

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Compliance Monitoring and Enforcement Program Quarterly Report

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RELIABILITY | ACCOUNTABILITY



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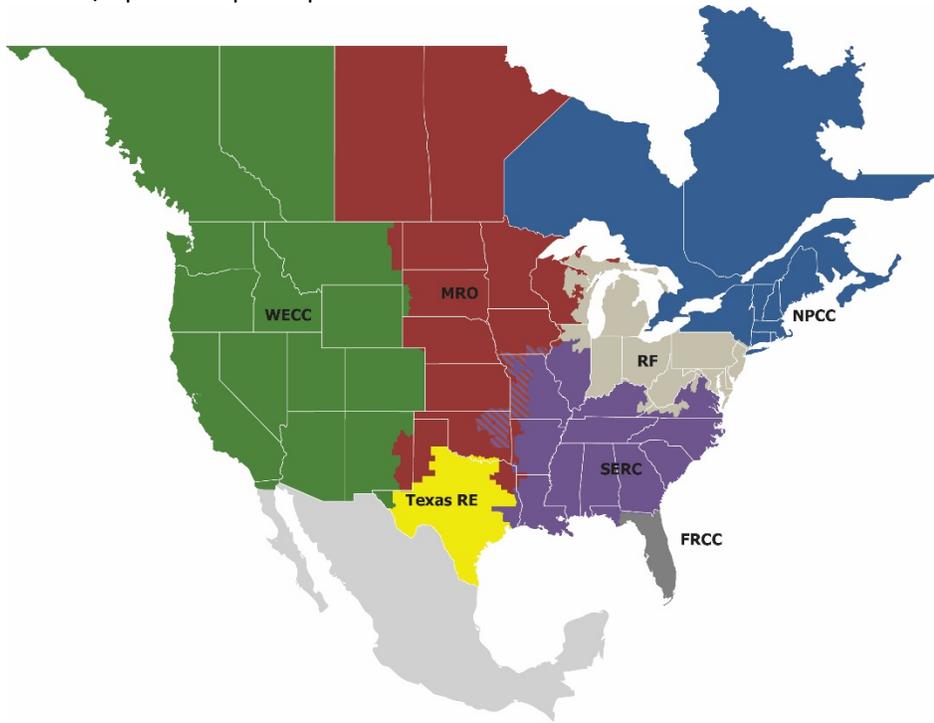
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Preface

The vision for the Electric Reliability Organization (ERO) Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the seven 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.

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



FRCC	Florida Reliability Coordinating Council
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) activities that occurred in Q1 2019, provides information and statistics regarding those activities, and identifies the ERO Enterprise's Performance Activities for 2019.

In Q1 2019, CMEP activities throughout the ERO Enterprise reflected continued implementation of a risk-based approach and program alignment. The ERO Enterprise:

- Published one CMEP Practice Guide and is in the process of developing two more Practice Guides to support alignment;
- Filed a joint petition with the Federal Energy Regulatory Commission (FERC) for the approval of the dissolution of the FRCC RE;
- Filed NP19-4 with FERC, a ten million dollar Notice of Penalty for a group of registered entities that included 127 violations of the Critical Infrastructure Protection (CIP) Reliability Standards;
- Continued to verify registration activity and preview documentation related to change requests to the registry;
- Made significant progress in the development of the Centralized Organization Registration ERO System (CORES) tool, remaining on-track for a mid-June release; and
- Continued to guide enforcement and compliance monitoring programs using the ERO Enterprise Operating Plan objectives.

¹ The "ERO Enterprise" refers to the affiliation between NERC and the seven 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

Program Alignment

The ERO Enterprise is enhancing alignment of CMEP activities under a broader ERO Enterprise Program Alignment Process (Program Alignment).² In Q1, NERC staff completed one issue and added two issues to the Issues and Recommendations tracking spreadsheet. NERC also completed the CMEP Practice Guide on considerations for inverter-based resources under current Reliability Standards. NERC staff are currently developing two CMEP Practice Guides for ERO Enterprise CMEP staff to assess compliance regarding implementation of the terms ‘annual’ and ‘calendar month’ within the Reliability Standard requirements, as well as considerations for authorized access to designated Bulk Electric Cyber System Information storage locations under current Reliability Standards.

At the March Compliance and Certification Committee ERO Alignment Working Group (CCC AWG) meeting, participants discussed initial plans to continue coordinated outreach for Program Alignment in 2019. Program Alignment will be on the Compliance and Standards Workshop Agenda in Q3.

FRCC Transition

On March 6, 2019, NERC, FRCC, and SERC filed a joint petition with FERC for approval of the dissolution of the FRCC RE. The dissolution of the FRCC RE will result in a more efficient ERO Enterprise, as well as eliminate conflicts of interest within the ERO Enterprise in how the ERO performs its operations. The FRCC Board of Trustees voted to dissolve the FRCC RE on October 30, 2018. As part of its review, FRCC examined factors including, but not limited to, maintaining the reliability of the BPS in Florida, customer costs, and stakeholder participation in the governance of a successor RE. This review was in response to NERC’s determination that the REs should be separate corporate entities from NERC registered entities.

Align: CMEP Technology Project

In Q1 2019, the CMEP Technology Project was officially named “Align.” The name “Align” was chosen from more than 90 submissions from the ERO Enterprise and various stakeholder groups and was announced during the February NERC Board Meetings. The name represents how the new tool will help align the business processes of the ERO Enterprise.

Align had many successes in Q1 2019. The rollout of Release 1 for the tool is on track, and the Align team continued construction for the base system completed during the quarter, which includes Self-Reports, Enforcement, and Mitigation. Additionally, initial quality assurance testing for Release 1 is near completion. The Align team also completed the Change Management Assessment survey and formed the Change Agent Network, which will help guide the team in the rollout and training of the tool for Release 1.

Process work for Release 2 is also complete, which will include Self-Certifications, Periodic Data Submittals, and Technical Feasibility Exceptions. Release 3 business process work is underway, with the completion of Compliance Audits and Spot Checks, Compliance Investigations, and Complaints. The final business process work for Compliance Planning is scheduled for later this year.

Looking toward Q2 and Q3 of this year, the Align team will perform user acceptance testing and training, launch Release 1, and continue design for Release 2.

