

# Agenda Regulatory Oversight Committee Meeting

August 14, 2024 | 10:05-11:05 a.m. Pacific

## In-Person

Hyatt Regency Vancouver  
655 Burrard St.  
Vancouver, BC V6C 2R7, Canada

Conference Room: Regency A/B/C

## Virtual Attendees

**Webcast Link:** [Join Meeting](#)

**Webcast Password:** Day108142024ATT (32910815 when dialing from a phone)

**Audio Only:** +1-415-655-0002 US Toll | +1-416-915-8942 Canada Toll | Access code: 2311 130 8233

## Committee Members

Robin E. Manning, Chair  
George S. Hawkins  
Larry Irving  
Susan Kelly  
Kristine Schmidt  
Kenneth W. DeFontes, Jr., *Ex officio*

## Introduction and Chair's Remarks

### [NERC Antitrust Compliance Guidelines](#)

## Agenda Items

1. **Minutes – Approve**
  - a. May 8, 2024 Open Meeting\*
2. **Regulatory Oversight Committee Mandate\* – Update**
3. **Regional Canadian Activities\* – Update**
4. **Section 321 of the NERC Rules of Procedure: Special Rule to Address Order No. 901 Directives for the Work Plan Milestone 2 Projects\* – Review and Recommend to the Board of Trustees for Action**
5. **Align History, Governance, and Maturity\* – Update**
6. **Reference Materials\***
  - a. **2024 Compliance Monitoring and Enforcement Program and Organization Registration and Certification Program Mid-Year Report**
  - b. **Quarterly ORCP and CMEP Dashboard**

## **7. Other Matters and Adjournment**

\*Background materials included.

# **DRAFT** Minutes Regulatory Oversight Committee Meeting

Agenda Item 1a

May 8, 2024 | 11:00 a.m. – 12:00 p.m. Eastern  
Hybrid Meeting

## **In-Person (Board, MRC, NERC Staff ONLY)**

NERC DC Office  
1401 H Street NW, Suite 410  
Washington, D.C. 20005

Mr. Robin E. Manning, Chair, called to order the duly noticed open meeting of the Board of Trustees Regulatory Oversight Committee (ROC or Committee) of the North American Electric Reliability Corporation (NERC) on May 8, 2024, at approximately 11:00 a.m. Eastern Time, and a quorum was declared present.

Present at the meeting were:

### **Committee Members**

Robin E. Manning, Chair  
George S. Hawkins  
Larry Irving  
Susan Kelly  
Kristine Schmidt  
Kenneth W. DeFontes, Jr., *ex officio*

### **Board of Trustees Members**

James B. Robb, NERC President and Chief Executive Officer  
Robert G. Clarke  
Suzanne Keenan  
Colleen Sidford

### **NERC Staff**

Tina Buzzard, Assistant Corporate Secretary  
Manny Cancel, Senior Vice President and CEO of the E-ISAC  
Howard Gugel, Vice President, Compliance Assurance and Registration  
Kelly Hanson, Senior Vice President, Chief Operating Officer  
Latrice Harkness, Director, Standards Development  
Soo Jin Kim, Vice President, Engineering and Standards  
Mark Lauby, Senior Vice President and Chief Engineer  
James McGrane, Senior Counsel  
Kristin Miller, Director, Internal Audit  
Kaiesha Morgan, Program Specialist, Corporate Governance and Enforcement  
Lauren Perotti, Assistant General Counsel  
Lonnie Ratliff, Director, Compliance Assurance and Certification  
Sônia Rocha, Senior Vice President, General Counsel, and Corporate Secretary  
Camilo Serna, Senior Vice President, Strategy and External Engagement  
Teri Stasko, Assistant General Counsel and Director of Enforcement  
Farzaneh Tafreshi, Manager Compliance Analysis and Reporting

### **Introduction and Chair’s Remarks**

Chair Manning welcomed the members of the ROC and other attendees to the meeting. Chair Manning provided a brief summary of the May 7, 2024 Committee Executive Meeting.

### **NERC Antitrust Compliance Guidelines**

Ms. Buzzard directed the participants’ attention to the NERC Antitrust Compliance Guidelines included in the advance agenda package and indicated that all questions regarding antitrust compliance or related matters should be directed to Ms. Rocha.

### **Minutes**

Upon motion duly made and seconded, the ROC approved the February 14, 2024 ROC Open Meeting minutes.

### **Inverter-Based Resources Standards Coordination**

Ms. Harkness provided background on Federal Energy Regulatory Commission (FERC) Order No. 901, which includes directives on new or modified NERC Reliability Standard projects. She noted that Order No. 901 addresses a wide spectrum of reliability risks to the grid from the application of Inverter-Based Resources (IBRs). Ms. Harkness shared that NERC Standards staff has been working diligently to address directives due in November 2024, November 2025, and November 2026. NERC Standards staff also coordinated with other NERC departments to draft Standard Authorization Requests (SARs) that were socialized with the Reliability and Security Technical Committee. The SARs are scheduled for review at the May 2024 Standards Committee meeting.

### **Inverter-Based Resources Registration**

Mr. Gugel provided an update on the NERC work plan to identify and register all unregistered owners and operators of IBRs that, in the aggregate, materially impact the reliable operation of the bulk power system. He shared that NERC and the Regional Entities recognize that this large-scale initiative to identify and register IBR candidates will require extensive communication to ensure the ERO Enterprise reaches this new audience. Mr. Gugel shared an overview of the ERO Enterprise comprehensive communications strategy to define the path for informing stakeholders on the progress of work plan activities and to ensure a timely and successful implementation.

### **ERO Enterprise CMEP Workshop**

Mr. Ratliff stated that in April 2024, Organization Registration and Certification Program (ORCP) and Compliance Monitoring and Enforcement Program (CMEP) staff from across the ERO Enterprise, FERC staff, and Canadian provincial compliance and enforcement staff attended the annual CMEP workshop. He provided an overview of the workshop, noting the theme for this year was “One CMEP” to focus on the importance of the relationship between registration, compliance, and enforcement activities.

### **ORCP and CMEP Dashboard**

Ms. Tafreshi presented the ORCP and CMEP dashboard, stating that NERC and the Regional Entities work together to implement the regulatory functions related to the ORCP and CMEP. She explained that the visuals in the dashboard are intended to provide examples of indicators that Registration, Compliance Assurance, and Enforcement staff use to inform our risk-based activities individually and collectively as regulatory programs.

**Adjournment**

There being no further business, the meeting was adjourned.

Submitted by,

A handwritten signature in black ink, appearing to be 'SR', with a long horizontal line extending to the right.

Sônia Rocha  
Corporate Secretary

## **Regulatory Oversight Committee Mandate**

### **Action**

Update

### **Background**

As part of the annual review of all Board of Trustees Committee mandates, the NERC Legal Department has reviewed the current [Regulatory Oversight Committee mandate](#) with the Committee Chair and members and is not recommending any revisions at this time.

## Regional Canadian Activities

### Action

Update

### Background

Electric regulation in Canada varies from province to province. Under Canada's constitution, each province controls the electricity generation, intra-provincial electricity transmission, electricity distribution and market structure within its borders.

The North American Electric Reliability Corporation (NERC), Midwest Reliability Organization (MRO), Northeast Power Coordinating Council, Inc. (NPCC), and Western Electricity Coordinating Council (WECC) operate under various regulatory constructs and under various agreements with interconnected provinces in Canada to conduct or participate in registration, compliance monitoring, and enforcement of Reliability Standards. Where applicable, NERC provides review and comments on Regional Entity enforcement determinations involving Canadian entities. NPCC, MRO, and WECC will share an overview of their registration, compliance monitoring, and enforcement responsibilities in the provinces.

### Summary

The chart below summarizes NPCC's, MRO's, and WECC's registration, compliance, monitoring, and enforcement activities as they relate to applicable provinces in Canada.

Regional Entity Activities in Canada		
Province	Regional Entity Registration Activities	Regional Entity Compliance, Monitoring, and Enforcement Activities
<b>NPCC</b> The NPCC Canadian geographic region includes the provinces of Ontario, Québec and the Maritime provinces of New Brunswick and Nova Scotia.		
New Brunswick <ul style="list-style-type: none"> <li>The NBEUB approves NERC Reliability Standards and is responsible for the determination of violations, enforcement action and imposition of fines and penalties</li> </ul>	<ul style="list-style-type: none"> <li>The NBEUB maintains a NB Compliance Registry identifying those owners, users and operators of the BPS who must comply with approved NERC reliability standards</li> <li>NPCC provides recommendations to the NBEUB for entity registrations</li> </ul>	<ul style="list-style-type: none"> <li>NPCC conducts compliance monitoring activities and makes recommendations regarding enforcement matters</li> </ul>
Nova Scotia <ul style="list-style-type: none"> <li>The Nova Scotia Utility and Review Board approves reliability standards</li> </ul> Ontario	<ul style="list-style-type: none"> <li>Nova Scotia Power is subject to the NERC Reliability Standards</li> <li>The IESO maintains an Ontario compliance registry identifying those owners, users and operators of the BPS who must comply with</li> </ul>	<ul style="list-style-type: none"> <li>NPCC implements compliance monitoring and enforcement activities</li> <li>NPCC conducts compliance monitoring activities and makes enforcement determinations on the IESO</li> <li>MACD conducts compliance monitoring activities and makes enforcement</li> </ul>

<ul style="list-style-type: none"> <li>• The Market Assessment and Compliance Division (MACD) of the Independent Electricity System Operator (IESO) makes violation and sanction determinations for all Ontario entities</li> <li>• The Ontario Energy Board approves NERC Reliability Standards</li> </ul>	<p>approved NERC reliability standards</p>	<p>determinations on the other market participants</p>
<p>Québec</p> <ul style="list-style-type: none"> <li>• The Régie de l'énergie approves NERC Reliability Standards, approves compliance monitoring plans, and makes all final enforcement determinations, including the imposition of financial penalties and sanctions</li> </ul>	<ul style="list-style-type: none"> <li>• The Régie de l'énergie approves the Québec compliance registry identifying those entities subject to the NERC reliability standards</li> <li>• The Québec compliance registry is filed by Hydro-Québec, Coordonnateur de la fiabilité au Québec, as the Reliability Coordinator</li> </ul>	<ul style="list-style-type: none"> <li>• NPCC conducts compliance monitoring activities and files enforcement recommendations to the Régie de l'énergie</li> <li>• NPCC drafts the Québec Annual Implementation Plan, which is approved by the Régie de l'énergie</li> <li>• NPCC drafts QCMEP Annual Report</li> </ul>
<p><b>MRO</b> The MRO Canadian geographic region consists of the provinces of Manitoba and Saskatchewan.</p>		
<p>Manitoba</p> <ul style="list-style-type: none"> <li>• Only the Manitoba Public Utilities Board (PUB) can determine if an entity in Manitoba has violated (outside of the Compliance Exception and Self-Log Review process) an adopted NERC/MRO reliability standard and only the PUB can impose a penalty and/or sanction based on a recommendation by MRO</li> </ul> <p>Saskatchewan</p> <ul style="list-style-type: none"> <li>• Saskatchewan Electric Reliability Authority (SERA) has authority for compliance monitoring and enforcement</li> </ul>	<ul style="list-style-type: none"> <li>• MRO determines which users, owners, and operators of the Bulk Power System in Manitoba are subject to compliance with reliability standards through their registration processes</li> <li>• Per the Manitoba Compliance Monitoring and Enforcement Program, NERC registers the organizations responsible for complying with Reliability Standards, in accordance with applicable NERC Rules of Procedure</li> <li>• MRO evaluates which entities in Saskatchewan meet the NERC registration criteria and provide entity registration recommendations to SERA</li> </ul>	<ul style="list-style-type: none"> <li>• When MRO determines a possible violation and that a financial penalty or other sanction is warranted, it submits a recommendation to the PUB, including a recommendation for penalties and or sanctions</li> <li>• If the Compliance Exception or Self-Log Review process is used, MRO may accept a remediation plan to address the possible violation and there would be no recommendation to PUB to determine whether a violation has occurred. Compliance Exceptions can be used for dispositions that do not pose a serious risk to the reliability of the Bulk Power System</li> <li>• Compliance Exceptions and Self-Log Review issues are reported to a branch of the MB government and NERC</li> <li>• MRO monitors compliance with Manitoba Hydro-developed reliability standards in addition to the NERC reliability standards that have been adopted in MB</li> <li>• MRO performs compliance monitoring and provides findings of non-compliance to SERA for review and confirmation</li> </ul>



		<ul style="list-style-type: none"> <li>• Once a violation is confirmed, MRO administers the enforcement process on behalf of SERA</li> <li>• Lower risk issues of noncompliance can be processed as Compliance Exceptions in Saskatchewan</li> </ul>
<p><b>WECC</b> The WECC Canadian geographic region consists of the provinces of British Columbia and Alberta.</p>		
<p>British Columbia (BC)</p> <ul style="list-style-type: none"> <li>• The British Columbia Utilities Commission (BCUC) makes violation, mitigation, and penalty determinations for all BC entities</li> </ul>	<ul style="list-style-type: none"> <li>• WECC conducts registration reviews/assessments and provides recommendations to the BCUC</li> <li>• WECC maintains the registry that is used to conduct compliance monitoring activities on behalf of BCUC</li> </ul>	<ul style="list-style-type: none"> <li>• WECC conducts compliance monitoring activities for BC entities (audits, spot checks, self-certifications, etc.) on behalf of the BCUC</li> <li>• WECC conducts these activities in accordance with the BCUC Compliance Monitoring Program, Appendix 2 to the BCUC Rules of Procedure and the associated annual BCUC-approved Implementation Plan that is drafted by WECC in consultation with the BCUC</li> <li>• As the Administrator, WECC makes recommendations to the BCUC regarding enforcement matters</li> <li>• The BCUC makes enforcement determinations</li> <li>• Lower risk issues are resolved via the BC Find, Fix, Track process and higher risk issues and/or issues with aggravating factors are resolved through the Notice of Alleged Violation process, which is usually adjudicated through a BCUC commissioner panel proceeding</li> </ul>
<p>Alberta</p> <ul style="list-style-type: none"> <li>• The Market Surveillance Administrator (MSA) enforces ISO rules and reliability standards effective in Alberta</li> <li>• The Alberta Electric System Operator (AESO) monitors market participant compliance (other than itself) under the auspices of the MSA with, among other rules and regulations, the Alberta reliability standards</li> </ul>	<ul style="list-style-type: none"> <li>• WECC does not have registration responsibilities in Alberta</li> <li>• The AESO maintains a registry that is used to administer its compliance monitoring program of other market participants, including scoping and scheduling of monitoring activities</li> <li>• The AESO bases registration on the Alberta Reliability Standards Functional Model and Criteria for Registration which maps Alberta market participant roles to the AESO functional model roles</li> </ul>	<ul style="list-style-type: none"> <li>• WECC conducts certain compliance monitoring activities of only the AESO under the auspices of the MSA</li> <li>• The MSA-approved annual Implementation Plan for monitoring compliance of the AESO is drafted by WECC in consultation with the MSA</li> <li>• WECC must refer Suspected Contraventions to the MSA for disposition</li> <li>• WECC has no authority to impose penalties on Alberta entities or the AESO</li> <li>• In sum: WECC conducts certain compliance monitoring activities; all other matters relating to compliance,</li> </ul>

		enforcement, and penalties are the sole charge of the MSA
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# NERC

NORTH AMERICAN ELECTRIC  
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Agenda Item 3

# Regional Canadian Activities

Damase Hebert, General Counsel and Corporate Secretary, NPCC  
Richard Burt, Senior Vice President and Chief Operating Officer, MRO  
Steven Noess, Vice President of Reliability and Security Oversight, WECC  
Regulatory Oversight Committee Open Meeting  
August 14, 2024

**RELIABILITY | RESILIENCE | SECURITY**



- British Columbia (BC)
- Alberta (AB)
- Saskatchewan (SK)
- Manitoba (MB)
- Ontario (ON)
- Québec (QC)
- New Brunswick (NB)
- Nova Scotia (NS)



*Each province has a different regulatory structure and a separately negotiated MOU with NERC and a Regional Entity*



- Ontario
- Québec
- New Brunswick
- Nova Scotia



- Manitoba
- Saskatchewan



- British Columbia
- Alberta







**Questions and Answers**

**Section 321 of the NERC Rules of Procedure:  
Special Rule to Address Order No. 901 Directives for the Work Plan Milestone 2  
Projects**

**Action**

**Review and recommend to the NERC Board of Trustees as applicable, and contingent on the results of the ballots ending August 12, 2024.**

Find that the ballot bodies for the following projects have failed to approve proposed Reliability Standard(s) that contain provisions to adequately address specific matters identified in directives issued by the Federal Energy Regulatory Commission (FERC), issued in Order No. 901, dated October 19, 2023,<sup>1</sup> that are due to FERC by November 4, 2024:

- **Project 2021-04 Modifications to PRC-002-2 Phase 2:** Requirements to address disturbance monitoring for inverter-based resources (IBR) (PRC-002-5, PRC-028-1);
- **Project 2020-02 Modifications to PRC-024 (Generator Ride-through):** Requirements to address IBR ride-through performance during grid disturbances (PRC-024-4, PRC-029-1); and
- **Project 2023-02 Analysis and Mitigation of BES Inverter-Based Resource Performance Issues:** Requirements to address Inverter-Based Resources (IBR) performance issues (PRC-030-1).
- Remand the above-listed proposed Reliability Standards to the Standards Committee, which is directed to work with NERC staff to carry out the following instructions:
  - Convene a public technical conference to discuss the issues surrounding the FERC directives, including whether or not the proposed Reliability Standards being developed through the above-listed projects are just, reasonable, not unduly discriminatory or preferential, in the public interest, helpful to reliability, practical, technically sound, technically feasible, and cost-justified;
  - Prepare a memorandum discussing the issues, an analysis of the alternatives considered, and other appropriate matters;
  - Use the input from the technical conference to revise the proposed Reliability Standards, as appropriate; and
  - Re-ballot the proposed Reliability Standard(s) one additional time, with such adjustments as necessary to meet the 45-day deadline provided in NERC Rules of Procedure Rule (ROP) 321.2.1.

