

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Compliance Monitoring and Enforcement Program Quarterly Report

Q3 2019

November 1, 2019

**RELIABILITY | RESILIENCE | SECURITY**



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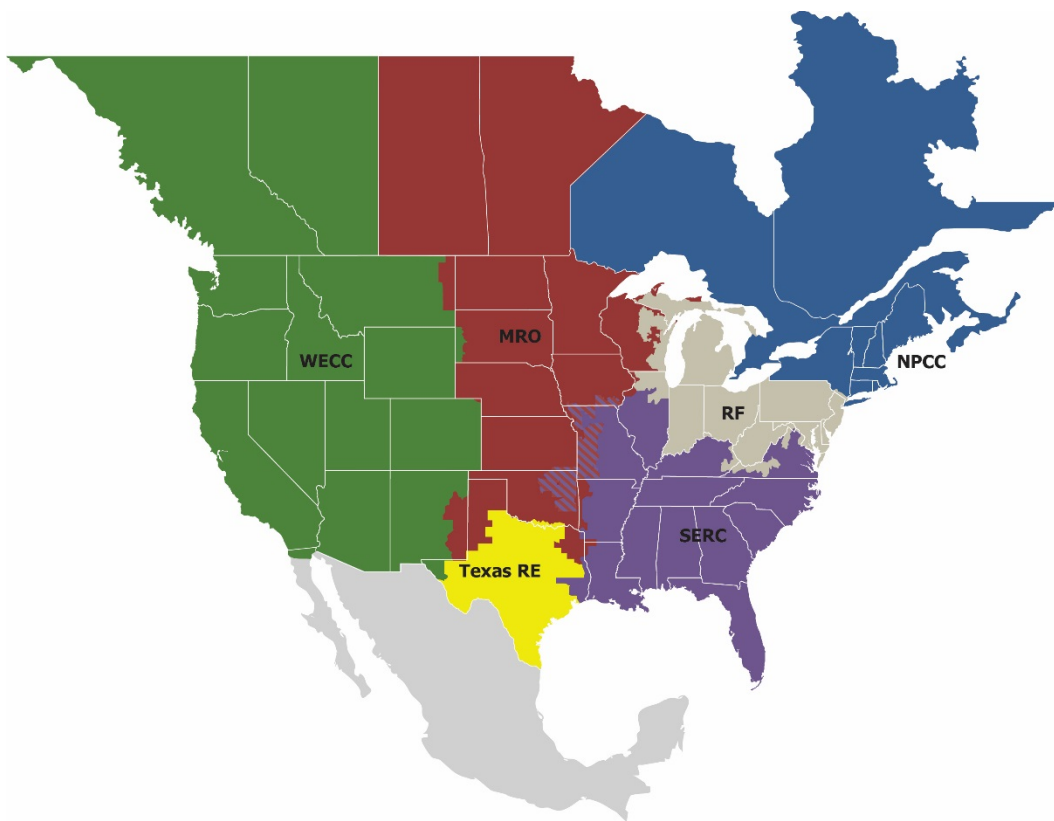
## Preface

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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 (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 citizens in North America 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.



<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

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This report highlights key ERO Enterprise<sup>1</sup> Compliance Monitoring and Enforcement Program (CMEP) activities that occurred in Q3 2019 and provides information and statistics regarding those activities.

In Q3 2019, CMEP activities throughout the ERO Enterprise reflected continued implementation of a risk-based approach and program alignment. The ERO Enterprise:

- Approved two multi-region registered entities (MRREs) for entry into the Coordinated Oversight Program,
- Certified one new Reliability Coordinator and reviewed one already-certified and operational registered entity,
- Processed 46 functional registration changes,
- Completed one Bulk Electric System (BES) Registration Exception Request,
- Filed one Full Notice of Penalty (NOP),
- Filed 12 Spreadsheet Notices of Penalty (SNOP), and
- Began to develop the revised Compliance Oversight Plan template.

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<sup>1</sup> 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

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## Program Alignment

The ERO Enterprise is enhancing alignment of CMEP activities under a broader ERO Enterprise Program Alignment Process (Program Alignment).<sup>2</sup> In Q3, NERC staff received two new cases submitted through the Reporting Tool and NERC added four CMEP Practice Guides, resulting in six open issues.

NERC staff, along with Compliance and Certification Committee (CCC) Alignment Working Group (AWG) members, provided Program Alignment outreach at the two-day Compliance and Standards Workshop held in Minneapolis during Q3.

## 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 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 2019, the ERO Enterprise approved two additional MRREs for entry into the Coordinated Oversight Program, increasing the total count of registered entities participating to 211.<sup>3</sup>

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<sup>2</sup> <http://www.nerc.com/pa/comp/Pages/EROEnterProAlign.aspx>

<sup>3</sup> Appendix B includes further information on the MRREs participating in the Coordinated Oversight Program.

## Chapter 2: RE Oversight

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### Enforcement Oversight

#### Serious Risk Issues

NERC filed one Full NOP, Docket No. NP19-16 in Q3 of 2019, resolving seven violations of Critical Infrastructure Protection (CIP) Reliability Standards with a \$2,100,000 penalty. The entity installed servers, and correctly designated the servers as Critical Cyber Assets requiring specific protections included in the CIP Standards; however, the entity did not realize that the CIP Standards also applied to certain subcomponents of the server separately, apart from the servers. The entity did not use the documentation tools it developed to ensure that the server's subcomponents were given the appropriate and applicable CIP protections.

#### Spreadsheet NOPs

In Q3 2019, NERC filed 12 SNOPs that included 37 violations of NERC Reliability Standards and carried a total combined penalty of approximately \$283,000. Twenty-one of the violations were violations of the CIP Reliability Standards, while the remaining 16 were violations of non-CIP Reliability Standards.

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

In Q3, NERC filed the closure letter for FY2018 Annual Find, Fix, Track, and Report and CE program review with the Federal Energy Regulatory Commission (FERC). NERC also started planning for the next review for FY2019 in conjunction with FERC.

### Compliance Monitoring Oversight

#### NERC Oversight

In Q3, NERC executed monitoring oversight activities planned for 2019. These activities include the following:

- RE-specific follow-up related to prior oversight recommendations,
- Planned audit observation activities, and
- Recurring oversight coordination specific to ERO Enterprise efforts around Compliance Oversight Plan enhancement and alignment during 2019.

#### Inherent Risk Assessment Completion and Compliance Oversight Plans

During Q3 2019, RE progress toward completion of initial Inherent Risk Assessments (IRAs) continued on track according to regional plans.<sup>4</sup> By the end of 2019, all REs will have completed initial IRAs for all registered entities and will continue to update existing IRAs. IRA updates and initial IRAs for newly registered entities will consider registered functions, risk priorities, and regional resources. REs continue to conduct internal control review activities and implement processes for conducting reviews of internal controls during CMEP activities, such as Compliance Audits.

Additionally, REs started to develop Compliance Oversight Plans (COPs) using results of the IRA and performance considerations such as internal controls, mitigation plans, compliance history, event analysis trends, or other regional considerations to identify key risks. COPs will include the NERC Reliability Standards associated with identified risks, the interval of monitoring activities, and the type of CMEP tool(s) (such as Compliance Audit, Spot Check, or Self-Certification). NERC will continue to monitor development of COPs throughout the remainder of 2019 to ensure ERO Enterprise alignment.

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<sup>4</sup> Additional information regarding the percentage of IRAs completed for all registered entities within each RE across the ERO Enterprise is available in Appendix B. REs will continue to prioritize IRA completions based on registered functions and registration changes throughout the year.

## **Compliance Guidance**

During Q3 2019, the ERO Enterprise received one new proposed Implementation Guidance document. Three Implementation Guidance documents received in late Q2 2019 are in the final stages of the review and endorsement process.

## **Certification**

### **Q3 Certification Completions**

In Q3 of 2019, the ERO Enterprise completed certification of one new Reliability Coordinator in the Western Interconnection and completed the review of changes to the footprint of one already certified and operational Transmission Operator. Additionally, six new entity certifications are in process with one initial site visit not yet completed. Ten certification reviews are in process with three initial site visits scheduled for the fourth quarter. Appendix D provides a breakdown by RE and by function.

