



# FORWARD TOGETHER.

2023 IMPACT REPORT

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# CHAIRMAN AND CEO LETTER

## Two Decades of Progress

2023 marked the twentieth anniversary of the August 14, 2003 blackout. This massive blackout impacted over 50 million people who lost power across Michigan, Ohio, Pennsylvania, New York, and the Province of Ontario, Canada. The outage caused widespread disruption of essential services and highlighted how dependent we are upon reliable and secure electric service.

ReliabilityFirst (RF) was born out of that blackout and the subsequent Energy Policy Act of 2005, which created the Electric Reliability Organization (ERO), from which we have delegated authority to perform our activities. Our mission is to ensure that the electric grid is reliable and secure, not only for today but also for tomorrow. RF serves the public, and our “why” is to do all we can to make sure the bulk power system is as reliable and secure as possible to ensure our safety, our health and welfare, our economy, and our very way of life.

In the years since that blackout, we have learned a tremendous amount about the vulnerabilities of our grid and have worked diligently with our industry partners to address and mitigate these risks. As time goes by, many currently working in our industry, as well as policymakers, may not recall the impact this event had on our economy, nor do many recognize how complex our bulk power system is and the risks it faces.

As these threats evolve, we are evolving with them. First and foremost, we are staying diligent in identifying and removing well-known and well-established threats. With guidance from our Board of Directors, our partnership with NERC, and the tireless work of our staff and bulk power system partners who produce and transport our energy, we are working to ensure we don't drift back on the progress we have made. This report highlights those essential efforts.

Second, we must continue to work proactively to identify, assess, and communicate new and emerging threats, some of which may be currently unknown. It is imperative that RF work with industry to understand and address these risks when they are small and before they are experienced.

Lastly, while we do not seek to influence or create policy, we must continue to work with policymakers to share our knowledge and analysis to assist them in making informed decisions. These policy decisions have far-reaching and long-lasting impacts, and must be made with a complete understanding of the risks and benefits. Much of our policy discussions are directed at the “energy transition.” This transition involves a significant structural change to our bulk power system regarding the supply and consumption of energy resources, and must be managed appropriately to ensure continued reliability. This report is a testament to the hard work that took place across RF in 2023 and a reminder of the progress we have made over the last 20 years. We are immensely proud of the RF team, our ERO counterparts, our partners at NERC, and the diligent efforts of our 300+ bulk power system partners who collaborate across our footprint to bring us reliable, resilient, and life-changing energy resources.

*Sincerely,*



**Antonio Smyth** - Chair



**Tim Gallagher** - President/CEO

## WHAT WE DO

The electric grid is a vital component of our daily lives. It delivers power to our homes, schools, hospitals, and businesses. The electric grid is often unseen, but it plays a crucial role in our economy, national security, and public welfare.

RF is one of six regional organizations that make up the Electric Reliability Organization (ERO) enterprise, which is responsible for ensuring the reliability and security of the North American Bulk Power System. We receive our authority from the North American Electric Reliability Corporation (NERC) and the Federal Energy Regulatory Commission (FERC).

RF works with utility companies to identify and prioritize risks to the electric grid and develop mitigation strategies. We achieve this through education, outreach, sharing of best practices, and monitoring and enforcing the NERC Reliability Standards. In addition, we conduct periodic short and long-term assessments of grid reliability, including analysis of emerging risks.

RF is an objective, independent, expert voice on grid reliability. We use our objective expertise to help state governments and policymakers understand the impacts and issues associated with the transition to a greener grid. Policy decisions are essential to manage risks as we shift from traditional energy sources like coal, nuclear, and natural gas to more renewable sources like solar and wind. We serve as an independent resource to state-level decision-makers to shine a light on the risks and issues

affecting grid reliability and security matters.