**Background**

On October 19, 2023, FERC issued a final rule, Order No. 901, directing the development of new or revised Reliability Standards to address certain reliability issues regarding IBR. In the order, and in the preceding notice of proposed rulemaking, the Commission cited multiple NERC and

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<sup>1</sup> Order No. 901, *Reliability Standards to Address Inverter-Based Resources*, 185 FERC ¶ 61,042 (2023).

Regional Entity resources on IBR issues, including reliability guidelines, white papers, reliability assessments, technical reports, event reports, NERC alerts, and other resources, as underscoring the need for mandatory Reliability Standards to address reliability concerns related to IBR at all stages of interconnection, planning, and operations.

FERC directed NERC to develop new and revised Reliability Standards to address the following four broad topic areas for which it determined reliability gaps exist in the current Reliability Standards with respect to IBR:

- data sharing requirements;<sup>2</sup>
- data and model validation requirements;<sup>3</sup>
- planning and operational studies requirements;<sup>4</sup> and
- performance requirements.<sup>5</sup>

Within these four topic areas, FERC identified the specific reliability issues that must be addressed. In so doing, FERC distinguished between the performance that must be required depending on whether the IBR are currently registered with NERC for compliance purposes, including the sub-Bulk Electric System (BES) IBR that will be registered under the recently-approved revisions to the Rules of Procedure registry criteria (registered IBR); Bulk-Power System connected IBRs that are not registered with NERC (unregistered IBR), but which need to be modeled for reliability; and IBR that are connected to the distribution system, but, in the aggregate, can impact BES reliability (IBR-DER).<sup>6</sup>

In addition, FERC directed NERC to submit an informational filing within 90 days of the date of the order describing how it will develop standards to address the above-listed directives, accounting for various prioritizing factors and projects already underway.<sup>7</sup>

In summary, FERC directed NERC to develop a work plan and responsive standards addressing these issues, and to submit them to the Commission on a three-year, staggered timeframe, as follows:<sup>8</sup>

- **Milestone 1:** Order No. 901 Informational Filing, filed January 17, 2024;<sup>9</sup>
- **Milestone 2:** new or revised Reliability Standards addressing IBR performance requirements and IBR disturbance monitoring data sharing and post-event performance validation, by November 4, 2024;
- **Milestone 3:** new or revised Reliability Standards addressing IBR data sharing and data and modeling validation by November 4, 2025;

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<sup>2</sup> See *id.* at PP 66-109 (discussing directives related to data sharing requirements).

<sup>3</sup> See *id.* at PP 110-161 (discussing directives related to data and model validation requirements).

<sup>4</sup> See *id.* at PP 162-177 (discussing directives related to planning and operational studies requirements).

<sup>5</sup> See *id.* at PP 178-211 (discussing directives related to performance requirements).

<sup>6</sup> See *id.* P 4 n.14 (discussing, generally, how the Commission differentiated between IBR types where necessary to describe its directives).

<sup>7</sup> *Id.* at P 222.

<sup>8</sup> *Id.* at P 229.

<sup>9</sup> Informational Filing of NERC Regarding the Development of Reliability Standards Responsive to Order No. 901, Docket No. RM22-12-000 (Jan. 17, 2024), available [here](#). NERC maintains an up-to-date [project mapping document](#) on the nerc.com website.

- **Milestone 4:** new or revised Reliability Standards addressing IBR planning and operational studies by November 4, 2026.

As FERC recognized in Order No. 901, NERC already had multiple IBR-related standards development projects underway when the order was issued in October 2023. Following the issuance of Order No. 901, NERC staff reviewed the scope of these projects and assigned Milestone 2 directives as appropriate to the existing teams.

- **Project 2021-04 Modifications to PRC-002-2 Phase 2:** Directives to develop requirements to address disturbance monitoring for IBR (Order No. 901 PP 7, 85, 86, 226)
- **Project 2020-02 Modifications to PRC-024 (Generator Ride-through):** Requirements to address IBR ride-through performance during grid disturbances (Order No. 901 PP 190, 193, 199, 208, 209, 226); and
- **Project 2023-02 Analysis and Mitigation of BES Inverter-Based Resource Performance Issues:** Requirements to address IBR performance issues (Order No. 901 PP 208, 209, 226).

On December 13, 2023, the Standards Committee approved procedural waivers to shorten comment periods under Section 16.0 of the Standard Processes Manual to meet the FERC deadline for each of these projects. As of August 1, each of these projects will have posted at least three drafts of their proposed standards to address the Order No. 901 directives. As of August 1, however, none of the responsive standards have met with the required ballot body approval.

The results of the balloting completed to date are as follows:

<b>Project 2021-04 Modifications to PRC-002-2 Phase 2</b>		
<b>Proposed Standard</b>	<b>Comment/Ballot Date</b>	<b>Approval (Quorum)</b>
<i>First Draft</i>		
PRC-028-1	8/1/23-9/14/23	43.33% (87.41%)
PRC-002-5 <sup>10</sup>		61.44% (87.96%)
Implementation Plan		42.96% (87.23%)
<i>Second Draft</i>		
PRC-028-1	3/18/24-4/11/24	50.03% (89.26%)
PRC-002-5		79.46% (89.42%)
Implementation Plan		66.61% (87.96%)
<i>Third Draft</i>		
PRC-028-1	5/31/24-6/17/24	46.67% (79.55%)
PRC-002-5		77.13% (80.22%)
Implementation Plan		62.6% (78.02%)
<i>Fourth Draft</i>		
PRC-028-1	7/22/24-8/12/24	<i>To be presented to the Board at the meeting</i>
PRC-002-5		
Implementation Plan		

<sup>10</sup> The revisions in proposed PRC-002-5 are limited in nature, intended to reflect the creation of a new standard, PRC-028-1, to specify disturbance monitoring equipment requirements for IBR.

Project 2020-02 Modifications to PRC-024 (Generator Ride-through)		
Proposed Standard	Comment/Ballot Date	Approval (Quorum)
<i>First Draft</i>		
PRC-029-1	3/27/24-4/22/24	25.37% (91.01%)
PRC-024-4 <sup>11</sup>		61.73% (91.51%)
Implementation Plan		37.5% (91.14%)
<i>Second Draft</i>		
PRC-029-1	6/18/24-7/8/24	35.45% (85.39%)
PRC-024-4		82.70% (85.98%)
Implementation Plan		48.59% (85.98%)
<i>Third Draft</i>		
PRC-029-1	7/22/24-8/12/24	<i>To be presented to the Board at the meeting</i>
PRC-024-4		
Implementation Plan		

Project 2023-02 Analysis and Mitigation of BES Inverter-Based Resource Performance Issues		
Proposed Standard	Comment/Ballot Date	Approval (Quorum)
<i>First Draft</i>		
PRC-030-1	3/25/24-4/18/24	21.19% (93.12%)
Implementation Plan		30.6% (93.14%)
<i>Second Draft</i>		
PRC-030-1	6/7/24-7/10/24	31.44% (81.95%)
Implementation Plan		41.5% (81.65%)
<i>Third Draft</i>		
PRC-030-1	7/22/24-8/12/24	<i>To be presented to the Board at the meeting</i>
Implementation Plan		

## Summary

Should the third or fourth drafts of the proposed Order No. 901 Milestone 2 Reliability Standards PRC-028-1, PRC-029-1, or PRC-030-1 fail to achieve the requisite ballot body approval during the ballots ending August 12, 2024, it is exceedingly unlikely that NERC will be able to complete the development of these standards using the usual standard development process so that they may be filed with FERC by the November 4, 2024 deadline. This is true, even with the procedural waivers granted by the Standards Committee.

Section 321 of the NERC ROP is a long-standing provision, first developed in 2010 and revised in 2023, that provides special rules for developing Reliability Standards where the ballot body has failed to approve a proposed Reliability Standard that contains a provision to adequately address a specific matter identified in a directive issued by an Applicable Governmental Authority (e.g., FERC).

Should any of the above-listed standards responsive to the FERC Order No. 901 Milestone 2 directives fail to achieve the required ballot body approval during this most recent posting, NERC Management recommends that the Board initiate the special process described in Sections 321.2 – 321.4 of the NERC Rules of Procedure. As the matters are complex and highly technical in

<sup>11</sup> The revisions in proposed PRC-024-4 are limited in nature, intended to reflect the creation of a new standard, PRC-029-1, to specify ride-through requirements for IBR.

nature, the provisions of Sections 321.2 – 321.4 are the most likely to result in the timely development of proposed standards that both address the FERC directives and are just, reasonable, not unduly discriminatory, and in the public interest.

NERC management recommends that the Board initiate this special process only for the standards that fail to achieve the required ballot body approval; the standards that do achieve the required ballot body approval should proceed through the usual process.

Under the special rules of Sections 321.2 – 321.4, the Standards Committee, with NERC staff, would convene a public technical conference to discuss the issues surrounding the FERC Order No. 901 Milestone 2 directives and the proposed standard(s), prepare a memorandum summarizing the issues and alternatives considered, use the input from the technical conference to revise the standard(s), and re-ballot the standard(s) one additional time. This process must be completed within 45 days of the date of the Board's action, which would be Monday, September 30, 2024.

If the ballot(s) achieve at least an affirmative two-thirds majority vote of the weighted Segment votes cast, the standard(s) would be deemed approved by the ballot pool and submitted to the Board for consideration.

If the ballot(s) pass with at least a 60% affirmative majority vote of the weighted Segment votes cast, but less than two-thirds, the Board may consider adopting the standards following a public comment period and consideration of the developmental record, comments received, and the results of an optional second technical conference.

### **Pertinent FERC Directives**

- [FERC Order No. 901](#)
- [NERC – Standards Development Mapping of FERC Order No. 901 Directives and Other Guidance to Standards Development Projects, Draft SARs, and Pending SARs](#)

### **Additional Information**

A link to the project histories and files is included here for reference:

- [\[Project 2021-04 Modifications to PRC-002 – Phase II\]](#)
- [\[Project 2020-02 Modifications to PRC-024 \(Generator Ride-through\)\]](#)
- [\[Project 2023-02 Analysis and Mitigation of BES Inverter-Based Resource Performance Issues\]](#)

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

Agenda Item 4

## Section 321 of the NERC Rules of Procedure: Special Rule to Address Order No. 901 Directives for the Work Plan Milestone 2 Projects

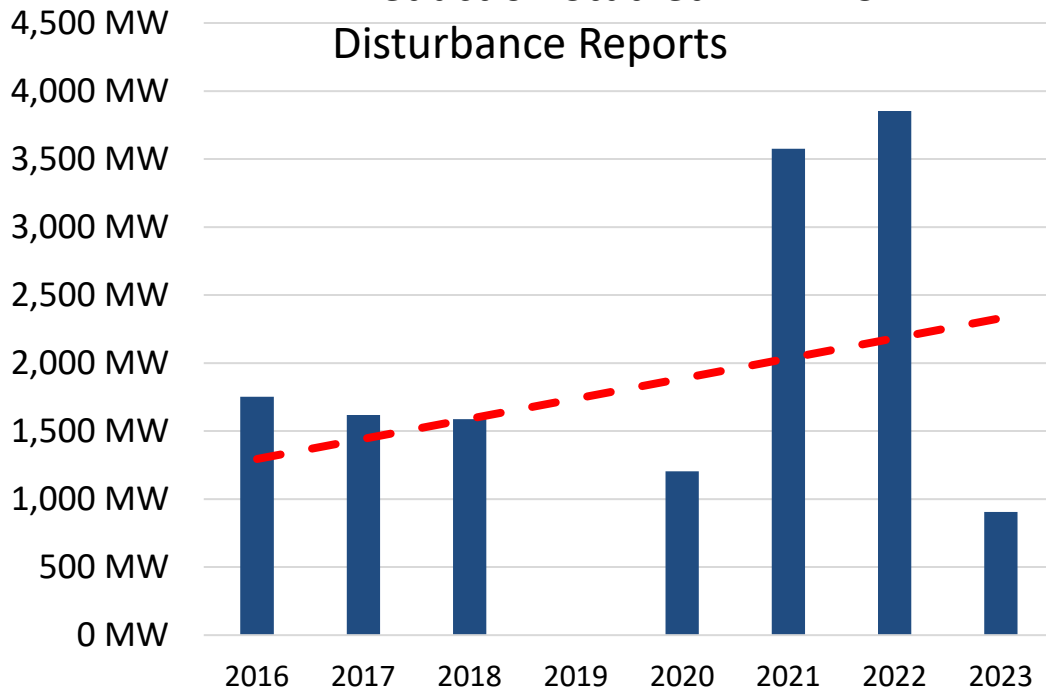
Soo Jin Kim, Vice President of Engineering, Standards, and PRISM  
Regulatory Oversight Committee Open Meeting  
August 14, 2024

RELIABILITY | RESILIENCE | SECURITY





## IBR MW Reduction Studied in NERC Disturbance Reports





**1**

**COMPLETED  
JANUARY  
2024**

Order No. 901 Work Plan  
submission

**2**

**DUE  
NOVEMBER 4,  
2024**

Standards development and filing to  
address performance requirements  
and post-performance validations for  
Registered IBRs