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

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

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 Q1 2019, the ERO Enterprise approved nine additional MRREs for entry into the Coordinated Oversight Program, increasing the total count of registered entities participating to 205.³ Additionally, NERC reviewed the potential impact of the FRCC dissolution on MRREs participating in the Program and verified that one MRRE located in the FRCC footprint will be moved to the SERC footprint.

³ Appendix B includes further information on the MRREs participating in the Coordinated Oversight Program.

Chapter 2: RE Oversight

Enforcement Oversight

Serious Risk Issues

In Q1 of 2019, NERC filed NP19-4, a ten million dollar Notice of Penalty for a group of registered entities that included 127 violations of the CIP Reliability Standards. Collectively, the issues displayed the following contributing causes:

- Lack of management engagement, support, and accountability relating to the CIP compliance program;
- Disassociation of compliance and security that resulted in a deficient program and program documents, a lack of implementation, and ineffective oversight and training;
- Organizational silos in the form of a lack of communication between management levels within the registered entities, contributing to a lack of awareness of the state of security and compliance; and
- Organizational silos across business units that resulted in confusion regarding expectations and ownership of tasks, and poor asset and configuration management practices.

The registered entities engaged with the Compliance Enforcement Authority during the enforcement process to comprehensively evaluate and improve their overall security posture. This gave the registered entities an objective and more accurate understanding of their compliance program and security posture. This work also enabled them to identify the changes that were necessary to address the underlying issues in their CIP compliance program to implement an effective and sustainable CIP program.

In addition to focusing on the cultural and enterprise-wide changes necessary for the registered entities to establish the foundation for a sustainable CIP program, the registered entities are focusing on key risk areas, including patching, identifying deficiencies, and identifying strategies for the continual improvement of their security posture and program sustainability.

Spreadsheet Notices of Penalty

In Q1 2019, NERC filed six Spreadsheet Notices of Penalty (SNOPs) that included 13 violations of NERC Reliability Standards and carried a total combined penalty of approximately \$115,000. Nine of the violations were violations of the CIP Reliability Standards, while the remaining four were violations of non-CIP Reliability Standards.

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

In Q4 2018, NERC and FERC staff began the annual review of the Find, Fix, Track, and Report (FFT) and Compliance Exception (CE) programs. NERC and FERC staff sampled 27 FFTs and 37 CEs to collect data on the effectiveness and efficiency of the FFT and CE programs, as well as to assess the REs' adherence to the risk-based CMEP, various FERC Orders, and NERC and FERC-issued guidance.

As of the end of Q1 2019, NERC and FERC staff completed the initial review of the REs' implementation of the programs. NERC anticipates staff will be providing feedback to the REs and finalizing the results of the review over the course of Q2 2019.

Compliance Monitoring Oversight

NERC Oversight

Following the publication of the 2019 CMEP Implementation Plan during Q4 2018, NERC prepared and provided oversight notifications to the REs during Q1 2019 related to specific monitoring oversight activities planned for 2019. These activities include the following:

- RE-specific follow-up that NERC intends to conduct related to prior oversight recommendations;

- Identification of planned audit observation activities; and
- Identification of recurring oversight coordination specific to ERO Enterprise efforts around Compliance Oversight Plan enhancement and alignment during 2019.

Inherent Risk Assessment and Internal Controls Evaluation Completion

During Q1 2019, RE progress toward completion of initial Inherent Risk Assessments (IRAs) continued on track according to regional plans.⁴ By the end of 2019, all REs will have completed initial IRAs for all 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.

Compliance Guidance

During Q1 2019, the ERO Enterprise received two new proposed Implementation Guidance documents that are currently under review. The ERO Enterprise reviewed and endorsed one Implementation Guidance document that was received in Q4 2018. Additionally, in Q1 the ERO Enterprise approved one CMEP Practice Guide.

Certification

Q1 Certification Completions

In Q1 2019, NERC completed two Certification Reviews for changes to already certified and operational registered entities. These reviews were conducted for the construction of a new Control Center and the replacement of Energy Management System components.⁵

Additionally, NERC declined to review changes at six other registered entities in favor of risk-based CMEP activities and non-material changes associated with an organization's Balancing Authority or Transmission Operator Area footprint, Control Center, or Energy Management System hardware.

Registration

CORES Tool

The CORES Tool, once released, will move the core registration functions of the ERO Enterprise that are currently managed in three different systems and consolidate all registration functions into a single system. In Q1 2019, several key milestones and key activities were completed to keep the CORES project on track for a mid-June release. Developers built the tool according to the design, completing the development phase of the project. The registration team reached out to the industry for input on the system through several outreach engagements, including small focus group sessions, the AWG, the CCC, and the Organization Registration and Certification Subcommittee. The registration team has been planning work for Q2, which will include ERO and industry testing sessions, training, and release communications. The testing sessions will be complete in May, training on the tool will begin in June, and the software is on track for a mid-June release.

⁴ 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.

⁵ Appendix B includes the NERC compliance monitoring metrics-related graphs and charts.

Chapter 3: ERO Enterprise Performance Objectives

Priorities for 2019

To guide CMEP Activities for Q1 and throughout the remainder of 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;
- Evaluate opportunities to expand industry-lead development of guidance to other program areas;
- Enhance the CMEP Practice Guide development process to solicit and incorporate feedback from NERC Committees (e.g. CCC, CIPC);
- Track the development and completion of CMEP Practice Guides through the Program Alignment Issues and Recommendations Tracking spreadsheet located on NERC's website;⁶
- Provide training and education on control evaluations to industry with supporting guidance to the REs for consistent implementation in audits;
- Work on controls-related topics for industry that will be presented at the July 2019 Compliance and Standards workshop; and
- Improve alignment in processes across REs and – when appropriate – memorialize the aligned processes into the design of the CMEP Tool.

The ERO Enterprise continues to support the development of the Align tool, including the process harmonization efforts as explained in the Align: CMEP Technology Project section of Chapter 1. Additionally, the ERO Enterprise has been focused on evolving the Compliance Oversight Plan template and will begin using the revised template in Q3 of 2019. The ERO Enterprise will conduct outreach on the revised template beginning in Q2.

⁶ <https://www.nerc.com/pa/comp/Pages/EROEnterProAlign.aspx>

Appendix A: Enforcement

CMEP Metrics

Mitigation Completion Status

All violations discovered before 2015 have been mitigated. Figure A.1 below shows mitigation completion by discovery year. NERC continues to monitor for mitigation completion.

