

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Compliance Monitoring and Enforcement Program and Organization Registration and Certification Program Quarterly Report

Q3 2021

October 26, 2021

RELIABILITY | RESILIENCE | SECURITY



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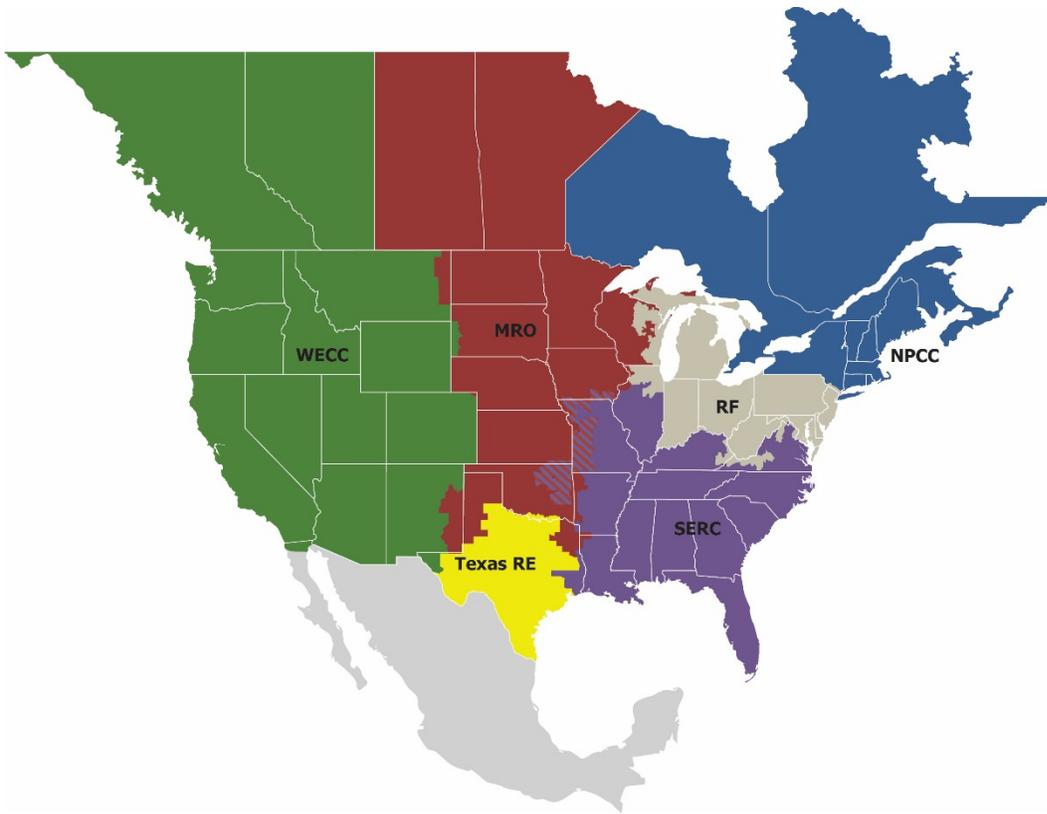
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Preface

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 (REs), 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 North Americans are counting on us

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



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



Executive Summary

This report highlights key ERO Enterprise¹ Compliance Monitoring and Enforcement Program (CMEP) and Organization Registration and Certification Program (ORCP) activities that occurred in Q3 2021 and provides information and statistics regarding those activities.

In Q3 2021, CMEP and ORCP activities throughout the ERO Enterprise reflected continued implementation of a risk-based approach and program alignment. The ERO Enterprise:

- Continued working with the Federal Energy Regulatory Commission (FERC or Commission) and Canadian provincial authorities to provide regulatory discretion to industry during the novel coronavirus (COVID-19) pandemic and extended the temporary expansion of the Self-Logging Program to address minimal and moderate risk potential noncompliance related to registered entities' coronavirus response efforts and the deferment of on-site activities to December 31, 2021;
- Went live with Release 2 of Align and the Secure Evidence Locker with all regions, with a phased rollout of adoption of functionality based on regional schedules.
- Filed three Full Notices of Penalty (Full NOPs) and eleven Spreadsheet Notices of Penalty (SNOPs);
- Monitored RE implementation of Compliance Oversight Plans (COPs) for their registered entities; and
- Processed 88 registration changes.

¹ The "ERO Enterprise" refers to the affiliation between NERC and the six REs 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. ERO Enterprise activities outside of the United States are not specifically addressed.

Chapter 1: CMEP Activities

Coordination between FERC, NERC, and Regional Entities on Potential Coronavirus Impacts

On March 18, 2020, FERC and NERC announced steps to ensure that operators of the bulk electric system could focus their resources on keeping people safe and the lights on during the unprecedented public health emergency posed by the COVID-19 pandemic.

The announcement stated that FERC and NERC were using regulatory discretion to advise all registered entities that they would consider the impact of the coronavirus outbreak in complying with certain Reliability Standards, that REs would postpone on-site audits, certifications, and other on-site activities until at least July 31, 2020, and that FERC and NERC would continue to evaluate the situation.²

On April 2, 2020, NERC began posting frequently asked questions that NERC and the REs had received from industry regarding the joint NERC-FERC guidance for COVID-19.³

On May 28, 2020, the ERO Enterprise released new guidance temporarily expanding the Self-Logging Program to allow all registered entities to self-log instances of potential noncompliance with minimal or moderate risk related to their coronavirus response.⁴ While registered entities remain responsible for maintaining compliance with NERC Reliability Standards, this expansion allows them to focus their immediate efforts and resources on maintaining the safety of their workforce and communities to ensure the reliability of the bulk power system during this public health emergency. Under this temporary expansion of the Self-Logging Program, potential noncompliance related to coronavirus impacts logged consistently with this guidance is expected to be resolved without further action.⁵

The ERO Enterprise extended the temporary expansion of the Self-Logging Program and deferment of on-site activities several times in 2020 and 2021.⁶ The latest extension moves the expiration date of this temporary expansion of the Self-Logging Program and the deferment of on-site activities to December 31, 2021, and the ERO Enterprise anticipates that this will be the final extension of this guidance.⁷

² Joint FERC and NERC Press Release, FERC, NERC Provide Industry Guidance to Ensure Grid Reliability Amid Potential Coronavirus Impacts (March 18, 2020), available at <https://www.nerc.com/news/Headlines%20DL/FERC%20NERC%20031820%20final.pdf>.

³ COVID-19 ORC and CMEP Frequently Asked Questions, available at https://www.nerc.com/pa/comp/CAOneStopShop/COVID19_ORC_CMEP%20FAQs_Posted.xlsx.

⁴ NERC Press Release, ERO Enterprise Releases New Guidance Temporarily Expanding Self-Logging Program Due to Coronavirus Impacts (May 28, 2020), available at <https://www.nerc.com/news/Pages/ERO-Enterprise-Releases-New-Guidance-Temporarily-Expanding-Self-Logging-Program-Due-to-Coronavirus-Impacts.aspx>.

⁵ ERO Enterprise Guidance: Potential Noncompliance Related to Coronavirus Impacts, available at <https://www.nerc.com/pa/comp/CAOneStopShop/ERO%20Enterprise%20Guidance%20Potential%20Noncompliance%20Related%20to%20Coronavirus%20Impacts.pdf>.

⁶ NERC Press Release, ERO Enterprise Extends Self-Logging Program Expansion and Deferment of On-Site Activities (August 13, 2020), available at <https://www.nerc.com/news/Pages/ERO-Enterprise-Extends-Self-Logging-Program-Expansion-and-Deferment-of-On-Site-Activities.aspx>; and NERC Press Release, ERO Enterprise Further Extends Self-Logging Program Expansion and Deferment of On-Site Activities (October 27, 2020), available at <https://www.nerc.com/news/Pages/ERO-Enterprise-Further-Extends-Self-Logging-Program-Expansion-and-Deferment-of-On-Site-Activities.aspx>; NERC Press Release, ERO Enterprise Further Extends Self-Logging Program Expansion and Deferment of On-Site Activities through Mid-2021, available at <https://www.nerc.com/news/Pages/ERO-Enterprise-Further-Extends-Self-Logging-Program-Expansion-and-Deferment-of-On-Site-Activities-Through-Mid-2021.aspx>.

⁷ NERC Press Release, ERO Enterprise Issues Extension of Self-Logging Program Expansion and Deferment of On-Site Activities through Mid-2021, available at <https://www.nerc.com/news/Pages/ERO-Enterprise-Issues-Extension-of-Self-Logging-Program-Expansion-and-Deferment-of-On-Site-Activities.aspx>.

NERC and the REs continue to monitor the COVID-19 pandemic and will work with registered entities, the Commission, applicable governmental authorities in Canada, and other partners to ensure the reliability and security of the grid.

Compliance Monitoring During Pandemic Conditions

The ERO Enterprise continues to perform compliance monitoring engagements off-site using video and audio conference technologies.

The ERO Enterprise scopes the compliance monitoring engagements using a risk-based framework and conducts Subject Matter Expert (SME) interviews via web conferences and/or telephone communications. For cases where the ERO Enterprise typically conducts in-person observation or walk-through assessments, compliance monitoring staff are determining whether further analysis is required when the pandemic conditions no longer exist or if the registered entity provided sufficient evidence during the off-site review for reasonable assurance of compliance. For instances where the ERO Enterprise identifies high-risk areas that cannot be sufficiently reviewed off-site, the ERO Enterprise will schedule additional compliance monitoring engagements for the registered entity later in 2022, as conditions permit.

Certification Engagements During Pandemic Conditions

The ERO Enterprise continues to perform certification engagements (certifications and certification reviews) off-site, or “virtually on-site,” using video and audio conference technologies.

The ERO Enterprise scopes the certification engagements to evaluate an entity’s Reliability Coordinator, Balancing Authority, and Transmission Operator capabilities using a risk-based approach. Engagements include tours (walk-through assessments) of control center facilities, Energy Management System (EMS) functionality demonstrations, and interviews with key entity O&P and CIP personnel. Discussions during certification engagements are more focused which requires managing subject matter expert attendance and there has been an increase in the formality of documenting considerations. The ERO Enterprise continues to emphasize flexibility in schedule and the control of technology. The successful use of the available technology has prompted consideration for continued use of this approach, when pandemic conditions no longer exist, for engagements with entities that pose a lower risk or are located in remote areas where travel constraints may be an issue.

Align Project and ERO Secure Evidence Locker

On July 19, 2021, the Align tool and the ERO Secure Evidence Locker (EROSSEL) went live with Release 2 with all REs. Release 2 consists of Periodic Data Submittals, Technical Feasibility Exceptions, and Self Certifications. All REs have trained and adopted the functionality as of October 1, 2021. The project improves and standardizes CMEP processes across the ERO Enterprise, enhances ERO Enterprise operations, and improves the effectiveness of executing statutory functions.

Work continues on Release 3, covering core compliance auditing, scoping, and scheduling activities. The Align Steering Committee agreed to separate enhanced audit capabilities, Inherent Risk Assessments (IRAs) and COPs into a Release 4, which now has a target for release in 2022, to ensure ease of adoption. A go-live date for Release 3 will be forthcoming sometime in Q4 2021. More information on a go-live date for Release 4 should be available in early 2022.

