

March 30, 2020

Ms. Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

Re: NERC Standards Report, Status and Timetable for Addressing Regulatory Directives  
Docket No. RR09-6-003

Dear Secretary Bose:

The North American Electric Reliability Corporation (“NERC”) hereby submits the 2020 NERC Standards Report, Status and Timetable for Addressing Regulatory Directives (the “Directives Report”) in accordance with Section 321.6 of the NERC Rules of Procedure (“ROP”).<sup>1</sup> This annual report summarizes the progress made and plans for addressing the Reliability Standard-related directives issued by applicable governmental authorities.

Section 321.6 of NERC’s ROP requires NERC, on or before March 31 of each year, to file a report with applicable governmental authorities on the status and timetable for addressing each outstanding regulatory directive.

As discussed in the attached Directives Report, since NERC’s 2019 annual directives report filed on March 29, 2019, the Commission has issued three new directives related to Reliability Standards. In that time, NERC filed petitions with the Commission addressing eight directives.<sup>2</sup> Currently, there are nine outstanding directives, four of which NERC is addressing through standards development projects. The other outstanding directives are not related to Reliability Standards development (i.e., the directives relate to data gathering, registration, or the performance of research/studies) and are being addressed through other mechanisms.<sup>3</sup>

The 2020-2022 Reliability Standards Development Plan (“RSDP”) provides a plan to address the remainder of the standard-related directives. NERC’s annual RSDP establishes priorities related to Reliability Standards to help ensure that those issues that most directly impact Bulk-Power System reliability are addressed first. Directives to create new or modify existing Reliability Standards are assigned to existing or future

<sup>1</sup> The Federal Energy Regulatory Commission (“FERC” or “Commission”) approved Rule 321 on March 17, 2011 in the above captioned docket. *N. Am. Elec. Reliability Corp., Order on Compliance Filing*, 134 FERC ¶ 61,216 (2011).

<sup>2</sup> See Directives Report at Chapter 2, Table 1 for a list of the directives that were addressed since March 29, 2019.

<sup>3</sup> See *id.* at Chapter 2, Table 2 for a list of outstanding directives and status.

development projects that are prioritized by the NERC Standards Committee and reflected in the RSDP. The 2020-2022 RSDP was filed with the Commission on December 13, 2019.<sup>4</sup>

Please contact me if you have questions or need additional information.

Respectfully submitted,

*/s/ Lauren A. Perotti*

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Enclosure:

2020 NERC Standards Report, Status and Timetable for Addressing Regulatory Directives

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<sup>4</sup> NERC's 2020-2022 RSDP is accessible at the following link:  
<https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/2020%20RSDP%20FERC%20Filing.pdf>.

**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# NERC Standards Report

Status and Timetable for Processing Regulatory  
Directives

March 30, 2020

RELIABILITY | RESILIENCE | SECURITY



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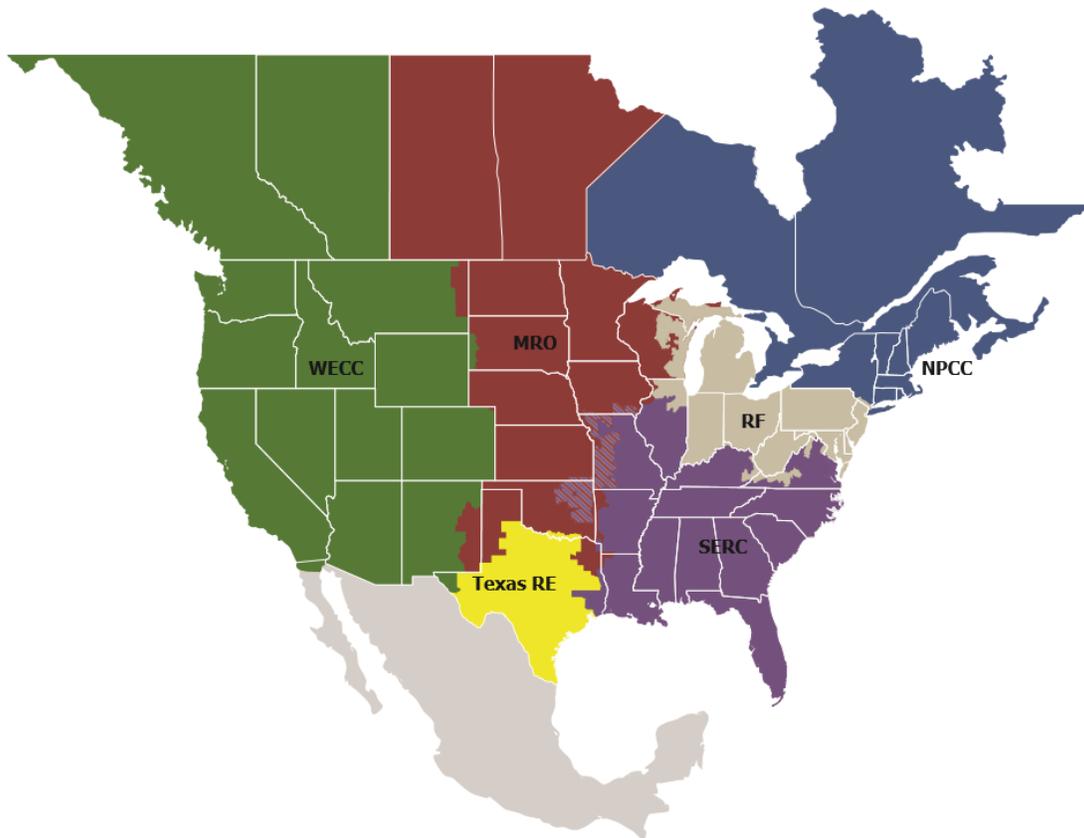
# Preface