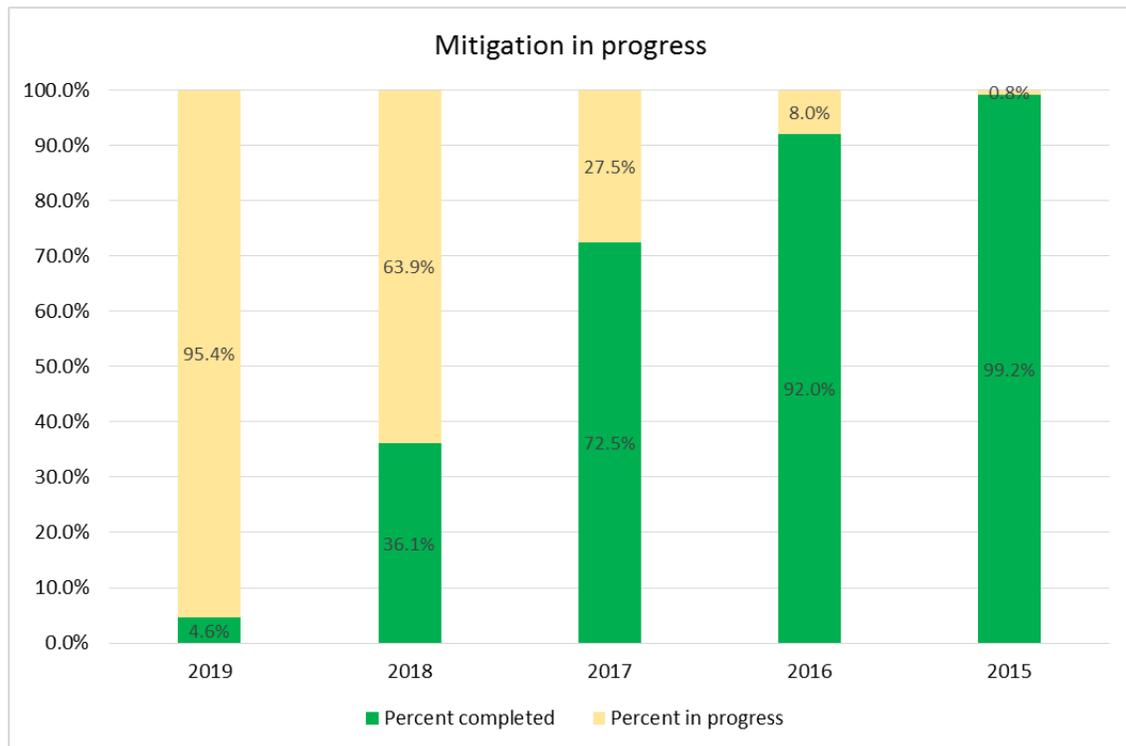


Figure A.1: Mitigation Completion by Discovery Year

Age of Noncompliance in ERO Enterprise Inventory

Figure A.2 shows all noncompliance in the ERO Enterprise inventory by discovery year. As the picture shows, 33 percent of the inventory is 2017 or older. Note that noncompliance in the inventory may include both mitigated and unmitigated instances.

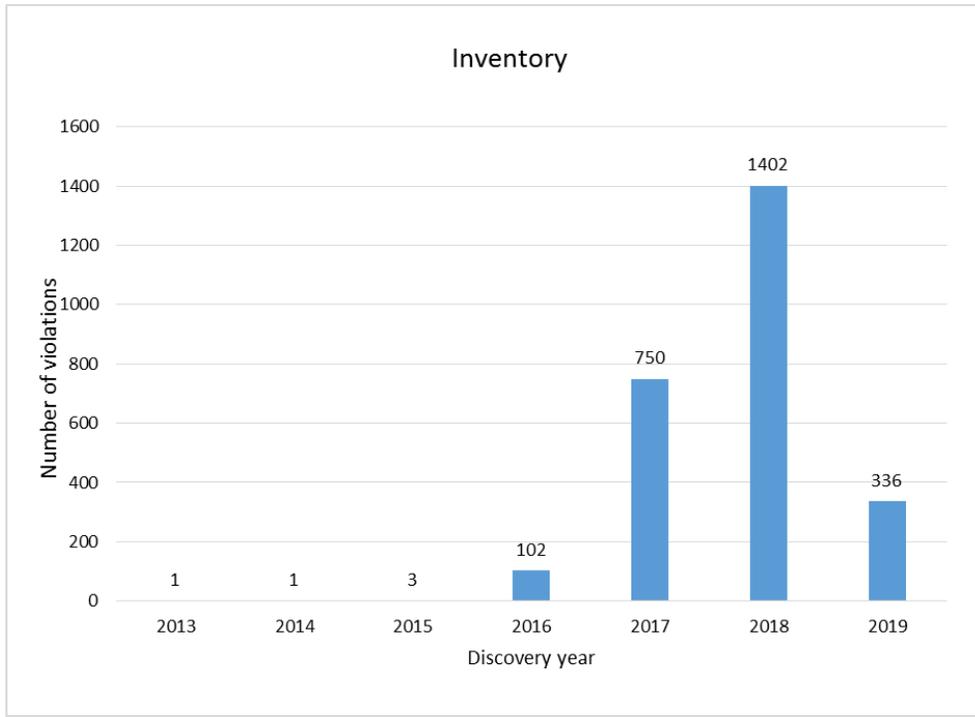


Figure A.2: Age of Noncompliance in the ERO Enterprise Inventory

Percentage of Self-Logging and CEs

The percentage of self-logged CEs stayed the same as Q4 2018 at 15 percent. This percentage of self-logged CEs has remained consistent over the last several years, hovering between 10 and 15 percent.

Percentage of Self-Logged Compliance Exceptions Since June 2014

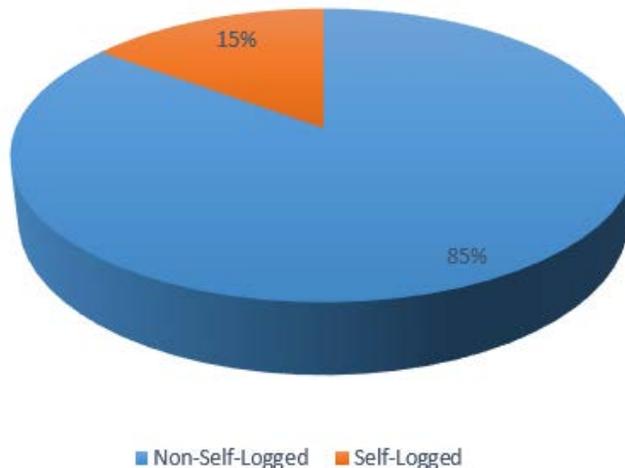


Figure A.3: Percentage of Self-Logged CEs since June 2014

Disposition of Noncompliance

Figure A.4 shows the percentage of all noncompliance processed by disposition type in Q1 2019. These instances of noncompliance were posted primarily as Compliance Exceptions. The high percentage of Full Notice of Penalty disposition type is due to a single large filing in January 2019.