## **Registration**

In Q3 of 2019, NERC processed 46 Registration Changes of which 28 were functional activations and 18 were functional deactivations. Of the 18 functional deactivations:

- One was determined not to meet registration criteria,
- Two were due to facility shutdown,
- Four were assets being sold to another registered entity, and
- Eleven were due to compliance responsibility being assumed by another registered entity.

### **BES Registration Exceptions**

In Q3 of 2019, NERC completed one Exception Request in MRO. NERC is currently reviewing one additional Exception Request already approved by WECC and is expecting to complete this review in Q4 of 2019.

## Chapter 3: ERO Enterprise Performance Objectives

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### Priorities for 2019

To guide CMEP Activities throughout 2019, NERC identified the following key objectives in support of the ERO Enterprise Operating Plan goal of risk-informed Entity Registration, Compliance Monitoring, Mitigation, and Enforcement:

- Review effectiveness of the Compliance Guidance program and develop a plan to enhance the program. In Q3, NERC provided a survey to the developers, submitters, reviewers, and users of Compliance Guidance to solicit feedback on the effectiveness of the program and improvement opportunities. NERC will evaluate the responses during Q4 and put together a plan for addressing the feedback by the end of 2019.
- Evaluate opportunities to expand industry-led development of guidance to other program areas as a part of the Compliance Guidance project discussed in the previous bullet. This evaluation will, in part, be accomplished through the survey sent out in Q3.
- NERC has completed its priority to enhance the CMEP Practice Guide development process to solicit and incorporate feedback from NERC Committees (e.g. CCC, Critical Infrastructure Protection Committee). The Practice Guide now includes NERC Committee feedback as part of its workflow in development of CMEP Practice Guides. At the end of Q3, NERC provided four Practice Guides to the CCC AWG for review.
- Track the development and completion of CMEP Practice Guides through the Program Alignment Issues and Recommendations Tracking spreadsheet located on NERC's website. The four Practice Guides provided to the CCC AWG were also added to the Program Alignment Issues and Recommendations Tracking spreadsheet.
- Provide training and education on control evaluations to industry with supporting guidance to the REs for consistent implementation in audits. In Q3, the ERO Enterprise continued to conduct outreach on the revised COP template. The ERO Enterprise has developed common COP outreach that NERC and each RE will provide through a workshop or other forum by the end of 2019. Part of the revisions to the COP includes the integration of controls.
- NERC has completed its priority to present on controls-related topics for industry during the July 2019 Compliance and Standards Workshop. This included presentations by several REs on understanding controls during compliance monitoring activities, a panel discussion on good practices and lessons learned from control implementation by industry members, and a presentation by NERC staff on control integration in the enforcement process; and
- Improve alignment in processes across REs and – when appropriate – memorialize the aligned processes into the design of the CMEP Tool. A key part of the Align project included deliberate review of business practices across all CMEP activities, resulting in harmonization of primary CMEP processes that will be incorporated into Align. For Q3, the ERO Enterprise continued to support the development of Align and discussed evidence-gathering processes and possible solutions related to Align with industry members in October.



## Appendix A: Enforcement

### CMEP Metrics

#### Mitigation Completion Status

Figure A.1 shows the current percentage of mitigation completion by discovery year. Table A.1 shows the progress in mitigation completion in Q3 compared to previous quarters. NERC continues to monitor completion status of all violations based on the expected completion dates.

Table A.1: Violations With Mitigation in Progress in 2019			
Discovery year	Q3	Q2	Q1
2019	77.4%	86.7%	95.4%
2018	40.1%	51.2%	63.9%
2017	16.6%	21.2%	27.5%
2016	5.5%	6.5%	8.0%
2015	0.8%	0.8%	0.8%

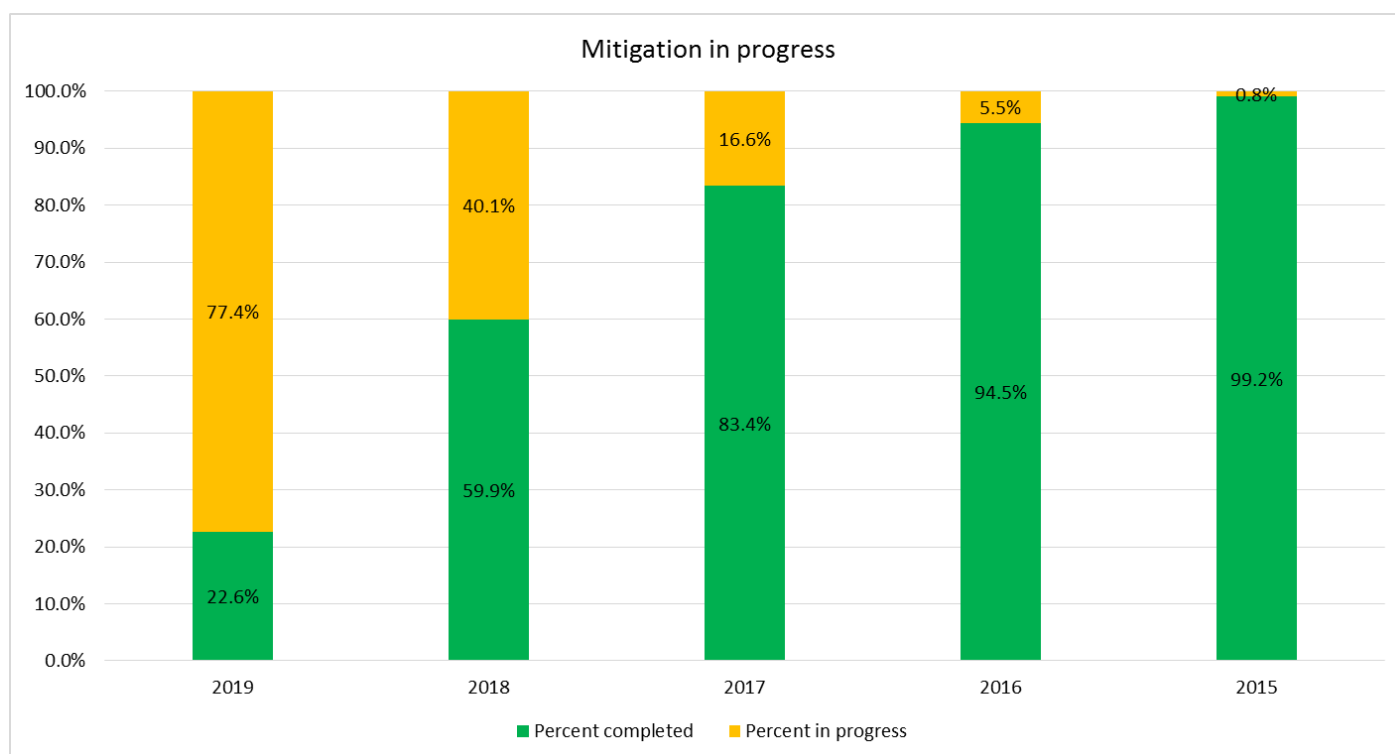


Figure A.1: Mitigation Completion by Discovery Year

### Age of Noncompliance in ERO Enterprise Inventory

Figure A.2 shows all noncompliance in the ERO Enterprise inventory, organized by discovery year.<sup>5</sup> Twenty percent of the ERO Enterprise inventory is more than two years old. The ERO Enterprise is committed to resolving the oldest violations while also assessing and ensuring mitigation of newly discovered noncompliance.