Our footprint covers all or portions of Delaware, New Jersey, Pennsylvania, Maryland, Virginia, Illinois, Wisconsin, Indiana, Ohio, Michigan, Kentucky, West Virginia, Tennessee, and the District of Columbia. Our region is situated within the Eastern Interconnection, and we regulate not only utilities but also PJM and MISO, the two regional transmission organizations in our footprint. We work towards our shared mission with NERC and the five other regions, MRO, NPCC, SERC, Texas RE, and WECC.

Our work is interconnected with external stakeholders from other industries, including critical infrastructure like water, gas, communications, federal agencies, law enforcement, and trade associations. We believe that our people are our greatest asset, and their diverse backgrounds, skills, and experiences drive our success and keep the lights on.

# OUR ORGANIZATION AT A GLANCE

## Our Mission:

To serve the public good and support health and safety through preserving and enhancing the reliability, security, and resilience of the grid.

## Our People:

To foster a respectful, collaborative environment where employees can be and feel like the best version of themselves.

## Our Transparency:

To be open and honest about what we are trying to accomplish and why, to foster productive dialogue.

## Our Fairness:

To be reasonable and consistent.

## Our Accountability:

To act with integrity, take pride in our work and responsibility for our actions, and deliver exceptional results.

## Our Creativity:

To encourage and reward innovative ideas and approaches.



Our services are designed to assist our entities in mitigating risks to the bulk power system through compliance and collaboration and include:

- Engineering and System Performance
- Entity Engagement, Training, and Outreach
- Compliance Monitoring and Enforcement
- Operational Analysis and Awareness
- Registration and Certification
- Risk Analysis and Mitigation

## OUR VALUE

RF was created in response to the 2003 blackout, which had a tremendous impact on the northeastern and Great Lakes areas of the United States as well as Ontario, Canada, including lost lives and billions of dollars in business activity. Our reliance on the bulk power system has grown exponentially since then, which is why RF, its regional ERO partners, and NERC's work to keep the grid highly reliable and secure is vital to our communities and our way of life.

### Value Through Compliance and Collaboration

Consider this: the average U.S. household spends an estimated \$1,623 annually on electricity.\* Of that cost, approximately 55 cents per year, or less than a nickel a month, is spent on our collective services. This small investment ensures that when the switch is flipped, the lights will come on, and our grid will remain secure and resilient.

We assess our performance, prioritize activities, plan resources, and create this stakeholder value through our compliance and collaboration efforts that include the following areas of focus:

- **Energy:** Tackling the reliability and resilience challenges of a rapidly changing energy resource mix, the impacts of extreme weather, and the capability to transfer energy when required.
- **Security:** Focusing on physical and cyber security risks.
- **Agility:** Becoming more nimble in risk identification and standards development.
- **Sustainability:** Investing in automation, eliminating single points of failure, and strengthening the ERO's long-term stability and success.

These efforts are supported by our Strategic Plan and through the commitment of our workforce.

THE AVERAGE U.S. HOUSEHOLD  
SPENDS AN ESTIMATED

# \$1,623

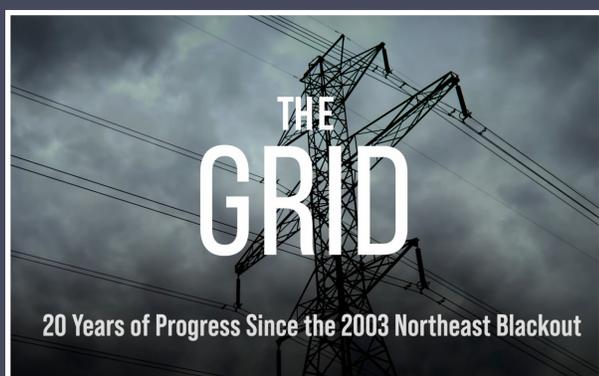
ANNUALLY ON ELECTRICITY

OF THAT COST,  
APPROXIMATELY 55 CENTS  
PER YEAR, OR LESS THAN



\* [https://www.eia.gov/electricity/sales\\_revenue\\_price/](https://www.eia.gov/electricity/sales_revenue_price/)

## THE GRID: 20 YEARS OF PROGRESS SINCE THE 2003 NORTHEAST BLACKOUT



Aug. 14, 2003 marks the 20th anniversary of the 2003 Northeast blackout, which impacted 50 million North Americans across Michigan, Ohio, Pennsylvania, New York and Ontario.

