
**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**North American Electric Reliability
Corporation**)

Docket No. RD20-2-000

**SUPPLEMENTAL INFORMATIONAL FILING OF THE NORTH AMERICAN
ELECTRIC RELIABILITY CORPORATION REGARDING STANDARDS
DEVELOPMENT PROJECTS**

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19, 2020⁴ and two additional quarterly informational filings with updated schedules on June 19, 2020⁵ and September 17, 2020.⁶ This supplemental informational filing communicates schedule changes intended to prioritize completion of the virtualization revisions earlier than reported in the September Informational Filing and will not replace the quarterly updates, the next being filed in December.

I. BACKGROUND

NERC initiated Project 2016-02 to address the directives from Order No. 822⁷ as well as issues identified during implementation of the CIP Reliability Standards approved in Order No. 791.⁸ One issue identified during implementation included how the CIP Reliability Standards address virtualization.⁹ Because of the increased interest in using virtualization in industrial control system environments, the Project 2016-02 standard drafting team is considering modifications to the CIP Reliability Standards and associated definitions to more specifically address permitted architecture and the security risks of virtualization technologies.

NERC initiated Project 2019-02 to develop modifications to the CIP Reliability Standards regarding managing access and securing BES Cyber System Information. Specifically, Project 2019-02 seeks to clarify requirements in CIP-004-6 and CIP-011-2 regarding access management

⁴ NERC, *Informational Filing of the North American Electric Reliability Corporation Regarding Standards Development Projects*, Docket No. RD20-2-000 (March 19, 2020).

⁵ NERC, *Informational Filing of the North American Electric Reliability Corporation Regarding Standards Development Projects*, Docket No. RD20-2-000 (June 19, 2020).

⁶ NERC, *Informational Filing of the North American Electric Reliability Corporation Regarding Standards Development Projects*, Docket No. RD20-2-000 (September 17, 2020) [hereinafter September Informational Filing].

⁷ *Revised Critical Infrastructure Protection Reliability Standards*, Order No. 822, 154 FERC ¶ 61,037, at PP 32, 73, *reh'g denied*, Order No. 822-A, 156 FERC ¶ 61,052 (2016).

⁸ *Version 5 Critical Infrastructure Protection Reliability Standards*, Order No. 791, 145 FERC ¶ 61,160 (2013), *order on clarification and reh'g*, Order No. 791-A, 146 FERC ¶ 61,188 (2014).

⁹ “Virtualization is the process of creating virtual, as opposed to physical, versions of computer hardware to minimize the amount of physical hardware resources required to perform various functions.” *Virtualization and Cloud Computing Services*, Notice of Inquiry, 170 FERC ¶ 61,110 at P 4 (2020) (citing the National Institute of Standards and Technology, *Guide to Security for Full Virtualization Technologies, Special Publication 800-125* (Jan. 2011), <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-125.pdf>).

of BES Cyber System Information while in transit, storage, and use, and to clarify protections when entities use third-party cloud service providers for BES Cyber System Information.

In the February 20 Order, the Commission directed NERC to submit, within 30 days of the issuance of the Order, an informational filing that includes project schedules for Projects 2016-02 and 2019-02.¹⁰ The Commission stated that these schedules should include the status of the projects, interim target dates, and the anticipated filing date for new or modified Reliability Standards. In addition, the Commission directed NERC to file quarterly informational status updates, beginning in June 2020, until NERC files new or modified standards with the Commission.¹¹

II. PROJECT SCHEDULES

The following section provides the status of the projects, interim target dates, and the anticipated filing dates for modified Reliability Standards for Projects 2016-02 and 2019-02. NERC notes that these schedules are projections and subject to change.

A. Project 2016-02 Modifications to CIP Standards

The Project 2016-02 standard drafting team is proposing modifications to currently enforceable Reliability Standards CIP-004-6, CIP-005-6, CIP-006-6, CIP-007-6, and CIP-010-3 to address virtualization, with possible conforming changes to other Reliability Standards. The standard drafting team has conducted informal comment periods on these revisions and is currently preparing for a formal comment period and ballot. In addition, the standard drafting team hosted a virtual workshop for stakeholders to review proposed standards revisions and provide informal feedback.

¹⁰ February 20 Order, *supra* note 1, at P 5.

¹¹ *Id.*

Since the September Informational Filing, NERC notes that several interim target dates have moved to an earlier timeframe. The adjusted schedule is as follows:

- Initial 45-day formal comment period and ballot: To be posted January 2021
- Additional 45-day formal comment period and ballot (if needed): To be posted May 2021
- Additional 45-day formal comment period and ballot (if needed): To be posted August 2021
- Final ballot: To be posted October 2021
- NERC Board of Trustees Adoption: November 2021

The standard drafting team anticipates filing the proposed Reliability Standards with the Commission in December 2021.