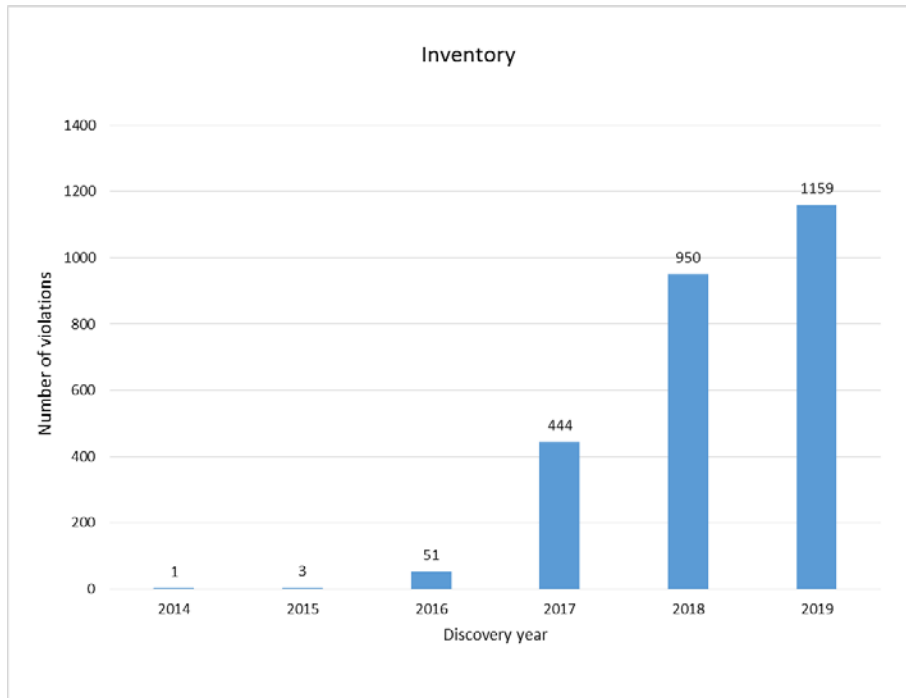


Figure A.2: Age of Noncompliance in the ERO Enterprise Inventory

### Disposition of Noncompliance

Figure A.3 shows the percentage of all noncompliance processed by disposition type through the end of Q3 2019. The ERO Enterprise processed a majority of instances of noncompliance in Q3 as Compliance Exceptions.

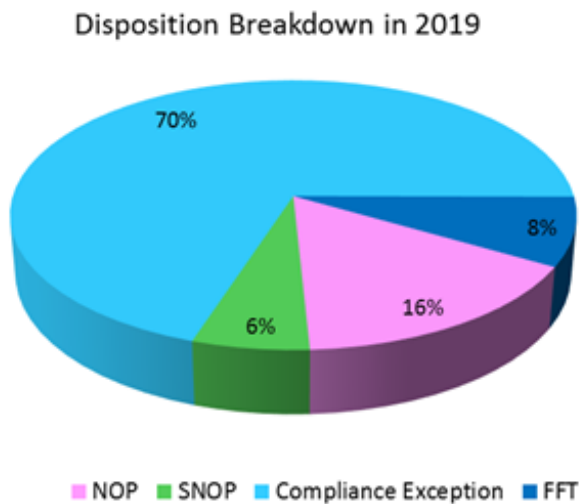


Figure A.3: Disposition Type of Noncompliance Processed in 2019

<sup>5</sup> The number of instances of noncompliance in the inventory is often higher than the number of instances of noncompliance that is unmitigated because registered entities may complete their mitigating activities while enforcement disposition is under review and determination.

## Vegetation Management

NERC regularly reports on vegetation-related Sustained Outages. Figures A.4 and A.5 show transmission outages from Category 3 (Sustained Outages caused by vegetation falling into applicable lines from outside the right-of-way) and those outages that resulted in violations of FAC-003.<sup>6</sup> FAC-003 issues are posted on the NERC website. Nineteen sustained outages from vegetation fall-ins from outside of the transmission right-of-way have been reported in 2019.<sup>7</sup>

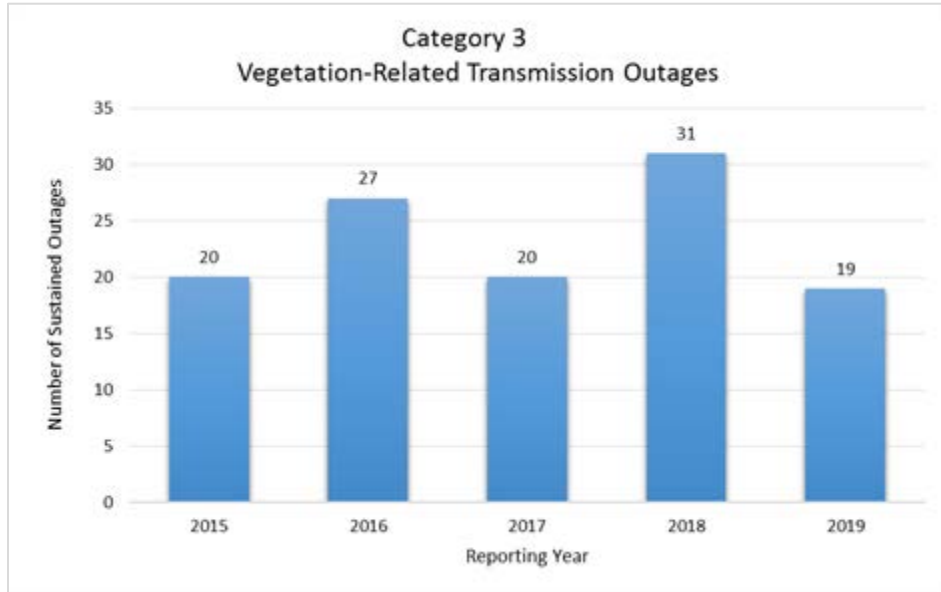


Figure A.4: Category 3 Transmission Outages

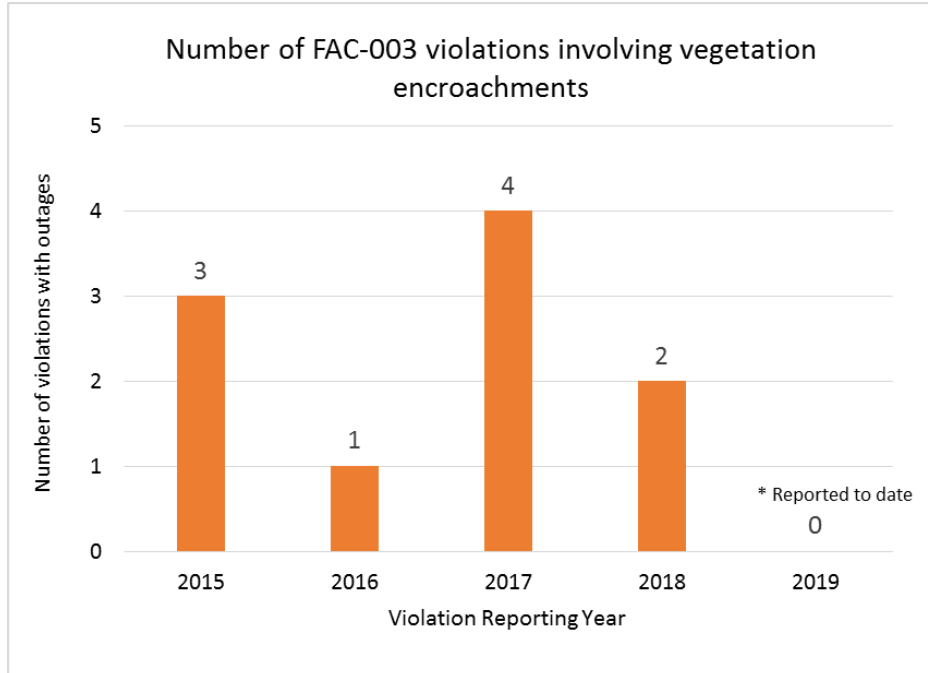


Figure A.5: FAC-003 Violations

<sup>6</sup> Filed violations.

<sup>7</sup> Please note the periodic data reporting timing per FAC-003. The number in this report reflects outages submitted by the end of Q2 2019 periodic data reporting.

### Serious Risk Averages

Figures A.6 and A.7 show the percentage of serious risk violations 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.6 shows the breakdown for non-CIP noncompliance, and Figure A.7 includes CIP violations.

