
Project QC-2024-05

Reliability Standard CIP-012-2 – Cyber Security – Communications Between Control Centers

1.1. Applicability of the standard

The following table lists the functional entities to which CIP-012-2, the reliability standard proposed for adoption (the “Reliability Standard”), applies.

Standard	Entities covered
CIP-012-2	Balancing Authority (BA) Generator Operator (GOP) Generator Owner (GO) Reliability Coordinator (RC) Transmission Operator (TOP) Transmission Owner (TO)

The Québec Reliability Coordinator (hereinafter, the “Coordinator”) states that there is no change between the applicability of CIP-012-2 and its earlier version, CIP-012-1.

1.2. Purpose of the standard

This section describes the purpose of the standard that is the subject of this request. The title and purpose of the standard are as follows:

- **CIP-012-2 – Cyber Security – Communications between Control Centers:** Protect the confidentiality, integrity and availability of Real-Time Assessment and Real-Time Monitoring data transmitted between Control Centers.

1.3. Regulatory context

Pursuant to section 85.6 of the *Act Respecting the Régie de l’énergie* (hereinafter, the “Act”), the Coordinator submits for adoption by the Régie de l’énergie (hereinafter, the “Régie”) Reliability Standard CIP-012-2 as set forth by the North American Electric Reliability Corporation (hereinafter, “NERC”) in Project 2020-04¹ (Modifications to CIP-012-2) This is the only submission for this project. The purpose of the Reliability Standard is to respond to paragraphs 35 and 36 of Federal Energy Regulatory Commission Order 866² (hereinafter, “FERC”). This Order includes improvements to CIP-012, including the development of documented plans to ensure the availability of data exchanged between Control Centers.

Reliability Standard CIP-012-2 was adopted by the NERC Board of Trustees on December 12, 2023, and approved by FERC on May 23, 2024, through Letter Order RD24-3-000³. It will take effect in the United States on July 1, 2026⁴.

¹ NERC Project 2020-04, accessed August 16, 2024, at <https://www.nerc.com/pa/Stand/Pages/Project202004ModificationstoCIP-012.aspx>.

² FERC Order 866, accessed August 16, 2024, at https://www.ferc.gov/sites/default/files/2020-05/E-22_9.pdf

³ FERC Letter Order No. RD24-3-000, accessed August 16, 2024, at <https://www.ferc.gov/media/e-1-rd24-3-000>.

⁴ Standards subject to future implementation on the NERC website, accessed August 16, 2024, at <https://www.nerc.com/pa/Stand/Pages/USRelStand.aspx>.

1.4. Special provisions for Québec

First, the Coordinator proposes carrying over the Québec-specific provisions (including applicability) in the preceding version of the Reliability Standard (CIP-012-1) already adopted by the Régie in Decision D-2022-048⁵, which clarifies the applicability of the definition of “Control Center.”

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

In applying CIP-012-2, the definition of Control Center is as follows: One or more facilities hosting operating personnel that monitor and control the Main Transmission System (RTP) (including their associated data centers) in real time to perform the reliability tasks of: 1) a Reliability Coordinator; 2) a Balancing Authority; 3) a Transmission System Operator for RTP transmission facilities at two or more locations; and 4) a Generator Operator for RTP generating facilities at two or more locations.

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

1.5. Proposed effective dates

The NERC Project 2020-04 Implementation Plan⁶ proposes that Reliability Standard CIP-012-2 come into effect on the first day of the first calendar quarter that is 24 months⁷ after regulatory approval.

The Coordinator considers that NERC’s implementation plan meets the Régie’s requirement that standards come into force on the first day of a calendar quarter⁸ with at least 60 days⁹ between the date of the standard’s adoption and its effective date.

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

1.6. Standard to retire

This Reliability Standard replaces CIP-012-1, adopted by the Régie in Decision D-2022-048¹⁰. CIP-012-1 has been in effect in Québec since July 1, 2024.

Reliability Standard CIP-012-1 must be retired as soon as CIP-012-2 takes effect.

1.7. Modifications to the Glossary

No modifications to the Glossary.

⁵ Régie Decision D-2022-048, Docket R-4152-2021 Phase 1, accessed August 16, 2024, at <https://www.regie-energie.qc.ca/storage/app/media/entites-visees-normes-de-fiabilite/normes-de-fiabilite/D-2022-048.pdf>

⁶ NERC Implementation Plan, Project 2020-04, accessed August 16, 2024, at <https://www.nerc.com/pa/Stand/Project202004Modifications%20to%20CIP012DL/2020-04%20CIP-012-2%20Implementation%20Plan%20final%20ballot%20Nov2023.pdf>

⁷ NERC Implementation Plan, Project 2020-04, accessed August 16, 2024, at <https://www.nerc.com/pa/Stand/Project202004Modifications%20to%20CIP012DL/2020-04%20CIP-012-2%20Implementation%20Plan%20final%20ballot%20Nov2023.pdf>

⁸ In Decision D-2015-168, the Régie set the effective date of standards as the first day of the calendar quarters following the date of adoption.

