
TOP-001-4 – Transmission Operations

IRO-002-6 – Reliability Coordination – Monitoring and Analysis

1. OVERVIEW OF THE STANDARDS

1.1. Applicability of reliability standards

The functions covered by TOP-001-4 and IRO-002-6 are indicated in the table below.

Standard	Functions covered
TOP-001-4	<i>Balancing Authority (BA)</i> <i>Transmission Operator (TOP)</i> <i>Generator Operator (GOP)</i> <i>Distribution Provider (DP)</i>
IRO-002-6	<i>Reliability Coordinator (RC)</i>

1.2. Purpose of the reliability standards

The purpose of TOP-001-4 is to prevent instability, uncontrolled separation or Cascading outages that adversely impact the reliability of the Interconnection by ensuring prompt action to prevent or mitigate such occurrences.

The purpose of IRO-002-6 is to provide System Operators with the capabilities necessary to monitor and analyze data needed to perform their reliability functions.

1.3. Regulatory context

The Régie de l'énergie (hereinafter, the "Régie") adopted TOP-001-3 and IRO-002-4 in Decision D-2017-067¹ and set July 1, 2017, as the date of their coming into force in Québec.

The NERC Board of Trustees adopted TOP-001-4 and IRO-002-5 on February 9, 2017. The NERC Board of Trustees also adopted IRO-002-6 on May 9, 2019. FERC approved TOP-001-4 and IRO-002-5 in a letter order dated April 17, 2017, in Docket No. RD17-4-000.² FERC also approved IRO-002-6 in a letter order dated July, 11 2019, in Docket No. RD19-6-000.³

1.4. Specific provisions for Québec

The specific provisions are intended solely to replace the term non-BES with the term non-RTP.

1. Régie de l'énergie, Décision D-2017-061, retrieved on October 17, 2019, at:

http://publicsde.regie-energie.qc.ca/projets/404/DocPrj/R-4001-2017-A-0005-Dec-Dec-2017_06_16.pdf.

2. FERC, Letter order in Docket No. RD17-4-000, retrieved on October 18, 2019, at:

<https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Delegated%20Order%20Approving%20IRO-002-5%20and%20TOP-001-4.pdf>.

3. FERC, Letter order in Docket No. RD19-6-000, retrieved on December 13, 2019, at:

<https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/FERC-IRO-002-6.pdf>.

1.5. Proposed effective dates

TOP-001-4 and IRO-002-5 became effective in the United States on July 1, 2018, and October 1, 2017, respectively. IRO-002-6 will become effective in the United States on January 1, 2020. The NERC Implementation Plan⁴ prescribed a period of three months between regulatory approval and effective date for IRO-002-5 and twelve months between regulatory approval and effective date for TOP-001-4. The Implementation Plan for IRO-002-6 is only relevant for WECC area.

In Québec, the Reliability Coordinator designated by the Régie (hereinafter, the "Coordinator") proposes a similar period between adoption and coming into force of the standards adopted by the Régie.

1.6. Standards or requirements proposed for retirement

To be retired	Comments
TOP-001-3	TOP-001-3, in effect since July 1, 2018, will have to be retired once TOP-001-4 comes into effect.
IRO-002-4	IRO-002-4, in effect since October 1, 2017, will have to be retired once IRO-002-6 comes into effect.

1.7. Changes to the Glossary

The coming into effect of the standards is contingent upon the changes to the definitions of the terms Remedial Action Scheme and Special Protection System as requested to the Régie in docket R-4070-2018.

2. ASSESSMENT OF RELEVANCE

TOP-001-4 and IRO-002-5 emerge from NERC's 2016-01 review project.⁵ That project followed upon FERC Order No. 817 to address the following concerns:⁶

- TOP-001-3 Requirement R10 does not provide for the TOP to monitor the non-BES Elements in its area in order to determine SOL exceedances.
- As concerns RCs, BAs and TOPs, the TOP and IRO standards are not clear regarding the obligation for registered entities to have redundant and diversely routed data exchange capabilities.
- The TOP and IRO standards are not clear regarding the obligation for RCs, BAs and TOPs to test alternate or less frequently used data exchange capability.

IRO-002-6 adds only a variance to IRO-002-5 for WECC area.

4. NERC, Implementation Plan, retrieved on December 13, 2019, at:

<https://www.nerc.com/pa/Stand/Project%20201601%20Modifications%20to%20TOP%20and%20IRO%20Standards/Implementation%20Plan%202016%2001%20clean%20Nov%2027%202016.pdf>.

5. NERC, Project 2016-01 Modifications to TOP and IRO Standards, retrieved on October 22, 2019, at:

<https://www.nerc.com/pa/Stand/Pages/Project-2016-01-Modifications-to-TOP-and-IRO-Standards.aspx>.

6. FERC, Order No. 817, retrieved on October 22, 2019, at:

<https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order%20No.%20817%20Approving%20TOP%20IRO%20Reliability%20Standards.pdf>.

Under the 2009 agreement between the Régie, NERC and the NPCC and with authorization from the Québec government, external bodies developed and approved these standards for North America, including Québec.⁷ In the opinion of the Coordinator, these two standards are relevant for system reliability in Québec and contribute to harmonization with neighboring systems.

3. PRELIMINARY IMPACT ASSESSMENT

This section presents the Coordinator's preliminary impact assessment.

TOP-001-4	Low	Moderate	High
Implementation of the standard	X		
Enforcement of the standard	X		
Compliance monitoring	X		

IRO-002-6	Low	Moderate	High
Implementation of the standard	X		
Enforcement of the standard	X		
Compliance monitoring	X		

Definitions

- Low:** Normal industry practice or standard requiring only minor adjustments to existing processes or practices.
- Moderate:** Change requiring the allocation of some physical, human or financial resources to implement, enforce and monitor compliance with the proposed standard.
- High:** Change requiring the allocation of significant physical, human or financial resources to plan, implement, enforce and monitor compliance with the proposed standard.

4. FINAL IMPACT ASSESSMENT

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

7. Agreement reached under Order No. 443-21009 dated April 8, 2019.