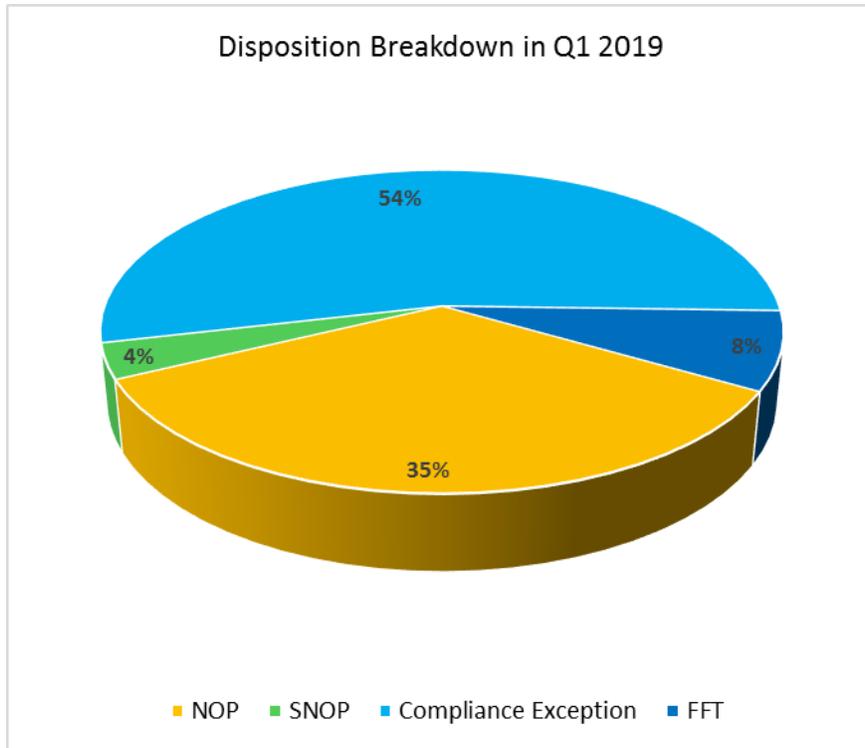


Figure A.4: Disposition Type of Noncompliance Processed in 2019

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. Those are displayed in Figure A.5 below. 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. Historically, vegetation-related issues that were both FAC-003 violations and resulted in sustained outages have been Category 1B outages.

There were 31 vegetation-related Category 3 outages and 3 Category 1B outages reported in 2018.⁷ The three reported Category 1B outages are under review and may qualify as FAC-003 violations. The ERO Enterprise is currently reviewing five possible violations of FAC-003 involving transmission outages. The numbers of Category 3 and Category 1B outages represent an increase over the previous three-year period.

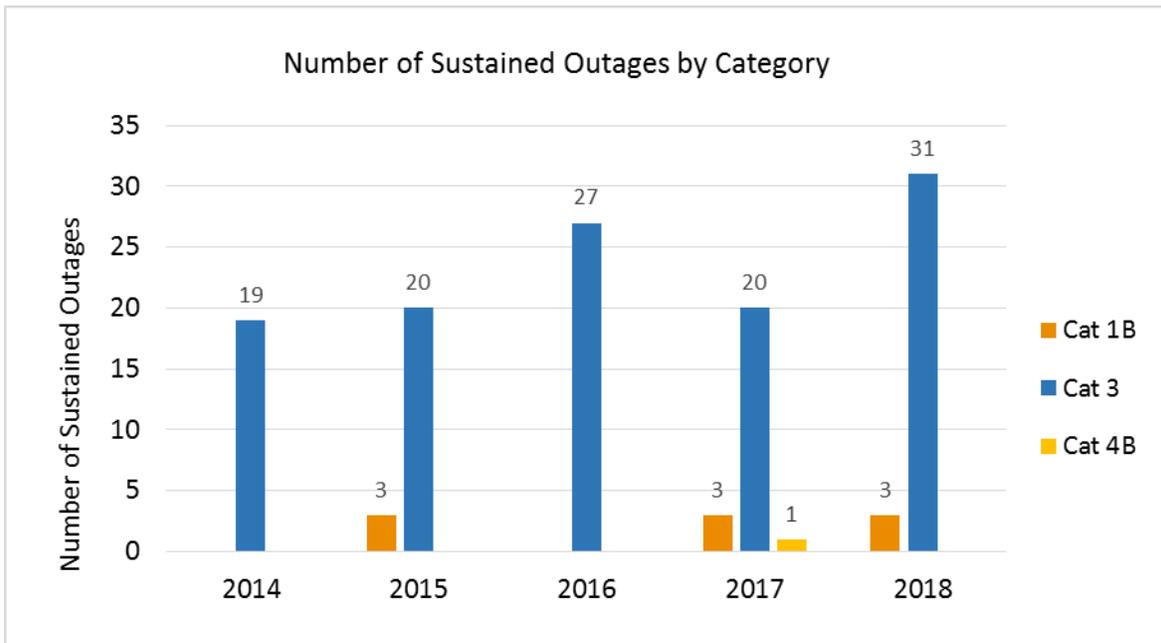


Figure A.5: Vegetation-related Outages by Category

⁷Vegetation-related outage information is consolidated on a delayed quarterly basis. Information related to Q1 2019 will be available in Q2 2019.

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 the following chart includes all 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 the same 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 juxtaposes 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.

In 2019, a large CIP package filed in January was responsible for all but three of the 50 moderate or serious risk violations with similar prior conduct. Therefore, the first quarter of 2019 has had more violations with similar prior conduct than all of 2018.