The blackout, the largest ever experienced in North America, prompted the Energy Policy Act of 2005, which created an electric reliability organization (ERO) charged with developing and enforcing mandatory Reliability Standards, assessing current and future reliability trends, analyzing system events, and recommending improved practices. This video linked below was created by RF, NERC and NPCC to reflect on the progress made since then toward a more reliable and resilient electric grid. (<https://youtu.be/sKXVT0V7S0Y>)

# OUR STRATEGIC PLAN

In 2023, we completed the first year of our five-year Strategic Plan. This strategic plan provides a road map for our efforts based on three strategic objectives:



## Be an Excellent Regulator

- Consistently demonstrate accountability, transparency, and efficiency through our operating model.
- Commit resources to collaboration and security.
- Build a deep knowledge of our entities and use it to serve our footprint.

## Cultivate a Highly Engaged, Talented Workforce

- Recruit, retain, and train the right people for the right roles.
- Further enhance and promote diversity, equity, and inclusion.
- Prioritize our positive workplace culture.

## Harness Knowledge to Comprehensively Address Risk

- Quickly deploy communications to mitigate risk based on our data and perspective.
- Develop targeted outreach strategies.
- Enhance our value as an independent resource to broaden our reach.

These objectives inform how we use our authority to achieve our mission. The strategic plan highlights supporting initiatives and notes how we will measure and monitor our performance. Our strategic plan is in direct alignment with our program areas and is intended to bolster the quality and responsiveness of our services.

# OUR APPROACH TO COMPLIANCE AND COLLABORATION

We work to ensure that we are continuously improving in our compliance monitoring and enforcement efforts, and prioritizing our efforts based on risk.

We use Compliance Oversight Plans and Inherent Risk Assessments to guide our compliance monitoring efforts, which are integrated into our Compliance Monitoring and Enforcement Program (CMEP). The RF CMEP is segmented into two groups:

- **Critical Infrastructure Protection (CIP)**
- **Operations and Planning (O&P)**

Our responsibility is to ensure registered entities comply with the NERC Reliability Standards through tools such as:

### **Compliance Auditing:**

An in-depth look at the reliability, security, internal controls, and culture of our entities. The focus is on the mandated NERC Reliability Standards, entity performance, and the inherent risks of entity assets.

### **Self-certifications:**

Monitoring methods in which an entity completes a self-assessment of its compliance activities with applicable NERC Reliability Standards and requirements, and submits substantiating evidence that validates compliance.

### **Spot Checks:**

Tools used to audit smaller scopes focusing on a single risk or two.



# NONCOMPLIANCE TRENDS AND TAKEAWAYS

RF regularly monitors enforcement data to identify risks, trends, and lessons learned. Throughout 2023, RF shared pertinent data and information through various channels, including webinars, newsletter articles, and board meetings to bring transparency and clarity to the CMEP processes, share lessons learned, and drive continuous improvement. The following overview highlights the most violated standards in 2023.

## Most Violated Standards

Since the implementation of CIP version 5, the number of noncompliances with CIP Standards has consistently outpaced those in the Operations & Planning space, and that trend continued in 2023 as CIP noncompliances comprised approximately 77% of noncompliance intake. The graph below shows the 12 most violated Reliability Standards in 2023 in the RF footprint based on intake.



## CIP Commentary

The sustained high volume of CIP noncompliances is due, in part, to a handful of “high-frequency conduct” CIP requirements (e.g., CIP-007-6 R2 patch management and CIP-010-2 R1 change management), which govern activities that occur often and cover numerous assets and people, leading to more opportunities for noncompliance. Even entities with strong programs will find noncompliances involving patching and change management, but RF encourages entities to continue focusing on the implementation of effective internal controls to drive down the duration and instance counts of issues that do occur. Where this is not the case, the risk will likely be elevated. In CIP-004, we are seeing an increase in issues with managing vendor and contractor access, often involving extended durations where entities do not have strong internal controls to monitor personnel changes.