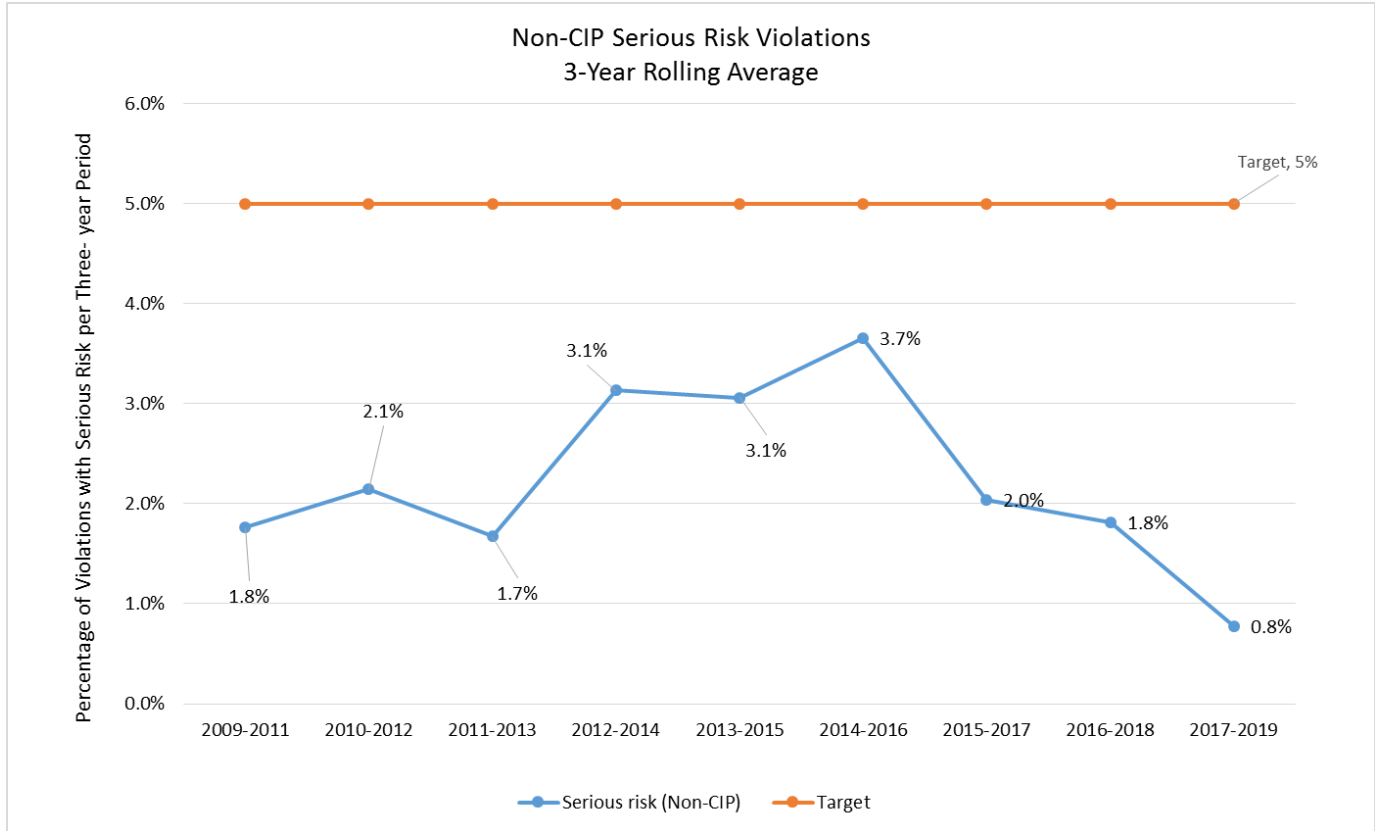
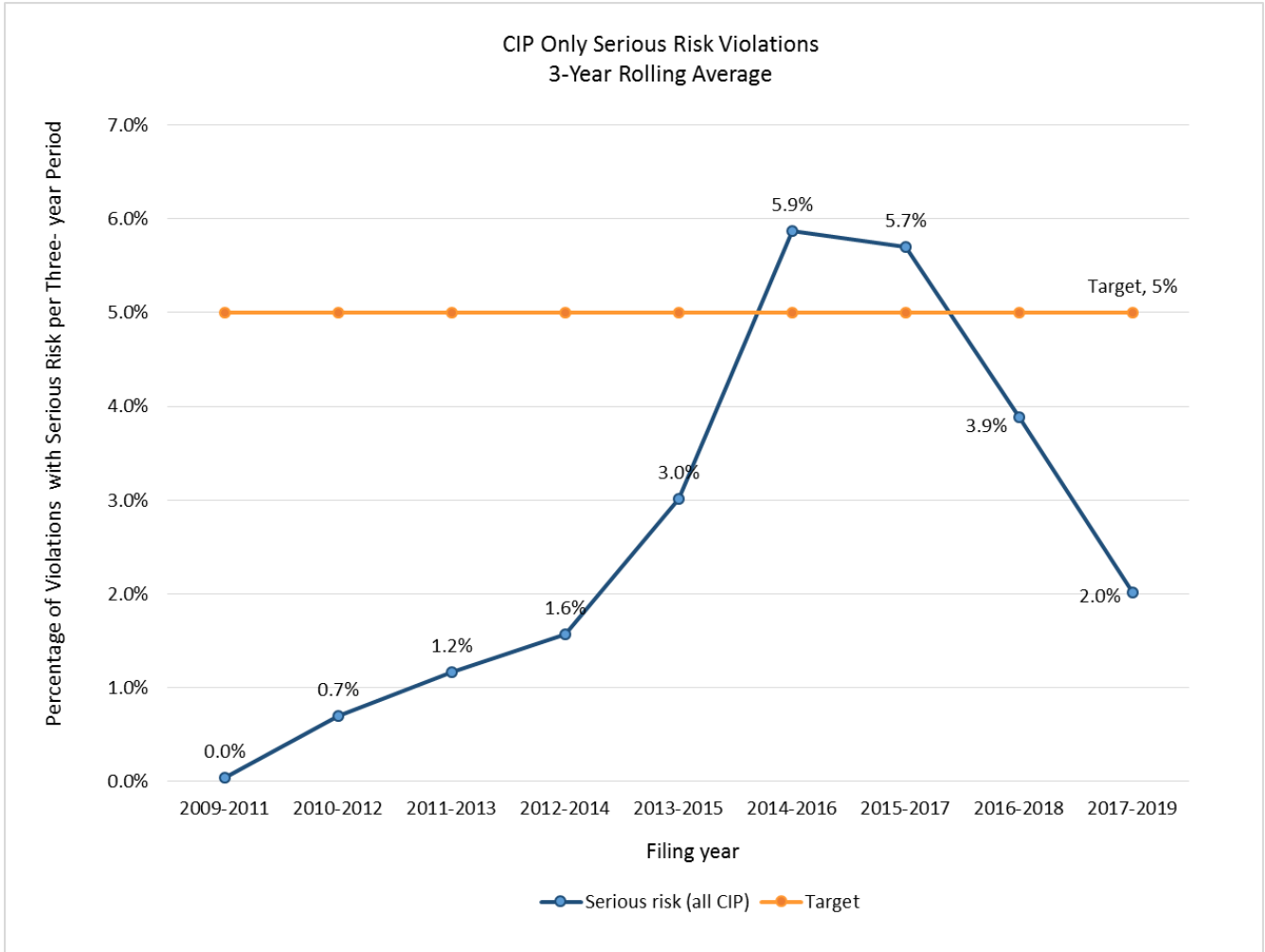


Figure A.6: Rolling Average of Serious Risk Violations (non-CIP)



**Figure A.7: Rolling Average of Serious Risk Violations (CIP)**

### Reduced Repeat Moderate and Serious Risk Violations

The ERO Enterprise monitors compliance history (defined as a prior violation of the same 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.8 compares three categories of moderate and serious risk noncompliance: noncompliance with compliance history (blue columns), noncompliance with compliance history involving similar conduct (orange line), and all filed moderate and serious risk noncompliance (gray line). Noncompliance with similar conduct is a subset of the wider group of repeat noncompliance. The total moderate and serious noncompliance, shown by the gray line, includes both “new” noncompliance and repeat noncompliance.

The full NOPs filed in 2019 involved violations with similar prior conduct, which also carried larger penalty amounts.