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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 Region 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

# Introduction

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## Background

In accordance with Section 321.6 of the North American Electric Reliability Corporation (“NERC”) Rules of Procedure (“ROP”),<sup>1</sup> this report provides an update on the status and timetable for addressing outstanding directives issued by the Federal Energy Regulatory Commission (“FERC” or “Commission”) related to Reliability Standards or issued in orders approving or related to Reliability Standards.<sup>2</sup>

As discussed below, since NERC’s 2019 annual directives report filed on March 29, 2019, the Commission issued three new directives related to Reliability Standards. In that time, NERC filed petitions or reports with the Commission addressing eight directives.<sup>3</sup> Currently, there are nine outstanding directives, four of which NERC is addressing through existing standards development projects. The other outstanding directives are not related to Reliability Standards development (i.e., the directives relate to data gathering, registration, or the performance of research/studies) and are being addressed through other mechanisms.

NERC’s 2020-2022 Reliability Standards Development Plan (“RSDP”) provides a plan to address the outstanding Reliability Standard-related directives. NERC’s annual RSDP establishes priorities related to Reliability Standards to help ensure that those issues that most directly impact Bulk-Power System reliability are addressed first. Directives to create new or modify existing Reliability Standards are assigned to existing or future development projects that are prioritized by the NERC Standards Committee and reflected in the RSDP. The 2020-2022 RSDP was filed with the Commission on December 13, 2019.<sup>4</sup>

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<sup>1</sup> Section 321.6 of NERC’s ROP requires NERC, on or before March 31 of each year, to file a report with applicable governmental authorities on the status and timetable for addressing each outstanding regulatory directive.

<sup>2</sup> This report includes both Reliability Standard-related directives and non-Reliability Standard-related directives issued in orders approving or related to Reliability Standards (i.e., directives that pertain to information or data collection as opposed to the development of new or modified Reliability Standards). This report does not include other directives issued by the Commission, such as those issued in orders relating to revisions to the NERC Rules of Procedure or in orders accepting NERC’s five year performance assessment filings.

<sup>3</sup> See *infra* Chapter 1, Table 1 for a list of the directives that were addressed since March 29, 2019.

<sup>4</sup> NERC’s 2020-2022 RSDP was filed in Docket Nos. RM05-17-000, RM05-25-000, and RM06-16-000 and is available on NERC’s website at: <https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/2020%20RSDP%20FERC%20Filing.pdf>.

## Chapter 1: Completed Directives

The tables below contain a status update on the FERC directives. Table 1 contains a complete list of the directives NERC addressed since the 2019 directives report. Table 2 in the next chapter provide a list of the outstanding directives and an update on NERC’s plans to address those directives.