## Operations & Planning Commentary

PRC-005 (protection system maintenance) and VAR-002 (maintaining voltage schedules) continue to be the most frequently violated Operations and Planning Standards in the RF footprint as they also occupied the top two spots in 2022. From a processing standpoint, 43% of the PRC-005 and VAR-002 noncompliances closed since the start of 2022 were classified as moderate risk. In PRC-005, risk tends to be elevated in cases involving broader proportional misses across an entity’s program with significant durations. RF explored issues relating to VAR-002, including common failure types and suggestions for improvement, in the 2023 Q2 Newsletter.

## Inventory and Self-Reporting

In 2023, RF remained focused on eliminating older open violations. More than 94% of open violations in 2024 Q1 were identified between 2022 and 2024. Consistent with prior years, more than 86% of noncompliances discovered in 2023 were either self-reported or self-logged, showing continued diligence and transparency of entities in identifying and reporting issues.

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# OUR APPROACH TO COMPLIANCE AND COLLABORATION (CONTINUED)

As a regulator, RF has the authority to impose penalties on entities that violate the NERC Reliability Standards. However, we know well that “you cannot punish your way to excellence.” That is why our collaborative outreach efforts are essential to helping mitigate risks.

RF conducts monthly programs and events to bring registered entities and partners together to share insights and provide learning opportunities, including:

- **Appraisals (Community and Entity)**
- **Assessment Tools**
- **Assist Visits**
- **Committees and Conferences**
- **Newsletters**
- **Research, Reports, and Thought Leadership**
- **Webinars and Workshops**
- **Winterization Visits**

## Appraisals (Community and Entity)

Community Appraisals assess the readiness, preparedness, and resilience of communities in our footprint to withstand long-term disruptions to electrical power and other threats.

Entity Appraisals assess our registered entities' management practices to identify risks, best practices, and opportunities for improvement.

## Assessment Tools

Our Incident Response Preparedness Assessment Tool (IRPAT) evaluates information technology systems' readiness, preparedness, and robustness by performing simulated cyber or physical incident exercises.

Our Cyber Resilience Assessment Tool (CRAT) is a qualitative self-assessment tool that allows entities to evaluate and benchmark their cyber resilience posture and effectiveness.

## Assist Visits

RF pioneered Assist Visits with our entities in 2012 and they are available to address specific program improvements or may pertain to specific approaches for implementing reliability standards.

In 2023

**80 Assist Visits**

**30**      **50**

Cyber Security      Operations &  
Critical Infrastructure      Planning  
Protection (CIP)      (O&P)

# OUR APPROACH TO COMPLIANCE AND COLLABORATION (continued)



## Committees and Conferences

RF staff participate in numerous committees across the ERO Enterprise as leaders and subject matter experts. These committees are designed to address risk issues including critical infrastructure protection, transmission planning, protection, generation, standards, and human performance. RF staff also participate and present at industry conferences to share insights, research, and best practices.

## Webinars and Workshops

Throughout the year, RF holds webinars (monthly Tech Talks), workshops, and training programs to bring entities and stakeholders together to discuss critical topics of interest, including protection systems, human performance, winterization, NERC Reliability Standards, & state energy policy.

## Newsletters

RF publishes a monthly newsletter as a value-added channel to share updates on standards, discuss industry issues, communicate collaboration efforts and upcoming events, and share insights from research and work through our various committees and events.

### State Policymakers:

RF also publishes a special monthly newsletter targeted to state

policymakers, to provide pertinent information regarding risks to the bulk power system, such as studies, reports, key regulatory updates, and information on upcoming RF and ERO state outreach events.