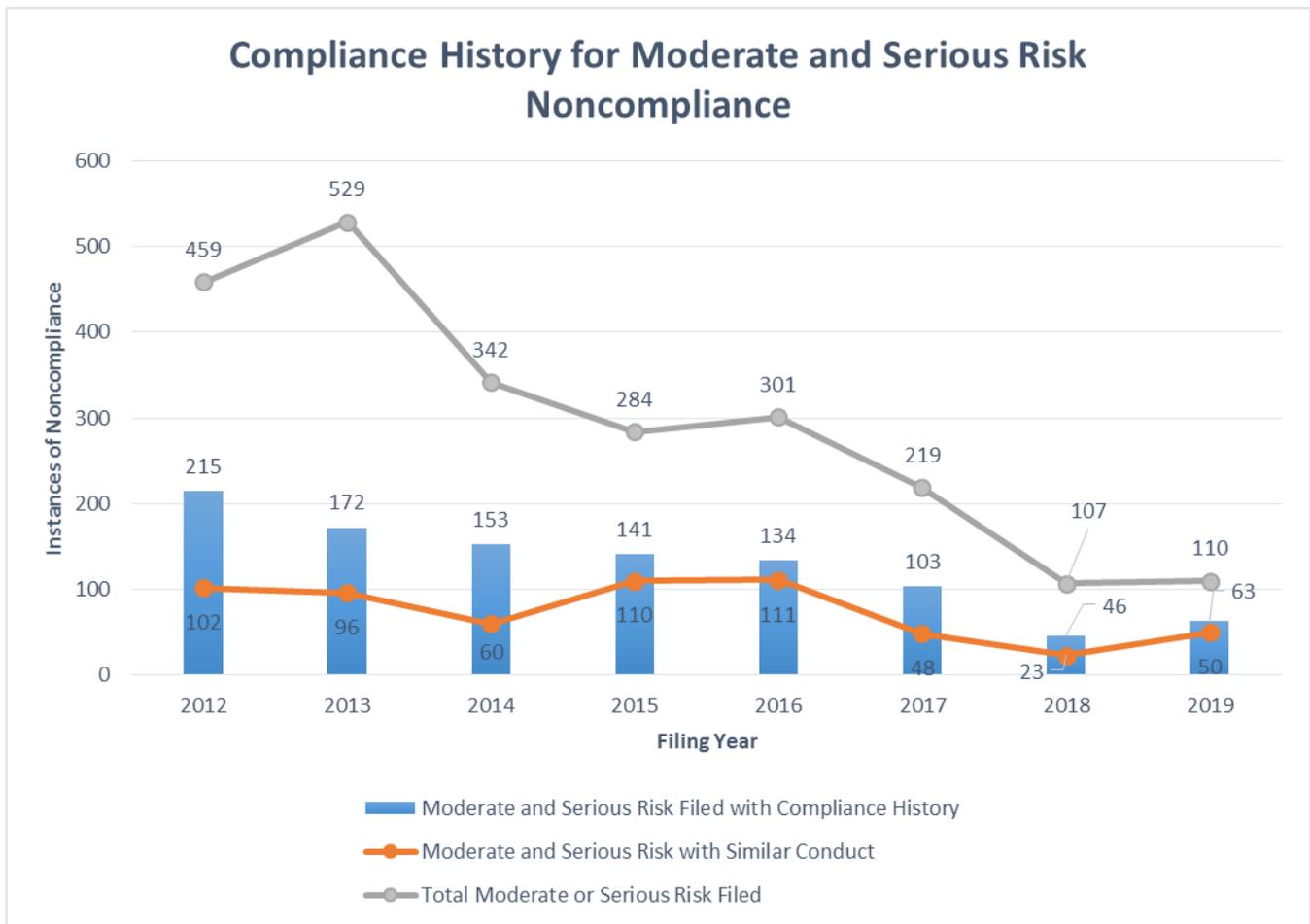


Figure A.8: Compliance History and Similar Conduct for Moderate and Serious Risk Violations

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.

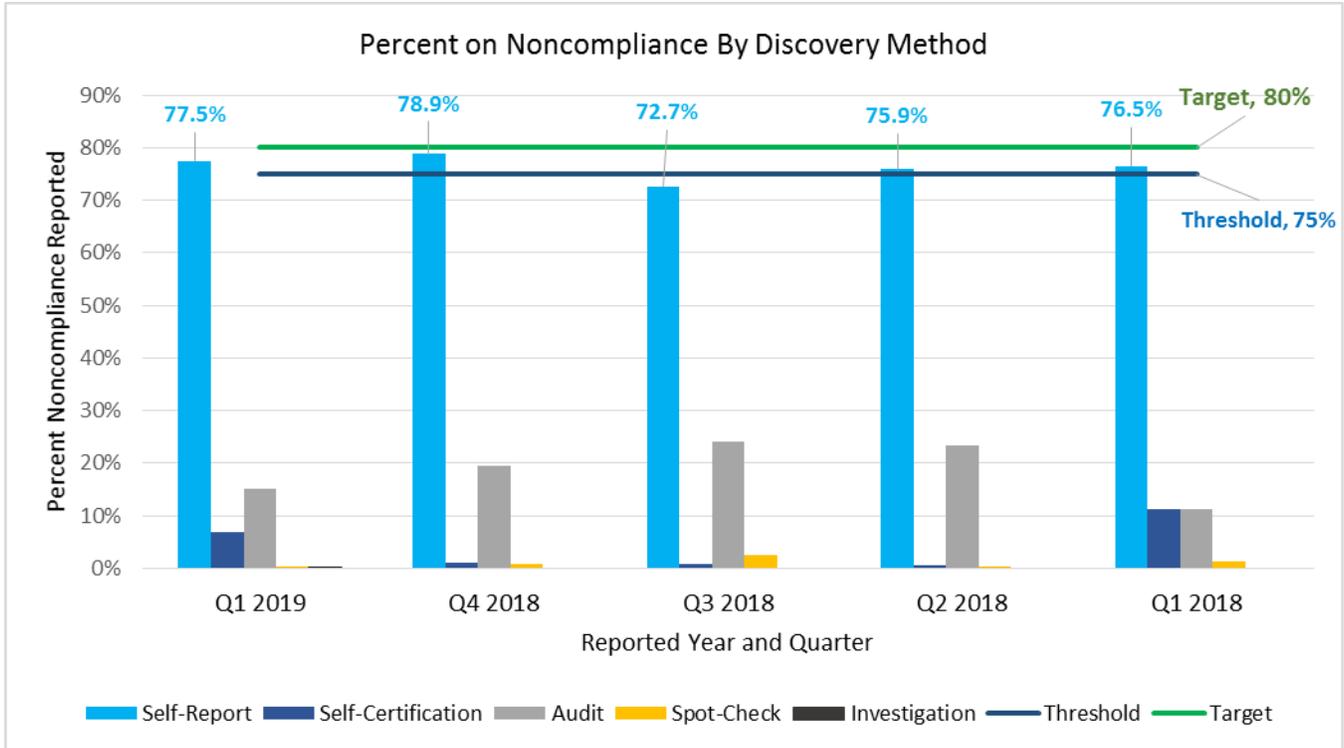


Figure A.9: Percent of Noncompliance by Discovery Method

Appendix B: Compliance Assurance

Coordinated Oversight Program for MRREs

Figure B.1 represents the distribution of the 48 MRRE groups by Lead RE, comprised of 205 MRREs. Figure B.2 represents the distribution of MRREs by registered function.