The Align project team continues to conduct extensive outreach to keep industry apprised of the status of the Align project. This outreach included updates in the NERC News⁸ and Align newsletters.⁹ NERC has also set up a training site for Align and other tools that provide training for NERC, Regional Entity, and registered entity staffs on a variety of topics related to Align.¹⁰

Harmonization of ERO Enterprise Practices Around Internal Controls

The ERO Enterprise continues its efforts to harmonize ERO Enterprise practices for evaluating internal controls as part of compliance monitoring activities. The harmonization efforts focus on the following topics:

- Approaches for reviewing registered entities' testing, design, and implementation of internal controls during CMEP engagements;
- Documenting results of internal control evaluations and providing feedback to registered entities; and
- Incorporating internal control evaluations from CMEP engagements into revised COPs.

In Q3 2021, the ERO Enterprise finished developing a common template that will help CMEP staff document and assess internal controls in a consistent and structured manner. The ERO Enterprise will organize necessary training for CMEP staff beginning in Q4 2021 on the internal control assessment template.

Program Alignment

The ERO Enterprise is enhancing CMEP activities under a broader ERO Enterprise Program Alignment Process (Program Alignment).¹¹ In Q3 2021, NERC added one alignment issue pertaining to a CMEP Practice Guide on Cold Weather Preparedness. Currently, there is one alignment issue submitted via the Consistency Reporting Tool, with an expected completion by the end of 2021. There are six practice guides currently in development and they are expected to be completed by the end of 2021.

Coordinated Oversight Program

The purpose of the Coordinated Oversight Program is to increase efficiency and eliminate unnecessary duplication of compliance monitoring and enforcement activities for Multi-Region Registered Entities (MRREs). A registered entity operating in or owning assets in two or more REs' jurisdictions with one or more NERC Compliance Registry (NCR) identification number is a potential candidate for inclusion in the voluntary Coordinated Oversight Program. In connection with the program, the ERO Enterprise takes into account reliability considerations such as, but not limited to, a registered entity's registered functions, load and generation capacity, transmission assets, and transmission and generation control centers.

In Q3 2021, the ERO Enterprise approved three additional MRREs for entry into the Coordinated Oversight Program, increasing the total count of registered entities participating to 259.¹² The Coordinated Oversight Task Force is focused on increasing MRRE participation in 2021 through regional entity recommendations and outreach.

⁸ June 2020 NERC News (posted July 1, 2020) at p. 6, available at <https://www.nerc.com/news/newsletters/Newsletters/NERCNews-2020-06%20NEW.pdf>; July 2020 NERC News at p. 6 (posted August 3, 2020), available at <https://www.nerc.com/news/newsletters/Newsletters/NERCNews-2020-07.pdf>; August 2020 NERC News (posted September 1, 2020) at pp. 6-7, available at <https://www.nerc.com/news/newsletters/Newsletters/NERCNews-2020-08.pdf>.

⁹ Align: Registered Entity Newsletter (August 2020), available at https://www.nerc.com/ResourceCenter/Align%20Documents/Align%20Registered%20Entity%20Newsletter_August%202020.pdf; Align: Regional Entity Newsletter (August 2020), available at https://www.nerc.com/ResourceCenter/Align%20Documents/Align%20Regional%20Entity%20Newsletter_August%202020.pdf.

¹⁰ NERC Systems Training, available at <https://training.nerc.net/>.

¹¹ <http://www.nerc.com/pa/comp/Pages/EROEnterProAlign.aspx>

¹² Appendix B includes further information on the MRREs participating in the Coordinated Oversight Program.

Chapter 2: RE Oversight

Enforcement Oversight

Serious Risk Violations

In Q3 2021, NERC filed two Full NOPs with FERC that included six violations of the operations and planning (non-CIP) Reliability Standards, carrying a total penalty of \$ 2,465,000. The non-CIP Full NOPs filed in Q3 2021 addressed a mix of serious and moderate risk violations, including failures to:

- Include all current carrying series elements in its Facility Ratings database;
- Inspect steel support towers pursuant to the entity's transmission maintenance and inspection plan;
- Adequately test station batteries and complete all maintenance and testing activities for relays at a single substation;
- Maintain and test Protection System relays at two substations;
- Determine the applicability of a corrective action plan for a Misoperation to other Protection Systems within 60 calendar days after first identifying the cause of the Misoperation; and
- Adequately document its change management procedures for Facility Ratings between neighboring entities and identical equipment.

NERC filed one Full NOP in Q3 2021 that included two violations of the Critical Infrastructure Protection Reliability Standards.

Spreadsheet NOPs

In Q3 2021, NERC filed five SNOPs with FERC that included ten violations of the operations and planning (non-CIP) Reliability Standards, carrying a total penalty of about \$134,000. These SNOPs included two moderate risk violations. The non-CIP SNOPs filed in Q3 2021 addressed moderate risk issues, including failures to:

- Define relevant operating personnel that issue and receive Operating Instructions such that the entity did not conduct initial training for such personnel;
- Coordinate protective system changes with its Transmission Operator;
- Establish evidence that the entity maintained and tested Protection System devices within the defined interval;
- Coordinate an automatic voltage regulatory with primary and backup Protection System devices to avoid disconnecting the generator unnecessarily;
- Set the entity's undervoltage protective relaying setpoints to not trip within the "no trip zone";
- Produce evidence that the generator was consistently maintained within the voltage scheduled provided by the Transmission Operator; and
- Satisfy the obligations of its Reliability Coordinator's documented data specifications.

NERC filed six SNOPs in Q3 2021 that included 19 violations of the Critical Infrastructure Protection Reliability Standards.

Annual Find, Fix, Track, and Report and Compliance Exception Programs Review

In Q2 2021, NERC completed its review of the documentation provided by the REs for the FY2020 Annual Find, Fix, Track, and Report (FFT) and Compliance Exception (CE) Survey that NERC jointly conducts with FERC. In Q2, NERC issued RFIs to the REs and shared the final feedback with the REs in Q3 2021. In Q4 2021, NERC will issue a final report that it will file with FERC.

Compliance Monitoring Oversight

NERC Oversight

In Q3 2021, NERC executed monitoring oversight activities planned for 2021. These activities include the following:

- RE-specific follow-up related to prior oversight recommendations;
- Recurring oversight coordination specific to ERO Enterprise efforts around Compliance Oversight Plans (COPs) enhancement and alignment;
- Review of the use of the Align and SEL tools by the ERO Enterprise and registered entities;
- ERO Enterprise effectiveness activity regarding CIP-008-6 to gain visibility and better understand how industry has implemented their incident response identification and reporting program.

Compliance Oversight Plans

During Q3 2021, REs continued to develop COPs using results of the IRA and performance considerations such as internal controls, culture of compliance, compliance history, event analysis trends, or other regional considerations to identify key risks. COPs include the NERC Reliability Standards and Requirements associated with identified risks, the targeted interval of monitoring activities, and the type of CMEP tools (such as Compliance Audit, Spot Check, or Self-Certification). NERC will continue to monitor development of COPs throughout the remainder of 2021 to ensure ERO Enterprise alignment.

Align Release 1 Oversight Activity

During Q3 2021, NERC began to perform oversight of the Align tool’s usage by the ERO Enterprise and registered entities, and will continue this oversight through Q1 2022. These oversight activities may include both uses of the Align tool and SEL as deemed appropriate for evaluation of implementation. These oversight activities will be restricted to Release 1 of the Align and SEL tools, and will include a review of sampled data as entered by the ERO Enterprise and registered entities. The objectives of the review activity will be to evaluate a sampled use of the tool for effectiveness and that use adheres to ERO Enterprise expectations for data confidentiality. NERC will create an internal report and conduct training with ERO Enterprise and registered entity users as needed to ensure appropriate use of the Align and SEL tools.

ERO Enterprise CIP-008 Effectiveness Activity

On January 1, 2021, CIP-008-6 became effective and it expanded the applicable systems to include Electronic Access Control or Monitoring Systems, as well as an additional reporting requirement for defined “attempts to compromise”. In Q3, the ERO Enterprise began conducting this activity to gain visibility and better understand how industry has implemented their program in response to these changes and will continue this oversight through Q2 2022. NERC Compliance Assurance initiated this ERO Enterprise activity to understand how registered entities are defining Cyber Security Incidents and “attempts to compromise”. The team will engage with registered entities remotely, as well as review recently conducted CMEP monitoring engagements in collecting data to analyze. The activity is intended to better understand industry practices for defining key incident response terms and the impact those definitions have on required reporting. The team will release an ERO Enterprise report as well as consider other opportunities to share lessons learned and/or develop guidance based on the activity (*e.g.*, Practice Guide, outreach, etc.)

Certification

Q3 2021 Certification Completions

In accordance with the March 18, 2020 FERC and NERC announcement providing guidance to ensure grid reliability amid potential coronavirus impacts, the ERO Enterprise conducted no in-person, certification site visits from Q3 2020 through Q3 2021. During Q3 2021, the ERO Enterprise performed no full certifications, and three certification reviews of entity EMS changes. The ERO Enterprise continues to implement a risk-based approach on engagements and it determined that no further reviews were necessary for seven industry-submitted possible triggers for certification review activity (one footprint change and seven EMS changes). Appendix D provides a breakdown by RE.

Registration

In Q3 2021, NERC processed 88 Registration changes, of which 57 were functional activations and 31 were functional deactivations. Of the 31 functional deactivations:

- Twenty-eight involved situations in which compliance responsibility was assumed by another registered entity,
- Two were determined to no longer meet registration criteria, and
- One was determined to be DP-UFLS only and registered as such.

BES Exception Requests

In Q3 2021, NERC completed two Exception Requests. No other Exception Request are currently under review in Q4 2021.



Chapter 3: ERO Enterprise Performance Objectives

Priorities for 2021

To guide enforcement and compliance monitoring activities in 2021, NERC has identified the following priorities:

- Continue with delivery of Release 3 and Release 4 of the Align tool;
- Provide training and education to RE CMEP staff to enhance the ERO Enterprise work products (*e.g.*, working papers);
- Evaluate post-COVID-19 monitoring activities;
- Continue to focus on program alignment, including consistency efforts on non-monetary penalties, mitigation, coordinated oversight for MRREs, training exercises, technical training, documentation, and risk assessments;
- Monitor the progress of the ERO Enterprise's enforcement streamlining efforts by examining the balancing of efficient resolution of minimal risk noncompliance with timely, comprehensive resolutions of higher risk violations;
- Continue rollout of enhanced Compliance Oversight Plans for engagements in 2021;
- Continue to focus on how registered entities have mitigated reliability and security risks while achieving compliance with the Reliability Standards, including intentional focus on internal controls; and
- File proposed revisions to the NERC ROP, specifically around the CMEP, with FERC for approval.

2021 Metrics

In 2021, the ERO will continue to monitor and report on key CMEP and ORCP activities.

Appendix A: Enforcement

Information regarding the ERO Enterprise's Enforcement activities and metrics is provided below, focusing on noncompliance inventory; identification, mitigation, disposition, and risk of noncompliance; and vegetation management.

Noncompliance Inventory

Open Noncompliance in the ERO Enterprise Inventory

The ERO Enterprise's open noncompliance inventory consists of noncompliance reported to or identified by the REs or NERC that has not yet been processed by filing with FERC (Full NOPs and SNOPs), submission to FERC (FFTs and CEs), or being dismissed. As of Q3 2021, approximately six percent of the open violations are from 2018 and older (down from eight percent in Q2 2021).

