
Project QC-2022-04

Standards *CIP-004-07 – Cyber Security – Personnel and Training* and *CIP-011-03 – Cyber Security – Information Protection*

1.1. Applicability

The Reliability Standards proposed for adoption (CIP-004-7 and CIP-011-3) apply to the following functional entities:

Standard	Functional entities
CIP-004-7	<i>Balancing Authority (BA)</i> <i>Distribution Provider (DP)</i> <i>Generator Operator (GOP)</i>
CIP-011-3	<i>Generator Owner (GO)</i> <i>Reliability Coordinator (RC)</i> <i>Transmission Operator (TOP)</i> <i>Transmission Owner (TO)</i>

The standards drafting team of the North American Electric Reliability Corporation (NERC) has removed Interchange Coordinator or Interchange Authority from the functional entities to which standards CIP-004-7 and CIP-011-3 apply. As a reminder, these reliability functions were removed from the NERC reliability model, and in Québec, the Régie adopted this removal in Decision D-2015-195.¹

1.2. Purpose

This section presents the purpose of each standard covered by this request. The title and purpose of each standard are presented below.

- **CIP-004-7 – Cyber Security – Personnel and Training:** To minimize the risk of compromise that could lead to misoperation or instability in the Bulk Electric System (BES) from individuals accessing BES Cyber Systems by requiring an appropriate level of personnel risk assessment, training, security awareness and access management to protect such BES Cyber Systems.
- **CIP-011-3 – Cyber Security – Information Protection:** To prevent unauthorized access to BES Cyber System Information (BCSI) by specifying information protection requirements in support of protecting BES Cyber Systems against compromise that could lead to misoperation or instability in the Bulk Electric System (BES).

¹ Régie Decision D-2015-195, Docket R-3936-2015, retrieved on May 20, 2022 at http://publicsde.regie-energie.qc.ca/projets/320/DocPri/R-3936-2015-A-0006-Dec-Dec-2015_12_04.pdf

1.3. Regulatory context

These two Reliability Standards replace standards CIP-004-6 and CIP-0110-23, adopted by the Régie de l'énergie (the Régie) in Decision D-2017-117,² respectively. Standards CIP-004-6 and CIP-011-3 have been in effect in Québec since January 1, 2018.

Reliability standards CIP-004-7 and CIP-011-3 were adopted by the NERC Board of Trustees on August 12, 2021, and approved by the Federal Energy Regulatory Commission (FERC) on December 7, 2021, via Letter Order, Docket No. RD21-6-000.³ They will take effect in the United States on January 1, 2024.⁴

The Québec Reliability Coordinator (the Coordinator) files herewith standards CIP-004-7 and CIP-011-3 of NERC Project 2019-02⁵ (*BES Cyber System Information Access Management*). This is the only submission for this project. The purpose of the two Reliability Standards is to clarify the requirements of CIP standards as regards the security and management of access to BES Cyber System Information (BCSI), primarily by allowing for alternate protection methods such as encryption.

1.4. Special provisions for Québec

First, the Coordinator proposes carrying over the Québec-specific provisions (including applicability) in the preceding versions of the Reliability Standards (standards CIP-004-6 and CIP-011-2) already adopted by the Régie in Decision D-2017-117,⁶ which exempt certain generating stations and their step-up substations.

The first such special provision concerns the applicability of the standard:

“This standard applies only to facilities of the Main Transmission System (RTP) and to designated Distribution Provider facilities. When applying this standard, any reference to the terms Bulk Electric System or BES shall be replaced by the terms Main Transmission System or RTP, respectively.”

The Coordinator is of the opinion that this special provision is still applicable because the scope of application equivalent to the BES for Québec and recognized by the Régie is the RTP.

Second, the Coordinator proposes carrying over the following additional exemptions:

“The following are exempt from this standard:

- Any generation facility that meets both of the following conditions: (1) the rated power of the facility is 300 MVA or less and (2) none of the generating units of the facility can be synchronized with a neighboring System.
- Step-up substations of generating facilities that meet the conditions mentioned above.”