## Research, Reports, and Thought Leadership

### Interregional Transfer Capability Study (ITCS):

RF and our regional ERO counterparts are collaborating with NERC to conduct an Interregional Transfer Capability Study (ITCS). The study, directed by the Fiscal Responsibility Act of 2023, will analyze the amount of power that can be moved or transferred reliably from one area of the interconnected transmission systems to another. Transfer capability is a critical measure of addressing energy deficiencies by relying on distant resources, and is vital as the resource mix continues to change.

### Seasonal Resource Reliability Risk Assessment:

RF annually performs seasonal summer and winter reliability assessments to ensure that its footprint has adequate resources to serve anticipated demand.

### Long-Term Reliability Resource Risk Assessment:

RF performs an annual assessment to ensure that its footprint has adequate resources to serve anticipated load demand for the next 10-year period.



# OUR APPROACH TO COMPLIANCE AND COLLABORATION: COLD WEATHER WINTERIZATION VISITS

Recent extreme cold weather events, such as Winter Storm Uri in 2021 and Winter Storm Elliott in 2022, underscore the importance of cold weather preparedness to the grid's reliability and our country's overall safety and well-being.

Winterization visits are a voluntary program where RF staff evaluate the readiness of generating facilities for the upcoming winter season, discuss any concerns, and share best practices to help enhance winter readiness in our region.



*Components wrapped in fire-retardant material to protect susceptible components against freezing during winter months.*



Separate and distinct from mandatory compliance activities, RF staff were able to provide recommendations to plants that address the risk of extremely low temperatures, including:

- Protecting modular platforms with piping, racks, pumps, compressors, or skids that require using temporary coverings in cold weather to prevent freezing.
- Protecting feedwater pumps, heat recovery steam generation (HRSG) drums, level transmitters, flow transmitters, and HRSG header drains located outdoors.
- Protecting the instruments that provide critical operational parameters to the control room.
- Improving how heat tracing cables that provide heat all along their length are serviced or monitored.
- Monitoring performance of high voltage breakers during extreme cold weather conditions for breakers that utilize sulfur hexafluoride (SF6) gas.

The RF team, with their extensive knowledge and experience, are able to provide valuable insights through "positive observations". They also offer practical suggestions on best practices, demonstrating their commitment to improving operational efficiency and safety.

# OUR APPROACH TO COMPLIANCE AND COLLABORATION: STATE OUTREACH

RF and the ERO Enterprise have focused on serving as technical resources for the state's policy-making bodies on risk and reliability issues during this critical time of energy transition.

With experts in power system engineering, control room operations, planning, and cyber and physical security, we are an independent, credible resource for state policymakers to rely upon.

We discuss and testify on important reliability and security issues when needed. Three areas of specific concern when engaging with state policymakers are:

**Addressing the Pace of Change:** As retirements of existing resources occur, how do we address the gaps left behind?

**Understanding Resource Adequacy:** How do we ensure there is enough supply to meet demand? Do we fully understand resource availability and its impact on providing reliable electric service?

**Essential Reliability Services:** Do we understand the technical aspects of grid reliability based on power system dynamics that keep the grid balanced and stable (voltage/frequency/ramping capability)? How do resource losses and introducing new resources with different characteristics impact the BES from a technical perspective?

We work hard to provide sound guidance on risks to the grid, so our policymakers have the information they need to act in our states' best interests.

## Recent State Outreach testimonies included:

**November 2023** – Joint PA/OH Senate in Pennsylvania

**December 2023** – WV Joint House / Senate

**January 2024** – Maryland Senate

**February 2024** – Ohio/Pennsylvania joint testimony in Ohio

**April 2024** – Illinois Senate



# OUR WORK IN ACTION: TACKLING REGIONAL RISKS

As part of our strategic plan to harness knowledge to address risk comprehensively, RF completed its Regional Risk Assessment (RRA), which identified the top risk factors for the region. As the risks to the grid continue to evolve, RF updates its compliance activities, collaboration approaches, and knowledge-sharing programs to help mitigate these risks. Below is a list of the top risks identified in the RRA, along with RF's compliance, collaboration, and outreach activities that help address these risks.