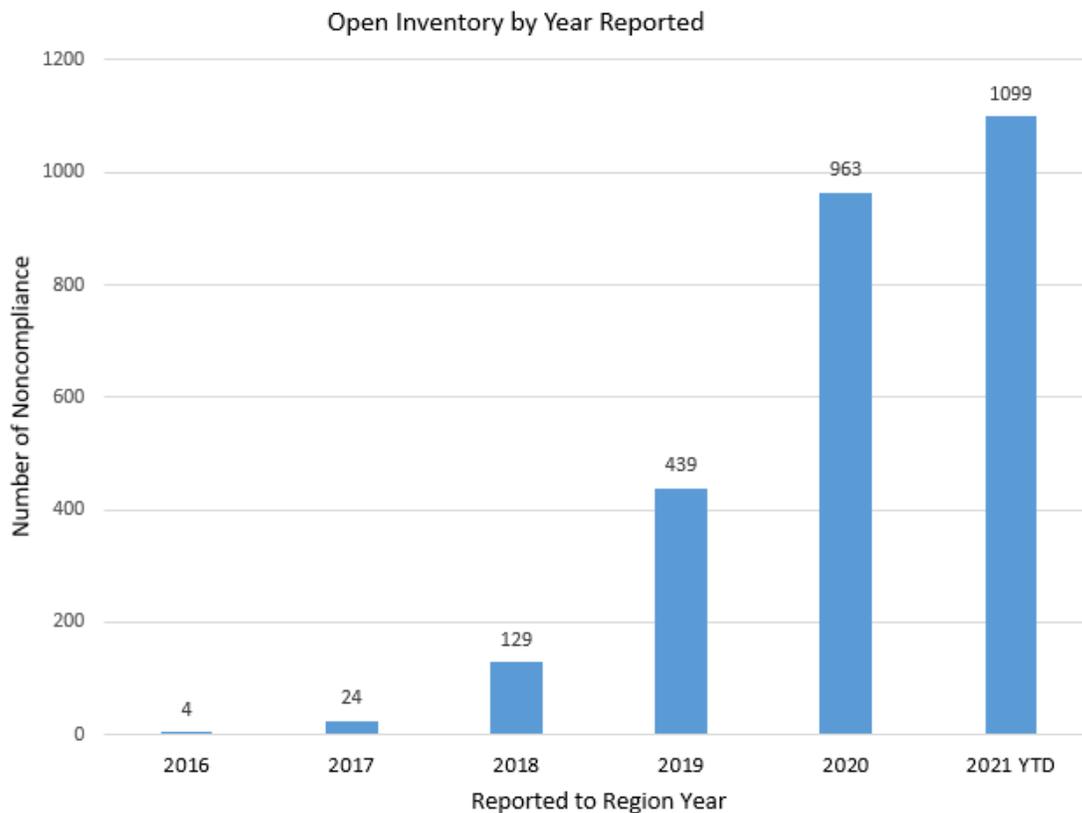


Figure A.1 ERO Enterprise's Inventory by Year Reported

Reported Age of Noncompliance in ERO Enterprise Inventory

Figure A.2 shows the age of all open noncompliance in the ERO Enterprise inventory. The percentage of noncompliance in inventory that was less than one year old decreased from 51 percent in Q2 2021 to 50 percent in Q3 2021. The percentage of noncompliance in inventory between one and two years old in Q3 2021 remained at 32 percent as it was in Q2, and the percentage of noncompliance in inventory over two years old increased from 17 percent in Q2 2021 to 18 percent in Q3. Information about mitigation of the noncompliance in inventory can be found in the “Mitigation of Noncompliance” discussion below.

Age of Noncompliance in ERO Enterprise Inventory

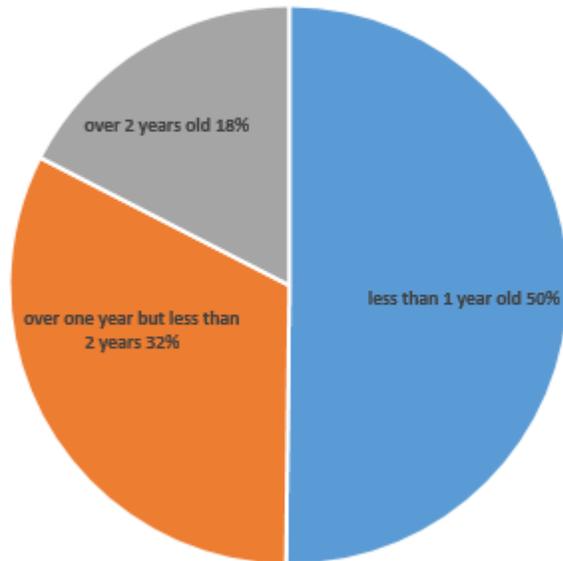


Figure A.2: Age of Noncompliance in ERO Enterprise’s Inventory

Average Age of Noncompliance in the ERO Enterprise Inventory

Figure A.3 shows that the average age of noncompliance in the ERO Enterprise’s inventory at the end of Q3 2021 was 14.2 months.¹³ There has been a modest decrease in the average age of noncompliance in the ERO Enterprise inventory over the last few quarters, dropping from 14.6 months at the end of Q4 2020 to the current 14.2 months. The slight increase in the average age of the inventory from Q2 2021 to Q3 2021 was the result of fewer older CIP noncompliance being processed in Q3 compared to the prior two quarters, combined with a reduction in the number of incoming CIP noncompliance in Q3 2021. The ERO Enterprise has been processing older noncompliance in inventory and implementing streamlined methods for processing lower risk noncompliance, helping to drive down the average age of noncompliance in the ERO Enterprise inventory. The ERO Enterprise will continue to monitor this data and work to reduce the average age of the noncompliance in the inventory.

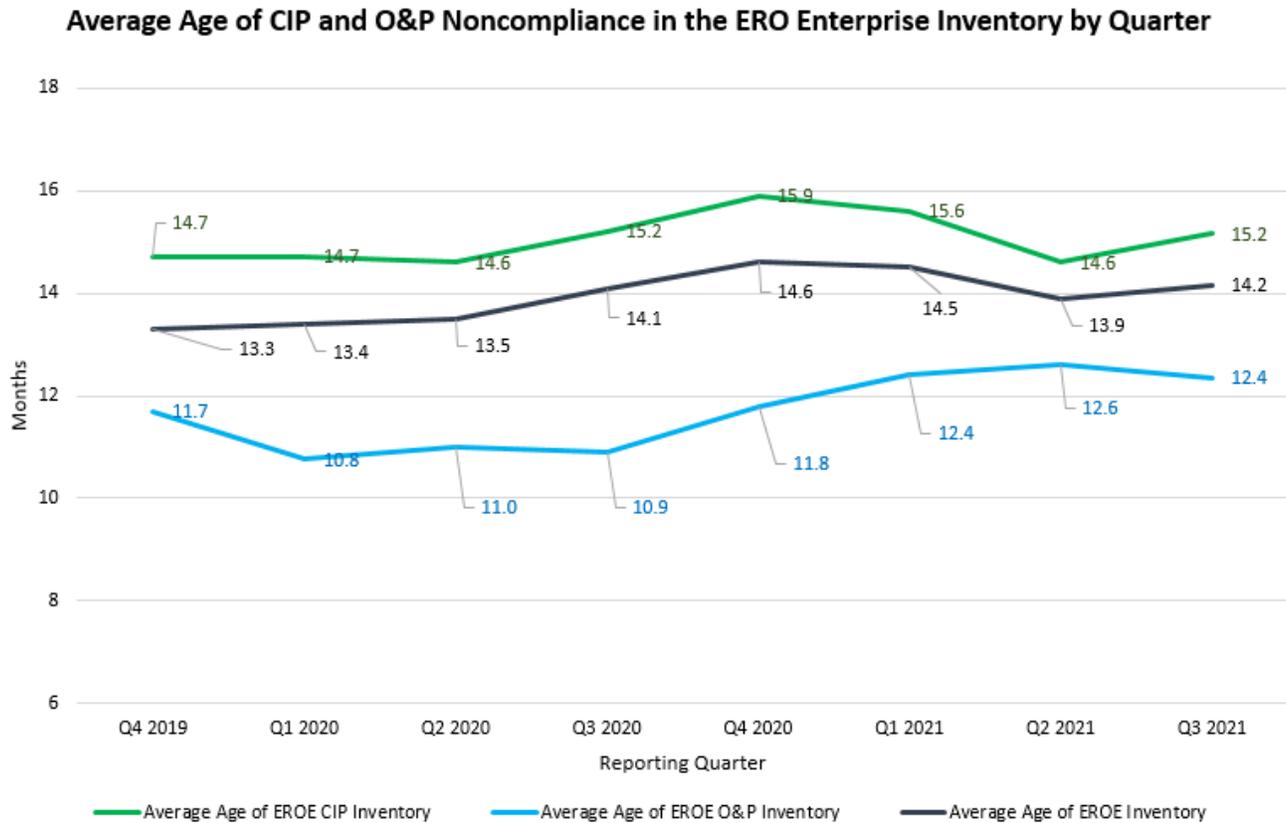


Figure A.3: Average Age of Noncompliance in the ERO Enterprise Inventory

¹³ The age of noncompliance runs from the time the noncompliance is identified to the time it is resolved (e.g., through CE, FFT, SNOP, or Full NOP processing).

Identification of Noncompliance

Number of New Noncompliance Discovered Through Q3 2021

Figure A.4 shows the number of new noncompliance discovered through Q3 2021 compared to the total number of noncompliance discovered in prior years.