While the standards drafting team is working on these revisions, NERC recognizes that Responsible Entities may currently be using virtualized technologies or are planning to implement them in their environments. As such, ERO Enterprise CMEP staff may encounter these technologies over the course of their CMEP engagements, including audits and other compliance monitoring activities. To better support ERO Enterprise CMEP staff in assessing compliance, NERC has determined to issue a CMEP Practice Guide regarding virtualization, similar to the current CMEP Practice Guide on BES Cyber System Information.¹²

CMEP Practice Guides are one of the two types of Compliance Guidance. In November 2015, the NERC Board of Trustees approved the Compliance Guidance Policy.¹³ In that policy, the two types of Compliance Guidance include the following: (1) Implementation Guidance, which

¹² NERC, *ERO Enterprise CMEP Practice Guide: BES Cyber System Information* (Apr. 26, 2019), at https://www.nerc.com/pa/comp/guidance/CMEPPacticeGuidesDL/ERO%20Enterprise%20CMEP%20Practice%20Guide%20_%20BCSI%20-%20v0.2%20CLEAN.pdf.

¹³ NERC, *Board of Trustees Minutes*, at p. 9 (Nov. 5, 2015).

provides examples for implementing a standard; and (2) CMEP Practice Guides, which provide direction to ERO Enterprise CMEP staff on approaches to carry out compliance monitoring and enforcement activities.¹⁴ The latter is developed solely by the ERO Enterprise and posted on NERC's website.¹⁵

The proposed Virtualization CMEP Practice Guide will provide direction to CMEP staff on audit and compliance assessment approaches under the currently effective CIP Reliability Standards. Additionally, the proposed Virtualization CMEP Practice Guide will provide more certainty and clarity on how CMEP staff will verify compliance with the current CIP Reliability Standards in light of these technologies. In particular, the Virtualization CMEP Practice Guide will highlight the types of information CMEP staff may want to review to assess both compliance and risk. NERC is collaborating with the Regional Entities in developing the CMEP Practice Guide and plans on issuing the CMEP Practice Guide by February 2021.

B. Project 2019-02 BES Cyber System Information Access Management

The Project 2019-02 standard drafting team is proposing modifications to currently enforceable Reliability Standards CIP-004-6 and CIP-011-2 to address access management to BES Cyber System Information. The standard drafting team posted the Reliability Standards for an initial 45-day formal comment period and ballot from December 20, 2019 to February 3, 2020, which did not achieve enough affirmative votes. The standard drafting team reviewed stakeholder comments and posted revised Reliability Standards for an additional 45-day formal comment period and ballot starting from August 6, 2020 to September 21, 2020, which did not achieve enough affirmative votes.

¹⁴ NERC, *Compliance Guidance Policy*, at p. v (Nov. 5, 2015).

¹⁵ CMEP Practice Guides are available at <https://www.nerc.com/pa/comp/guidance/Pages/default.aspx>.

The schedule for Project 2019-02 has been adjusted from the September Informational Filing. NERC has determined to prioritize the virtualization revisions in Project 2016-02 due to their potentially broader scope, and has adjusted the Project 2019-02 dates accordingly. The Project 2019-02 dates are contingent on Project 2016-02 meeting its milestones. As both projects will be potentially revising the same standards (e.g., CIP-004), the schedule below contemplates independent consideration of the changes being proposed by each team in an effort to expedite the overall consensus process. NERC will continue to explore avenues for efficiencies between the two projects.

- Additional 45-day formal comment period and ballot: To be posted April 2021
- Additional 45-day formal comment period and ballot (if needed): To be posted July 2021
- Final ballot: To be posted September 2021
- NERC Board of Trustees Adoption: November 2021

The standard drafting team anticipates filing the proposed Reliability Standards with the Commission in December 2021.

III. CONCLUSION

At the time of this filing, Project 2016-02 and Project 2019-02 remain on schedule as provided herein. If any changes occur to the projects' status, target dates, or anticipated filing dates, NERC will provide these changes in its quarterly informational filings submitted pursuant to the directive in the February 20 Order.

Respectfully submitted,

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November 13, 2020

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in the above-referenced proceeding.

Dated at Washington, D.C. this 13th day of November, 2020.

/s/ Marisa Hecht

Marisa Hecht
*Counsel for North American
Electric Reliability Corporation*