## ENVIRONMENTAL FACTORS

Environmental factors are likely and impactful, resulting in unplanned power outages. Cold Weather Winterization (CWW) has become increasingly important as the energy resource mix has changed.

### Our Impact - Compliance

- RF monitors and enforces multiple NERC standards related to environmental issues.
- A new Emergency Operating Procedure (EOP) winterization standard (EOP-011-2) requires entities to properly prepare assets for winter weather and an additional winterization standard is also in the works.
- RF continues to monitor vegetation-related standards (FAC-003) to ensure proper controls are in place to mitigate risks posed by vegetation growth.
- RF adopted a new field walk-down approach or "readiness assessment," working directly with entity field and compliance personnel to address vegetation-related risks.

### Our Impact - Collaboration

- RF offers a Vegetation Management Community of Practice for entities to share best practices.
- RF conducted 23 Cold Weather Winterization (CWW) surveys and 16 entity site visits in 2023 – a 45% increase in CWW site visits from the previous year.
- RF held multiple Tech Talks throughout the year pertaining to environmental issues.
- RF participated in and contributed to the joint FERC, NERC, Regional Entity Staff Report "Inquiry into Bulk-Power System Operations During December 2022 Winter Storm Elliott". This report resulted in a number of recommendations to reduce risks to reliability posed by cold weather.

## CYBER SECURITY

Critical infrastructure throughout the country is constantly under attack from those wishing to cause disruption and harm. As the electrical grid becomes more complex and technology advances, so does the need for advanced cybersecurity capabilities.

### Our Impact - Compliance

- 86% of noncompliances discovered in 2023 were either self-reported or self-logged, showing continued diligence and transparency from entities in identifying and reporting issues.
- CIP-007-6 (System Security Management and patching) is one of the most frequently violated Standards across the entire ERO. RF continues to monitor this Standard and assess controls regarding system security management and specifically patching. With the rise of malware, spyware, and ransomware, it is critical that all entities with critical assets have controls in place to ensure their patch management process is functioning as intended to reduce security risks.

### Our Impact - Collaboration

- RF created and held the Ohio Security Tabletop, a statewide exercise simulating an attack on critical infrastructure with participants from various industries.
- RF provides independent cyber assessment tools to assist entities, including the Cyber Resilience Assessment Tool (CRAT), the Incident Response Prepared Assessment Tool (IRPAT), and the Insider Threat Preparedness Maturity Assessment Tool (InTP).
- RF conducted a pilot exercise during our February Internal Controls Workshop with the ERO focusing on Electronic Security Perimeters and System Security Management.
- Throughout 2023, RF participated in cybersecurity focused workshops such as GridSecCon and GridEx.

# OUR WORK IN ACTION: TACKLING REGIONAL RISKS (continued)

## CHANGING RESOURCE MIX

Decentralized generation and decarbonization is changing how the grid is planned and operated. Inverter-Based Resources (IBRs), sources of electricity that are asynchronously connected to the grid via an electronic power converter (“inverter”), are being added to the system, replacing conventional synchronous machines.

### Our Impact - Compliance

- RF’s scoping of compliance engagements considers the impact of changing generation resources (such as IBRs).
- Frequently audited standards in 2023 related to generator performance included PRC-019 “Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection”; PRC-024 “Generator Performance During Frequency and Voltage Excursions”; CIP-002 “BES Cyber Security Categorization”; and CIP-003 “Security Management Controls”.

### Our Impact - Collaboration

- RF performs extensive state outreach, serving as an expert resource to state legislatures, public utility commissions, and governor’s offices regarding reliability concerns associated with the changing resource mix.
- RF and NERC publish and promote long-term and seasonal planning assessments alerting stakeholders to resource adequacy risks in the 5-to-10-year horizon.
- RF is assisting and participating in all aspects of the Interregional Transfer Capability Study directed by Congress in the Fiscal Responsibility Act of 2023.