Table 1: Directives Addressed since March 30, 2019				
Directive Summary	Order No. & Para.	Action Taken	Project Name	Filing Date
S-Ref 10917: “[S]hould NERC make changes to Table 1 [in BAL-003-1.1 Attachment A] based upon NERC’s Procedure document, the Commission directs NERC to submit an informational notice describing the basis for the changes at least 30 days in advance of the effective date of any such changes.”	Order No. 794 ¶ 100	NERC developed BAL-003-2.	Project 2017-01 Modifications to BAL-003-1.1	12/19/2019
S-Ref 10955: “We further direct NERC to study and submit a report to the Commission with findings regarding reliability risks associated with most severe single contingency exceedances that do not result in energy emergencies.”	Order No. 835 ¶ 23	Report was created and filed.	n/a	1/2/2020
S-Ref 10954: ¶ 23: “We also direct NERC to collect and report on data pertaining to the occurrence of Balancing Contingency Events that trigger resets of the 90-minute Contingency Reserve Restoration Period under Requirement R3.”   ¶ 46: “[T]he Commission directs NERC to collect and report data pertaining to: (1) additional megawatt losses following Reportable Balancing Contingency Events during the Contingency Reserve Restoration Period; and (2) the time periods for contingency reserve restoration under Requirement R3 and the number of resets of the 90-minute restoration period, and submit a report to the Commission two years following the first day of implementation of Requirement R3. After NERC reports on the data in a	Order No. 835 ¶ 23, 46	Report was created and filed.	n/a	1/2/2020

Chapter 1: Completed Directives

compliance filing, the Commission will consider what further action, if any, to take.”				
“[We] direct NERC to develop and submit modifications to Reliability Standard TPL-007-2 to require the development and completion of corrective action plans to mitigate assessed supplemental GMD event vulnerabilities... The Commission... directs NERC to submit the modified Reliability Standard for approval within 12 months from the effective date of Reliability Standard TPL-007-2.”	Order No. 851 ¶ 4, 29	Standard was modified.	Project 2019-01 Modifications to TPL-007-3	2/7/2020 Approved by FERC 3/19/2020
“[We] direct that NERC develop further modifications to Reliability Standard TPL-007-2, Requirement R7.4... [W]e direct NERC to develop a timely and efficient process, consistent with the Commission’s guidance in Order No. 830, to consider time extension requests [for completion of Corrective Action Plan activities] on a case-by-case basis.”	Order No. 851 ¶ 30	Standard was modified.	Project 2019-01 Modifications to TPL-007-3	2/7/2020 Approved by FERC 3/19/2020
“Accordingly, we accept NERC’s commitment to evaluate the cybersecurity supply chain risks presented by PACS and PCAs in the cybersecurity supply chain risks study directed by the BOT. The Commission further directs NERC to file the BOT-directed final report with the Commission upon its completion.”	Order No. 850 ¶ 31	Report was created and filed.	n/a	5/28/2019
“We adopt the NOPR proposal and, pursuant to section 215(d)(5) of the FPA, direct that NERC develop modifications to Reliability Standard CIP-003-7 to address our concern and ensure that responsible entities implement controls to mitigate the risk of malicious code that could result from third-party transient electronic devices. NERC could satisfactorily address the identified concern, for example, by modifying Section 5 of Attachment 1 to CIP-003-7 to clarify that responsible entities must implement controls to mitigate the risk of malicious code that could result from the use of third-party transient	Order No. 843 ¶ 37	Standard was modified.	Project 2016-02 Modifications to CIP Standards	5/21/2019 Approved by FERC 7/31/2019

Chapter 1: Completed Directives

<p>electronic devices.”   “Therefore, pursuant to FPA section 215(d)(5), we direct NERC to develop and submit modifications to Reliability Standard CIP-003-7 to include an explicit requirement that responsible entities implement controls to mitigate the risk of malicious code that could result from third-party transient electronic devices.”</p>				
<p>“NERC is directed to make an informational filing for Project 2016-02 and Project 2019-02 within 30 days of the date of issuance of this order.”</p>	<p>170 FERC ¶ 61,109 ¶ 5</p>	<p>Filing was created and filed.</p>	<p>Project 2016-02 Modifications to CIP Standards  Project 2019-02 BES Cyber System Information Access Management</p>	<p>3/19/2020</p>

## Chapter 2: Outstanding Directives

Table 2 below shows the currently outstanding directives from FERC.