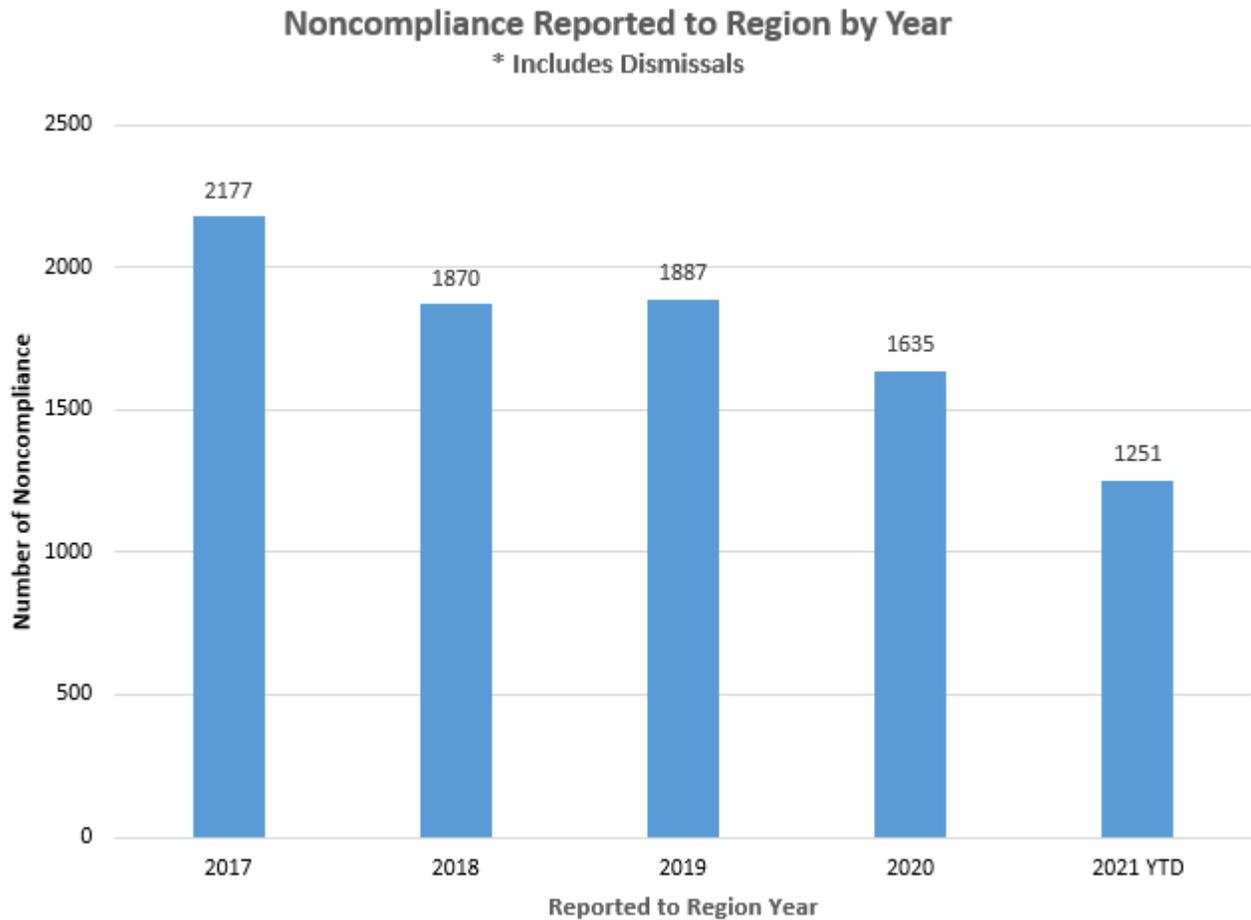


Figure A.4: Noncompliance Discovered by Year

Self-Assessment and Self-Identification of Noncompliance

Figure A.5 illustrates registered entities' internal and external identification of noncompliance by year. Self-Reports and Self-Certifications are treated as internal identification of noncompliance, while Compliance Audits, Spot Checks, and all other methods of discovery are treated as external identification of noncompliance. Figure A.6 shows the percentage of noncompliance by discovery method over the last four quarters.

A comparison of Figures A.5 and A.6 shows a decrease in externally discovered noncompliance over the last few years, dropping from approximately 20% externally discovered noncompliance in 2018 and 2019, to approximately 10% to date in 2021. The ERO Enterprise will continue to monitor and analyze this trend.

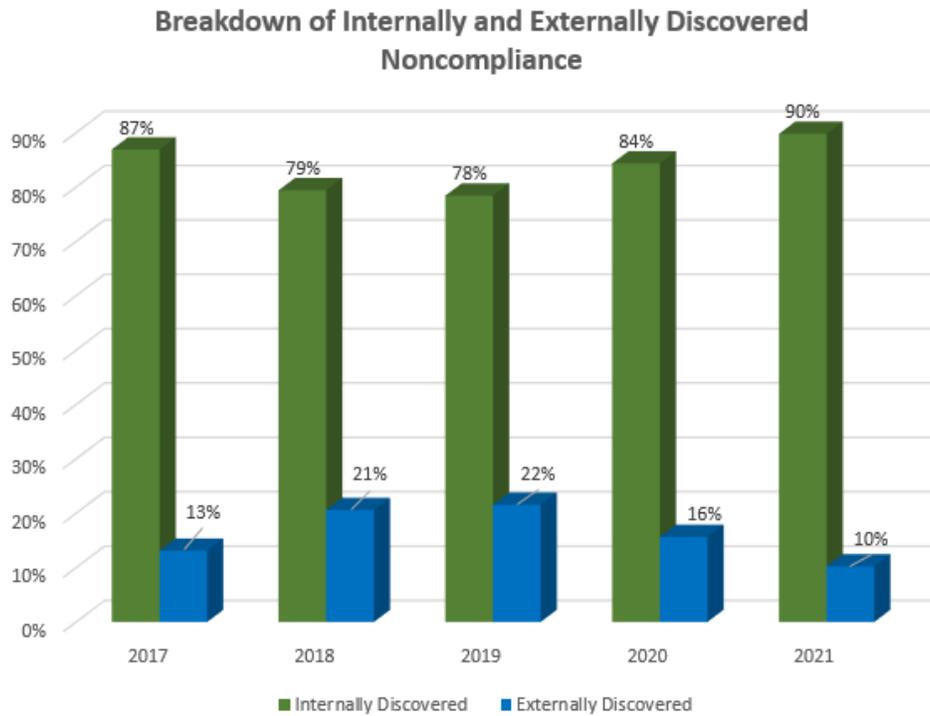


Figure A.5: Breakdown of Internally and Externally Discovered Noncompliance by Year

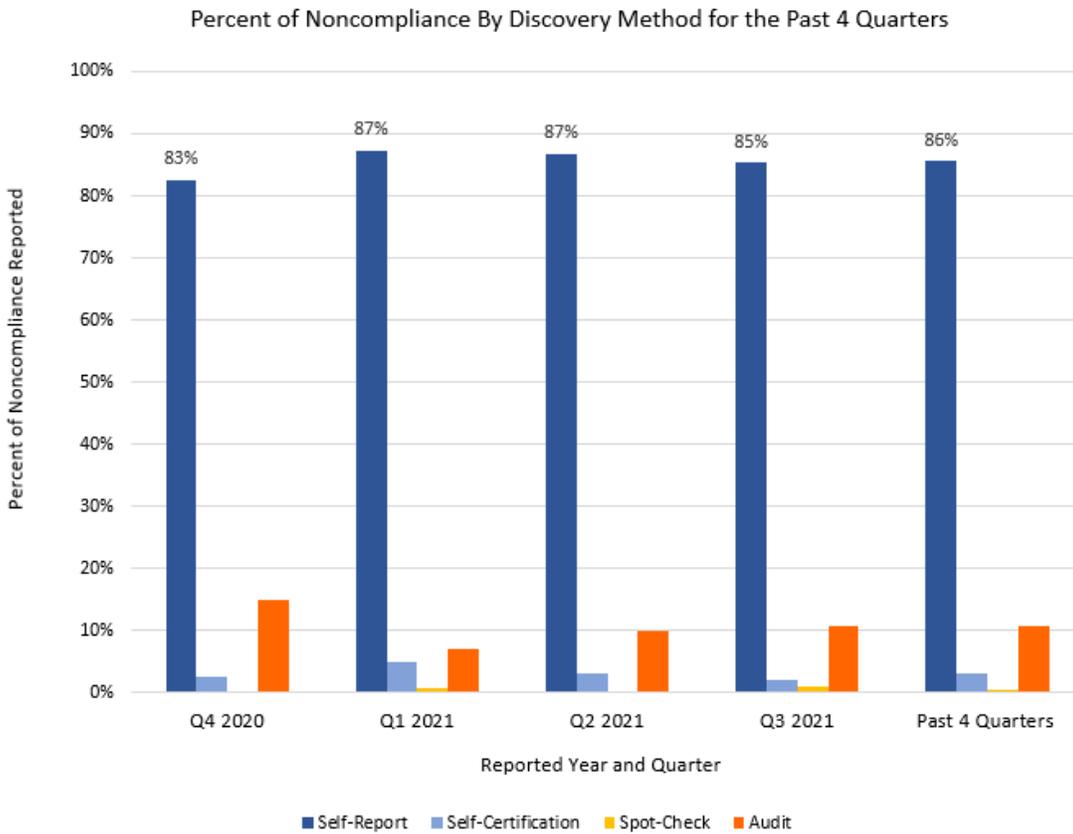


Figure A.6: Breakdown of Noncompliance by Discovery Method

Mitigation of Noncompliance

Mitigation Completion Status

Registered entities continue to make progress in mitigating the older noncompliance they have reported, as shown in Table A.7. Mitigation of the oldest noncompliance, dating from 2017 and earlier, is largely complete. The noncompliance without verified mitigation completion dates involves noncompliance with mitigation activities that have: 1) been certified as complete but have not yet been verified complete by the RE, 2) passed the expected completion date (and presumably have been completed), or 3) a future completion date, ensuring risk to the BPS is being addressed via ongoing mitigation efforts. A small percentage of pre-2018 noncompliance do not yet have verified mitigation completion dates, but are part of ongoing discussions between REs and registered entities regarding appropriate mitigation activities. NERC continues to monitor these noncompliances as priorities for mitigation completion.

Table A.7: Mitigation Completion Status of Noncompliance by Year Reported

Time Frame	Required Mitigation	Noncompliance Without Verified Mitigation Completion Date	Percentage of Noncompliance with Verified Mitigation Completion Date
2015-2017 ¹⁴	3,705	97	97.4%
2018	1,595	94	94.1%
2019	1,642	269	83.6%
2020	1,526	634	58.5%
2021	1,213	909	25.1%

Disposition of Noncompliance

Number and Percentage of Self-Logged CEs

Table A.8 shows both the number and percentage of self-logged CEs filed over the last five years. Through Q3 2021, self-logged CEs have increased above the approximately 20% level seen in 2018-2020 to reach 26.4% of all CEs submitted in 2021.

Table A.8: Number and Percentage of Self-Logged CEs

Filing Year	Self-Logged CEs	Total CEs	Percentage of Self-Logged CEs
2017	86	940	9.1%
2018	159	770	20.6%
2019	220	1,153	19.1%
2020	194	1,069	18.1%
2021	205	772	26.4%
CEs- Grand Total	864	4,704	18.4%

Disposition of Noncompliance

Figure A.9 shows the percentage of all noncompliance processed by disposition type through the end of Q3 2021. The ERO Enterprise processed a majority of noncompliance in 2021 as CEs, with approximately fourteen percent of noncompliance processed by the SNOP or Full NOP disposition methods, both of which can involve a monetary

¹⁴ All noncompliance reported to the ERO Enterprise prior to 2015 have been fully mitigated.

penalty or sanction. Figure A.10 shows the number of noncompliance processed by disposition type over the last five years. Figure A.11 shows the number of noncompliance processed by assessed risk level over the last five years. Consistent with data from recent years, of the noncompliance processed in 2021 to date, the ERO Enterprise processed more than 72% of the noncompliance as a CE and assessed approximately 75% of the noncompliance as a minimal risk to the reliability of the BPS.