**3**

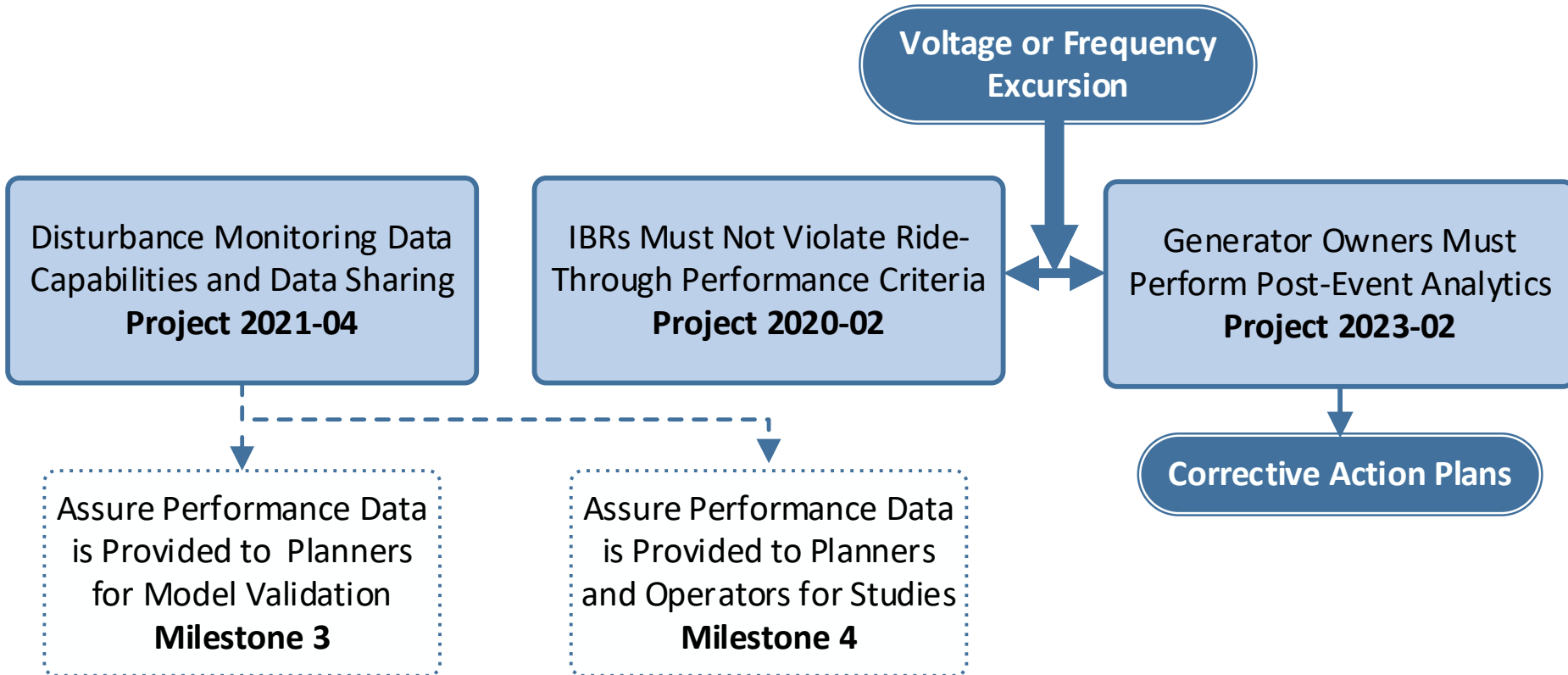
**DUE  
NOVEMBER 4,  
2025**

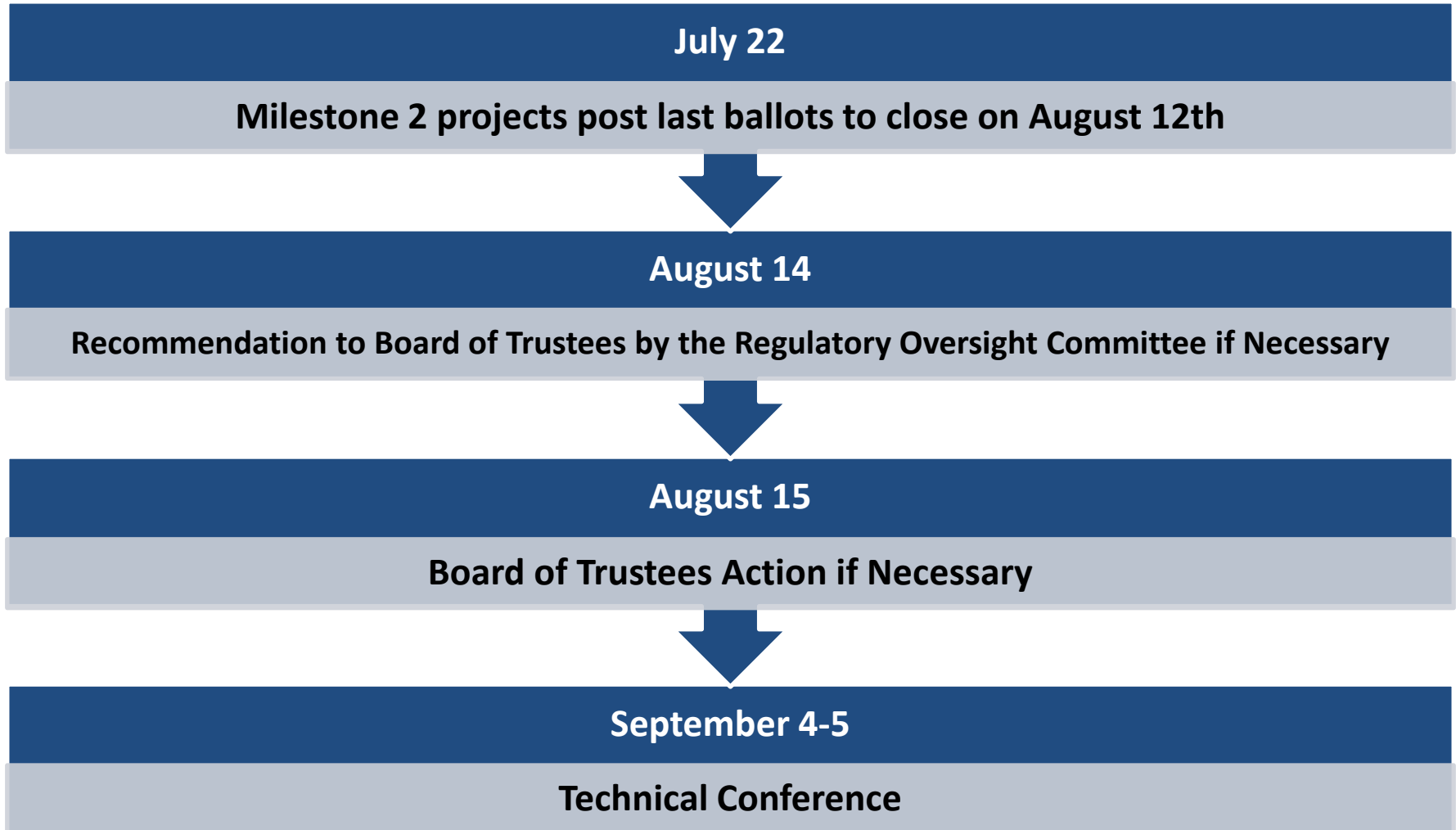
Development and filing of Reliability  
Standards to address data sharing  
and model validation for all IBRs

**4**

**DUE  
NOVEMBER 4,  
2026**

Development and filing of Reliability  
Standards to address use of  
performance data in Operational and  
Planning studies





**October 9**

**Board of Trustees Call**



**November 4**

**File Adopted Standards**

## July: Outreach

- July 22nd - Ballot Opens and July Trades Meeting

## August: Board Action

- August 12- Ballot Closes
- August 15- Board Must Determine 321 Path if Ballot Fails Based on Recommendation by the Regulatory Oversight Committee

## September: Technical Conference

- September 4-5- Technical Conference

A map of North America is shown in a light blue color. A darker blue horizontal band runs across the middle of the map, partially obscuring the United States and southern Canada. The text "Questions and Answers" is centered within this band.

# Questions and Answers

## **Align History, Governance, and Maturity**

### **Action**

Update

### **Background**

The Align project launched in 2017 with the purpose of providing a single, common technology platform for the ERO Enterprise Compliance Monitoring and Enforcement Program (CMEP). Formerly known as the CMEP Technology Project, the Align project requires a robust structure to ensure any continued investment provides business value across the ERO Enterprise, including adherence to the benefits as described in the [approved business case](#). That structure uses input and feedback from users across the ERO Enterprise and the industry.

Over the course of 2021 through 2023, the ERO Enterprise launched Align Releases (R) 1, 2, 3, 4, and 4.5. The releases included Self-Reports, Self-Logs, Mitigation, Technical Feasibility Exceptions, Periodic Data Submittals, Attestations, compliance monitoring functionality (e.g., Audit, Spot Checks, Self-Certifications), Inherent Risk Assessments, and Compliance Oversight Plans.

In early 2023, the Align Governance model shifted from the Align Steering Committee to the Operations Leadership Team (OLT), as all the releases were implemented. Pursuant to the governance model explained below, the ERO Enterprise and industry continuously evaluate Align and the Secure Evidence Locker (SEL) for enhancements.

### **Summary**

Align and the SEL require a robust structure to ensure any continued investment provides business value across the ERO Enterprise. As depicted below, that structure uses input and feedback from users across the ERO Enterprise and industry.

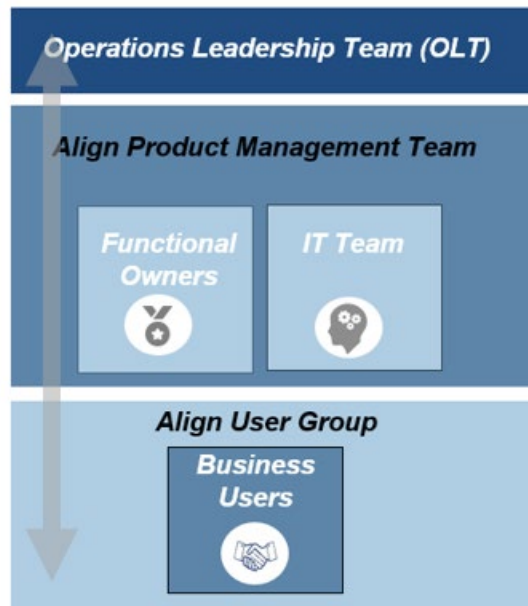
The Align governance model is comprised of executive oversight, technical leadership, and program execution from NERC, the Regional Entities, and industry.<sup>1</sup> The governance model includes the following groups.

### **Operations Leadership Team**

The Operations Leadership Team (OLT) is part of the ERO Enterprise governance model. The OLT charter governs its membership. This group provides governance and oversight of the CMEP, Align and SEL. Some of the OLT's responsibilities include providing executive direction and oversight, defining the Align and CMEP vision, and providing strategic alignment to product teams. The OLT members have representation from Regional Entity and NERC leaderships.

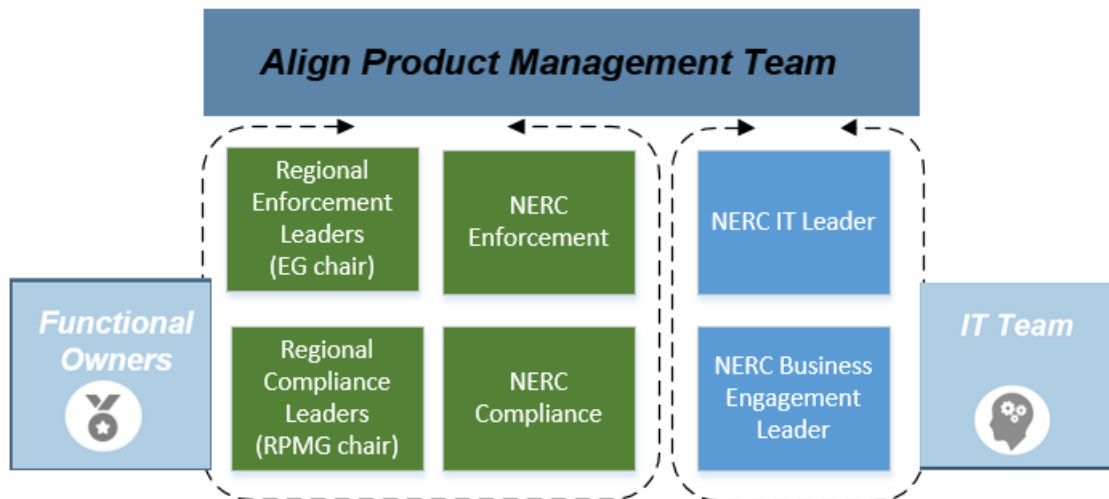
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<sup>1</sup> See [Align Project Governance Model V1.7 – March 2022](#).



**Product Management Team**

The Align Product Management Team works to enable the Align tool and SEL to support the CMEP. The Align Product Management Team is comprised of NERC and ERO Enterprise business functional owners as well as NERC IT to ensure the Align and SEL tools support the CMEP. The representation comes from the Enforcement Group (EG), the Risk Performance and Monitoring Group (RPMG), and NERC.



**Align User Group**

The Align User Group (AUG) represents ERO Enterprise and industry stakeholder end users of the Align tool and SEL. It provides recommendations on functionality and related business processes for an efficient and effective CMEP. The group provides strategic advisory input for consideration within the overarching structure of the Align and SEL tools.

Industry stakeholder input is provided via representatives of the Compliance Certification Committee (CCC). The NERC Board of Trustees (Board) charges the CCC to engage with, support, and advise the Board regarding NERC’s implementation of the CMEP, and its structure and



charter support its ability to develop and deliver strategic advisory input to the ERO Enterprise. The CCC membership includes all industry sectors.

### **NERC's Information Technology Leadership**

NERC's Information Technology (IT) Leadership provides expertise in the areas of application development, business analysis, project management, infrastructure, cyber security, and support. This team will also receive input and expertise from industry on cyber security matters via the Security Advisory Group. This group is an advisory body established by NERC management to provide industry leadership, expertise, advice, and support to NERC management in its efforts to maintain the confidentiality, integrity, and security of sensitive industry information stored or otherwise processed by NERC. The Cyber Security Advisory Group operating model is outlined in a separate document.

### **Governance Interaction**

The interaction among the groups is crucial to the success of Align and the SEL. This interaction includes:

- The AUG will provide advice and user perspective as inputs to the Align Product Management Team, particularly related to product backlog of ideas, defects, and future enhancements.
- The Product Management Team (PMT) will receive, review, and assess the backlog. This team will prioritize the backlog against the strategic vision for Align and the SEL. The backlog items may turn into projects managed by the NERC IT Project Management Office (PMO) and put into the NERC IT Planning Cycle. This cycle will determine the timing, resources, and budget available for the release.
- At least quarterly, the AUG chairs and Align Product Management Team will meet to discuss the backlog, requested enhancements, and prioritization of enhancements. These meetings will provide the AUG with the opportunity to share details regarding the backlog items, reason for the request/change(s). During these meetings, the Align Product Management Team can ask questions about the want vs. need vs. impact of the backlog items, as well as impact to tool functionality and overall tool use/production.
- Separate quarterly Align Product Management Team meetings will occur to approve a final list of backlog items to move forward. Consultation with NERC IT and AUG chairs will take place as needed.
- The AUG sessions and the quarterly Align Product Management Team meetings will result in a prioritized list of Align and SEL product improvements for approval by the OLT.
- The NERC IT PMO will serve as the liaison between the Align Product Management Team and the OLT to facilitate NERC IT Project Governance and project communications, including updates, issues, risks, and required decisions. NERC evaluates releases with significant budget impact in accordance with the project governance processes, which may include a business case to support significant investments.

### **Align / SEL Maturity**

Both Align and the SEL follow the same maturity journey as most enterprise-level solutions. These solutions are typically managed as a program, encompassing not only application development but also governance, change management, training, data management, operational support, and other aspects that constitute an ecosystem surrounding the solution itself. Within that program,

there is a natural evolution of the application as more capabilities are leveraged to deliver optimized software.

The process for maturing Align and the SEL provides for continuous improvements while having the flexibility to scale based on investment. Additionally, re-prioritization is ingrained into the process, so as the needs of the business change the evolution of the solution can evolve accordingly.

Representatives from the PMT and AUG will provide an overview of the governance model, Regional Entity perspective, industry perspective, and an overview of Align/SEL maturity.