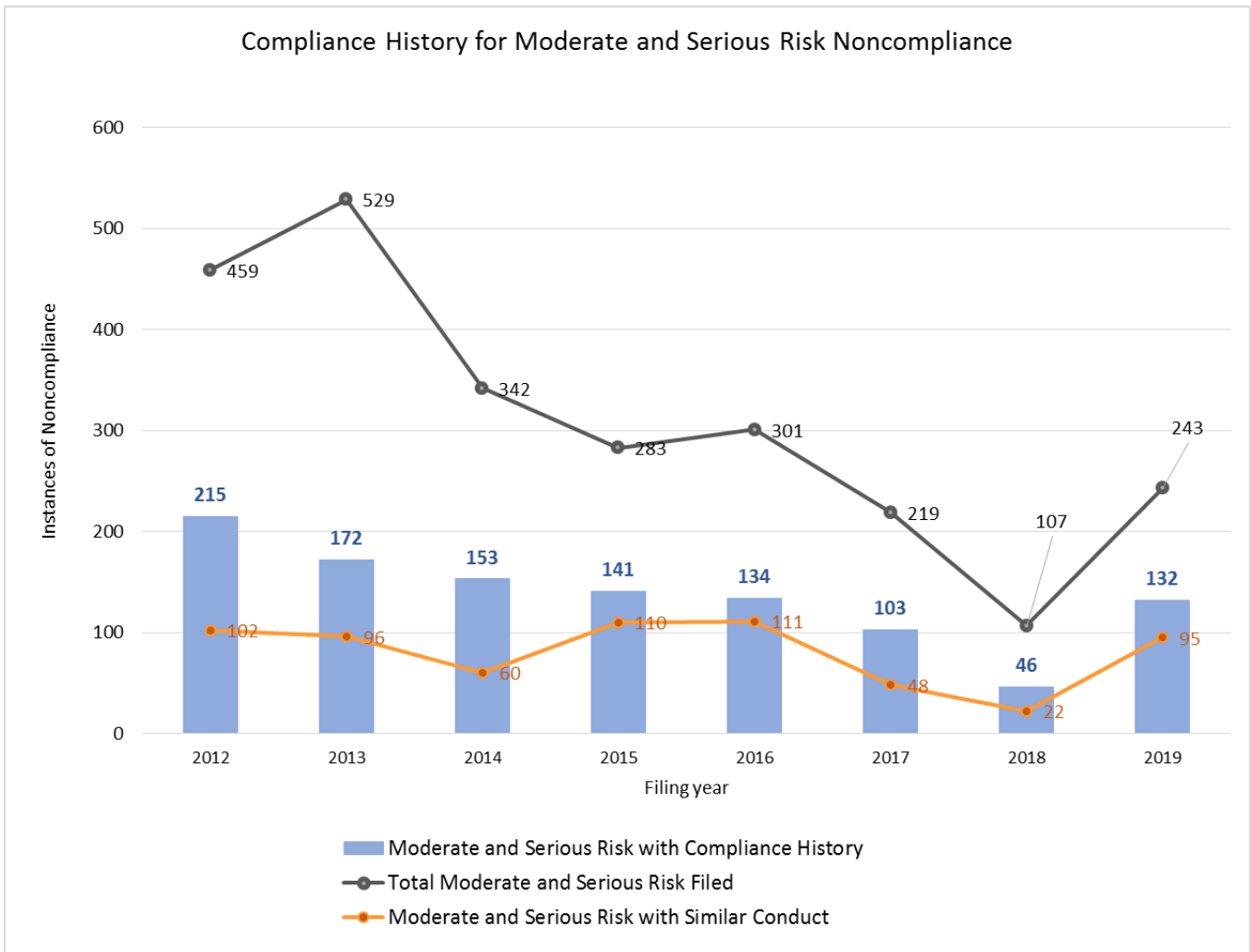
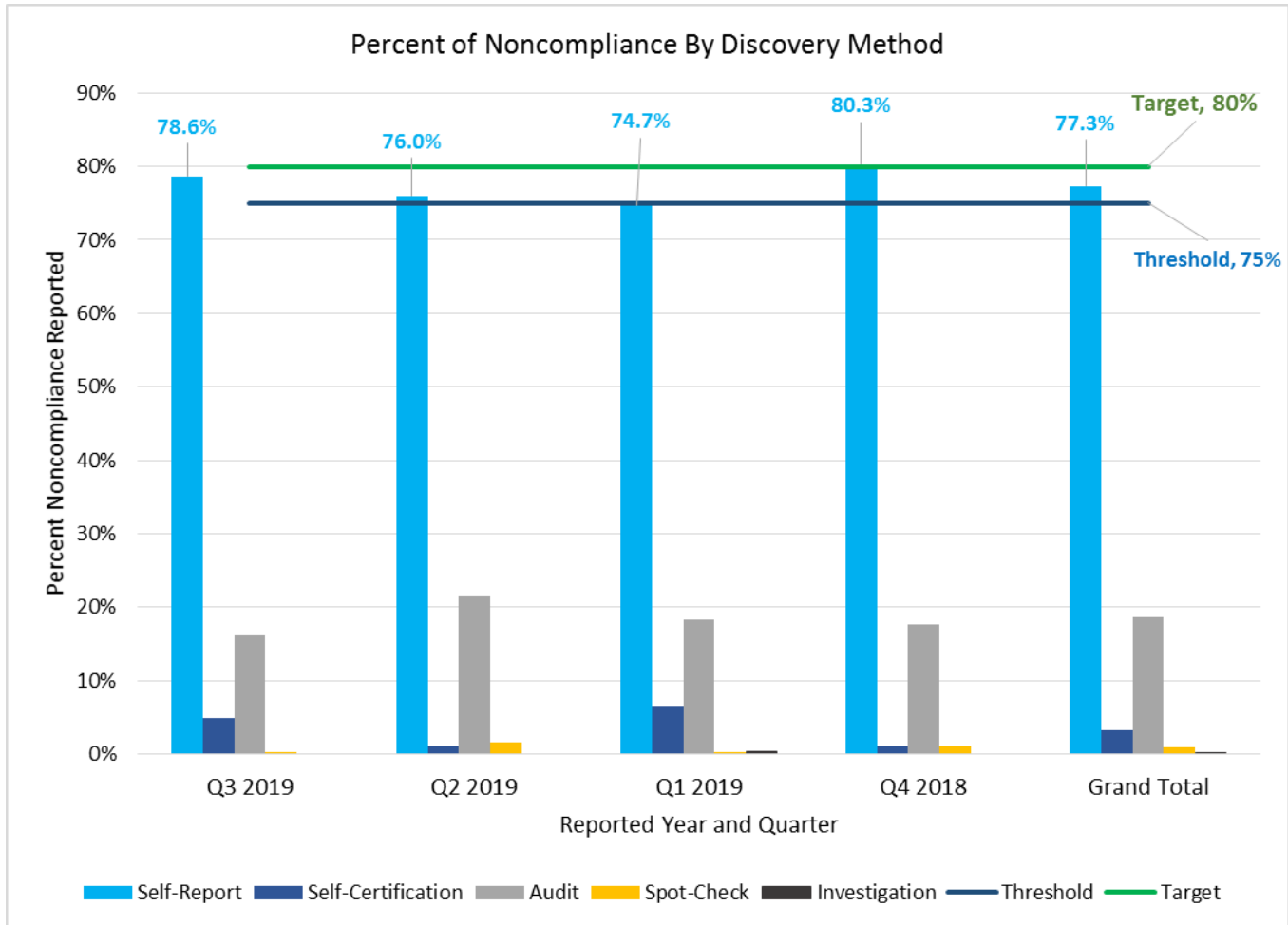


Figure A.8: Compliance History and Similar Conduct for Moderate and Serious Risk Violations

### Self-Assessment and Self-Identification of Noncompliance

As part of an effort to reduce risk from noncompliance, the ERO Enterprise is looking beyond the broad categories of internal and external discovery and instead closely monitoring self-reported issues beginning in 2018 and continuing in 2019. Figure A.9 shows the percentage of noncompliance by discovery method. The percentage of self-reported noncompliance varies quarterly but often remains above the threshold. To date, registered entities self-reported 76 percent of noncompliance in 2019.