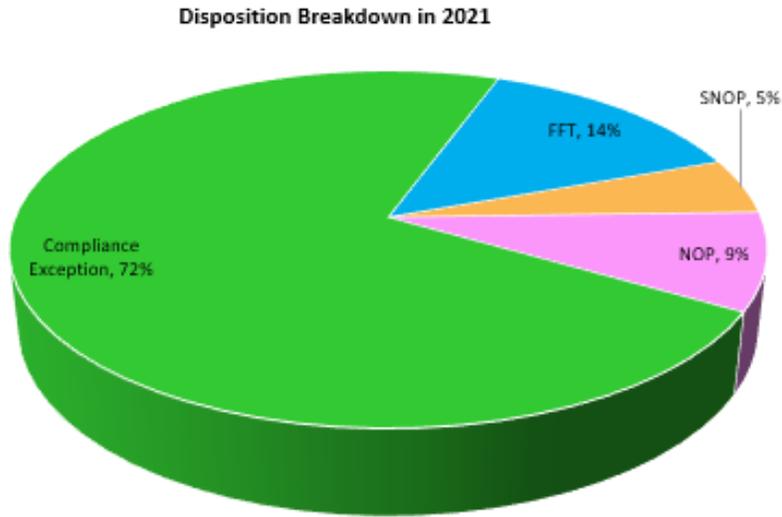


Figure A.9: Disposition Type of Noncompliance Processed in Q3 2021

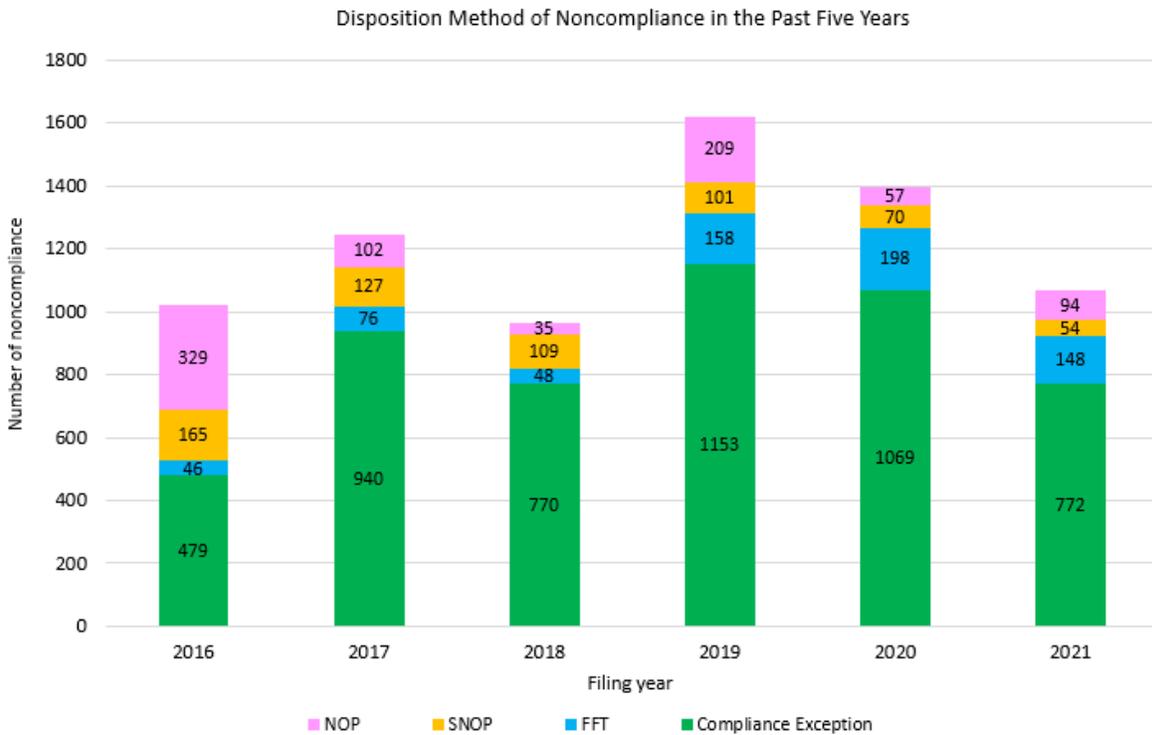


Figure A.10: Disposition Method of Noncompliance by Filing Year

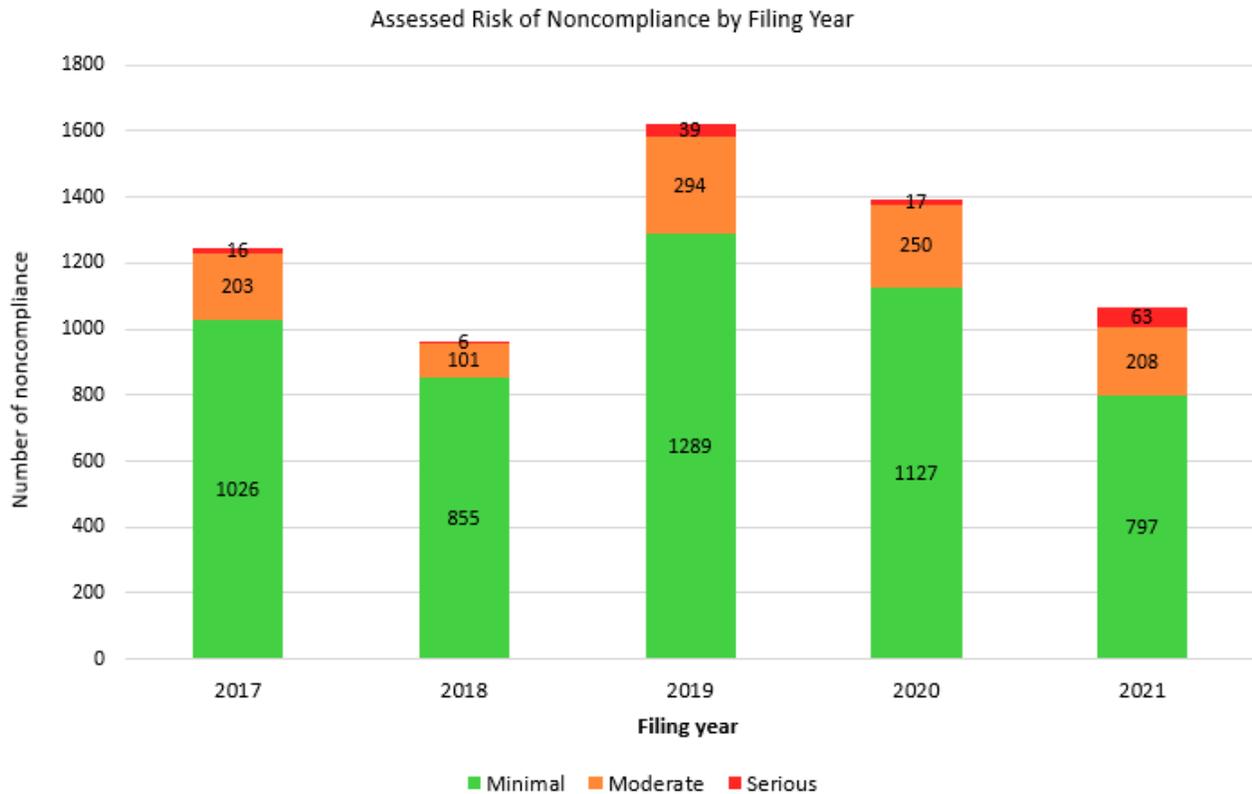


Figure A.11: Assessed Risk of Filed Noncompliance by Filing Year

Risk of Noncompliance

Most Violated Standards by Risk in 2020–Q3 2021

As shown in Figure A.12, CIP-007 remains the most frequently violated Reliability Standard followed by CIP-004 and CIP-010. The majority of these noncompliances were disposed of as CEs. CIP-007 and CIP-010 were tied for the most serious risk violations filed in the period, while CIP-007 had the most moderate risk violations. CIP-007 and CIP-004 were nearly tied for the most minimal risk violations filed in the period.

Top 10 Most Violated Standards by Assessed Risk
Filed in 2020-2021

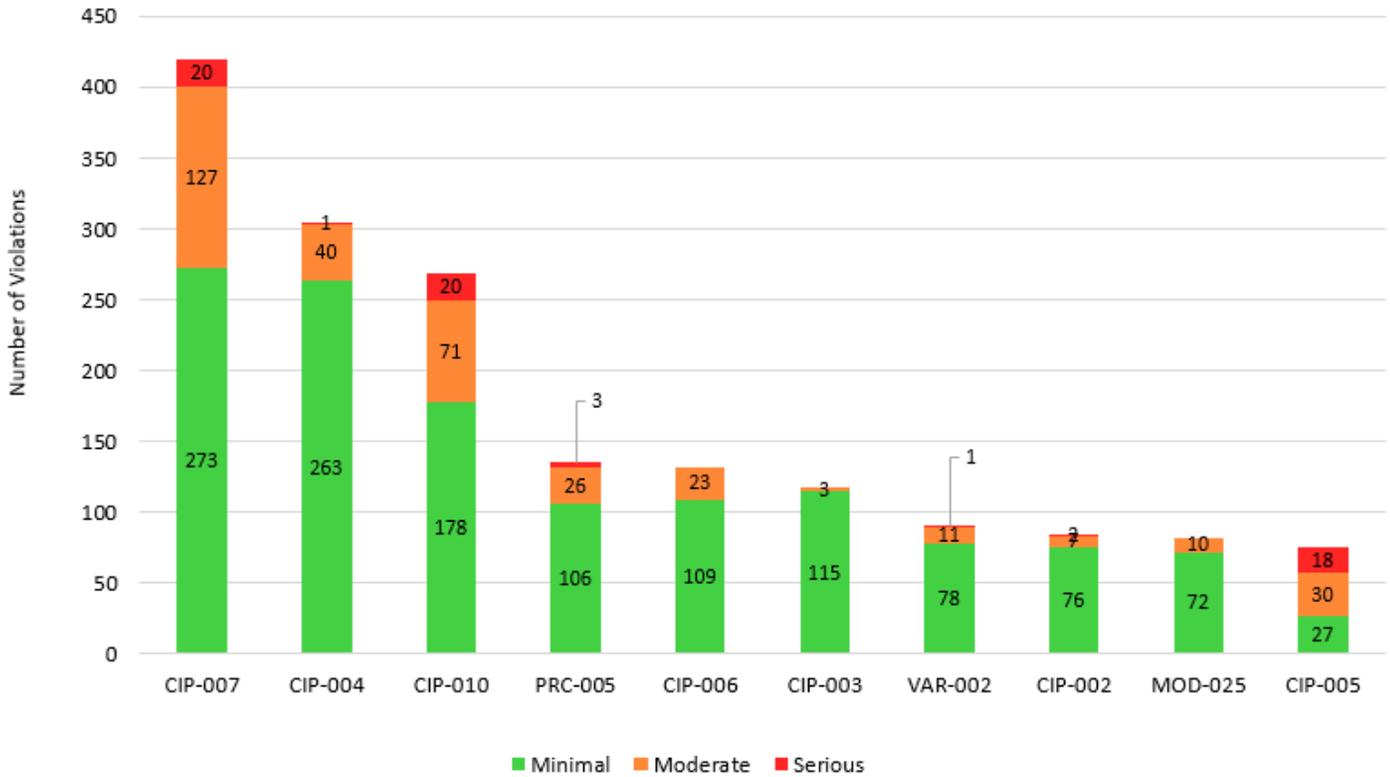


Figure A.12: Most Violated Reliability Standards by Risk Level in 2020–Q3 2021

Violations Posing a Serious Risk

NERC has gathered data and regularly monitored violations posing serious risk to the reliability of the BPS. In the period from 2020-Q3 2021, the ERO Enterprise has filed 80 serious risk violations with FERC, which represented approximately three percent of all filed noncompliance during that period. As shown in Figure A.13, the majority of these serious risk violations were in CIP Standards, particularly those relating to Electronic Security Perimeters and interactive remote access, ports and services, security patches, account management, baselines, categorization of BES Cyber Systems, and protection of BES Cyber System Information. The serious risk O&P violations involved Facility Ratings, vegetation management, loss of control center functionality, training of system operators, Protection System maintenance and testing, generator voltage schedules, and transmission maintenance and inspection plans.

