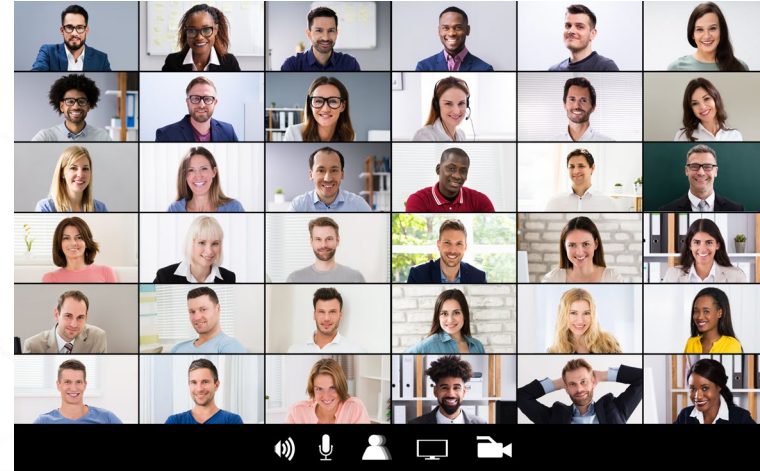
# Audit Preparation

## ● Reporting

- No changes to reporting target dates
- Target date to deliver the non-public audit report is still within 30 calendar days
  - Longer timeframe if entity participates in Coordinated Oversight
- Registered entity has 10 business days to review and provide comments to MRO
- MRO will then publish the final report within 5 business days to registered entity Primary Compliance Contact (PCC) and NERC

# Documentation Review

- **Requests for Information (RFIs) should be completed in same formats**
- **SME interviews will still be conducted**
  - Utilize WebEx or another remote meeting platform
  - Those in attendance will be included in the final audit report(s) by name and title



# Onsite Travel Considerations

- **Audit scope**

- Are there requirements to have an onsite component of verification (CIP-014 or TOP-001)?
  - Reminder: FERC approved that CIP-014 evidence can now be shared remotely

- **Rules of Procedure requirement**

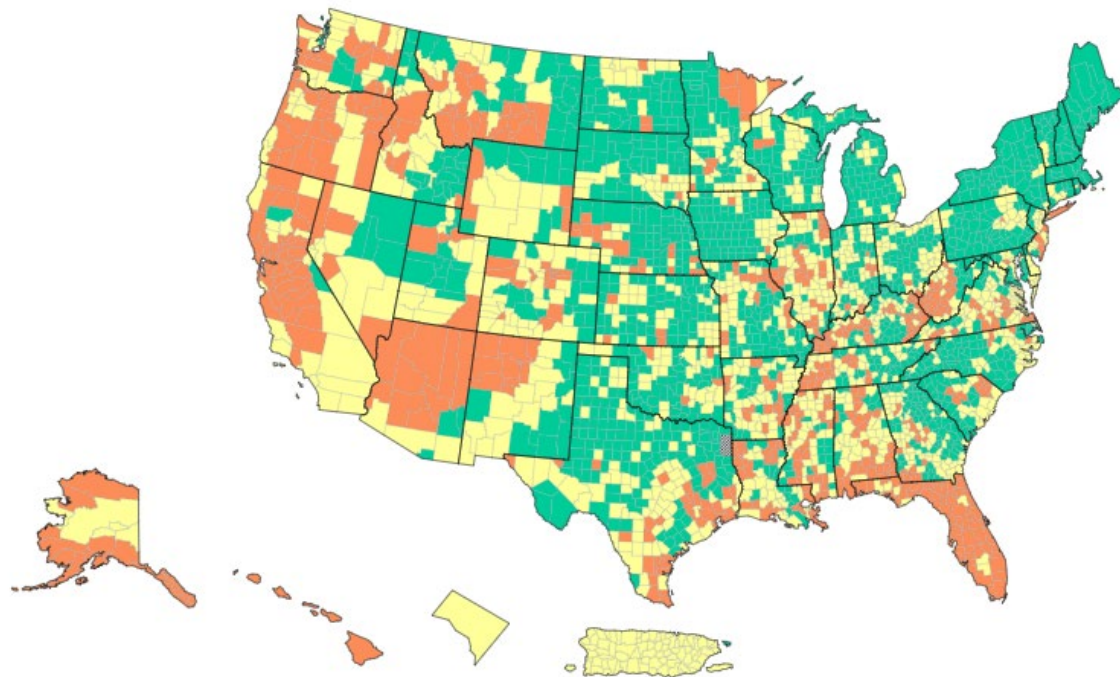
- There is still a three-year on-site requirement for BA, RC, and TOP functional registrations

# Onsite Travel Considerations

- There may not be as many auditors on-site
  - Reasons for who goes on-site
    - ATL or primary
    - SME for on-site visit
      - TOP-001
      - CIP-006
    - New auditor receiving training



# COVID-19 Community Levels by Count



COVID-19 Community Levels in US by County

	Total	Percent	% Change
High	627	19.47%	7.3%
Medium	1142	35.45%	4.5%
Low	1452	45.08%	- 11.8%



# Pandemic Travel Considerations

- **What will MRO do if an auditor tests positive?**
  - MRO follows CDC recommended guidelines related to this scenario based on whether vaccinated or not
- **What will MRO do if an auditor is identified as a close contact before the onsite visit?**
  - MRO follows CDC recommended guidelines related to travel regulations of those who have tested positive or is a close contact of someone who tested positive







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## CONFERENCE ORGANIZERS

### MRO CMEP Advisory Council

**Carl Stelly**  
Southwest Power Pool

**Terri Pyle, Chair**  
Oklahoma Gas and Electric

**Tiffany Lake, Vice Chair**  
Eversource Energy, Inc.

**Ashley Stringer**  
Oklahoma Municipal Power Authority

**Bryan Dixon**  
Xcel Energy

**Eric Ruskamp**  
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**Kevin Lyons**  
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**Larry Heckert**  
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Omaha Public Power District

**Mark Buchholz**  
Western Area Power Administration

**Matt Caves**  
Western Farmers Power Administration

**Paul Mehlhaff**  
Sunflower Electric Power Cooperative

**Theresa Allard**  
Minnkota Power Cooperative

**Trevor Stiles**  
American Transmission Company

### MRO Staff

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Senior Vice President and Chief Operating Officer

**Jeff Norman**  
Director of Compliance Monitoring

**Michelle Olson**  
Compliance Monitoring Administrator

**Jessie Mitchel**  
Director of Communications

**William Steiner**  
Director of Risk Assessment and Mitigation



## CONFERENCE CLOSING

**Thank you all for attending this event!**

Your feedback is very important to us. Please provide your feedback using the link or QR Code below or the link below:



<https://www.surveymonkey.com/r/MRO2022CMEPConference>