² Régie Decision D-2017-117, Docket R-4005-2017, retrieved on May 9, 2022, at http://publicsde.regie-energie.qc.ca/projets/408/DocPri/R-4005-2017-A-0009-Dec-Dec-2017_10_31.pdf

³ FERC Letter Order, Docket No. RD21-6-000, retrieved on May 9, 2022, at https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20211207-3062&optimized=false

⁴ Standards subject to a future coming into force on the NERC website, retrieved on May 9, 2022, at <https://www.nerc.com/pa/Stand/Pages/StandardsSubjecttoFutureEnforcement.aspx?jurisdiction=United+States>

⁵ NERC Project 2019-02, retrieved on May 9, 2022, at <https://www.nerc.com/pa/Stand/Pages/Project2019-02BCSIAccessManagement.aspx>

⁶ Régie Decision D-2017-117, Docket R-4005-2017, retrieved on May 9, 2022, at http://publicsde.regie-energie.qc.ca/projets/408/DocPri/R-4005-2017-A-0009-Dec-Dec-2017_10_31.pdf

The Coordinator is of the opinion that the special provision with respect to the additional exemptions is still applicable in the new versions of standards CIP-004 and CIP-011 because the exemption criteria mentioned above reference low-impact facilities.

Finally, the Coordinator proposes adding a special provision for standard CIP-011-3 in the Violation Severity Levels (VSLs):

“For the Requirement R2 Violation Severity Level, replace any references to Table R3 with Table R2.”

The Coordinator is of the opinion that this special provision corrects the errata in the standard’s English version.

1.5. Proposed effective dates

The NERC Project 2019-02 Implementation Plan⁷ proposes that Reliability Standards CIP-004-7 and CIP-011-3 become effective on the first day of the first calendar quarter that is 24 months⁸ after its regulatory approval. Both Reliability Standards will become effective in the United States on January 1, 2024.

The Coordinator considers the Régie’s requirement that standards come into force on the first day of a calendar quarter⁹ with at least 60 days¹⁰ between the date of the standard’s adoption and its effective date is compliant with NERC’s implementation plan.

Given the importance of having standardized practices, with effective mandatory standards harmonized with the United States, the Coordinator proposes that the two Reliability Standards come into effect on the first day of the first calendar quarter that is 24 months after their adoption by the Régie.

1.6. Standards to retire

Reliability Standards CIP-004-6 and CIP-011-2 must be retired as soon as CIP-004-7 and CIP-011-3 take effect, respectively.

1.7. Changes to the Glossary

No changes to the Glossary.

2. ASSESSMENT OF RELEVANCE

In the United States, NERC is of the opinion that at this time, under CIP-004-6, the Registered Entities control BCSI by managing access to their designated storage locations, including electronic documents and physical storage locations, but do not take into account cloud-computing service providers, which, as technologies evolve, have become an option for storing BCSI securely. Any references to designated BCSI storage locations, whether physical or electronic, have been removed from the standard and a requirement has been added concerning a physical and electronic access management program to authorize, verify and revoke BCSI access. The new version of CIP-004 allows for establishing controls by means of rights, permissions, authorizations and privileges, thereby reducing dependence on storage

⁷ NERC Project 2019-02 Implementation Plan, retrieved on May 9, 2022 at https://www.nerc.com/pa/Stand/Project201902BCSIAccessManagement/2019-02_Implementation_Plan.pdf.

⁸ NERC Project 2019-02 Implementation Plan (p. 2/3), retrieved on May 9, 2022 at https://www.nerc.com/pa/Stand/Project201902BCSIAccessManagement/2019-02_BCSI_Implementation_Plan_06022021.pdf.

⁹ In its decision [D-2015-168](#), the Régie set the effective date of the standards as the first day of the calendar quarter following the date of adoption.