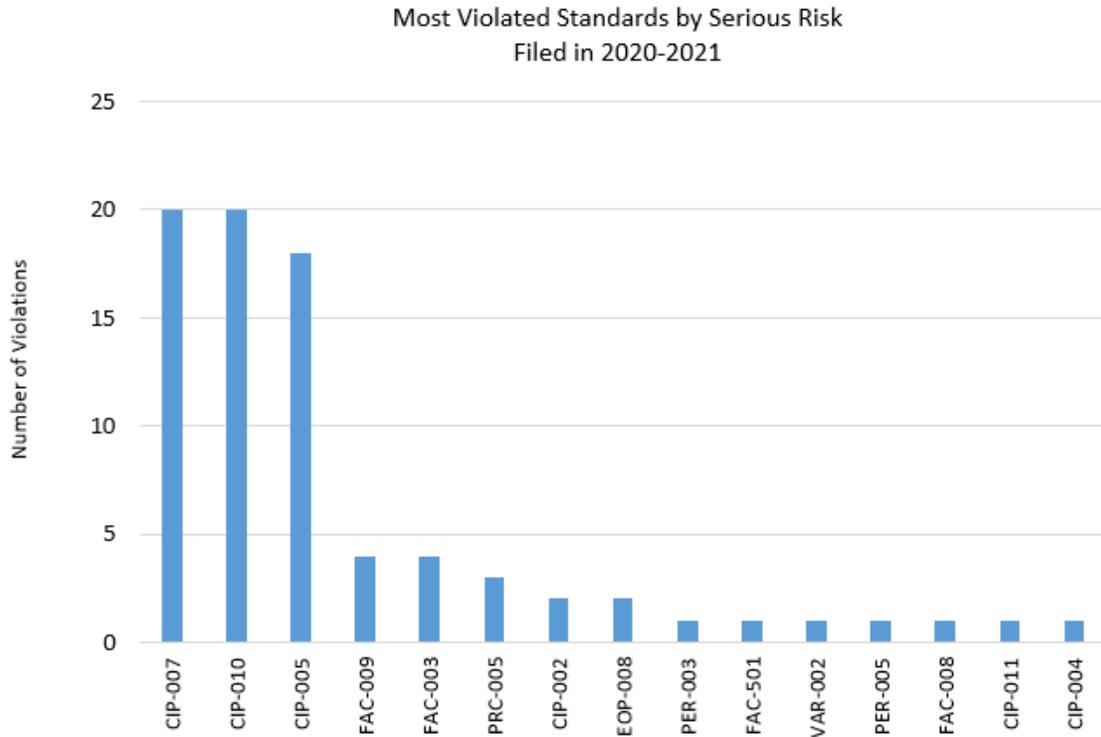


Figure A.13: Reliability Standards with Serious Risk Violations¹⁵

Serious Risk Averages

Figure A.14 shows the percentage of serious risk violations, both CIP and O&P, over a rolling three-year average. The percentages are determined based on the number of serious risk violations compared to the total number of noncompliance filed in a given three-year period. Figure A.14 shows that the percentage of filed serious risk violations has remained below five percent over the last eight three-year periods, even with an uptick in the most recent three-year period. Serious risk CIP violations have tended to drive the overall percentage of filed serious risk violations over the last several years.

¹⁵ Although the currently effective version of the Reliability Standard addressing Facility Ratings is FAC-008-3, some violations involving Facility Ratings extend back in time to FAC-009-1, as seen in Figure A.13.

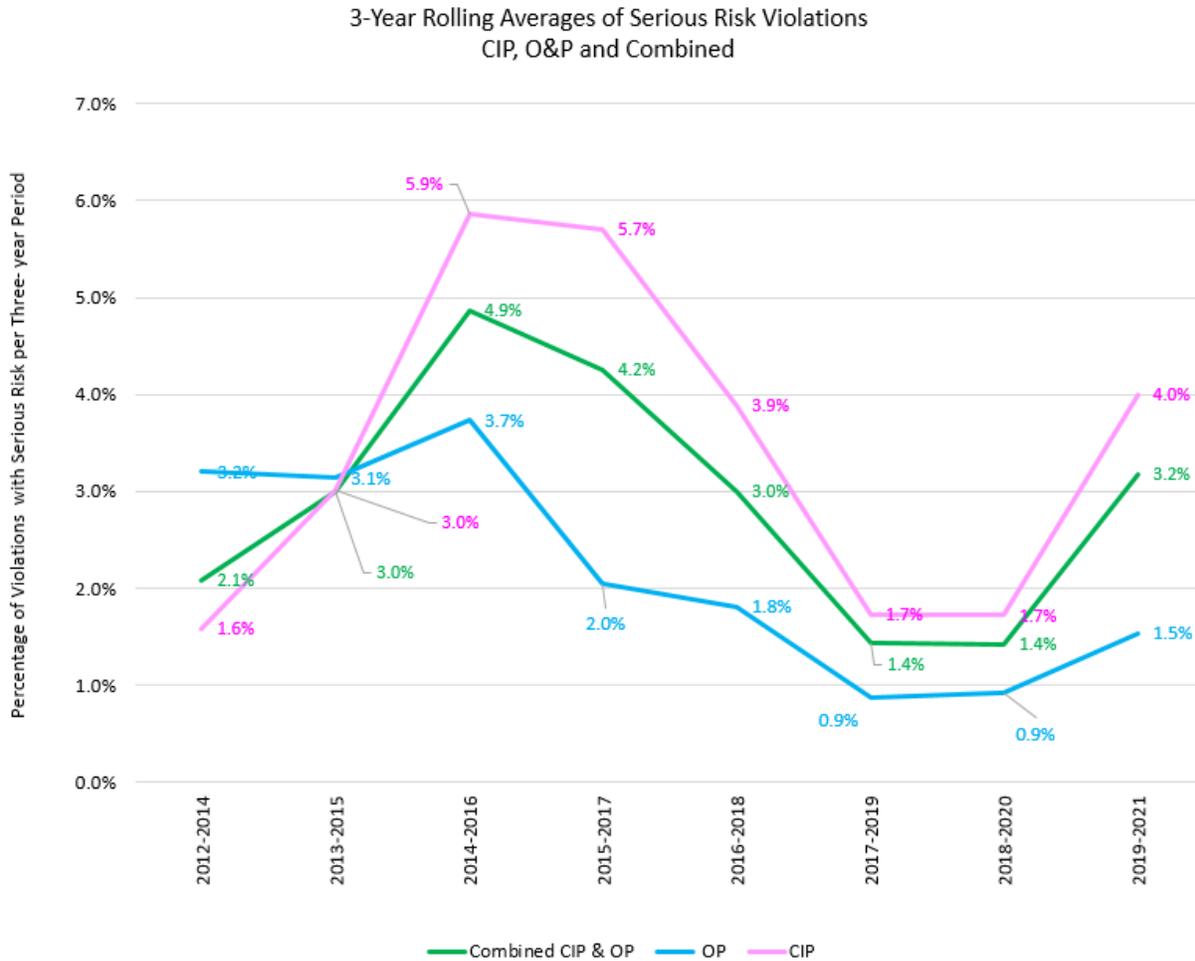


Figure A.14: Rolling Average of Serious Risk Violations (CIP and O&P)

Repeat Moderate and Serious Risk Violations

The ERO Enterprise monitors compliance history (defined as a prior violation of the same or similar Reliability Standard and Requirement) and repeat noncompliance with similar conduct (defined as a prior violation that stemmed from similar actions or conduct) to further explore the relationship of prior mitigation to repeat noncompliance and to identify any additional areas of focus and future actions.

Figure A. 15 compares three categories of moderate and serious risk noncompliance: noncompliance with compliance history, noncompliance with compliance history involving similar conduct, and all filed moderate and serious risk noncompliance. Noncompliance with similar conduct is a subset of the wider group of repeat noncompliance, in which the 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 total moderate and serious noncompliance includes both “new” noncompliance and repeat noncompliance. Figure A.16 shows similar information using a three-year rolling average for the same three categories.

Figure A. 16 shows the same information as in Figure A. 15, but averaged over a three-year period. The ERO Enterprise will continue to analyze the information as the year progresses and highlight any notable trends in future quarterly reports.

Relevant Compliance History and Similar Conduct for Moderate and Serious Risk Violations
 Filing Years 2017-2021

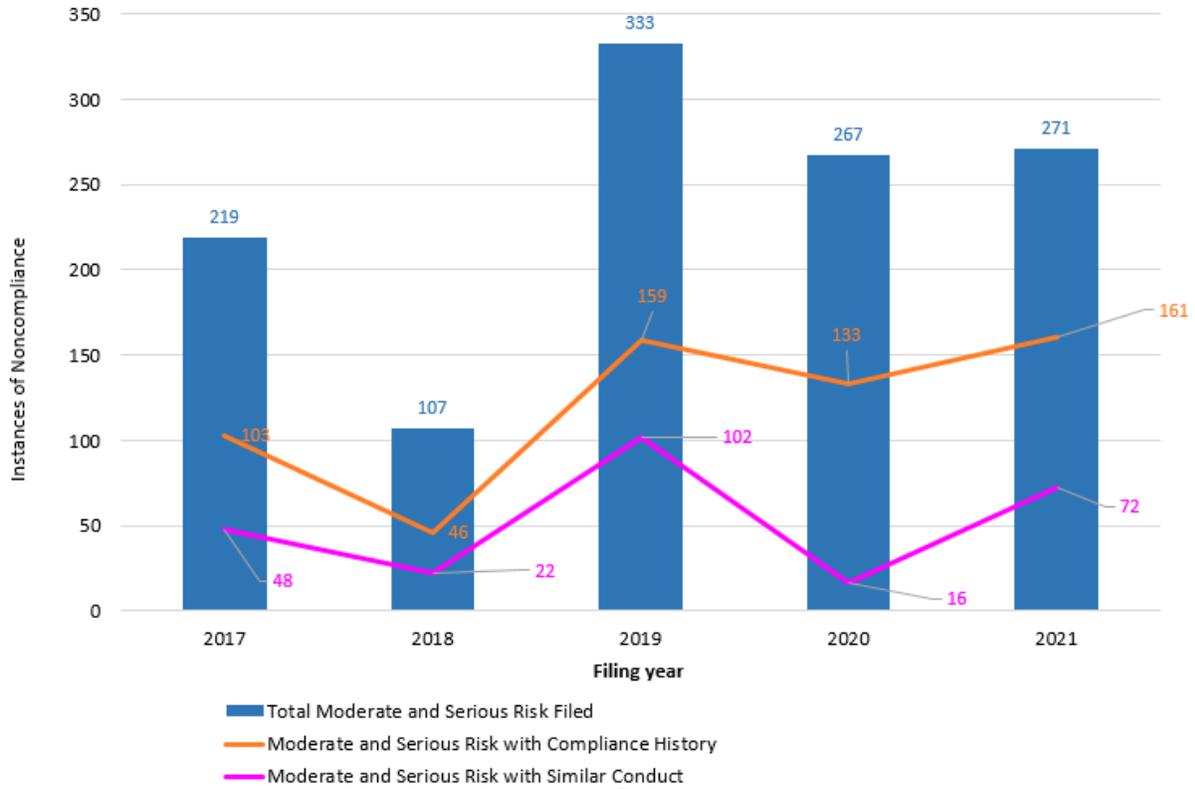


Figure A.15: Compliance History and Similar Conduct for Moderate and Serious Risk Violations