**Figure A.9: Percent of Noncompliance by Discovery Method**

## Appendix B: Compliance Assurance

### Coordinated Oversight Program for MRREs

Figure B.1 represents the distribution of the 50 MRRE groups by Lead RE, comprised of 211 MRREs. Figure B.2 represents the distribution of MRREs by registered function.

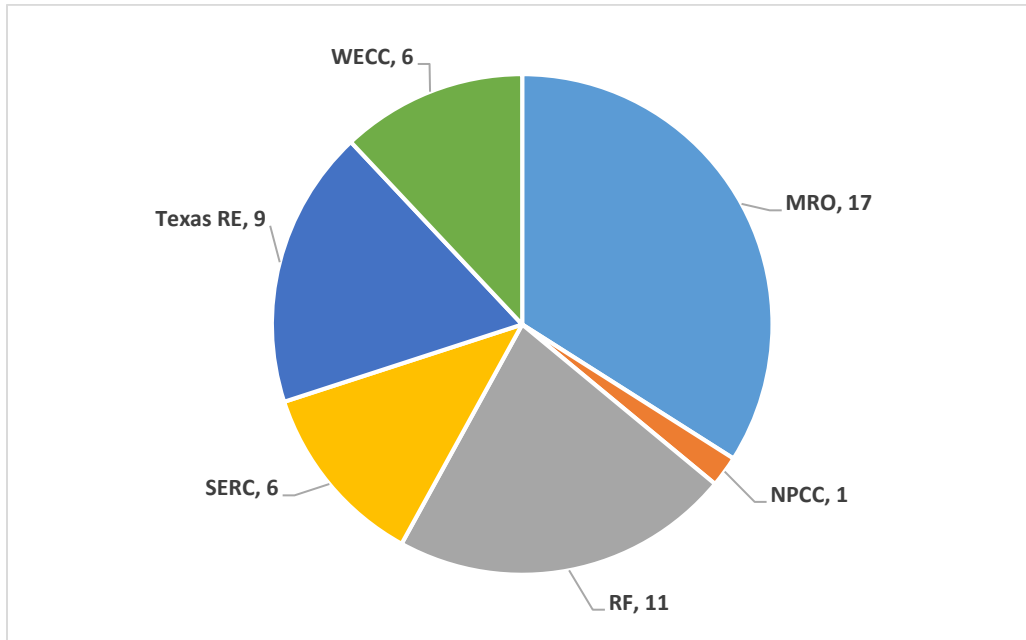


Figure B.1: Distribution of MRREs under Coordinated Oversight by Lead RE

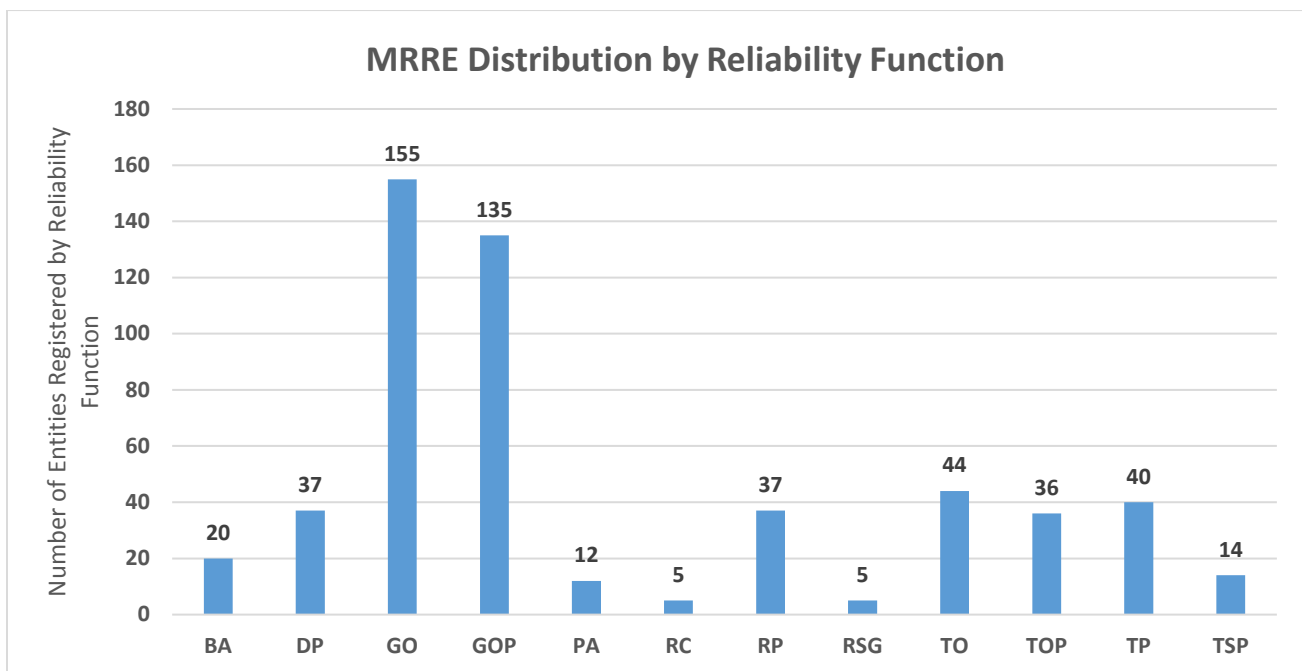
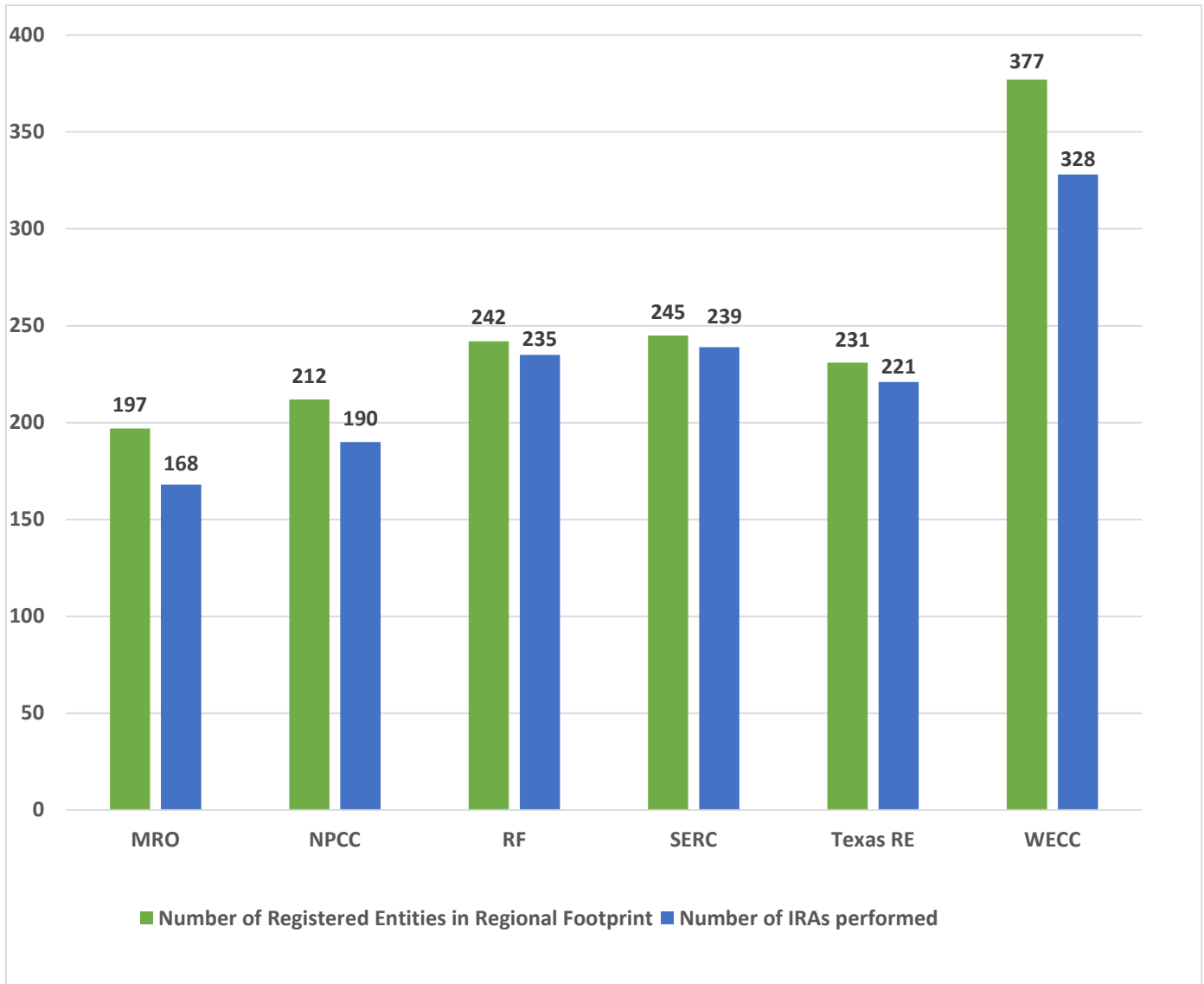