## SITUATIONAL AWARENESS

Compromises to the availability of information (e.g., unexpected outages of tools or planned outages without appropriate coordination or oversight) can leave system operators without visibility to some or all the systems they operate.

### Our Impact - Compliance

- RF performs compliance oversight, including a focus on TOP-001-5 “Transmission Operations,” to ensure that entity EMS and SCADA systems have the necessary protections in place.
- TOP-001-5 requires that Real-time Assessments, Operating Plans, and Operational Instructions are monitored to ensure that System Operators have the tools and training needed to study and react to changing system conditions.

### Our Impact - Collaboration

- The ERO published three [Lessons Learned documents](#) related to Situational Awareness by monitoring and studying EMS/SCADA outages, to help share risks and mitigations with the industry.
- RF participated throughout the year in the NERC Event Analysis Subcommittee, and participated in the NERC Monitoring and Situational Awareness Conference.

# OUR WORK IN ACTION: TACKLING REGIONAL RISKS (continued)

## PHYSICAL SECURITY

The protection of assets like substations, transformers, generating facilities, and control centers from threats that may compromise the operation or purpose of those assets.

### Our Impact - Compliance

- RF helps to ensure the security of physical assets by monitoring compliance with NERC Reliability Standards CIP-014 "Physical Security," and CIP-006 "Physical Security of BES Cyber Systems".
- In August of 2023, FERC held a joint [NERC/FERC Physical Security Technical Conference](#) to discuss how regulators and utilities can partner together to strengthen physical security controls.

### Our Impact - Collaboration

- In 2023, RF conducted a security drill for the state of Ohio and began preparations to conduct a security drill for the state of New Jersey in 2024.
- RF has a tabletop tool for entities to self-assess their readiness for and responsiveness to a physical security attack.
- RF offers an Assist Visit program for entities to ask questions and discuss best practices with a subject matter expert.

## MISOPERATIONS

The failure of a protection system to operate as intended exacerbates unplanned transmission outages that are not being monitored or planned.

### Our Impact - Compliance

- PRC-004 "Protection System Misoperation Identification and Correction" was one of the most frequently audited standards in 2023 to address this risk, along with additional PRC standards.
- Misoperations have reduced from approximately 13.6% in 2014 to 7.8% in 2023 (Q1-Q3), a 43% reduction.
- Misoperations related to human performance issues have declined 58% over the last four years.

### Our Impact - Collaboration

- In 2023, the RF Protection Subcommittee and Engineering and System Performance Department hosted their 9th annual Protection System Workshop.
- RF continued to conduct one-on-one meetings with entities, reviewing misoperations data and sharing best practices.
- The RF Protection Subcommittee developed a Misoperations Assessment, identifying industry trends and making recommendations for improvement.

# OUR WORK IN ACTION: TACKLING REGIONAL RISKS (continued)

## MODELING

Modeling and Facility Ratings are crucial to understanding the operating limits of the bulk power system. This risk overlaps with IBR risks based on post-event analysis of events such as the Odessa disturbances in 2021 and 2022.

### Our Impact - Compliance

- RF's compliance monitoring team reviews the MOD (modeling) standards, and the FAC (facility rating) standards to ensure accuracy for operational and planning assessments.
- In 2023, RF continued its Facility Ratings walk-down initiative, where RF staff spent time with registered entities in the field and within substations, verifying equipment and models and discussing change management techniques.

### Our Impact - Collaboration

- RF partnered with NERC to host a Facility Ratings Management webinar focused on change management controls in May 2023.
- RF participates in the annual Planning and Modeling Virtual Seminar with NERC and industry (EPRI/NATF), plus the Acceptable Modeling Workshop Group with the Eastern Interconnection Reliability Assessment Group (ERAG).
- Additional NERC task forces with RF participation such as the System Planning Impacts from DER Working Group (SPIDERWG) have raised awareness to IBR modeling issues.