Table 2: Status of Outstanding Directives						
Directive Summary	Issued Date	Order No./Para.	Docket	Project Number	Due Date	Status
S-Ref 10871: ¶ 6: “[W]e also direct NERC to develop a means to assure that IROLs are communicated to transmission owners.”   ¶ 41: “NERC should establish a clearly defined communication structure to assure that IROLs and changes to IROL status are timely communicated to transmission owners.”   ¶ 42: “We encourage NERC to inform us when it has developed means for communication of IROLs to transmission owners to help ensure that they receive notice of each of their applicable lines before the [FAC-003-2] standard becomes effective as to those lines. [that is, ‘twelve months after the date a line operated below 200 kV is initially designated as an element of an IROL.]”	3/21/13	Order No. 777  ¶ 6 ¶ 41 ¶ 42	RM12-4-000	2015-09  Establish and Communicate System Operating Limits	n/a	Ongoing.
S-Ref 10820: “[The Commission] believe[s] that NERC should register demand side aggregators if the loss of their load shedding capability, for reasons such as a cyber incident, would affect the reliability or operability of the Bulk-Power System.”   “NERC should consider whether there is a current need to register demand side aggregators and, if so, to address any related issues and develop criteria for their registration.”	1/18/08	Order No. 706  ¶ 51	RM06-22-000	n/a	n/a	Ongoing.

Table 2: Status of Outstanding Directives

S-Ref 10957: “[T]he Commission directs NERC, pursuant to Section 1600 of the NERC Rules of Procedure, to collect GIC monitoring and magnetometer data from registered entities for the period beginning May 2013, including both data existing as of the date of this order and new data going forward, and to make that information available.”	9/22/16	Order No. 830  ¶ 89	RM15-11-000	n/a	n/a	Ongoing. Entities will be required to begin mandatory collection during designated GMD events beginning October 1, 2020. The first collection period will end on March 31, 2021. The first reporting deadline is June 30, 2021.
“[W]e... direct NERC to conduct a study to assess the implementation of Reliability Standard CIP-003-7. The study should address what electronic access controls entities choose to implement and under what circumstances, and whether the electronic access controls adopted by responsible entities provide adequate security, as well as other relevant information found by NERC as a result of the study. NERC must file the study within eighteen months of the effective date of Reliability Standard CIP-003-7.”	4/19/18	Order No. 843  ¶ 30	RM17-11-000	n/a	7/1/21	On track to be filed by due date.
“We also find that it is reasonable for NERC to file annually an anonymized report providing an aggregated summary of the reported information, similar to the ICS-CERT annual report. The annual report will provide the Commission, NERC, and the public a better understanding of any Cyber Security Incidents that occurred during the prior year without releasing information on specific responsible entities or Cyber Security Events.”	7/19/18	Order No. 848  ¶ 90	RM18-2-000	n/a	Annually, following the effective date of CIP-008-6.	Permanently ongoing. Initial report on track to be filed by due date.

Table 2: Status of Outstanding Directives

<p>“[W]e direct NERC to develop modifications to the CIP Reliability Standards to include EACMS within the scope of the supply chain risk management Reliability Standards. We direct NERC to submit the directed modifications within 24 months of the effective date of this final rule.”</p>	10/18/18	<p>Order No. 850</p> <p>¶ 30</p>	RM17-13-000	<p>2019-03</p> <p>Supply Chain Risks</p>	12/26/20	On track to be filed by due date.
<p>“[W]e direct NERC to prepare and submit a report addressing how often and why applicable entities are exceeding corrective action plan deadlines as well as the disposition of time extension requests. The report is due within 12 months from the date on which applicable entities must comply with the last requirement of Reliability Standard TPL-007-2.”</p>	11/15/18	<p>Order No. 851</p> <p>¶ 30</p>	RM18-8-000	n/a	1/1/25	On track to be filed by due date.
<p>“[W]e direct that NERC develop modifications to the CIP Reliability Standards to require protections regarding the availability of communication links and data communicated between bulk electric system Control Centers.”</p>	1/23/20	<p>Order No. 866</p> <p>¶ 36</p>	RM18-20-000	TBD	n/a	Standard Authorization Request accepted by NERC Standards Committee on 3/18/2020.
<p>“NERC is directed to file quarterly status updates on Project 2016-02 and Project 2019-02, on an informational basis, starting 120 days from the date of issuance of this order.”</p>	2/20/20	<p>Feb 20 Order 170 FERC ¶ 61,109</p> <p>¶ 1</p>	RD20-2-000	<p>2016-02 Modifications to CIP Standards</p> <p>2019-02 BES Cyber System Information Access Management</p>	Quarterly, beginning 6/19/20.	Ongoing. First update filed on 3/19/20.

## Chapter 3: Conclusion

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NERC is continuing to work closely with industry stakeholders and FERC to resolve all outstanding directives. Completing the majority of this work has provided the opportunity for industry to strategically review the standards and address as many directives as possible to date.