Figure B.2: Coordinated Oversight Distribution by Registered Function



## ERO Enterprise Completion of Initial IRAs

Figure B.3 identifies the number of initial IRAs completed by each RE. As of the end of Q3 2019, the REs have completed 1,381 IRAs for 1,504 registered entities.<sup>8</sup> The ERO Enterprise completed IRAs for approximately 92 percent of the total number of registered entities.<sup>9</sup> All REs have completed IRAs for all entities registered as Reliability Coordinators and Balancing Authorities, with one remaining Transmission Operator scheduled for completion in 2019. NERC and the REs anticipate registration changes that will affect overall IRA completion. Therefore, IRA activity prioritization will consider registered functions and registration changes to ensure IRAs are completed.



**Figure B.3: RE Completion of IRAs**

<sup>8</sup> NERC bases the number of registered entities on the registration cut-off date in Q3 2019, which includes all newly registered entities. NERC does not include deregistered entities. The chart does not reflect the number of IRAs that have been updated by the REs.

<sup>9</sup> Some of the registered entities are MRREs in the Coordinated Oversight Program. As such, until the Lead RE completes the IRA for that MRRE, the numbers do not update for the Affected REs. Therefore, some of the REs included in Figure B.3 do not receive credit for competing an IRA until their IRAs of the MRRE is completed by the Lead RE.

## Appendix C: Registration

The following charts depict Q3 2019 registration change activity by function.

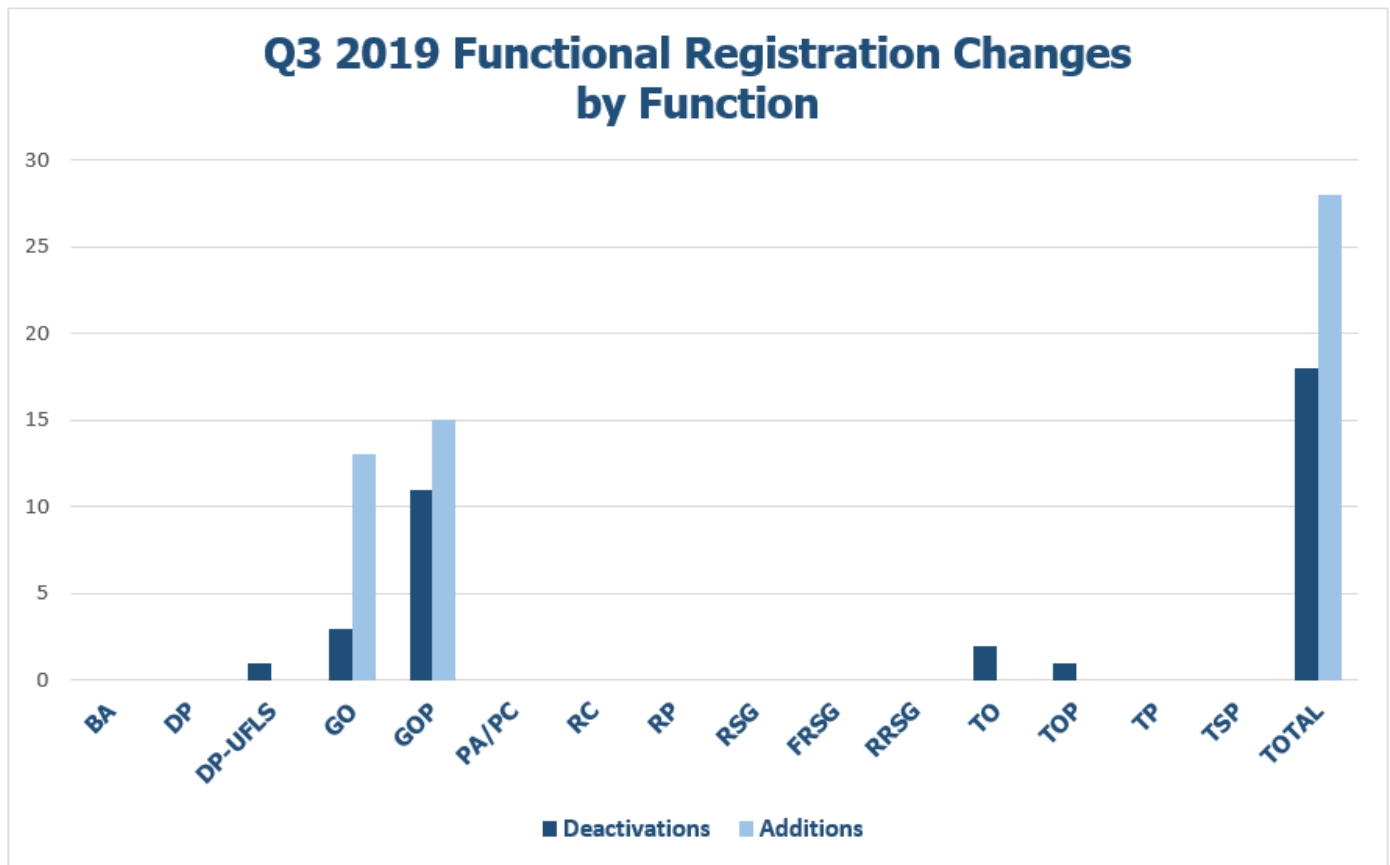


Figure C.1: Q3 2019 Registration Change Activity by Function

	DP-UFLS	GO	GOP	TO	TOP	TOTAL
<b>Deactivations</b>	1	3	11	2	1	18
<b>Activations</b>	0	13	15	0	0	28

REs provide justification when approving registration change activity. NERC reviews these justifications before processing is completed. Table C.2 reflects the changes that were processed in Q3 2019.

<b>Determined to Not Meet Registration Criteria</b>	1
<b>Facility Shut Down</b>	2
<b>Sold to Another Registered Entity</b>	4
<b>Compliance Responsibility Assumed by Another Registered Entity</b>	11

## 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 2019 and the number of new entity certifications remaining. Figure D.2 identifies the number of reviews of changes to already-certified and operational entities completed by each RE during Q3 2019 and the number of certification reviews currently remaining. The in-process certification activity for FRCC transitioned to SERC on July 1, 2019.