## OUR PEOPLE

We are more than just a team – we are a community of dedicated professionals committed to ensuring the reliability and security of the electric grid. We have a staff of approximately 100 employees at RF, including a mix of skilled professionals in engineering, auditing, cyber security, law and other specialties, many which have past industry experience in control room operations, planning and other areas. Our employees are passionate about the work they do and their positive impact.

At RF, we strongly encourage personal development. We enable our team members to grow both personally and professionally. We provide ample resources and opportunities to support this growth. We firmly believe that investing in our people is an investment in the future of our organization.

### Diversity, Equity, Inclusion & Belonging (DEIB)

At RF, we believe in promoting DEIB. We understand that our success depends on the unique perspectives, experiences, and skills of our employees, stakeholders, and partners. We are committed to cultivating a culture of belonging where everyone is valued, respected, and empowered to contribute towards our goal of ensuring the reliability, security, and resilience of the electric grid.

RF has taken several actions to improve DEIB in our organization and industry, such as:

- Establishing a council of employees from various departments and levels to provide guidance and oversight on DEIB initiatives.
- Conducting regular employee surveys and focus groups to assess the current state of DEIB.
- Providing DEIB training for all employees and managers to raise awareness and foster inclusive behaviors.
- Participating in external DEIB events and programs, such as the North American Electric Reliability Corporation (NERC) Diversity Forum and the Women in Energy Leadership Forum.
- Aligning DEIB goals with organizational strategy and holding senior leaders accountable for their implementation and outcomes.

### THE RESULTS:

# 31%

Female on Board of Directors

# 46%

Minorities, women, veterans, people with disabilities

# 38%

Women in leadership positions, manager, and above



THE PLAIN DEALER  
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We are proud of our selection by the Cleveland Plain Dealer as one of the Top Workplaces in Northeast Ohio for 2023.

# Greater Cleveland Food Bank



## RELIABILITYFIRST IN OUR COMMUNITIES



# SENIOR LEADERSHIP

Our leadership team is passionate about ensuring the reliability and security of the Bulk Power System, while hiring and supporting top-caliber employees to support this mission.



**Tim Gallagher**  
*President and Chief Executive Officer*



**Beth Dowdell**  
*Senior Director of Corporate Services and Treasurer*



**Jeff Craigo**  
*Senior Vice President, Reliability & Risk*



**Kristen Senk**  
*Director, Legal and Enforcement*



**Niki Schaefer**  
*Vice President and General Counsel*



**Brian Thiry**  
*Director, Entity Engagement*



**Diane Holder**  
*Vice President, Entity Engagement and Corporate Services*



**Matthew Thomas**  
*Director, Compliance Monitoring*



**Marcus Noel**  
*Vice President and Chief Security Officer*



**Jim Uhrin**  
*Director, Engineering and Reliability Services*

# GOVERNANCE

RF's Board of Directors governs and oversees RF's activities according to the corporation's bylaws and its delegation agreement with NERC. Our board has four committees: Risk and Compliance, Talent and Compensation, Nomination and Governance, and Finance and Audit. RF has a hybrid board structure designed to represent our unique history, diverse footprint and commitment to independence, and deep industry knowledge. Our Board structure was carefully designed to include independent directors along with balanced representation from the diverse entities across our footprint. The Board of Directors and its committees meet regularly, with at least three open meetings a year.

## **Antonio Smyth, Chair**

*Executive Vice President of Grid Solutions and Government Affairs, American Electric Power (AEP)*

## **Nelson Peeler, Vice Chair**

*Senior Vice President of Grid Planning and Integration, Duke Energy*

## **Patrick Cass, Lead Independent Director**

*Former Accounting and Advisory Services Industry Professional*

## **Steven Ambrose**

*Vice President and Chief Information Officer, DTE Energy*

## **Joanna Burkey**

*Former Chief Information Security Officer, Hewlett Packard*

## **Lesley Evancho**

*Chief Human Resources Officer, EQT*

## **Timothy R. Gallagher**

*President and Chief Executive Officer, ReliabilityFirst*

## **Craig Grooms**

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## **Ken Seiler**

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