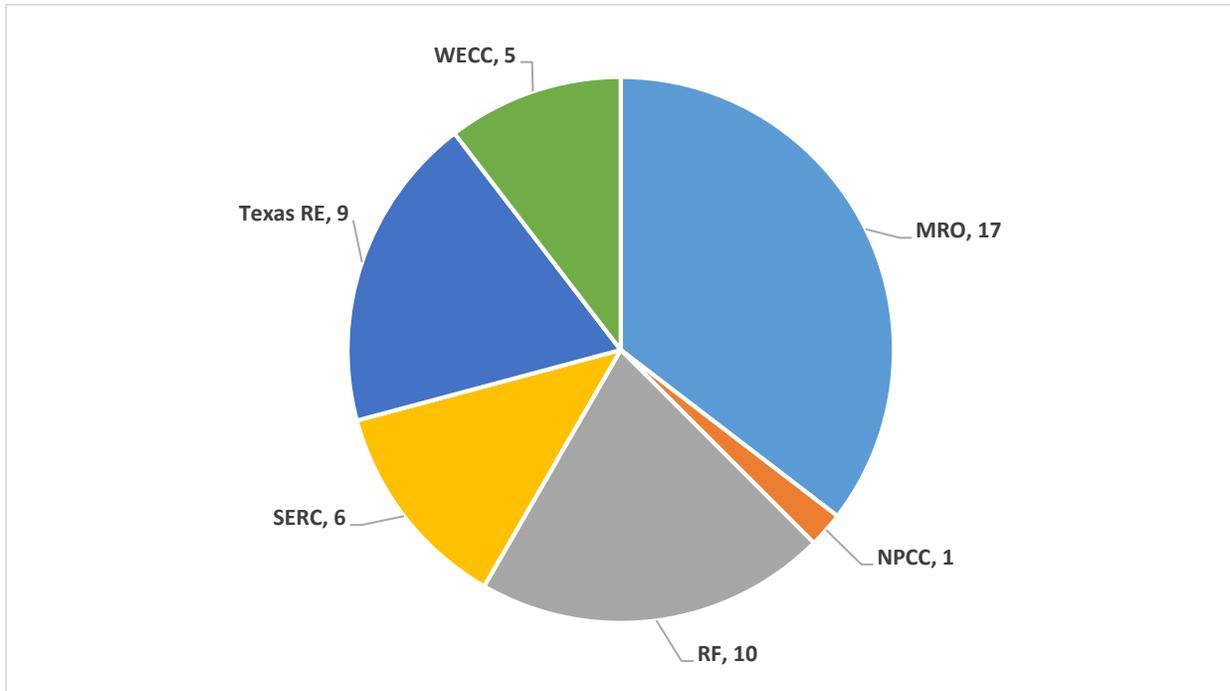


Figure B.1: Distribution of MRREs under Coordinated Oversight by Lead RE

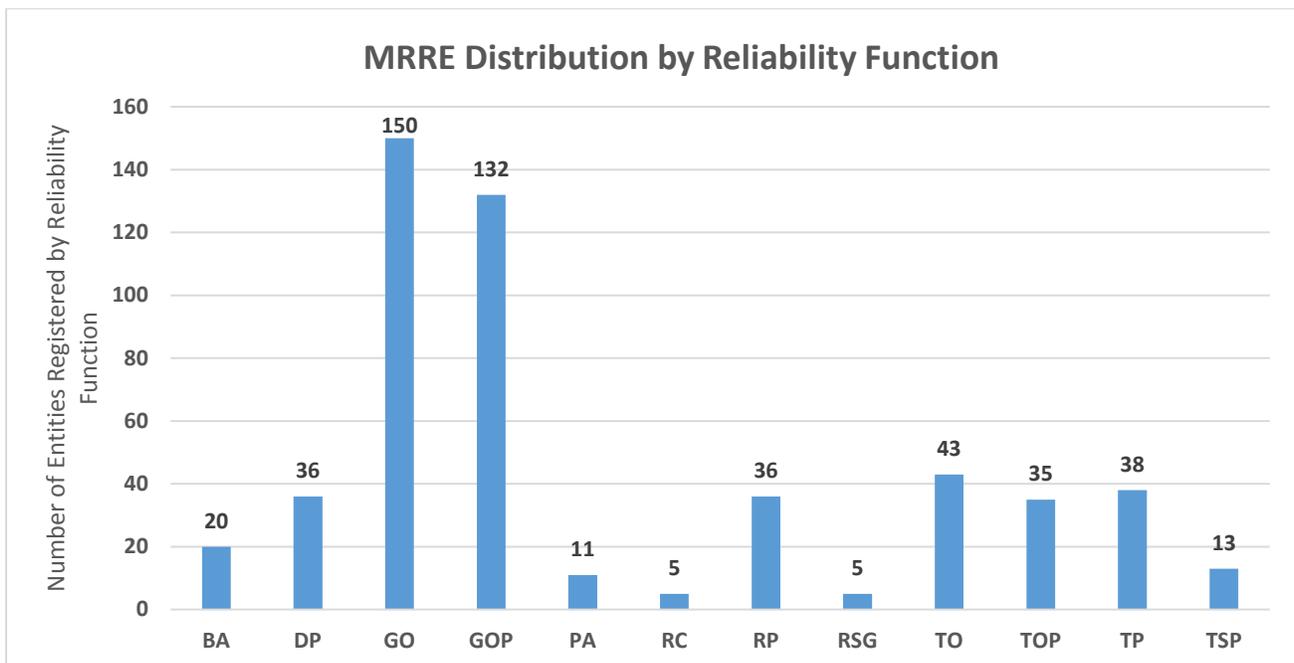


Figure B.2: Coordinated Oversight Distribution by Registered Function

ERO Enterprise Completion of Initial IRAs

Figure B.3 identifies the number of IRAs completed by each RE. As of the end of Q1 2019, the REs have completed 1311 IRAs for 1,500 registered entities.⁸ The ERO Enterprise completed IRAs for approximately 87 percent of the total number of registered entities.⁹ 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.