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

Agenda Item 5

# Align History, Governance, and Maturity

Justin Lofquist, Director, Enterprise Application Architecture, NERC

Matt Thomas, Director, Compliance Monitoring, ReliabilityFirst

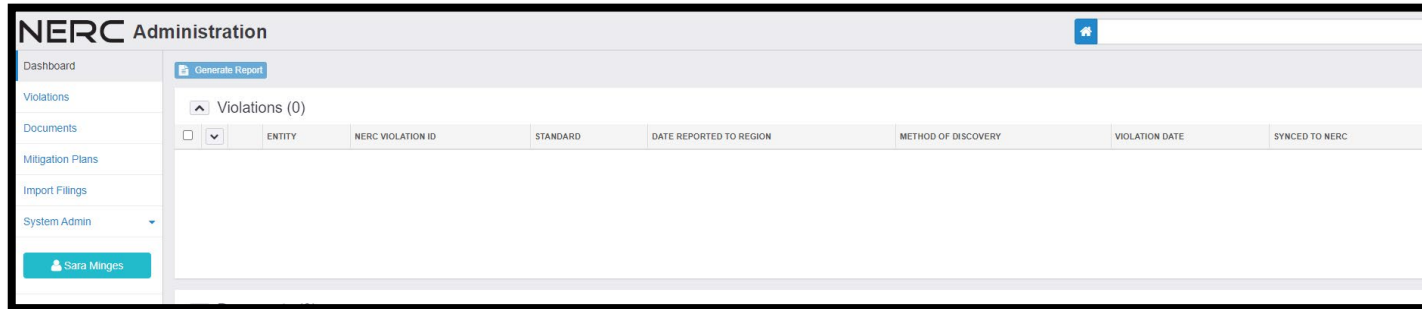
Scott Tomashefsky, Manager, Regulatory Affairs, NCPA

Regulatory Oversight Committee Open Meeting

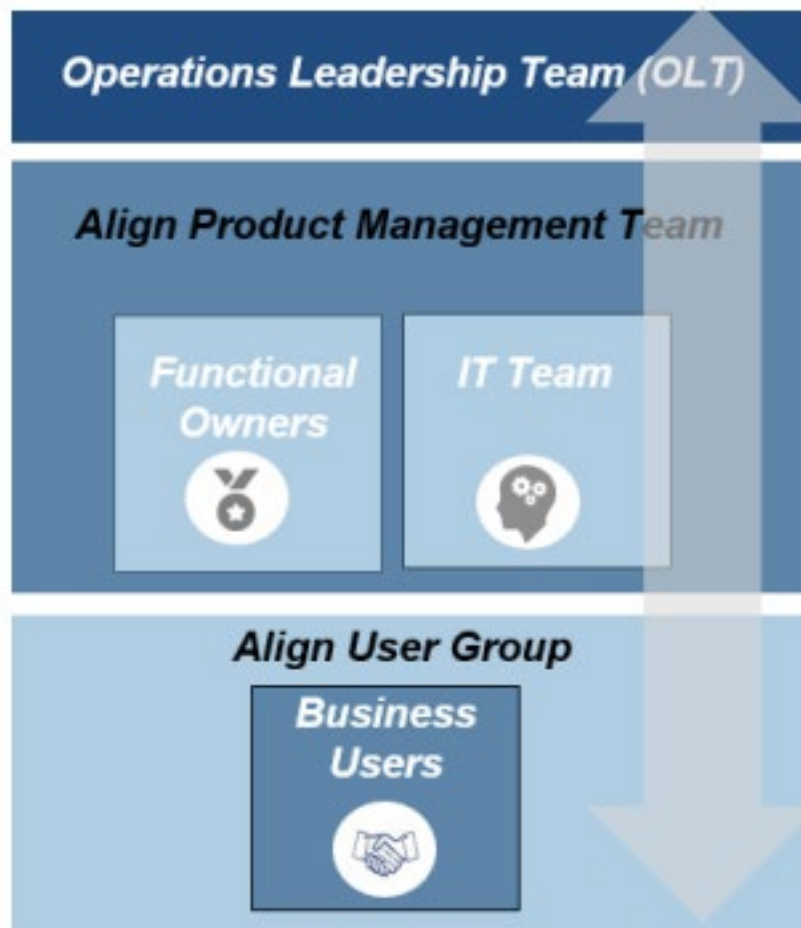
August 14, 2024

**RELIABILITY | RESILIENCE | SECURITY**

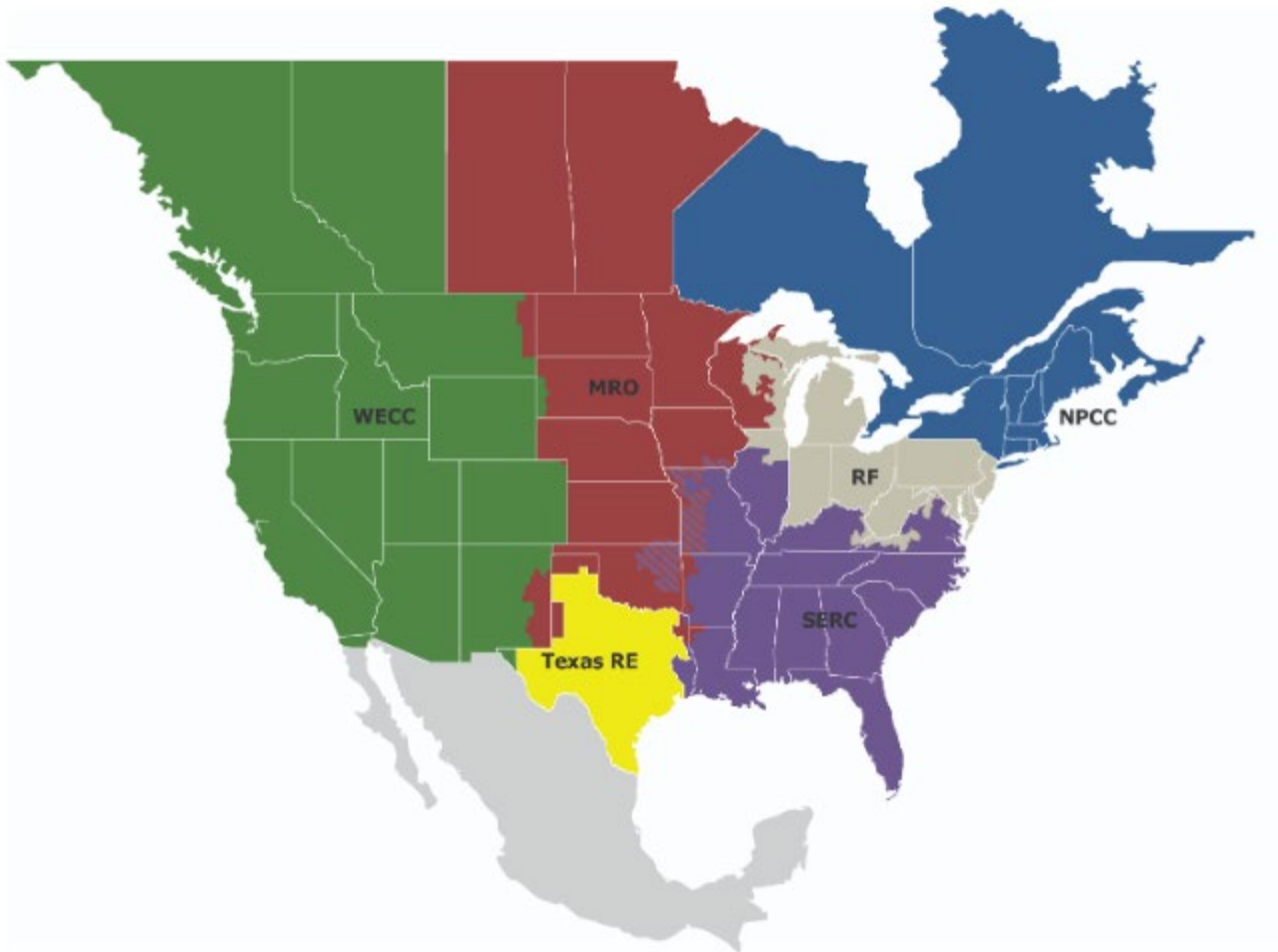




# Align Governance



# Regional Entity Perspective



*Align User Group  
 3 CCC Members  
 Other SMEs invited  
 (Held Quarterly)*

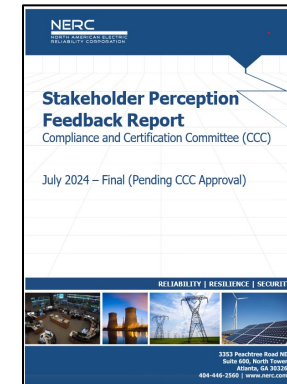
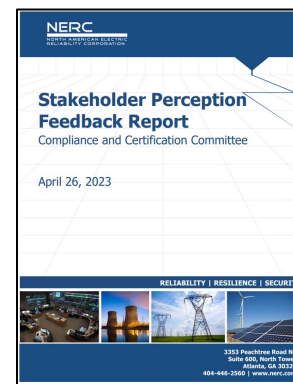
*CCC Focused  
 Discussions  
 (Included as Part of Q4  
 CCC Meetings)*

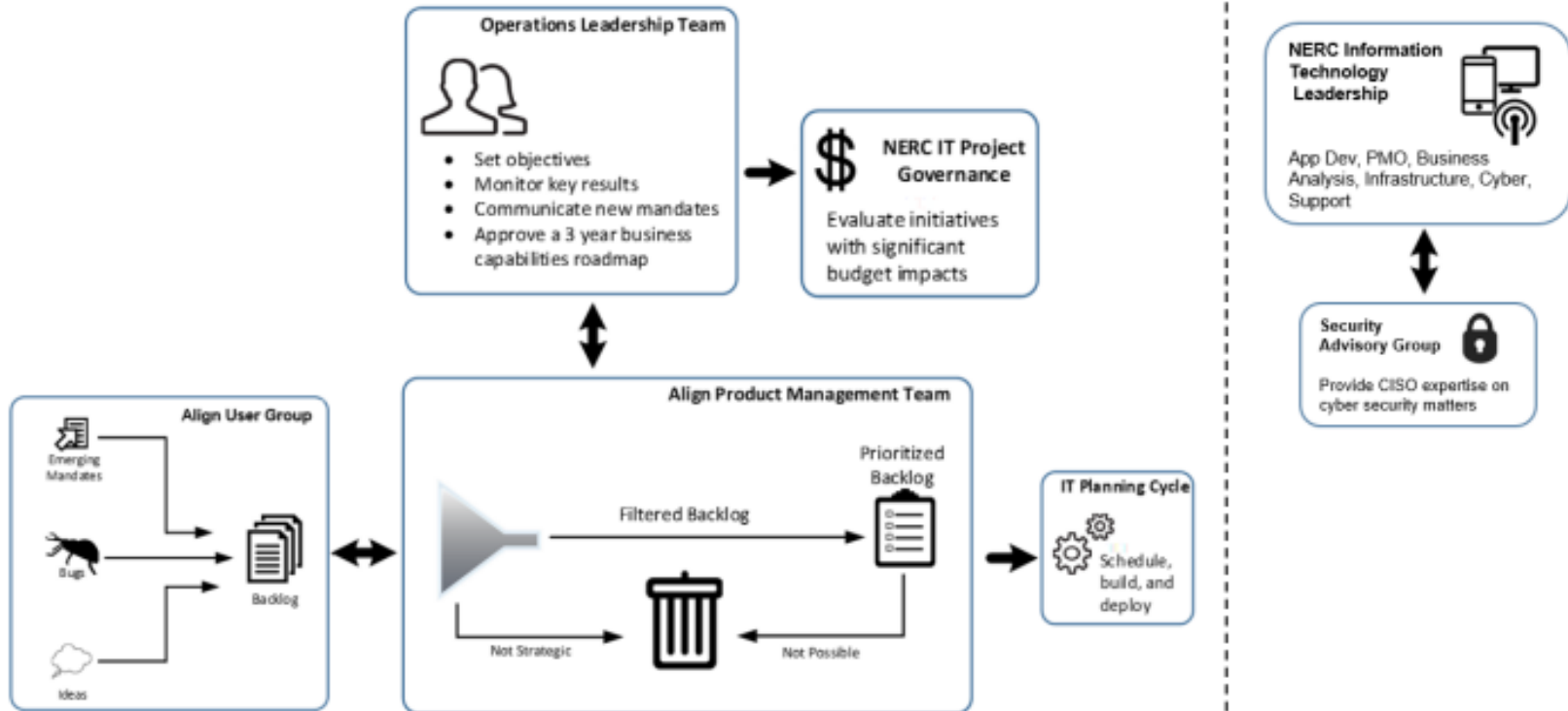
*Align Team Industry  
 Outreach Sessions  
 (Held As Needed,  
 Generally Monthly)*

*NERC Hotline  
[askalign@nerc.net](mailto:askalign@nerc.net)*

## General Observations

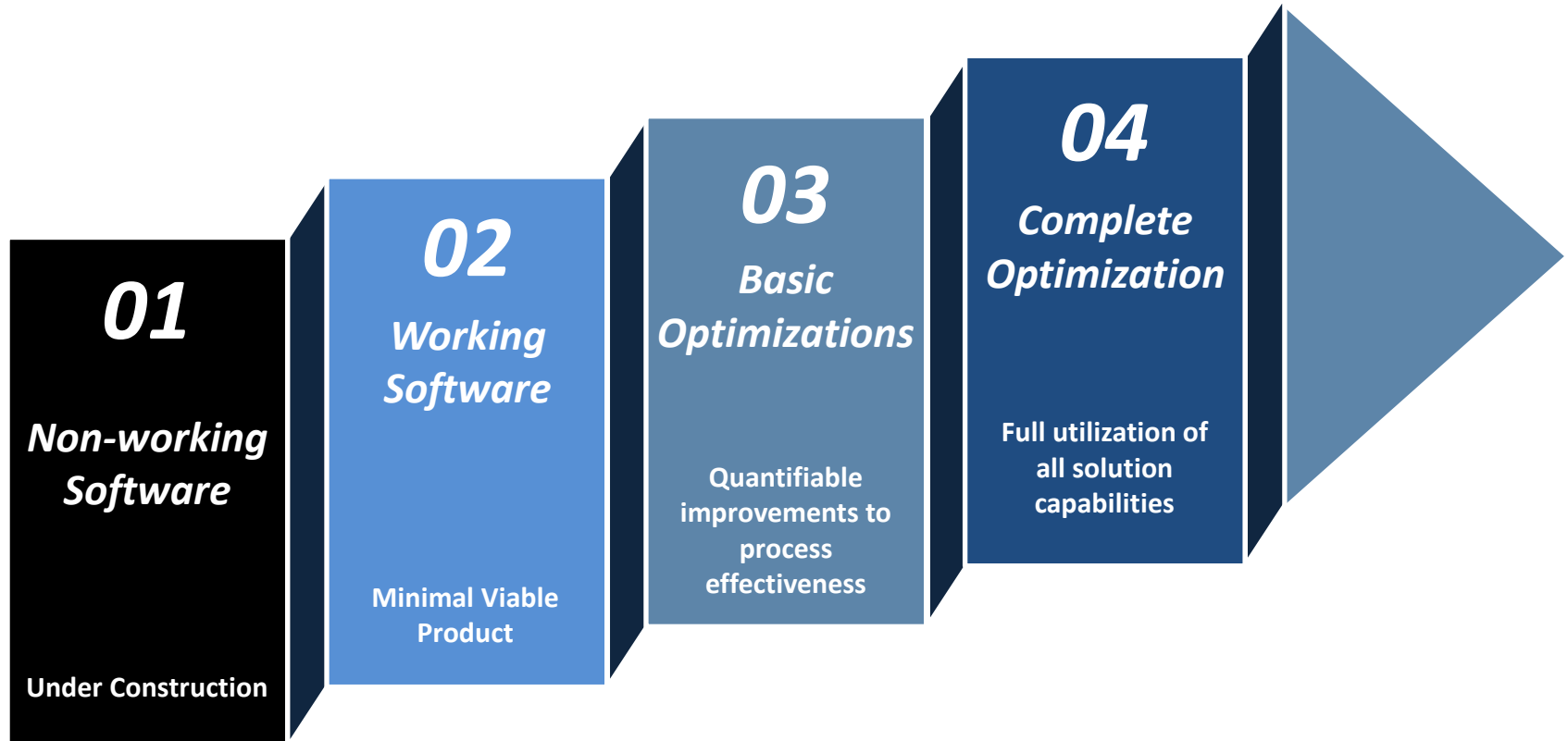
- Align and SEL tools continue to mature.
- Align Users Group has been open to feedback from industry and continues to make improvements.
- Transparency on issue status and resolutions has improved.
- Earlier and additional opportunities for communication and training on Align would be helpful.