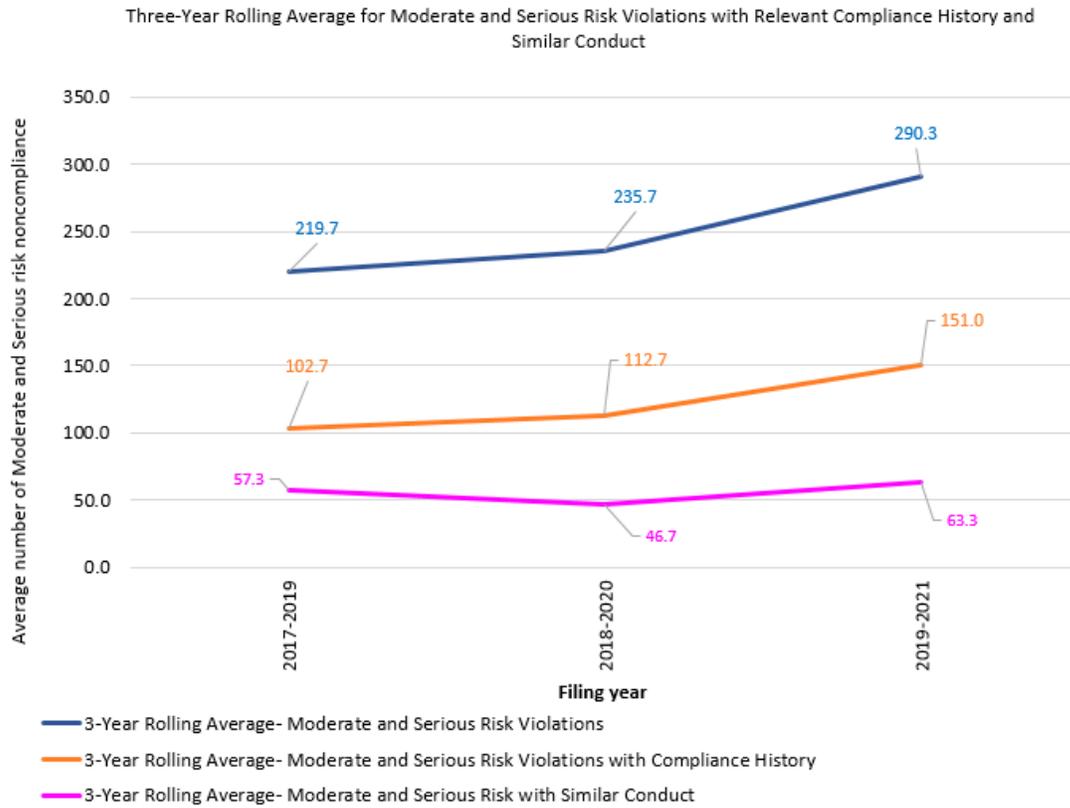


Figure A.16: Compliance History and Similar Conduct for Moderate and Serious Risk Violations (3-Year Rolling Average)

Vegetation Management

NERC regularly reports on two items related to vegetation management. First, NERC tracks all sustained outages caused by vegetation contacts submitted to REs on a quarterly basis. Second, NERC tracks transmission outages resulting from possible violations of FAC-003. These are usually submitted to REs through Self-Reports. Not all sustained outages caused by vegetation contacts are possible violations of FAC-003; however, some outages may fall into both tracking items.

The majority of vegetation-related sustained outages result from vegetation falling into transmission lines from outside the right-of-way. Registered entities reported these outages through periodic data submittals on a quarterly basis. Reporting of FAC-003 Periodic Data Submittals (PDS) has been postponed until Align Release 2 Go-Live.¹⁶ All Regions will adopt the new functionalities by October 1, 2021. Therefore, this quarterly report will not contain the usual graphs showing (1) the vegetation-related outages by category or (2) the outages resulting from possible FAC-003 violations.

As previously reported, in 2021, NERC has filed two Full NOPs resolving violations of FAC-003-4 R2 and R6, which were initially reported in 2018, 2019 and 2020.¹⁷

¹⁶ Align September 2021 newsletter:

<https://www.nerc.com/ResourceCenter/Align%20Documents/Align%20Registered%20Entity%20Newsletter%20September%202021.pdf>.

¹⁷ See FERC Docket No. NP21-6-000, available at https://www.nerc.com/pa/comp/CE/Enforcement%20Actions%20DL/Public_FinalFiled_NOP_NOC-2697.pdf; and FERC Docket No. NP21-14-000, available at https://www.nerc.com/pa/comp/CE/Enforcement%20Actions%20DL/Public_FinalFiled_NOP_NOC-2704.pdf.

Appendix B: Compliance Assurance

Coordinated Oversight Program for MRREs

Figure B.1 represents the distribution of the 61 MRRE groups (comprising 259 separate registered entities) by Lead RE, and Figure B.2 represents the distribution of MRREs by registered function. The registered entities that opted to join the program include various reliability functions in multiple REs.

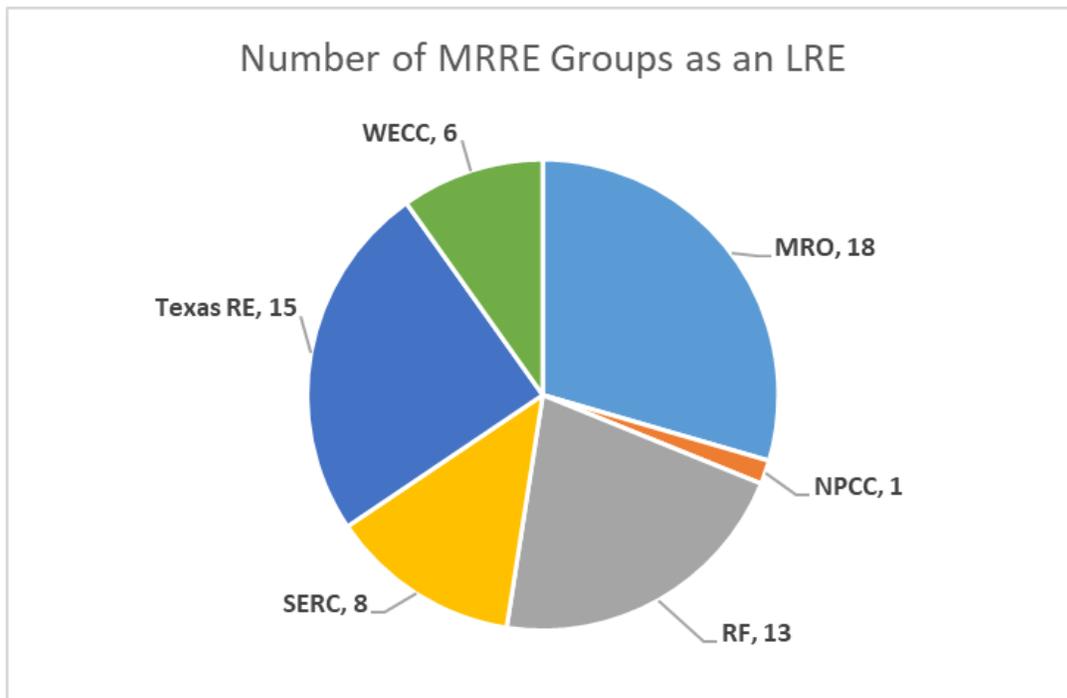


Figure B.1: Distribution of MRREs under Coordinated Oversight by Lead RE

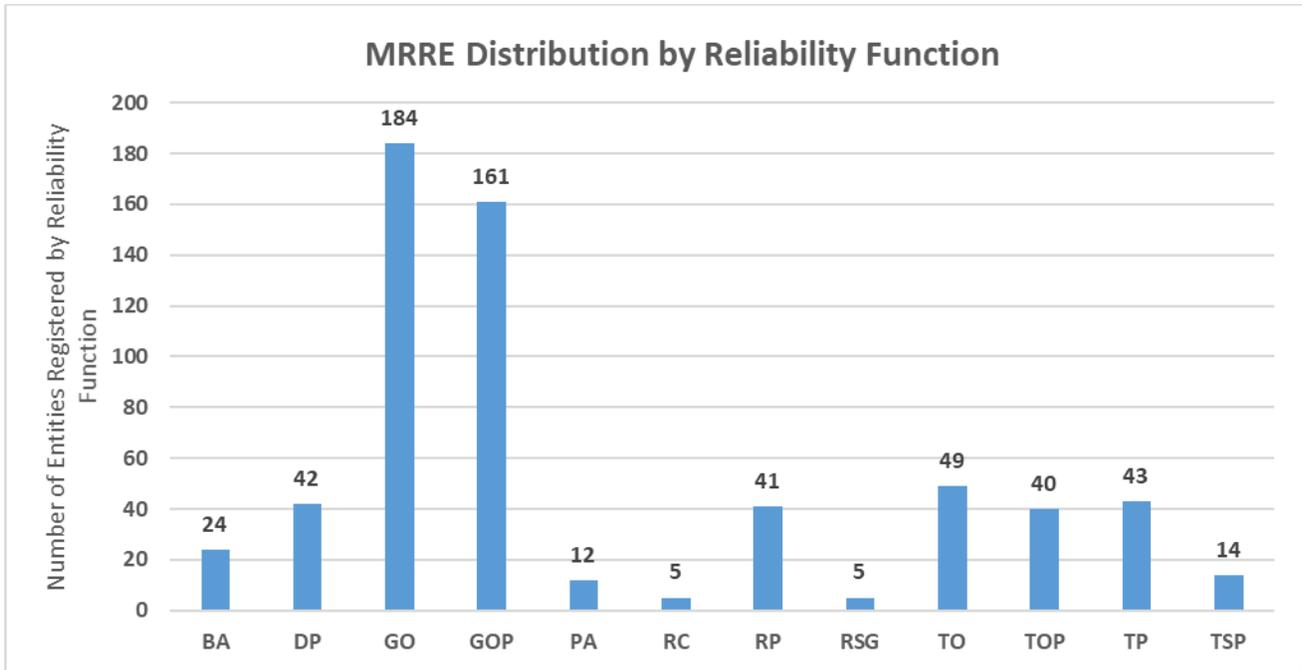


Figure B.2: Coordinated Oversight Distribution by Registered Function¹⁸

¹⁸ Each bar represents the number of registered entities by function in the Coordinated Oversight Program for MRREs.

Appendix C: Registration

Registration Change Activity by Function

Figure C.1 and Table C.1 depict Q3 2021 registration change activity by RE. Figure C.2 and Table C.2 depict Q32021 registration change activity by function.