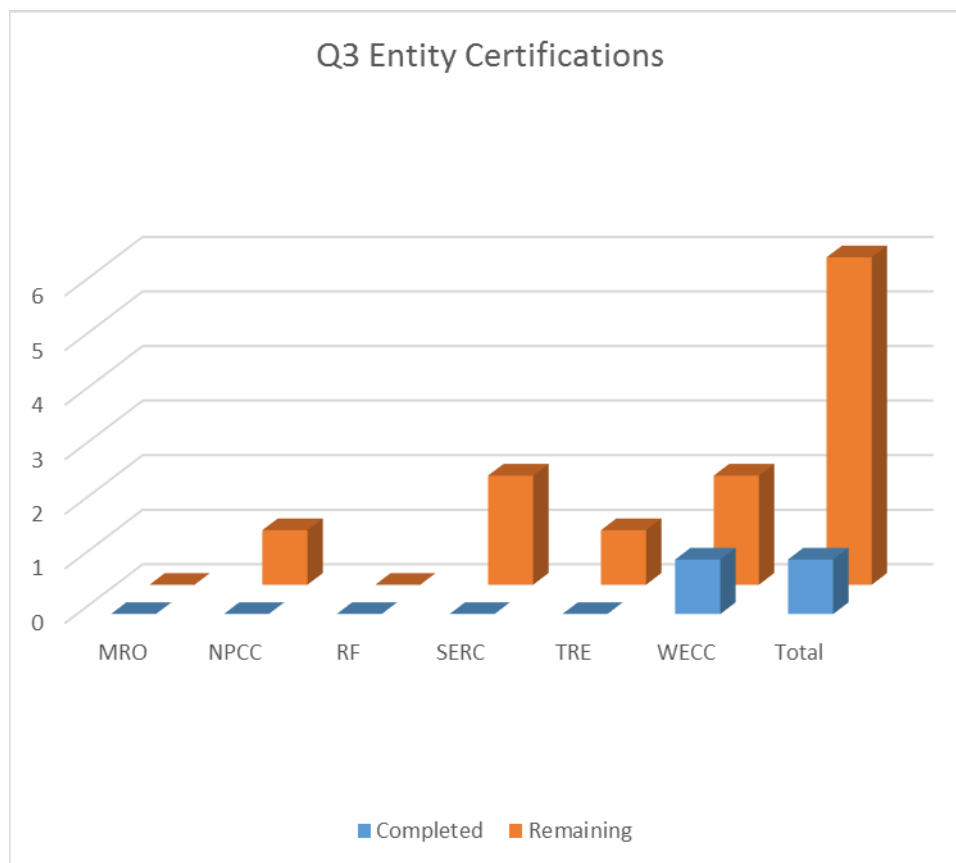


Figure D.1: Q3 2019 New Entity Certifications by RE

Table D.1: Q3 2019 Organization Certification		
Function	Completed	Remaining
Reliability Coordinator	1	1
Transmission Operator	0	3
Balancing Authority	0	2

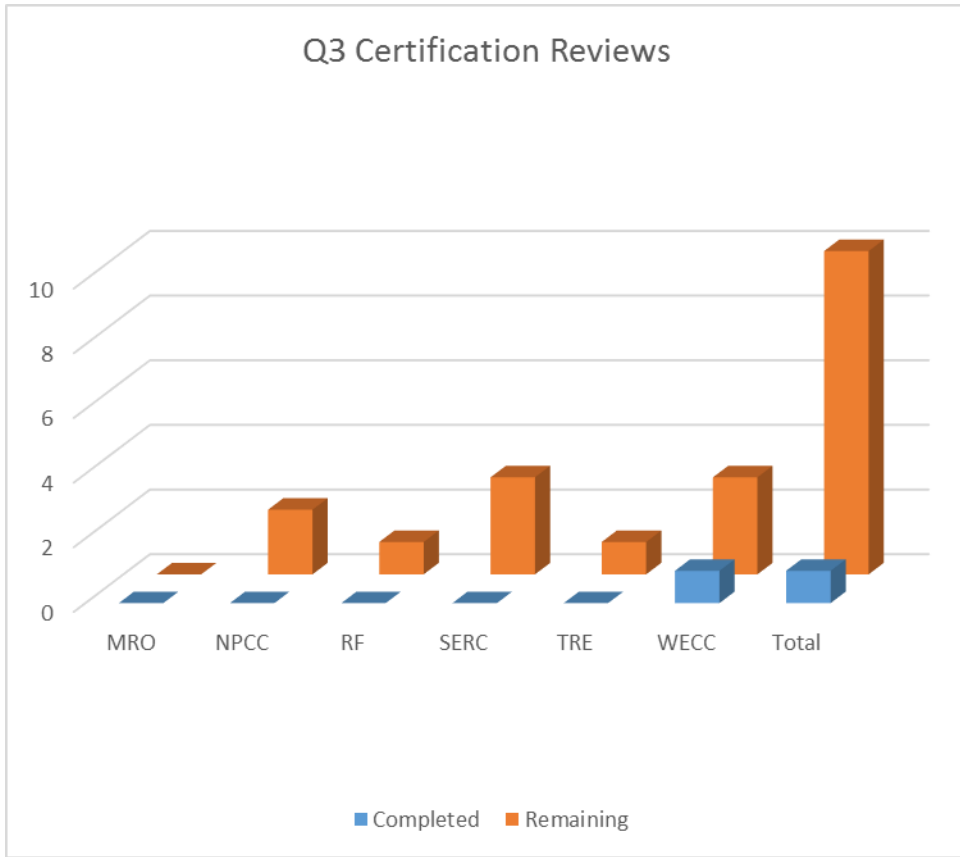


Figure D.2: Q3 2019 Certification Review Activity by RE

Table D.2: Q3 2019 Certification Review		
Change Basis	Completed	Remaining
Changes to a Registered Entity's Footprint	1	1
Relocation of the Control Center	0	4
Changes to Supervisory Control and Data Acquisition (SCADA)/Energy Management System (EMS) System	0	5

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# Internal Controls

Steven Noess, Director of Regulatory Programs

Ed Kichline, Senior Counsel and Director of Enforcement Oversight

Compliance Committee Open Meeting

November 1, 2019

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- Internal Controls Commitment
- Definition of a Compliance Oversight Plan (COP)
- Elements and Outcomes of a COP
- Example Discussion
- Value Proposition



## CMEP Evolves and Matures

- Goals for internal controls unchanged
- Internal controls shape oversight planning

## Emphasis and Commitment Have Grown

- Internal Controls understanding built into all aspects of CMEP

## The Value Proposition

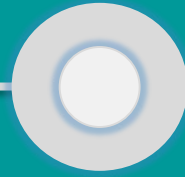
- Investment in strong internal controls matters
- CMEP experiences should reflect those differences

2016



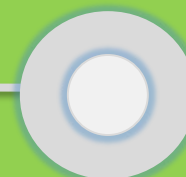
**Inherent Risk  
Assessment  
(IRA) Process  
Harmonization**

2018 - 2019



**COP Process  
Harmonization**

2019 - 2020



**Transition  
Period**



- The COP tailors compliance monitoring activities based on entity-specific factors.
- COP is the oversight strategy for a registered entity.
- COPs provide comparative assessments to shape oversight planning and resource allocation of ERO Enterprise staff.
- COPs place emphasis on understanding internal controls and other performance considerations.
- A COP is shared with the registered entity.



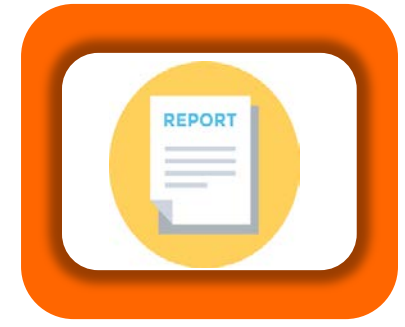
**Enhanced  
Analysis**



**Targeted  
Oversight**



**Prioritized  
Monitoring**



**Single  
Report**

- Compliance Monitoring Impacts
- Enforcement Considerations

- Understanding of entity and strength of controls impacts monitoring experience (frequency, scope, etc.)
- Impacts to risk assessment of violation

- Throughout the second half of 2019, REs began implementation of new COP summaries.
- Industry outreach will continue through 2020.



# Questions and Answers

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# Streamlining in Enforcement

Ed Kichline, Senior Counsel and Director of Enforcement Oversight  
Compliance Committee Open Meeting  
November 1, 2019

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- Themes from stakeholder perception survey:
  - Perception that it takes too long to resolve minimal risk noncompliance, and
  - Stakeholders see limited differentiation among processes for minimal risk noncompliance and higher risk violations.



- Sampling to verify completion of mitigation for Compliance Exceptions
- Enhancements to guidance for ERO Enterprise and registered entities
  - Information gathering
  - Risk assessment
  - Cause analysis and mitigation
- Rules of Procedure revisions
  - Self-Logging Program
  - Data retention
  - Mitigating activities



# Questions and Answers