# Align/SEL Maturity





# Questions and Answers

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

Agenda Item 6a

# Compliance Monitoring and Enforcement Program and Organization Registration and Certification Program Mid-Year Report

August 14, 2024

RELIABILITY | RESILIENCE | SECURITY



3353 Peachtree Road NE  
Suite 600, North Tower  
Atlanta, GA 30326  
404-446-2560 | [www.nerc.com](http://www.nerc.com)



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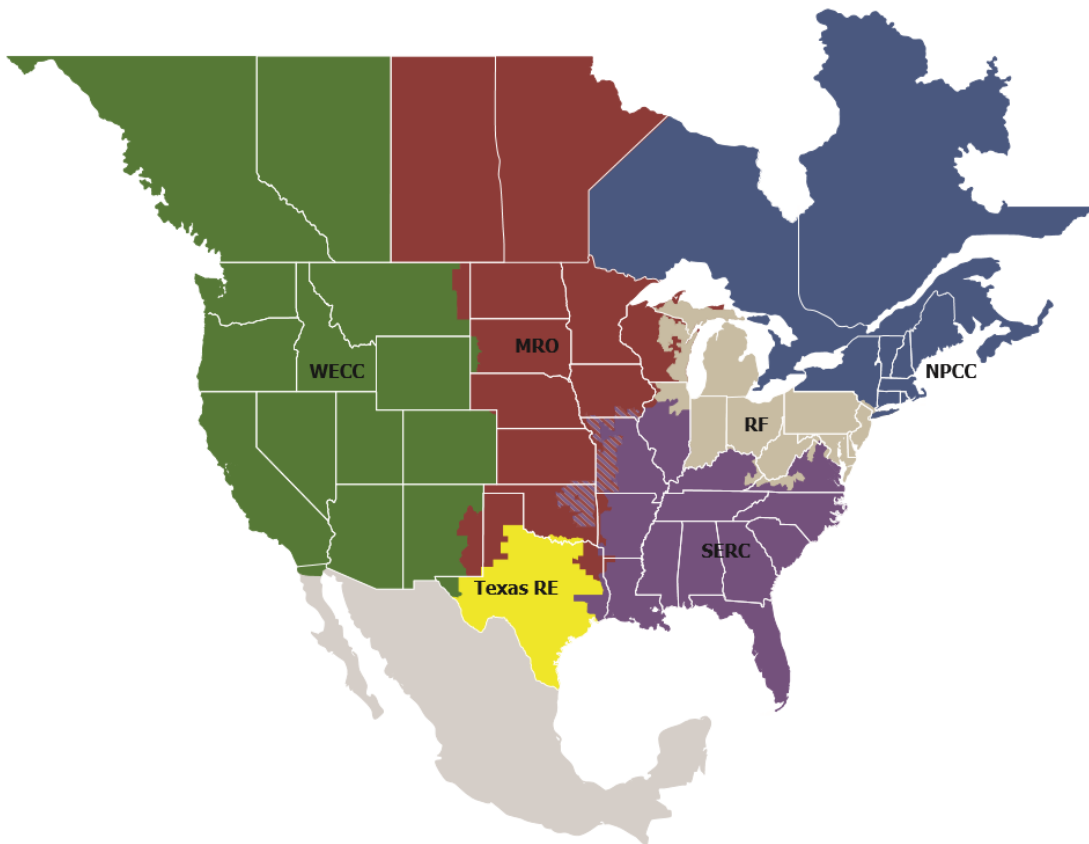
# Preface

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Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the six Regional Entities, is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Reliability | Resilience | Security  
*Because nearly 400 million citizens in North America are counting on us*

The North American BPS is made up of six Regional Entity boundaries as shown in the map and corresponding table below. The multicolored area denotes overlap as some load-serving entities participate in one Regional Entity while associated Transmission Owners/Operators participate in another.



<b>MRO</b>	Midwest Reliability Organization
<b>NPCC</b>	Northeast Power Coordinating Council
<b>RF</b>	ReliabilityFirst
<b>SERC</b>	SERC Reliability Corporation
<b>Texas RE</b>	Texas Reliability Entity
<b>WECC</b>	Western Electricity Coordinating Council

## Executive Summary

---

This report highlights key ERO Enterprise<sup>1</sup> Compliance Monitoring and Enforcement Program (CMEP) and Organization Registration and Certification Program (ORCP) activities that occurred in the first half of 2024 and provides information regarding those activities. NERC now issues two CMEP and ORCP Reports each year, releasing the Annual CMEP and ORCP Report in February and the Mid-Year CMEP and ORCP Report in August in order to enhance the usefulness of these reports to industry.<sup>2</sup>

In Q1 and Q2 2024, CMEP and ORCP activities throughout the ERO Enterprise reflected a focus on oversight activities and a continued implementation of a risk-based approach that has enabled the ERO Enterprise to focus resources on risks to the reliability of the BPS and risks specific to Registered Entities. In the first half of 2024, the ERO Enterprise:

- Completed the development of the work plan for Inverter-Based Resources and are working towards implementation;
- Conducted outreach through the use of small group advisory sessions and one-on-one sessions with Regional Entities to assist with the implementation of the Extreme Cold Weather Preparedness and Operations Standards;
- Solicited feedback from the Compliance and Certification Committee and Align User Group chairs in order to enhance Align and SEL functionality;
- Developed a common approach for evaluating Internal Controls and are piloting an activity to capture lessons learned before implementation;
- Conducted oversight of Regional CMEP and ORCP programs to ensure consistency and effectiveness;
- Received independent audit results for the NERC ORCP Audit and developed management action plans in response;
- Developed a consistent access management process and effective controls for data retention in Align and SEL;
- Conducted training for CMEP staff.

---

<sup>1</sup> The “ERO Enterprise” refers to the affiliation between NERC and the six Regional Entities for the purpose of coordinating goals, objectives, metrics, methods, and practices across statutory activities. The operation of the ERO Enterprise does not conflict with obligations of each organization through statutes, regulations, and delegation agreements. The activities discussed in this report relate to compliance monitoring and enforcement performed in connection with United States Registered Entities. A high-level discussion of Oversight of CMEP activities in Canada is included in Chapter 2.

<sup>2</sup> NERC’s prior practice has been to issue a Quarterly CMEP and ORCP Report for Q1 through Q3 and then an Annual CMEP and ORCP Report. In 2023 and beyond, NERC will issue a Mid-Year Report, covering Q1 and Q2, and an Annual Report, covering Q3 and Q4 and summarizing the entire year.

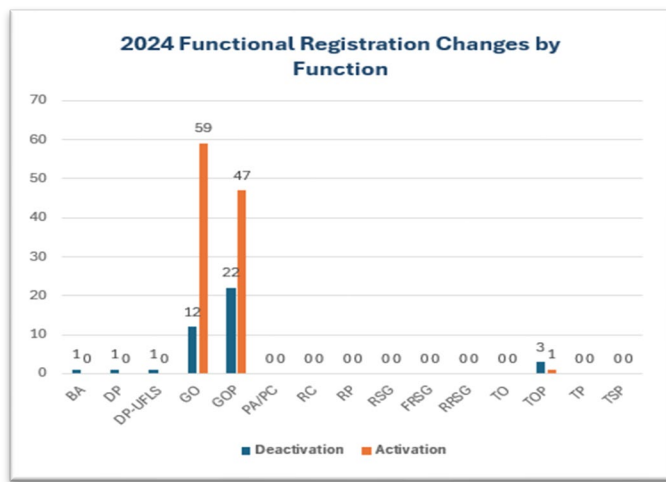
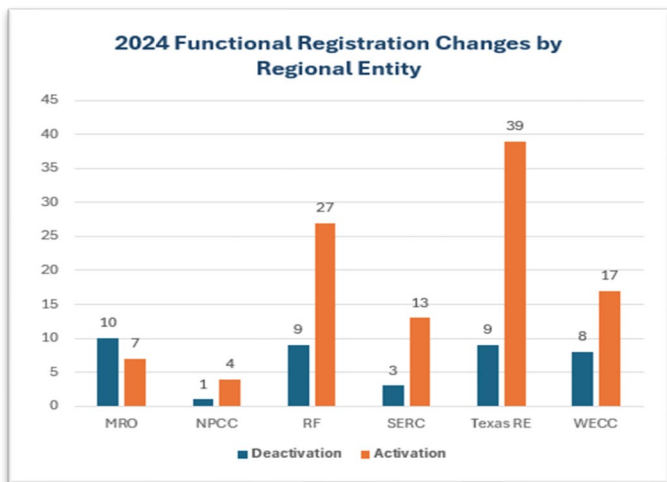
# Chapter 1: ORCP and CMEP Activities in 2024

## ORCP Activities

### Registration Changes

Registration of GO and GOP entities continues to dominate the activity in this functional area. There are an accompanying number of deactivations of these same functions, indicating the purchase and sale of existing assets. The registration changes in other functions are reflected by much smaller numbers.

In the first half of 2024, the ERO Enterprise saw similar volume of registration changes relative to this time last year (147 in total, consisting of 107 additions and 40 deactivations), with a majority of changes involving the GO and GOP functions.



**Figure 1: Functional Registration Changes by Regional Entity (Q1 and Q2 2024)**

**Figure 2: Functional Registration Changes by Function (Q1 and Q2 2024)**

### Registration of Inverter-Based Resources

Earlier this year, the NERC Board of Trustees approved proposed modifications of the registration criteria for Generator Owners and Generator Operators to include Inverter Based Resources (IBR). NERC subsequently filed those proposed changes with FERC, requesting an expedited review. On June 27, 2024, FERC issued an order approving NERC’s proposed modifications, as discussed in more detail in the NERC Filings and FERC Orders of Note section below.

NERC, in collaboration with Regional Entities, issued a Request for Information (RFI) which was sent to registered Transmission Owners and Balancing Authorities, asking for information, including contact information, related to IBR-based resources which are connected to their respective systems. This RFI was distributed after the proposed ROP registration changes were approved by FERC. The purpose of this RFI is to enable more robust outreach by the ERO Enterprise to those entities which have not been subject to mandatory standards and are less familiar with these accompanying responsibilities.

### Section 800 Data Request Regarding Cross-Border Operation of Bulk Power System Elements

In Q4 2023, NERC issued a Section 800 data request (DR) to the registered Generator Owners, Generator Operators, Transmission Owners, and Transmission Operators. The purpose of this assessment is to evaluate the extent to which elements that support the reliability of the United States’ Bulk Power System (BPS) are managed or controlled from

a remote location, outside the United States. In 2024, NERC has continued analyzing this large data submittal with potential follow up to come at a later date.

### **Certification Completions**

During the first half of 2024, two full certifications have been completed, with one remaining in-progress. Four full certification activities are being evaluated and have yet to be scheduled.

ERO Enterprise staff completed five certification reviews of already certified and operational entities. To date in 2024, ERO Enterprise staff have nine certification reviews that are in-progress. Twelve reviews are anticipated, or waiting on further information from Registered Entities, before reviews can be planned in more detail.

### **Certification Accomplishments**

In Q1 2024, NERC updated the templates used for certification activities that are posted on the NERC public webpage. The CCC audit results for the certification program, as well as results NERC's oversight of how the Regional Entities implement the certification program, are leading to internal process changes involving scheduling and record keeping.

## **CMEP Activities**

### **Align and SEL**

The ERO Enterprise is committed to CMEP effectiveness and invests in the Align and SEL tools to improve security, automation, efficiency, harmonization, and consistency. In 2024, the ERO Enterprise is utilizing the [Align Governance Model](#) to support and improve the impact of these tools on the entire CMEP program, fostering collaboration on functionality, business value, and integration with existing CMEP committees.

NERC uses the Align and the Secure Evidence Locker webpage to communicate information on status of the systems, upcoming outages, links to important documentation, and Release Notes.<sup>3</sup>

In the first half of 2024, Align and SEL key initiatives included enhancements to release deployments, stakeholder discussions for prioritized Align and SEL feedback, and updates to a number of Align User Guides.

### **Release Deployments**

The ERO Enterprise deployed three Align releases and one SEL release in the first two quarters of 2024 (Align Release Align 6.0.0, Align Release 6.1.0, Align Release 7.0.0, and SEL Release). The Align releases addressed several module improvements for the Align system, including Enforcement, Mitigation, IRAs, COPs, Audits and Spot Checks, Self-Certification, PDS, Technical Feasibility Exceptions, Internal Controls Assessments, and Request for Information functionality across several areas. The SEL release included updates for CEA users, expanding the reference ID field on the SEL submission portal page for entities; creation of a failed submission notification email to entities; and the inclusion of the validation reference ID in the submission confirmation email to entities. Detailed descriptions of changes related to each release are available in the corresponding Release Notes on the Align and SEL webpage (under Release Materials).

In the Release 6.0.0, the modifications include, but are not limited to, the following: validation updates for Canadian functionality; portlet updates to show statuses or information; updates on permissions associated to printing reports from Align forms; updates to the CMEP Activity Search module for CEA users; new columns added for Registered Entity users to better manage their work; correction to IRA and COP functionality; ability for Registered Entity to flag where evidence has been uploaded on PDS submittals; ability to issue RFIs earlier in process for PDS/Self-Certifications; ability to document Areas of Concerns, Recommendations, and Positive Observations on PDS/Self-Certifications; updated versions of Standards in the TFE module; and updates on attestation data fields.

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<sup>3</sup> Align and SEL Resource Center, available at <https://www.nerc.com/ResourceCenter/Pages/Align-SEL.aspx>.



In the Release 6.1.0, the modifications include, but are not limited to, the following: corrections to the SEL Reference IDs generated in Align forms; updates for ERP Questionnaires (specific to NERC administration); fixes for filtering and sorting throughout all modules; corrections to the RFI recipient lists and updates to the emails related to RFIs issue from Enforcement, Mitigation, Periodic Data Submittals, Self-Certification, and Technical Feasibility Exceptions.

In the Release 7.0.0, the modifications include, but are not limited to, the following: notifications for dispositions; improved CEA ability to move mitigation record activities between Complete and Verification status; improvements to Periodic Data Submittals; updates to creating Self-Certification distributions; enhancements for CEAs to identify Findings as part of Self-Certification reviews; ensuring PDS and Self-Certification responses are not blank before the entity submits the activity for CEA review; and consolidating Self-Certification responses to the requirement rather than by requirement part.

### **Individual Regional Entity and CCC Discussions for Prioritized Align Feedback**

In October 2023, the Align User Group (AUG) chairs initiated individual meetings with each Regional Entity and CCC representatives to discuss feedback with using Align, focusing on their input related to efficiency, work arounds, pain points, and showstoppers within Align and SEL. These discussions have continued regularly throughout 2024 with two meetings occurring in 2024. The purpose of these meetings is to provide subject matter experts (SMEs) the ability to provide real-time feedback on the current usage of Align and SEL so that the SMEs can identify potential focus areas for future prioritization discussions with the AUG and Product Management Team. These meetings help the ERO Enterprise with prioritizing potential improvements to the Align experience. Further, based on feedback from these meetings, as well as feedback from Regional Entities as the 2024 CMEP Annual Workshop, the AUG chairs will plan refresher training to be conducted in Q3 and Q4 of 2024 for Registered Entity and Regional Entity staff.

### **Updated Align User Guides**

In Q2 2024, NERC published updated Align User Guides for CEA (Regional Entity) and Registered Entity user roles. The Align User Group solicited User Group updates in Q4 2023.

The Release 4.5 User Guides, specific to Inherent Risk Assessment and Compliance Oversight Plan modules in Align, were updated to address typos, new screenshots to reflect updated functionality, detailing and clarifying various steps, and adding a Revision History table to capture future edits.

### **CMEP Feedback to Standards**

The ERO Enterprise recognizes the importance of providing compliance experiences and practices to assist in evaluating the efficacy of the Standards in supporting continued safe, secure, and reliable operations. The ERO Enterprise continues to support Standard Drafting Team projects, including those related to previously provided feedback including CIP-002, FAC-008, CIP-014, CIP-008, and the proposed Requirements within the CIP Reliability Standards regarding Internal Network Security Monitoring.

Additionally, in 2024 the ERO Enterprise is providing feedback on Interconnection Reliability Operating Limits and Inverter-Based Resources.

### **Interconnection Reliability Operating Limits**

In late 2021, the ERO Enterprise initiated an activity to review Reliability Coordinators (RC) Interconnection Reliability Operating Limit (IROL) methodologies. This review included all RCs in the United States as well as several RCs from Canada. This activity was designed to evaluate consistency among the RCs in the criteria used to identify and operate to IROLs. The team expects to publish the report in Q3.

## **Inverter-Based Resources**

In Order 901,<sup>4</sup> FERC directed NERC to modify several Standards to better address Inverter-Based Resources (IBRs). These drafting projects impact BES IBRs as well as non-BES IBRs that NERC is currently has a workplan for addressing. NERC Compliance Assurance staff is working closely with NERC Standards staff to use the appropriate tools to provide purposeful and staggered dates when entities will need to begin complying with those modified Standards.

## **Small Group Advisory Sessions**

On May 6, 2024, the ERO Enterprise hosted a webinar for Registered Entities preparing to implement the Extreme Cold Weather Preparedness and Operations Standards. The webinar was attended by approximately 500 individuals and covered compliance monitoring approaches and questions from Registered Entities pertaining to EOP-012-2, EOP-011-4 and TOP-002-5.

The ERO Enterprise then hosted one-on-one sessions with Registered Entities discussing their specific questions and sharing compliance monitoring approaches to the Extreme Cold Weather Preparedness and Operations Standards. The ERO Enterprise hosted 26 of these sessions from May 7-10, 2024, which included Registered Entities from every Regional Entity.

Based upon all the questions received during the general session and individual Registered Entity sessions, the ERO Enterprise developed responses to these questions and will publicly post a Frequently Asked Questions document.

## **Internal Controls**

The ERO Enterprise leverages a risk-based compliance monitoring and enforcement approach that considers internal controls when evaluating a Registered Entity's residual risk. Internal controls concepts are foundational and impact the assessment of reliability and security risk of a Registered Entity and extent of CMEP activities. These concepts were featured prominently during NERC's 2024 Spring CMEP workshop. Additionally, the ERO staff continue to collaborate on the development of tools and a common process for identifying, documenting and assessing internal controls during each CMEP activity. The ERO Enterprise has planned an activity to pilot key internal controls principles and capture lessons learned as a foundation for broader implementation.