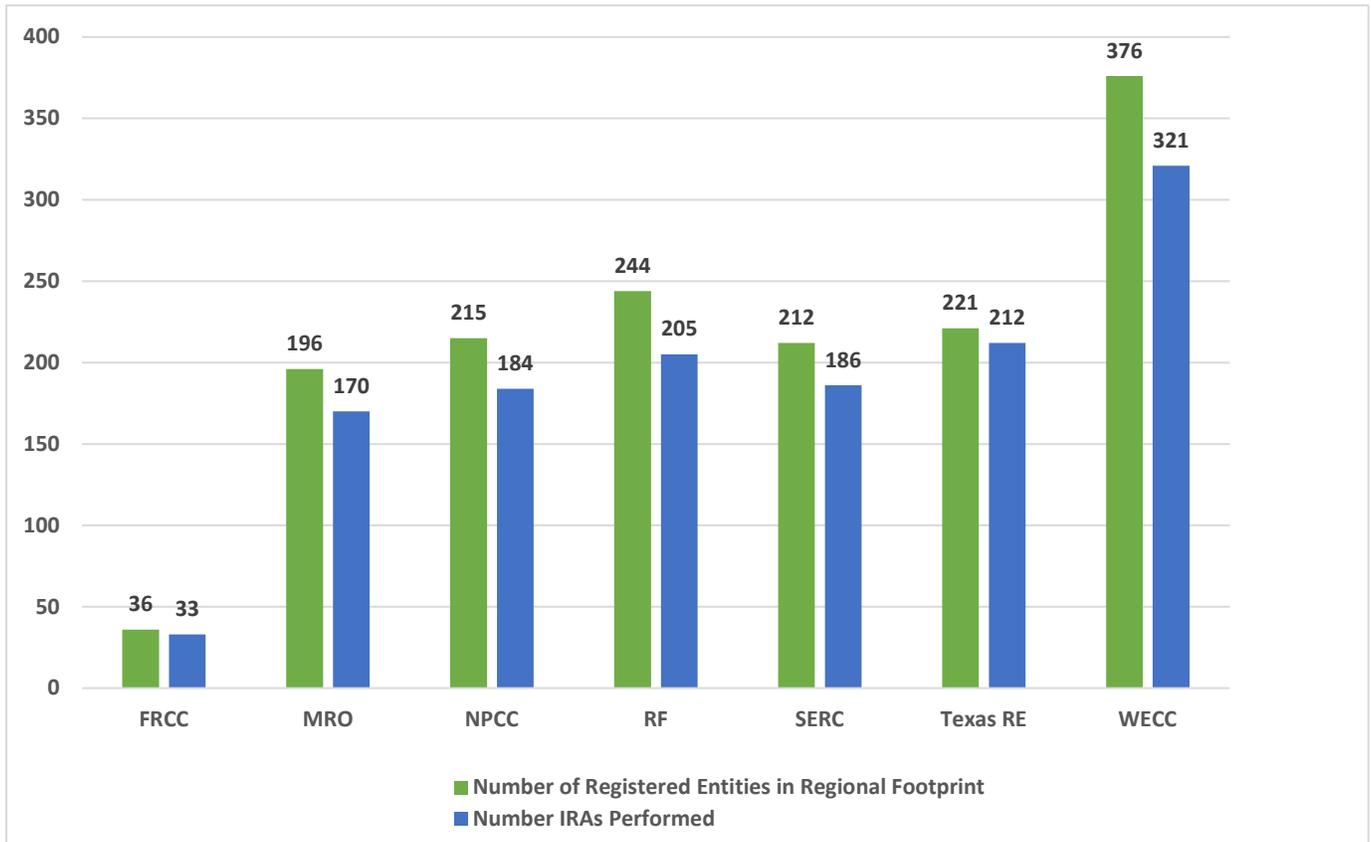


Figure B.3: RE Completion of IRAs

⁸ NERC bases the number of registered entities on the registration cut-off date in Q1 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.

⁹ 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 until their IRAs are completed.

Appendix C: Registration

The following charts depict Q1 2019 registration change activity by function.