¹⁰ In its decision [D-2016-011](#), the Régie set a minimum of 60 days between adoption of a standard and its effective date.

locations alone. Concretely, the addition of Requirement R6 covers all requirements regarding BCSI access management and clarifies the documented access management program for authorizing, verifying and revoking provisioned access.

NERC also reiterates that CIP-011-3 clarifies the BCSI protection and processing requirements to give the Registered Entities the flexibility to use third-party data storage and analysis systems. The new version of CIP-011 requires Registered Entities to implement specific BCSI-related controls for handling data during transmission and submission, even when third-party services are used. Concretely, these clarifications have been added to CIP-011-3.

In short, standards CIP-004-7 and CIP-011-3 make it possible to meet existing industry needs across North America, namely greater flexibility and availability in BCSI management. These proposed standards allow for this freedom of choice.

NERC is of the opinion that the standards proposed for adoption are reasonable, are not discriminatory, do not provide any undue advantages and are in the public interest.¹¹ FERC concluded in Letter Order, Docket No. RD21-6-000.¹² that NERC's position is based on the fact that the new versions of the Reliability Standards are improvements compared to those currently in effect. They clarify the required protections regarding the use of BCSI, or information on BES Cyber Systems that may be used to obtain unauthorized access or pose a threat to their security.

Furthermore, the New Brunswick Energy and Utilities Board adopted CIP-004-7 and CIP-011-3 on April 29, 2022, in Project no. 518,¹³ which addressed NERC Project 2019-02. In Ontario, the project is under review by the Ontario Energy Board.¹⁴

Given the information outlined above regarding standards CIP-004-7 and CIP-011-3, and the fact that these standards were developed by organizations recognized in North America (including in Québec and in neighboring jurisdictions) in accordance with the agreement signed in 2009 by the Régie, NERC and the NPCC, with the authorization of the Government of Québec,¹⁵ the Coordinator is of the opinion that standards CIP-004-7 and CIP-011-3 contribute to the reliability of the Québec System and to harmonization with neighboring Systems.

3. PRELIMINARY IMPACT ASSESSMENT

This section provides the Reliability Coordinator's preliminary assessment of the impact on all Québec entities.

For standards CIP-004 and CIP-011, access management systems and encryption keys are already commonly used in the North American and Québec electricity industry, which is why the Coordinator considers the impact to be low.

¹¹ NERC opinion (p. 1), retrieved on May 19, 2022, at <https://www.nerc.com/FilingsOrders/ca/Canadian%20Filings%20and%20Orders%20DL/Quebec%20BCSI%20Access%20Management%20Standards.pdf>

¹² FERC Letter Order, Docket No. RD21-6-000, retrieved on May 9, 2022 at https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20211207-3062&optimized=false

¹³ New Brunswick Project no. 518, retrieved on May 11, 2022, at <https://filemaker.nbeub.ca/fmi/webd/NBEUB%20ToolKit13>

¹⁴ Ontario Energy Board review process, retrieved on May 13, 2022, at <https://www.ieso.ca/en/Sector-Participants/System-Reliability/OEB-Review-Process>

¹⁵ Agreement entered into pursuant to Decree No. 443-2009, issued on April 8, 2009. http://www.regie-energie.qc.ca/audiences/normes_fiab_tranp_elec/Entente_Regie_NERC_NPCC_5mai09.pdf

The table below shows preliminary assessments of the impact on all Québec Entities.

Standard	Impacts		
	Implementation	Enforcement	Monitoring
CIP-004-7	Low	Low	Low
CIP-011-3	Low	Low	Low

Legend:

Low: Normal industry practice or standard that only requires minor adjustments to existing processes or practices

Moderate: Change that requires the mobilization of some physical, human or financial resources to implement the proposed standard, enforce it or monitor its compliance

High: Change that requires provision and mobilization of significant physical, human or financial resources to plan and implement the proposed standard, enforce it or monitor its compliance

4. FINAL IMPACT ASSESSMENT

This section will be completed upon receipt of the impact assessment forms and at the conclusion of the consultation process prior to filing of the standards with the Régie.