## **CMEP Implementation Plan**

The risk elements in the 2024 CMEP Implementation Plan (CMEP IP) were similar to the 2023 risk elements that reflect the maturation of the risk-based approach to compliance monitoring. The changes included a new physical security risk element, and the expansion of the cold weather risk element to extreme weather which includes both hot weather and space weather events such as the solar storms seen during the month of May 2024. There were also changes in the requirements of certain Reliability Standards to enhance focus on those risk elements with the intent of ensuring that there is positive progress in those areas. Some of the most monitored standards such as EOP-011-2 R8, CIP-008-6 R2 and CIP-010-4 R1 reflect that focus. There will continue to be an analysis of standards monitored during engagements to verify that the areas of focus identified in the CMEP IP are showing up in those engagements to better measure the progress of our risk-based approach. Using data from Align should provide a lot of value as it relates to the maturation of the program and should ensure engagement with our Regional Entity partners as it relates to emerging and identified risks.

## **ERO Enterprise Training and Outreach**

In the first half of 2024, the ERO Enterprise provided numerous outreach opportunities to industry stakeholders and training to ERO Enterprise staff through workshops, monthly newsletters, assist visit programs, webinars, podcasts, and other events. These outreach events focused on a variety of topics, including – but not limited to – the following:

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<sup>4</sup> Reliability Standards to Address Inverter-Based Resources, Order No. 901, 185 FERC ¶ 61,042 (2023), available at [https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20231019-3157](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20231019-3157).

- CMEP’s role in risk mitigation
- BES risk perspectives
- Techniques for gathering and sharing information
- Risk identification
- Scope determination exercise
- Monitoring exercise
- Enforcement
- IBR Registration
- Align Oversight Activity results
- Align best practices

### **CMEP Workshop**

In April 2024, NERC conducted the Annual ERO Enterprise CMEP Staff Workshop in Atlanta. Over 270 ERO Enterprise CMEP staff attended the workshop. The theme for the 2024 workshop was “One CMEP” with continued focus on the transformation of the CMEP. The workshop included a NERC-led exercise with a strong focus on entity risk identification, scope determination, monitoring and enforcement. A key focus of the workshop was to understand BES risk perspectives and role of CMEP in risk mitigation. The workshop also covered topics that are essential to the successful implementation of risk-based compliance monitoring such as understanding the importance of internal controls, as well as techniques used for gathering and sharing entity information. Understanding entity practices and controls assists in ensuring a reliable and secure BPS and requires CMEP staff to ask questions that go beyond basic compliance. Having a clear understanding of practices and controls assists the ERO Enterprise in better understanding the risk an entity poses, how the entity may perform in the future, and provides valuable feedback to the entity. NERC staff provided information on IBR registration and how that will impact the CMEP role across the ERO Enterprise. NERC staff also provided results of the Align oversight activity which was conducted last year, and shared best practices for use of Align. To receive credit for specific sessions, and associated competencies, the attendees were required to demonstrate an understanding of the material by successfully completing learning assessments in the ERO Enterprise Learning Management System (LMS).

### **Training for Audit Team Lead, Certification Team Lead, and Compliance Investigator**

In May 2024, NERC staff conducted Team Member Training and Team Leader Training in accordance with Sections 402.9, 403.7.5, and 502.2.2.7, and Appendix 4C of the NERC Rules of Procedure. NERC conducted these sessions over one week concurrently with Certification Team Leader Training and Compliance Investigator Training. A total of 32 ERO Enterprise CMEP personnel attended these training sessions. To receive course credit, and certificate if applicable, the attendees were required to demonstrate an understanding of the material by successfully completing learning assessments in the ERO Enterprise Learning Management System (LMS). There are additional sessions of these courses that will be conducted in Q4 of 2024.

### **Program Alignment Process**

The NERC CCC Consistency Reporting Tool Task Force (CRTF) was formed in 2023 and supports the CCC’s role in assisting the ERO address consistency issues, as envisioned by NERC when the ERO Enterprise Program Alignment Effort was initiated in 2017. On May 22, 2024, NERC in collaboration with the CCC Consistency Reporting Tool Task Force, released a webinar to increase awareness of the ERO Enterprise Program Alignment Process and the associated [Consistency Reporting Tool](#). NERC implemented the Consistency Reporting Tool using a third-party application, EthicsPoint, which allows stakeholders to submit consistency issues—anonously, if desired. Following this webinar, there were three items submitted through the Consistency Reporting Tool during Q1 and Q2 of this year. Below is the short description of each item received.

1. Timing of the completion of Asset verification form
2. Validation of one and only one RC, BA and TOP through Asset verification forms
3. Audit schedule posting by the Regional Entities

The ERO Enterprise is currently reviewing to determine if a consistency issue exists, and what the appropriate recommendation would be, if necessary.

### **NERC Filings and FERC Orders of Note**

FERC issued an order in May 2023<sup>5</sup> approving NERC’s amended IBR registration work plan (“IBR Work Plan”).<sup>6</sup> In March 2024, NERC filed for FERC approval to update its ROP Registry Criteria to include a new category of Generator Owners (“Category 2 GOs”) and Generator Operators (“Category 2 GOPs”) that (i) either have or contribute to an aggregate nameplate capacity of great than or equal to 20 MVA, or (ii) are connected through a system designed primarily for delivering such capacity to a common point of connection at a voltage great than or equal to 60 kV.<sup>7</sup> As required by FERC, NERC submitted its IBR Work Plan quarterly progress update in May 2024, detailing next steps in identifying IBR facilities that could be candidates for registration under the proposed Registry Criteria pending approval by FERC.<sup>8</sup> NERC will continue providing quarterly updates to FERC on the IBR Work Plan. On June 27, 2024, FERC issued an order approving NERC’s proposed revisions to the Registry Criteria.<sup>9</sup>

In January 2024, NERC submitted a standards development plan (“Order No. 901 Work Plan”) that provides a detailed, comprehensive plan for how NERC will develop new or revised Reliability Standards to address FERC-identified reliability gaps related to IBRs.<sup>10</sup> NERC plans to submit Reliability Standards addressing each of the IBR-related reliability gaps in accordance with the three-year staggered timeframe directed by FERC. NERC will prioritize the development of responsive Reliability Standards on this timeline:

- Reliability Standards to address performance requirements and post-event performance validation for Registered IBRs by November 4, 2024;
- Reliability Standards to address data sharing and model validation for all IBRs by November 4, 2025; and
- Reliability Standards to address planning and operational studies requirements for all IBRs by November 4, 2026.

### **Other CMEP Activities**

#### **Facility Ratings Call to Action Update**

Because Facility Ratings play a significant role in planning and operating the BPS, the ERO Enterprise has been actively engaged in identifying and mitigating challenges associated with Facility Ratings programs. In November 2021, the ERO Enterprise shared its call to action to address potential risks associated with incorrect Facility Ratings. The call to action supports the development and sustainment of Registered Entity risk-based Facility Ratings programs and resolution of Facility Ratings noncompliance using existing tools. In the call to action, the ERO Enterprise committed

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<sup>5</sup> Order approving NERC IBR Work Plan, RD22-4, available at

[https://elibrary.ferc.gov/eLibrary/filelist?accession\\_num=20231128-3056](https://elibrary.ferc.gov/eLibrary/filelist?accession_num=20231128-3056)

<sup>6</sup> NERC IBR Work Plan as Amended on March 13, 2023, RD22-4, available at

[https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20230313-5249](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20230313-5249).

<sup>7</sup> NERC Proposed ROP Revisions regarding IBR Registry Criteria, RR24-2, available at

[https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20240319-5204](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20240319-5204).

<sup>8</sup> NERC IBR Work Plan Progress Update, RD22-4, available at

[https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20240510-5257](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20240510-5257).

<sup>9</sup> Order Approving Revisions to North American Electric Reliability Corporation Rules of Procedure and Requiring Compliance Filing, 187 FERC ¶ 61,196 (2024), available at [https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20240627-3033](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20240627-3033).

<sup>10</sup> NERC Informational Filing regarding the development of Reliability Standards responsive to Order No. 901, RM22-12, available at [https://elibrary.ferc.gov/eLibrary/filelist?accession\\_number=20240117-5076](https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20240117-5076).

to using a risk-based approach to examine all Registered Entities with FAC-008 obligations. Since then, the ERO Enterprise has completed a monitoring engagement or enforcement activity related to Facility Ratings for 100% of High and Medium Inherent Risk Generator Owners and Transmission Owners. The ERO Enterprise continues to process identified noncompliance involving Facility Ratings, has shared common themes of Facility Ratings noncompliance, and continues to monitor Facility Ratings as part of compliance monitoring engagements to ensure that the call to action results in sustainable Facility Ratings programs.

### CMEP Information and Trends

NERC has historically provided a variety of CMEP information in its quarterly, semiannual, and annual reports to highlight trends and other useful information to industry. In the charts below, NERC provides CMEP information showing (1) IRA/COP completion percentage; (2) compliance monitoring engagement by type; (3) inventory reduction in older noncompliance; (4) details regarding the volume, discovery method, and most frequently reported incoming noncompliance; (5) the risk and disposition method of filed noncompliance, the timing of mitigation completion, and levels of compliance history and aggravating compliance history for filed serious and moderate risk noncompliance.

### IRA/COP Completion

NERC continues to use risk based trends and oversight indicators to better inform CMEP processes. During the first half of 2024, there is positive trend of analysis of risk which is shown in the number of IRA/COP completed versus the audits planned for that period.

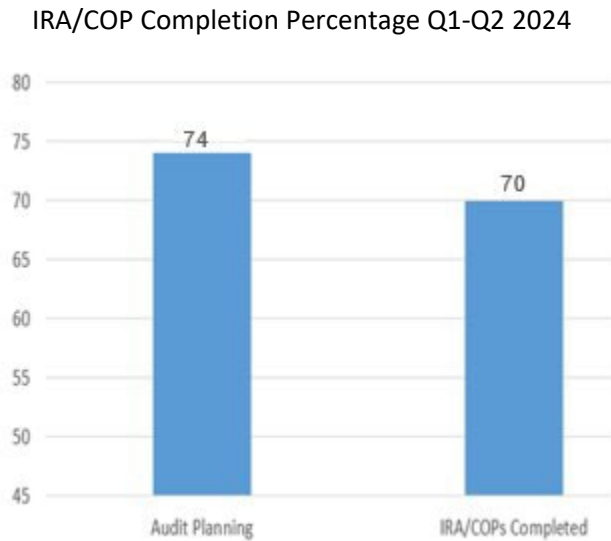
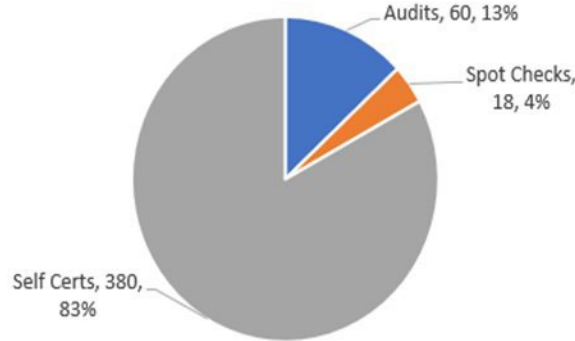


Figure 3: IRA/COP Completion Percentage

### Compliance Monitoring

The ERO Enterprise monitors the maturity and effectiveness of the CMEP program primarily through engagements. Below is a breakdown of those activities by type for the first half of 2024.

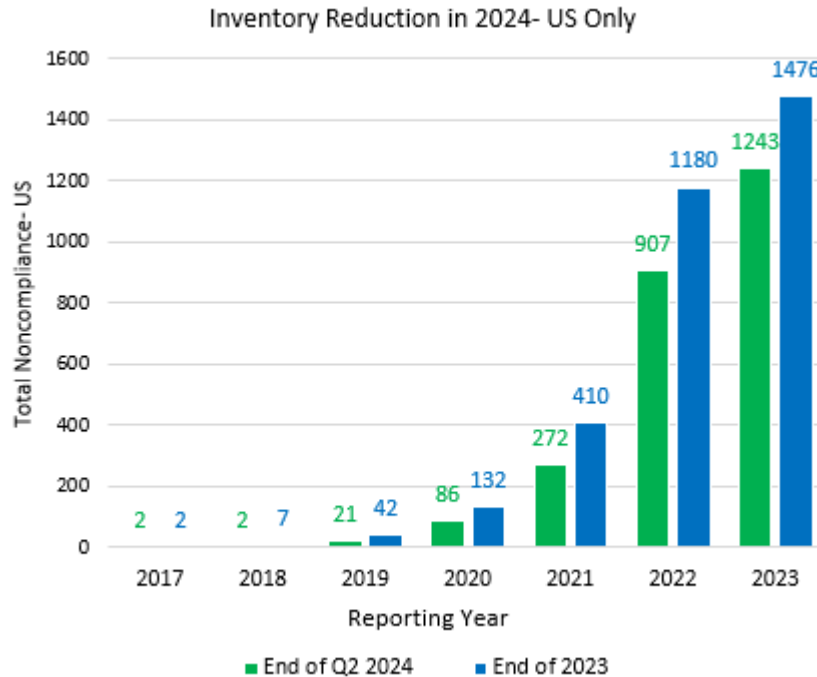
Compliance Monitoring by type Q1-Q2 2024



**Figure 4: Compliance Monitoring by Type in 2024**

### Inventory Reduction

The ERO Enterprise continues to focus on eliminating backlogs of processing noncompliance. During the first half of 2024, the ERO Enterprise has reduced its 2023 and older inventory of noncompliance by nearly 22%.

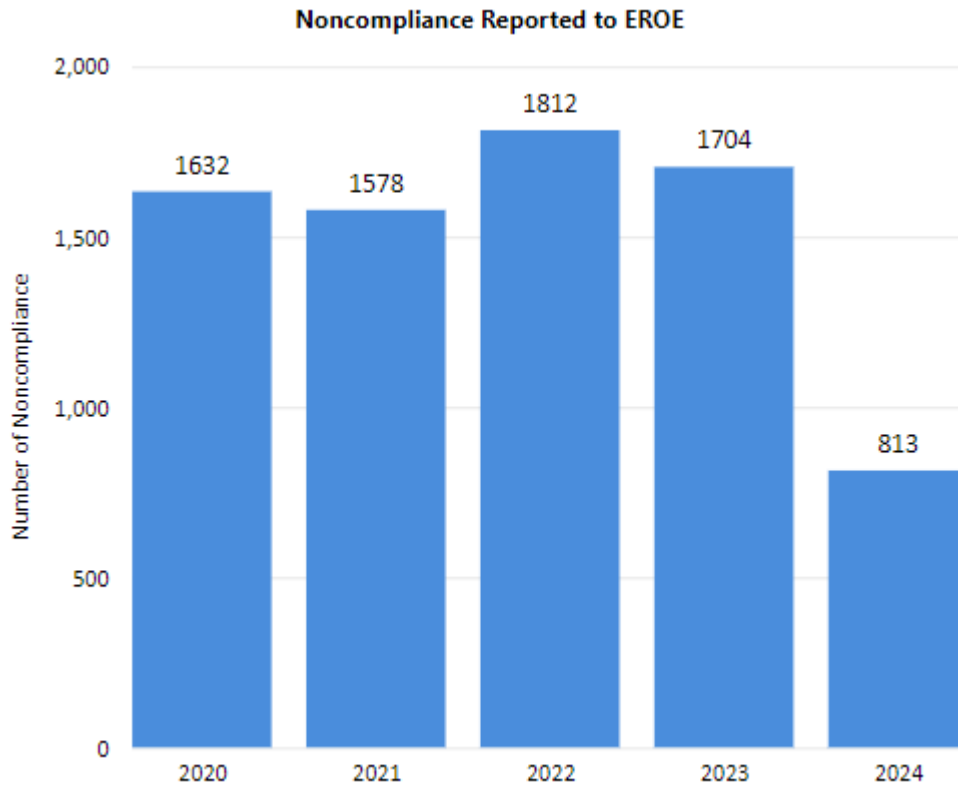


**Figure 5: Reduction in Older Noncompliance Inventory in 2024**

### Newly Reported Noncompliance

The number of newly reported noncompliance received by the ERO Enterprise each year varies based on a variety of factors including, but not limited to, newly enforceable Standards and planned monitoring activities and engagements. The volume of newly reported noncompliance can impact Regional Entity noncompliance inventory and processing timeframes.

In the first half of 2024, the ERO Enterprise received over 800 possible noncompliance. Based on that volume, the ERO Enterprise volume for the 2024 may be similar to what was reported in 2023.