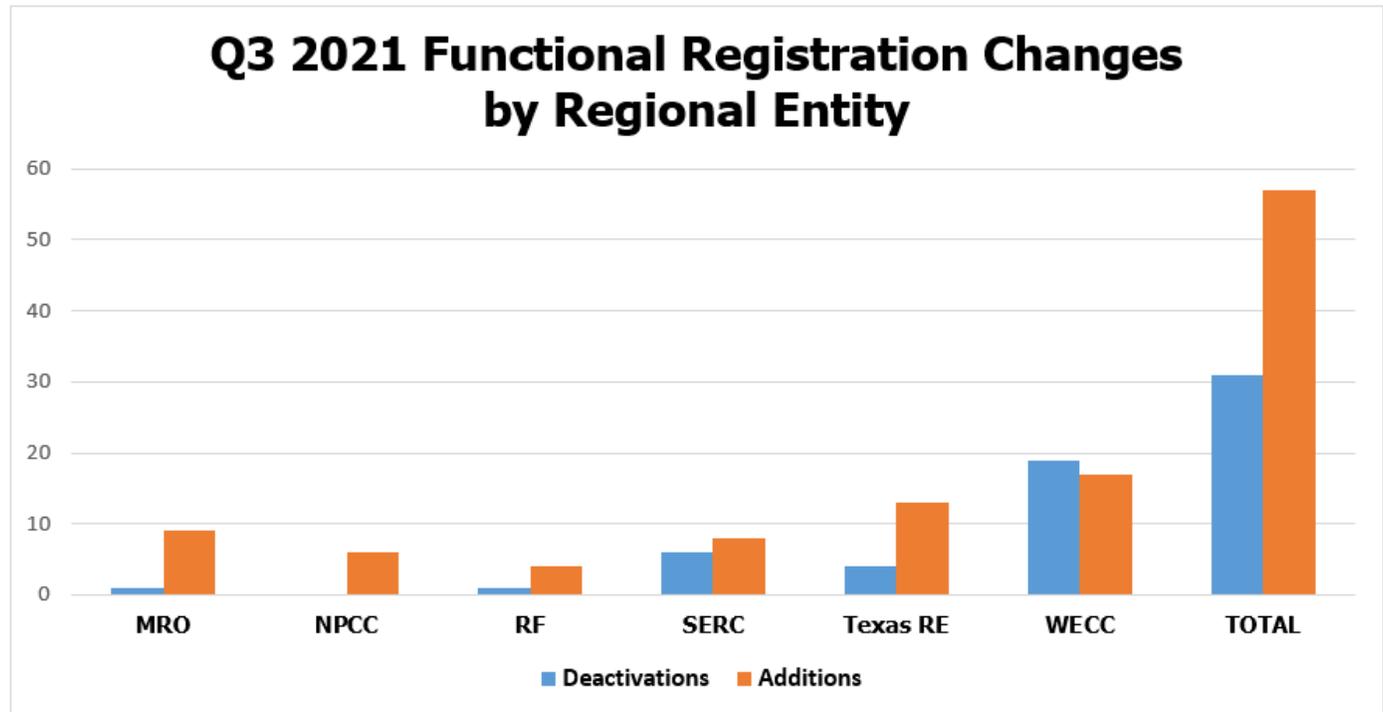


Figure C.1: Q32021 Functional Registration Change Activity by RE

Table C.1: Q3 2021 Functional Registration Change Activity by RE							
	MRO	NPCC	RF	SERC	Texas RE	WECC	TOTAL
Deactivations	1	0	1	6	4	19	31
Additions	9	6	4	8	13	17	57

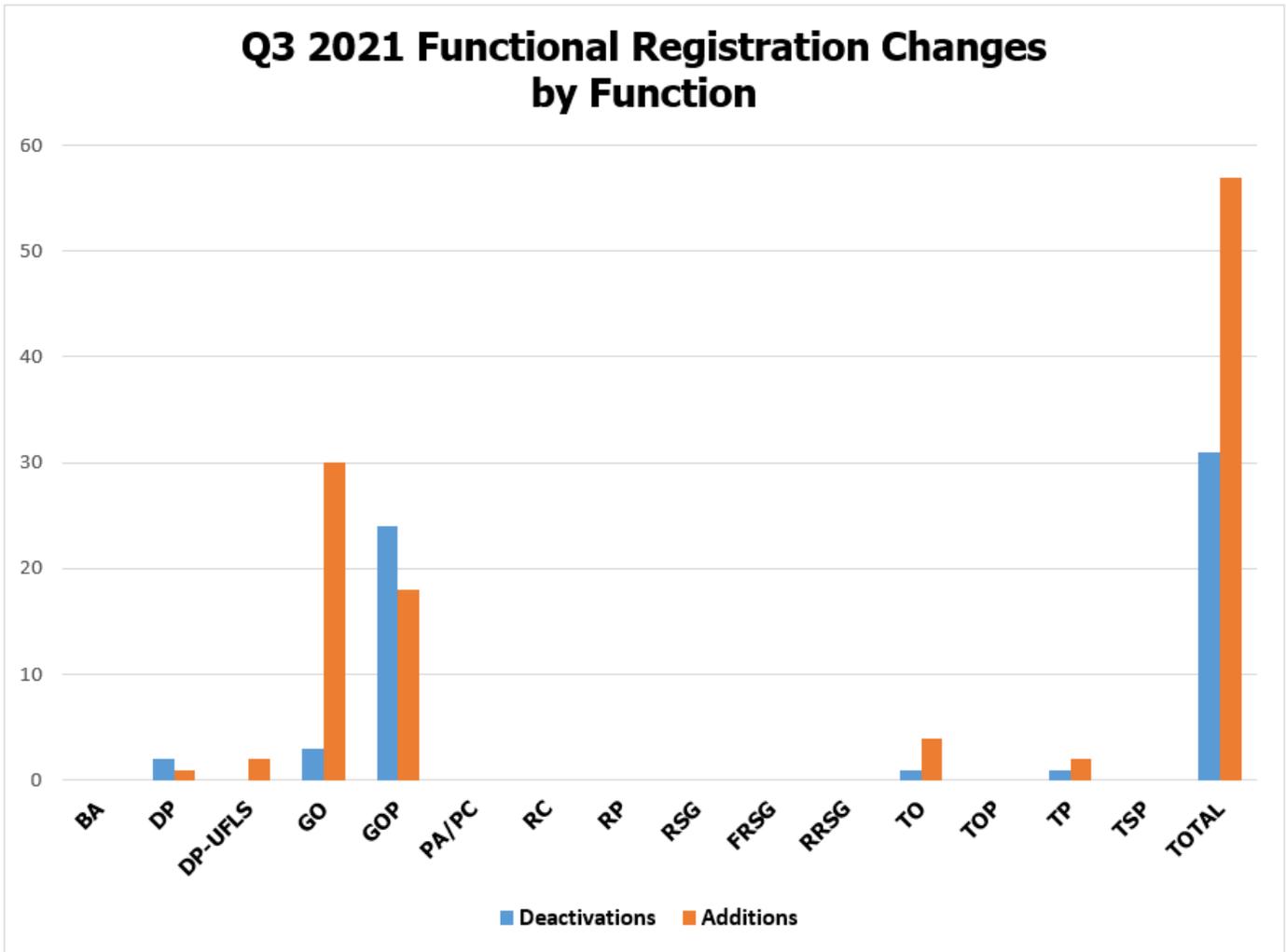


Figure C.2: Q3 2021 Registration Change Activity by Function

	DP	DP-UFLS	GO	GOP	TO	TP	TOTAL
Deactivations	2	0	3	24	1	1	31
Additions	1	2	30	18	4	2	57

Table C.3 shows the basis for Q3 2021 registration changes. NERC seeks justification from each RE when approving registration change activity.

Compliance responsibility assumed by another Registered Entity.	28
Determined to be DP-UFLS only and has been registered as such.	1
Determined to no longer meet registration criteria.	2

Appendix D: Certification and Bulk Electric System

ERO Enterprise Organization Certification Utilization

Certification activities are responsive to the number of new entities requiring certification and the types of changes implemented to already-certified and operational entities. Program utilization metrics help to plan resource needs, including staff, travel, and training.

Figure D.1 identifies the number of new entity certifications completed by each RE during Q3 2021 and the number of new entity certifications where activity has been initiated but not yet concluded (in process). Figure D.2 identifies the number of reviews of changes to already-certified and operational entities completed by each RE during Q3 2021 and the number of certification reviews in process at the end of Q3 2021.



Figure D.1: Q3 2021 New Entity Certifications by RE

Table D.1: Q3 2021 Organization Certifications		
Function	Completed	In Process
Reliability Coordinator	0	0
Transmission Operator	0	1
Balancing Authority	0	0

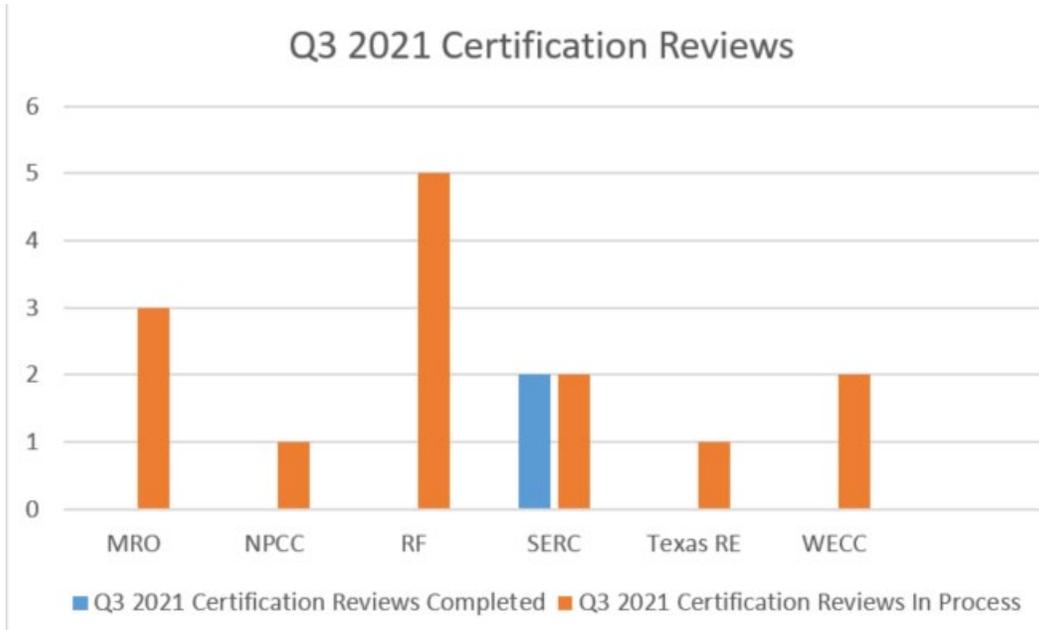


Figure D.2: Q3 2021 Certification Review Activity by RE

Table D.2: Q3 2021 Certification Review ¹⁹		
Change Basis	Completed	In Process
Changes to a registered entity's footprint	0	1
Relocation of the Control Center	0	1
Changes to Supervisory Control and Data Acquisition (SCADA)/Energy Management System (EMS) System	2	10 ²⁰

¹⁹ Some entities have multiple triggering events for certification reviews.

²⁰ One of these activities has the participation of three regional entities.