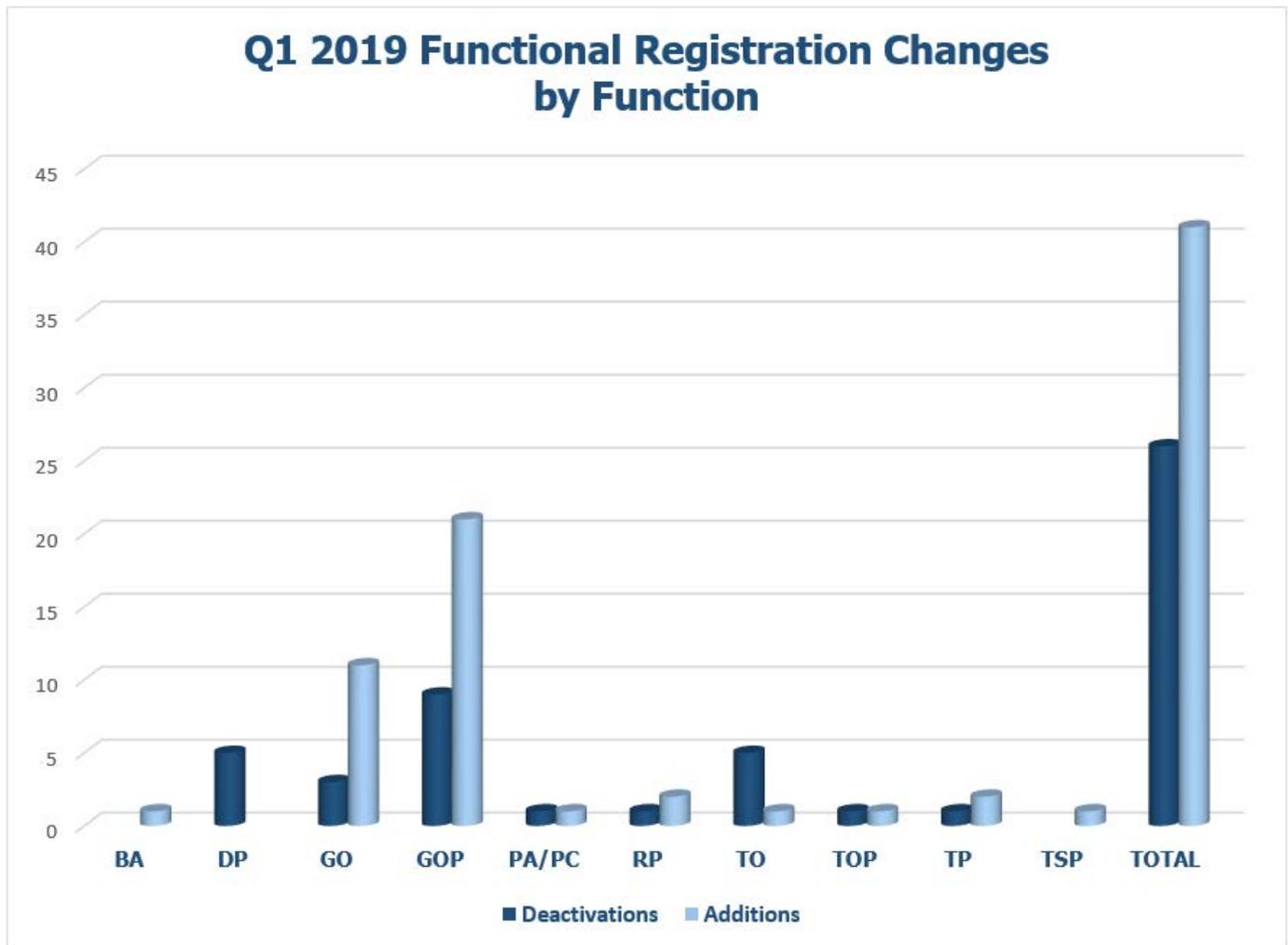


Figure C.1: Q1 2019 Registration Change Activity by Function

	BA	DP	GO	GOP	PA/PC	RP	TO	TOP	TP	TSP	TOTAL
Deactivations	0	5	3	9	1	1	5	1	1	0	26
Activations	1	0	11	21	1	2	1	1	2	1	41

REs provide justification when approving registration change activity. These justifications are reviewed by NERC before processing is completed. Table C.3 reflects the changes that were processed in Q1 2019.

Table C.3: Q1 2019 Registration Change Basis	
Consolidation into Mutually Owned Entity Registration	7
Responsibilities Assumed by Another Registered Entity	5
Sold to Another Registered Entity	5
Determined to no Longer Meet Registration Criteria	2

Appendix D: Certification

ERO Enterprise Organization Certification Utilization

Certification activities are responsive to the number of new entities requiring certification and the types of changes being 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 Q1 2019 and the number of new entity Certifications actively being processed. Figure D.2 identifies the number of reviews of changes to already Certified and operational entities (Certification Reviews) completed by each RE during Q1 2019 and the number of Certification Reviews actively being processed.

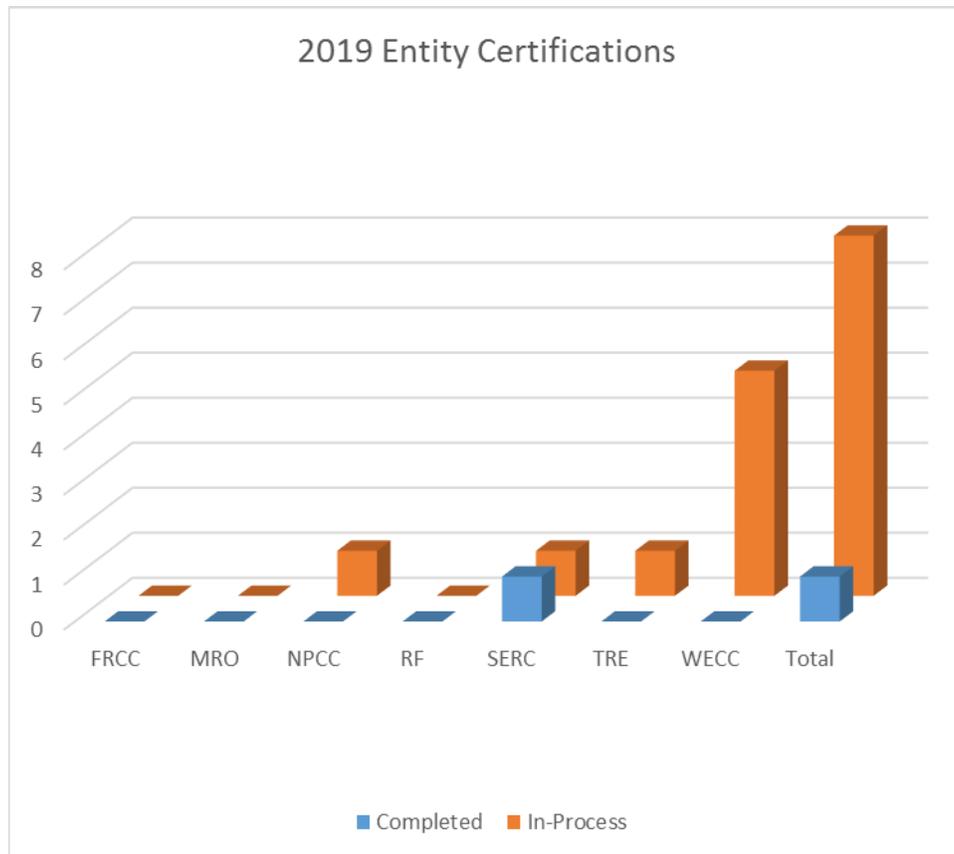


Figure D.1: Q1 2019 New Entity Certifications by RE



Figure D.2: Q1 2019 Certification Review Activity by RE

Table D.2: Q1 2019 Certification Review Change Basis	
Changes to a Registered Entity’s Footprint	4
Relocation of the Control Center	5
Changes to Supervisory, Control and Data Acquisition (SCADA)/Energy Management System (EMS) system	7