**Figure 6: Number of Reported Noncompliance by Year**

The ERO Enterprise looks for high levels of self-reported and self-logged noncompliance as indicators that registered entities have good detective controls. The ERO Enterprise has developed a [Registered Entity Self-Report and Mitigation Plan User Guide](#) that provides guidance describing the type and quality of information that Registered Entities should submit in a Self-Report or Self-Log and in mitigating activities to allow Regional Entities to effectively evaluate a potential noncompliance.

Nearly 90% of the reported noncompliance in Q1-Q2 2024 were identified by the Registered Entities' detective controls.

Discovery Method for Reported Noncompliance in Q1-Q2 2024

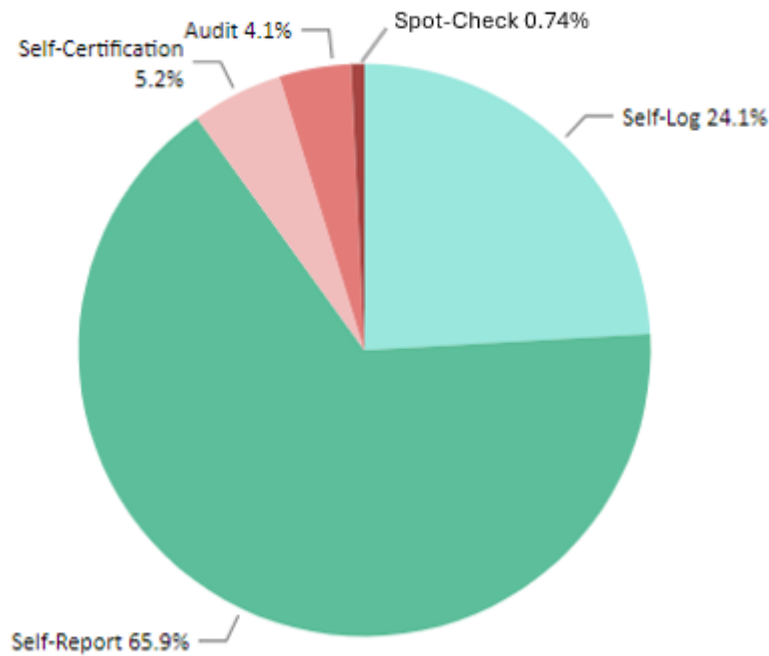
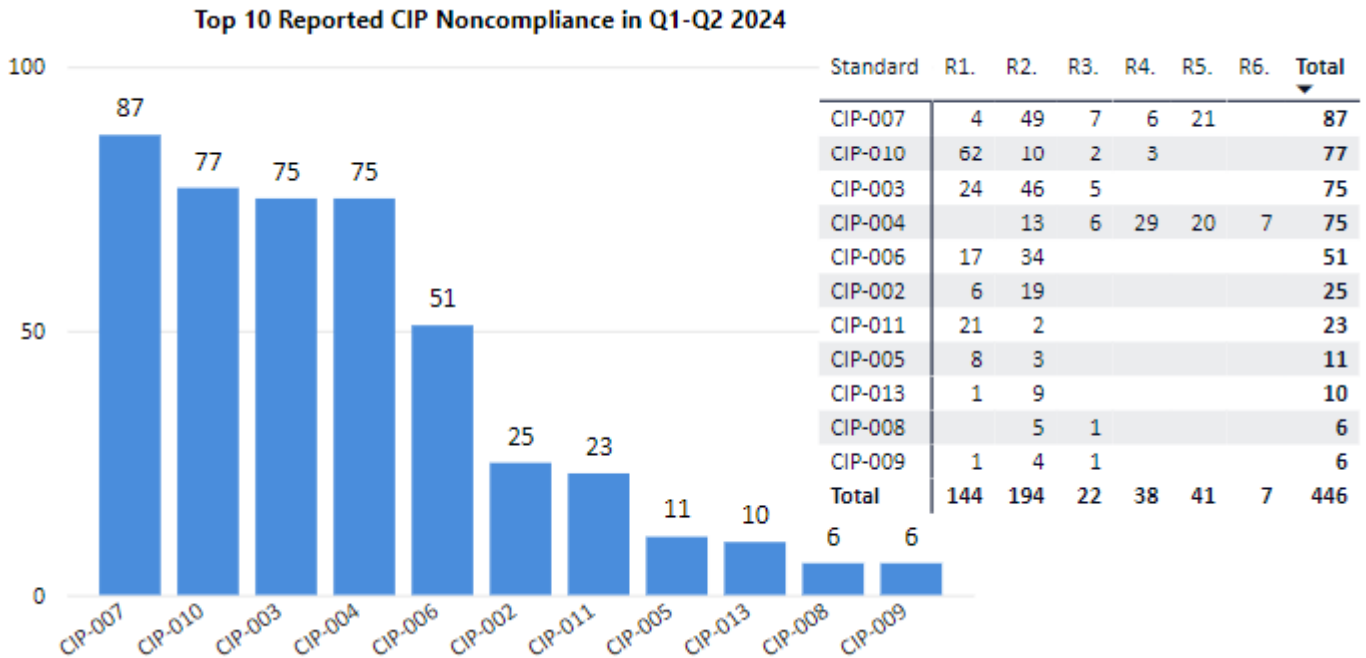


Figure 7: Discovery Method for Reported Noncompliance (Q1 and Q2 2024)



The ERO Enterprise provides information regarding the most reported CIP and O&P Standards in each year to give Registered Entities visibility into the Standards and Requirements that may warrant additional attention while simultaneously noting Standards that involve high frequency conduct in which higher noncompliance volumes are not unexpected.

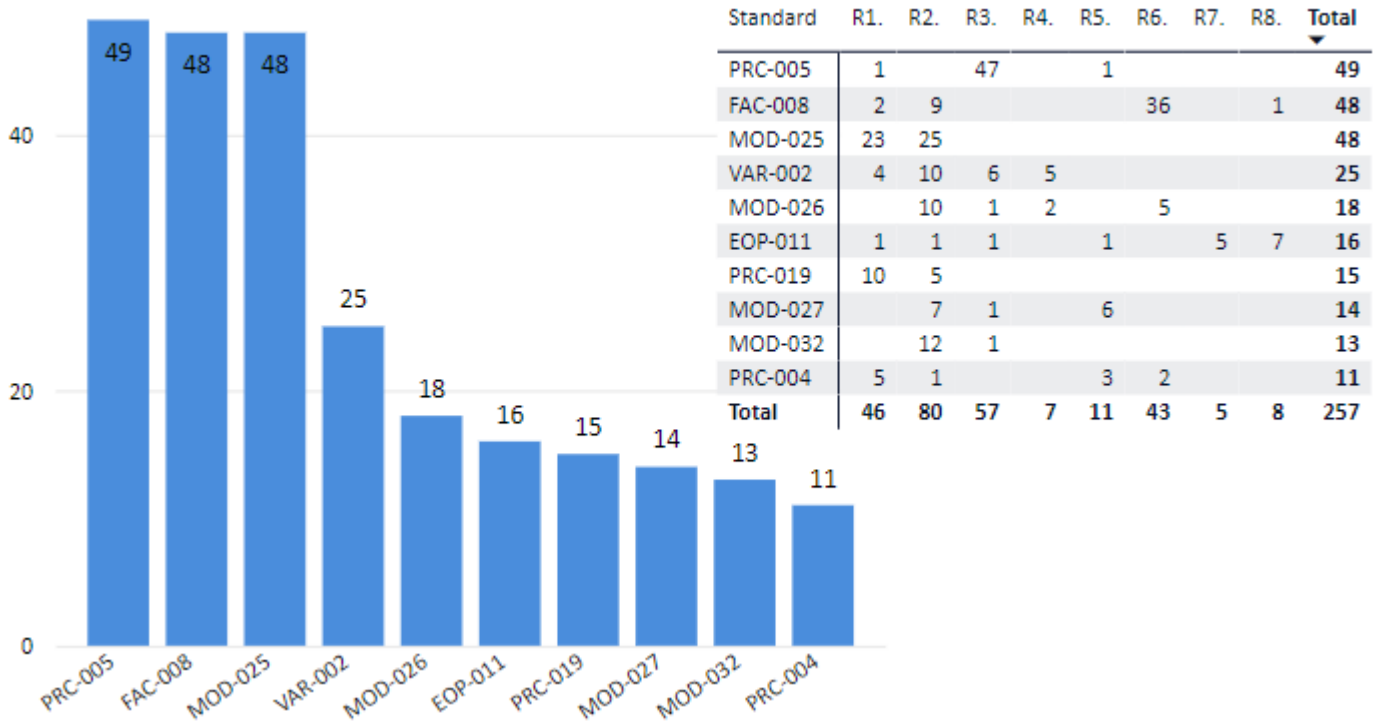
In the first half of 2024, the most frequently reported CIP noncompliance are similar to 2023, with CIP-007, CIP-010, CIP-003 and CIP-004 on the top four most reported CIP Standards. These Standards involve high frequency conduct.



**Figure 8: Top 10 Most Reported CIP Standards (Q1 and Q2 2024)**

In the first half of 2024, the most frequently reported noncompliance involving the O&P Standards are also similar to 2023, with FAC-008, MOD-025 and PRC-005 in the top three most reported Standards. Facility Ratings noncompliance (FAC-008) continue to be one of the top three highest reported O&P standards in the past five years. Given the significant role of Facility Ratings in planning and operating the BPS, the ERO Enterprise continues to actively monitor FAC-008 issues and take actions to mitigate reliability risk to the BPS.

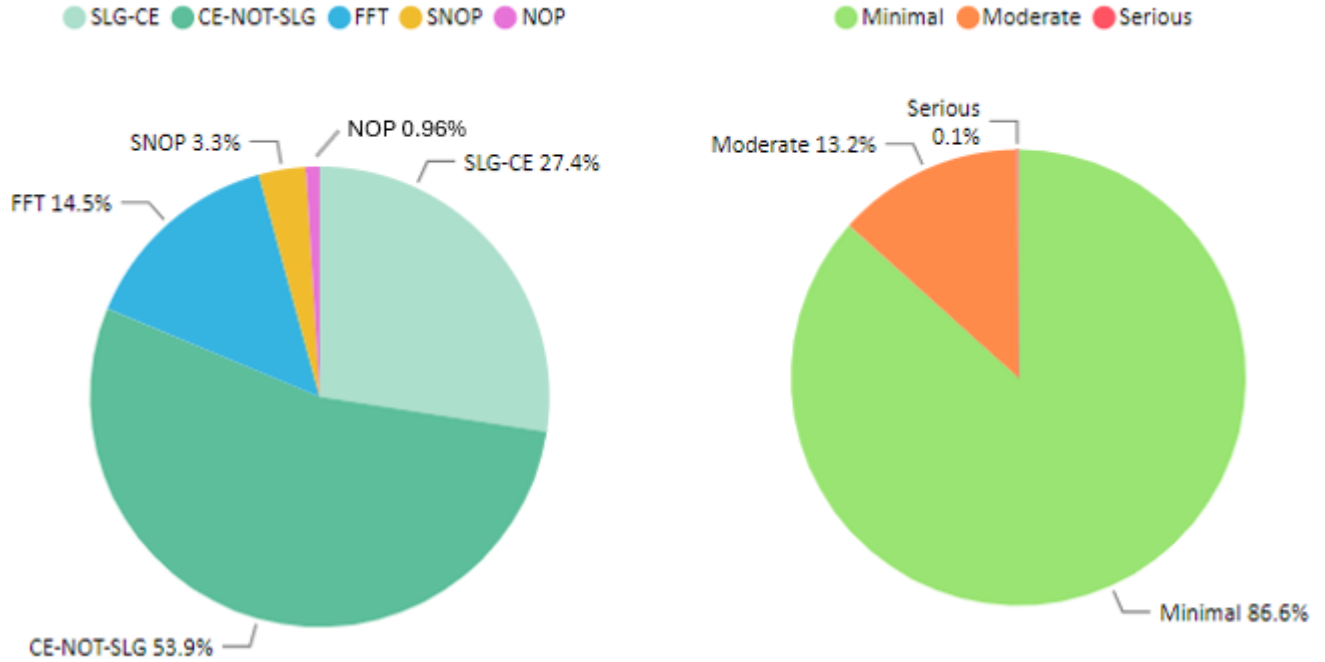
**Top 10 Reported OP Noncompliance in Q1-Q2 2024**



**Figure 9: Top 10 Most Reported O&P Standards (Q1 and Q2 2024)**

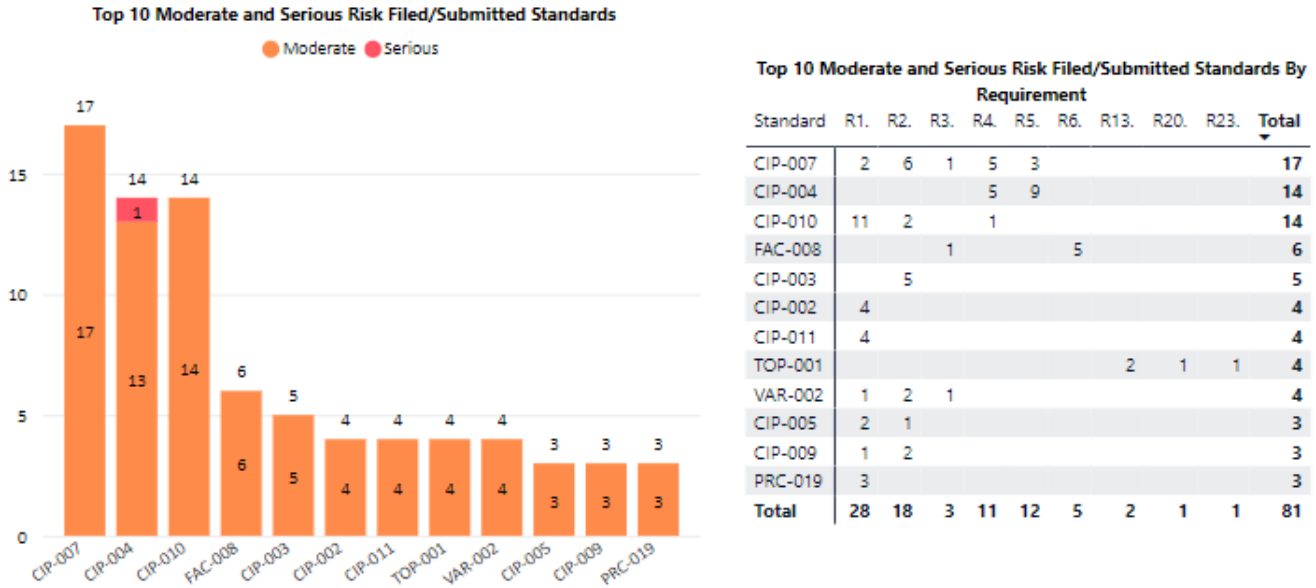
### Noncompliance Processing

The ERO Enterprise provides information regarding the risk levels and disposition methods of filed noncompliance to keep Registered Entities informed of enforcement trends. During the first half of 2024, less than 14% of the noncompliance were moderate and serious risk issues, which were disposed of as FFTs, Spreadsheet Notices of Penalty (SNOPs) and full Notices of Penalty (NOPs).



**Figure 10: Risk and Disposition Method of Noncompliance Processed in 2024**

Similar to 2023, CIP-007 and FAC-008 were the top CIP and O&P Standards filings for the first half of 2024 that were assessed as moderate risk.



**Figure 11: Serious and Moderate Risk Noncompliance Processed in 2024**

The ERO Enterprise provides information regarding the time to complete mitigation activities to track trends in how long it takes Registered Entities to complete their mitigation activities. The ERO Enterprise would take further action, such as outreach to Registered Entities, if the time to mitigate noncompliance started to significantly increase.

Registered Entities continue to mitigate noncompliance quickly. Over the last five years, approximately 80% of completed mitigation occurred within six months of a noncompliance being reported to Regional Entities.