⁹ In Decision D-2016-011, the Régie set a minimum of 60 days between the adoption of standards and their effective date.

¹⁰ Régie Decision D-2022-048, Docket R-4152-2021 Phase 1, accessed on August 16, 2024, at <https://www.regie-energie.qc.ca/storage/app/media/entites-visees-normes-de-fiabilite/normes-de-fiabilite/D-2022-048.pdf>

2. ASSESSMENT OF RELEVANCE

On January 23, 2020, FERC issued Order No. 866¹¹, which approves Reliability Standard CIP-012-1 and directs NERC to amend the standard to require Responsible Entities to develop one or more plan(s) to implement protections for the availability of communications links and data during transmission between Control Centers. In response to Order No. 866¹², the standard drafting team at NERC reworked the parts of Requirement R1 by adding requirements to obligate Responsible Entities to describe the means to mitigate risks resulting from a loss of data transmission capacity between Control Centers.

In practical terms, this meant adding parts to Requirement R1 to describe the means to mitigate the risks resulting from unauthorized disclosure, unauthorized modification or loss of availability of Real-Time Evaluation or Real-Time Monitoring data during transmission between Control Centers.

In short, Standard CIP-012-2 complies with FERC Order No. 866¹³ by enhancing System reliability by maintaining the availability of communication systems and data between Control Centers.

As mentioned in its letter order No. RD24-3-000¹⁴, FERC is of the opinion that the amendments to CIP-012, i.e., the addition of requirements to safeguard the availability of communication links and data transmitted between Control Centers, improves BES system reliability, particularly by reducing the risk of loss of communication between Control Centers, thus avoiding poor operation or instability of the BES system.

In addition, the New Brunswick Energy and Utilities Board published a notice on its website effective July 26, 2024, to September 24, 2024, for CIP-012-2 in Proceeding No. 0581¹⁵. In Ontario, the project is currently being analyzed by the Ontario Energy Board¹⁶.

Considering the information outlined above regarding CIP-012-2, and considering that this standard was developed by recognized organizations in North America, including in Québec and neighbouring jurisdictions, in accordance with the 2009 agreement between the Régie, NERC and the Northeast Power Coordinating Council (NPCC) with the authorization of the Québec government¹⁷, the Coordinator is of the opinion that Reliability Standard CIP-003-9 contributes to the reliability of the Québec System and harmonization with neighbouring Systems.

3. PRELIMINARY IMPACT ASSESSMENT

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

For CIP-012-2, a minor adjustment will be required in the documentation. However, the implementation of means to mitigate the loss and restoration of real-time data communication links is already part of the architecture in North America and Québec, notably through the use of virtual private networks (VPNs) and firewalls, which is why the Coordinator considers the impact to be low.

¹¹ FERC Order 866, accessed August 16, 2024, at https://www.ferc.gov/sites/default/files/2020-05/E-22_9.pdf

¹² FERC Order 866, accessed August 16, 2024, at https://www.ferc.gov/sites/default/files/2020-05/E-22_9.pdf

¹³ FERC Order 866, accessed August 16, 2024, at https://www.ferc.gov/sites/default/files/2020-05/E-22_9.pdf

¹⁴ FERC Letter Order No. RD24-3-000, accessed August 16, 2024, at <https://www.ferc.gov/media/e-1-rd24-3-000>.

¹⁵ New Brunswick Proceeding No. 0581, accessed August 16, 2024, at <https://filemaker.nbeub.ca/fmi/webd/NBEUB%20ToolKit13>

¹⁶ Ontario Energy Board Review Process, accessed August 16, 2024, at <https://www.ieso.ca/en/Sector-Participants/System-Reliability/OEB-Review-Process>.

¹⁷ Agreement entered into pursuant to Decree No. 443-2009 issued on April 8, 2009.

https://www.publicationsduquebec.gouv.qc.ca/fileadmin/gazette/pdf_encrypte/lois_reglements/2009F/51626.pdf

The table below presents preliminary assessments of the impact on all Québec entities.

Standard	Impact		
	Implementation	Maintenance	Monitoring
CIP-012-2	Low	Low	Low

Key:

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 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 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.