Timeframe for Completed Mitigation for the Reported Noncompliance in the Past 5 years

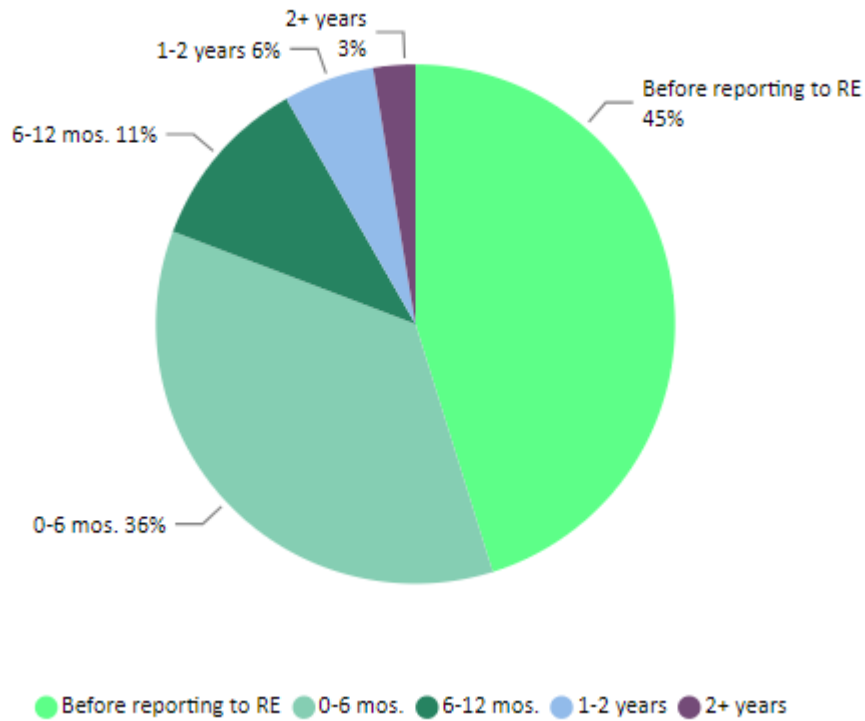


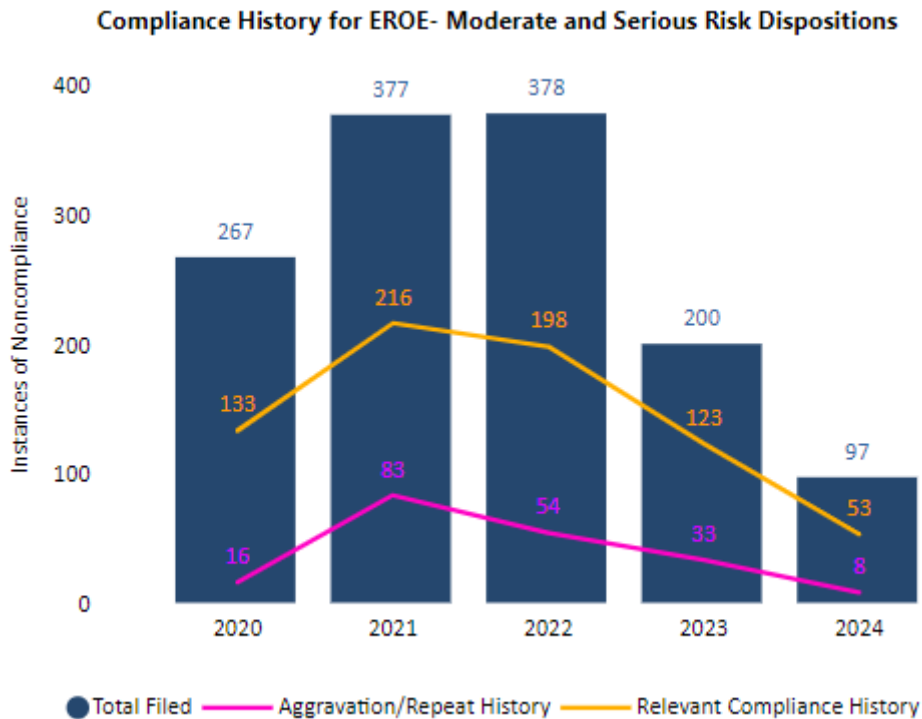
Figure 12: Mitigation of Noncompliance

The ERO Enterprise monitors compliance history<sup>11</sup> and repeat noncompliance with similar conduct<sup>12</sup>. The ERO Enterprise monitors these cases to further explore the relationship of prior mitigation to repeat noncompliance and to identify any additional areas of focus and future actions.

The figure below shows all filed moderate and serious risk noncompliance in the past five years including those with relevant compliance history and those with compliance history involving similar conduct. Noncompliance with similar conduct is a subset of the wider group of repeat noncompliance, in which the Registered Entity’s current noncompliance involves similar conduct or a similar cause as prior violations of the same or similar Standard and Requirement. Such situations could result in aggravation of the disposition method or aggravation of a penalty for the current noncompliance.

The ERO Enterprise will continue to analyze the information as the year progresses and highlight any notable trends in future reports.

Moderate and serious risk noncompliance with aggravating compliance history (e.g., prior noncompliance with the same or similar root cause as the instant noncompliance that results in aggravation of a monetary penalty or disposition method) remains a small percentage of all filed moderate and serious risk noncompliance, at around 14% for the last five years.



**Figure 13: Compliance History for Moderate and Serious Risk Noncompliance**

<sup>11</sup> Defined as relevant prior violation of the same or similar Reliability Standard and Requirement.

<sup>12</sup> Defined as a prior violation that stemmed from similar actions or conduct.

## Chapter 2: Oversight Activities

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### Overview

NERC considers criteria developed by the Compliance and Certification Committee (CCC) to measure the effectiveness and adherence of the Regional Entities to the CMEP, as detailed in CCC procedure document [CCCPP-010-7](#).<sup>13</sup> As NERC develops the objectives used for performing oversight for the various components of compliance monitoring and enforcement, NERC factors in the criteria identified in CCCPP-010-7.

NERC's oversight activities indicate that the Regional Entities are implementing risk-based compliance monitoring according to the program guidelines, and efforts have been successful to improve alignment on various components of risk-based compliance monitoring. Additionally, compliance monitoring oversight activities included identifying ERO Enterprise-wide improvement to inform future training and oversight priorities while monitoring Regional Entity program effectiveness.

In the first half of 2024, NERC CMEP and ORCP staff performed a variety of activities designed to support identified priorities:

- Align and Secure Evidence Locker Oversight Activity
- Self-logging Program Review;
- Streamlined Disposition Methods
- Certification Oversight Activity
- Compliance Audit monitoring
- Event Reviews

### Align and Secure Evidence Locker Oversight Activity

NERC periodically performs oversight of the usage of Align and the ERO Enterprise Secure Evidence Locker by the ERO Enterprise and registered entities. In addition to continued monitoring of Align and SEL usage, specific program reviews are deployed to adequately evaluate oversight priorities. In 2024, based on NERC's review, the ERO Enterprise is establishing consistent access management programs and developing effective controls to ensure data retention. The results of this oversight were presented at the 2024 CMEP Spring Workshop. The main result is that all Regional Entities had some level of access management process in place, but there is a need for NERC IT, NERC CMEP departments and Regional Entities to refine and formalize a process to ensure consistency. NERC will develop an access management guideline that will include expectations regarding access request, changes removals, reviews; role based provisioning definitions; periodic reviews frequency; and points of contact/approvers.

### Self-Logging Program Review

In Q4 2023, NERC completed its review of the Self-Logging Program and shared the results with the Regional Entities in January 2024. NERC provided a general report detailing the results of the review which included action items for both NERC and the Regional Entities. NERC also provided individual Regional Entity specific feedback letters.

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<sup>13</sup> Criteria for Annual Regional Entity Program Evaluation, CCC Monitoring Program – CCCPP-010-7 (2022), available at <https://www.nerc.com/comm/CCC/Related%20Files%202013/CCC%20Criteria%20for%20Annual%20Regional%20Entity%20Program%20Evaluation%20v7.pdf>.

### **Streamlined Disposition Methods**

The FFT and CE programs are important elements of the ERO Enterprise’s risk-based CMEP and represent streamlined dispositions.<sup>14</sup> The FFT program resolves noncompliance posing minimal or moderate risk to the reliability of the BPS and the CE program resolves noncompliance posing minimal risk. Since FERC initially approved the FFT and CE programs in 2012 and 2015, respectively,<sup>15</sup> the ERO Enterprise’s use of the programs has continued to increase. As part of the oversight of these programs, NERC Enforcement and FERC staff conduct a joint review of a sample of FFTs and CEs submitted by Regional Entities and posted by NERC each fiscal year.<sup>16</sup> In Q1 and Q2 of 2024, NERC evaluated FFT and CE evidence provided by Regional Entities in response to data requests NERC submitted in Q4 2023.

### **Compliance Audit Monitoring**

In completing NERC Compliance Assurance’s review of Regional Entities’ compliance audits conducted during 2023 to verify compliance results (Findings), NERC staff reviewed a sample of monitoring engagements to verify findings specific to CIP-008-6 R1 and R2 and EOP-011-2 R7 and R8. Based on NERC staff’s review, Regional Entities reached reasonable conclusions. NERC also identified opportunities for maturing the integration of practices and controls into monitoring processes. NERC Compliance Assurance provided results of the review to Regional Entities in June 2024.

NERC Compliance Assurance is reviewing sampled audits initiated by Regional Entities in 2024. The primary objectives of reviewing the compliance monitoring activities included (1) determining if another party could reasonably reach the same conclusions; (2) assessing the use of tools, processes, and procedures; and (3) evaluating audit methodology to ensure consistency of compliance monitoring activities. In addition, the activity includes evaluating whether the Regional Entities met the requirements of the NERC Rules of Procedure regarding the timeliness of 270-day intent to audit notifications, 90-day Audit Notification Letters and adhered to audit team lead requirements (i.e., team leader training requirements). NERC began this activity in Q2 2024 and expects to complete it in Q1 2025.

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<sup>14</sup> For a further description of NERC’s enforcement processes, CEs, and FFTs, see NERC Rules of Procedure, App. 4C §§ 4.8, 4A.0, 4A.1, & 4A.2, respectively, available at [https://www.nerc.com/AboutNERC/RulesOfProcedure/NERC%20ROP%20effective%2020220825\\_with%20appendicies.pdf](https://www.nerc.com/AboutNERC/RulesOfProcedure/NERC%20ROP%20effective%2020220825_with%20appendicies.pdf).

<sup>15</sup> *N. Am. Elec. Reliability Corp.*, Order Accepting with Conditions the Electric Reliability Organization’s Petition Requesting Approval of New Enforcement Mechanisms and Requiring Compliance Filing, 138 FERC ¶ 61,193 (2012); *N. Am. Elec. Reliability Corp.*, Order on Compliance Filing, 143 FERC ¶ 61,253 (2013); *N. Am. Elec. Reliability Corp.*, Order on Compliance Filing, 148 FERC ¶ 61,214 (2014); *N. Am. Elec. Reliability Corp.*, Docket No. RC11-6-004 (Nov. 13, 2015) (delegated letter order).

<sup>16</sup> NERC refers to this as the Annual FFT and CE Programs Review. For FY2023, NERC and FERC reviewed a sample of FFTs and CEs posted from October 2022 through September 2023.



**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

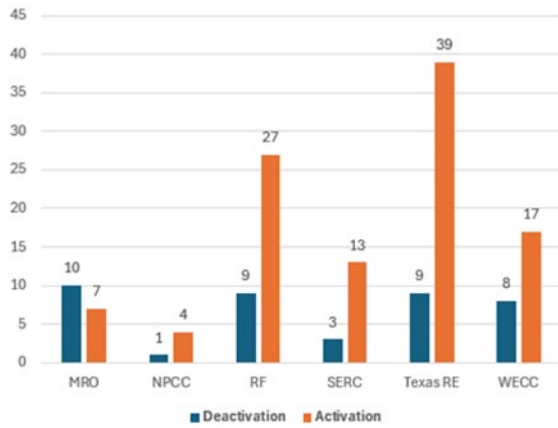
Agenda Item 6b

# Quarterly Dashboard of ORCP and CMEP Indicators

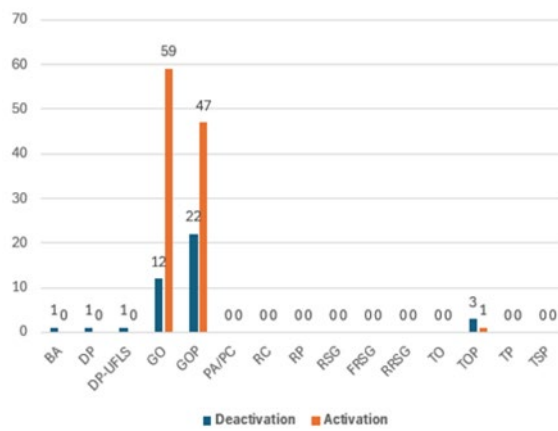
Regulatory Oversight Committee  
Open Meeting  
August 14, 2024

RELIABILITY | RESILIENCE | SECURITY

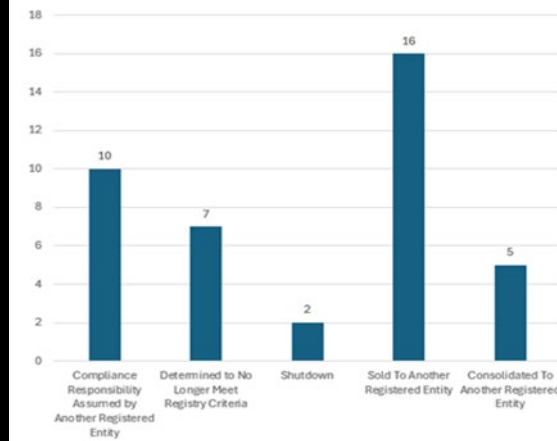
2024 Functional Registration Changes by Regional Entity



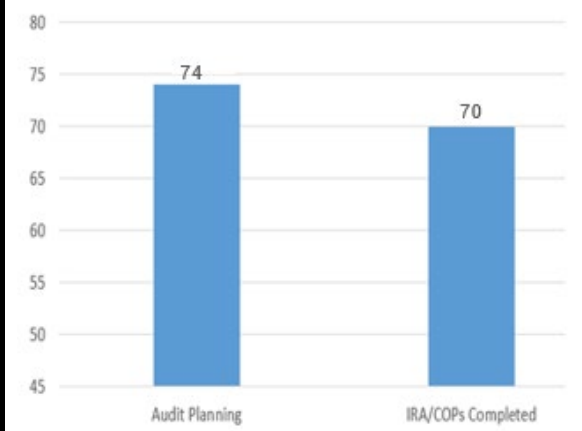
2024 Functional Registration Changed by Function



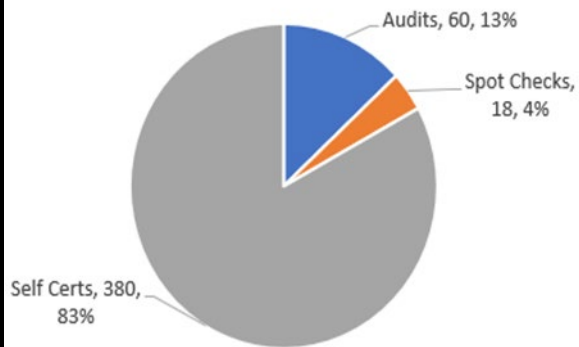
Q1-Q2 2024 Cases for Functional Registration Deactivations



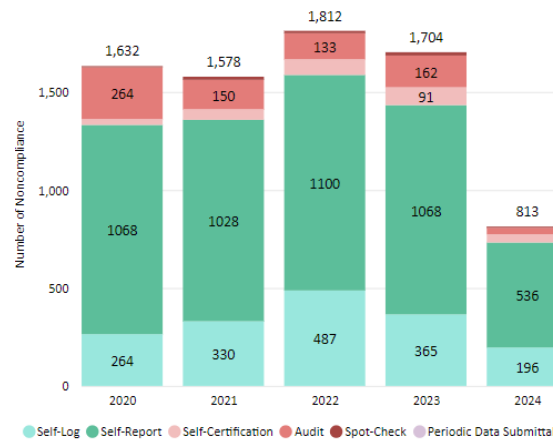
IRA/COP Completion Percentage Q1-Q2 2024



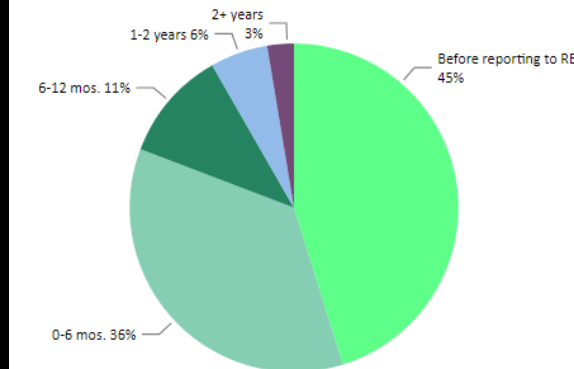
Compliance Monitoring Engagements by Type



Noncompliance Reported to EROE – US Only



Mitigation of Noncompliance in the Past 5 Years



Inventory Reduction in 2024 – US Only

