

## Project QC-2021-10

### Standards Alignment with Registration

(Standards FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-5, TOP-003-4)

#### 1. OVERVIEW OF THE STANDARDS

##### 1.1. Applicability

The standards covered by this document fall into three categories. These categories are divided as follows: standards in which the Load Serving Entities (LSE) functional entity is removed, standards in which modifications are made to ensure consistent usage of the Planning Authority (PA) and Planning Coordinator (PC) functional entity, and standards in which the UFLS-Only Distribution Provider functional entity is added.

The table below summarizes the modifications made to the standards as well as the functional entities covered by the standards in this project.

Standard	Functions covered	Retirement of LSE function	Consistent use of PA /PC	UFLS-Only DP
FAC-002-3	Planning Coordinator (PC) Transmission Planner (TP) Transmission Owner (TO) Distribution Provider (DP) Generator Owner (GO)	X		
IRO-010-3	Reliability Coordinator (RC) Balancing Authority (BA) Generator Owner (GO) Generator Operator (GOP) Transmission Operator (TOP) Transmission Owner (TO) Distribution Provider (DP)	X		
MOD-031-3	Planning Coordinator (PC) Transmission Planner (TP) Balancing Authority (BA) Resource Planner (RP) Distribution Provider (DP)	X	X	
MOD-033-2	Planning Coordinator (PC) Reliability Coordinator (RC) Transmission Operator (TOP)		X	
TOP-003-4	Transmission Operator (TOP) Balancing Authority (BA) Generator Owner (GO)	X		

Standard	Functions covered	Retirement of LSE function	Consistent use of PA /PC	UFLS-Only DP
	Generator Operator (GOP) Transmission Owner (TO) Distribution Provider (DP)			
PRC-006-5	Planning Coordinators (PC) Distribution Providers (DP) UFLS-Only Distribution Providers			X

## 1.2. Purpose of the Reliability Standard

This section presents the purpose of each standard covered by this request. The list below presents the title, followed by the purpose, of each standard.

- **FAC-002-3 – Facility Interconnection Studies:** To study the impact of interconnecting new or materially modified Facilities on the Bulk Electric System.
- **IRO-010-3 – Reliability Coordinator Data Specification and Collection:** To prevent instability, uncontrolled separation, or Cascading outages that adversely impact reliability, by ensuring the Reliability Coordinator has the data it needs to monitor and assess the operation of its Reliability Coordinator Area.
- **MOD-031-3 – Demand and Energy Data:** To provide authority for applicable entities to collect Demand, energy and related data to support reliability studies and assessments and to enumerate the responsibilities and obligations of requestors and respondents of that data.
- **MOD-033-2 – Steady-State and Dynamic System Model Validation:** To establish consistent validation requirements to facilitate the collection of accurate data and building of planning models to analyze the reliability of the interconnected transmission system.
- **PRC-006-5 – Automatic Underfrequency Load Shedding:** To establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures.
- **TOP-003-4 – Operational Reliability Data:** To ensure that the Transmission Operator and Balancing Authority have data needed to fulfill their operational and planning responsibilities.

## 1.3. Regulatory Context

### i. NERC Risk-based Registration Project

In its docket RR15-4-000<sup>1</sup>, NERC submitted a petition for approval of proposed revisions to its Rules of Procedure (ROP) that would implement the Risk-Based Registration (RBR) initiative. Among the proposed changes, NERC proposed the elimination of the PSE, IA and LSE functions and the creation of a new registration category UFLS-Only DP function. A UFLS-Only DP is a Distribution Provider that is the responsible entity that owns, controls, or operates Underfrequency Load Shedding Protection System(s) needed to implement a required Underfrequency Load Shedding Program designed for the protection of the Bulk Electric System, but that does not meet any of the other criteria for registration as a Distribution

<sup>1</sup> NERC Docket RR15-4-000, consulted online on November 19, 2021 at:  
[https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Petition\\_RBR\\_Initiative\\_ROP\\_12112014.pdf](https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Petition_RBR_Initiative_ROP_12112014.pdf)

Provider<sup>2</sup>. On March 19, 2015, FERC approved in part, and denied in part, NERC's RBR initiative in which the PSE and IA functions were removed from the NERC Registry criteria<sup>3</sup> and a new registration category UFLS-Only DP was created<sup>4</sup>. With regard to the removal of the LSE function, FERC concluded that NERC did not adequately justify eliminating the function and directed NERC to submit a compliance filing that addressed FERC's concerns. Following NERC's compliance filing<sup>5</sup> providing additional information, FERC determined that the risks posed by the elimination of the load-serving entity function are likely to be minimal and that NERC demonstrated that load data would continue to be available and reliability activities would continue to be performed even after load-serving entities would no longer be registered<sup>6</sup>. The Coordinator presents the motifs retained by FERC in section 2.1 of this document.

## ii. NERC Project 2017-07 Standards Alignment with Registration

Several NERC projects addressed standards impacted by the FERC approved RBR initiative however there remained some Reliability Standards that require minor revisions so that they align with RBR registration impacts. The standards listed in the table below were reviewed as part of the 2017-07 project but were not modified by the standard drafting team for various reasons.

The Coordinator is submitting the FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-5 and TOP-003-4 standards in the present project. The NERC 2017-07<sup>7</sup> Standards Alignment with Registration project makes reference to several other standards whose revisions will be proposed by the Coordinator in future filings. The table below summarizes the standards that were reviewed by the 2017-07 project but not included in this project, the status of the corresponding NERC project, and their status in Québec.

Standards impacted by the RBR initiative	NERC Project	Standard Status in Québec
BAL-005-02.b	Superseded by BAL-005-1 which deleted the LSE function	BAL-005-1 adopted by the Régie in D-2020-067 <sup>8</sup>
CIP-002-5.1a CIP-003-7 CIP-004-6	Project 2016-02 (Removal of Interchange Coordinator or Interchange Authority <sup>9</sup> )  CIP Standards Efficiency Review	Ongoing NERC project  The standards CIP-005-7 and CIP-010-4 were filed for adoption in filing R-

<sup>2</sup> Rules of Procedure, Appendix 5B consulted online on November 19, 2021 at:

<https://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/Appendix%205B.pdf>

<sup>3</sup> The Régie approved the elimination of the PSE and IA functions in its decision [D-2015-195](#)

<sup>4</sup> FERC Order, Docket RR15-4-000, consulted online on November 19, 2021 at :

[https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order\\_RBR\\_ROP\\_20150319\\_RR15-4.pdf](https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order_RBR_ROP_20150319_RR15-4.pdf)

<sup>5</sup> NERC Compliance filing, docket RR15-4-001, consulted online on November 19, 2021, at :

[https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/RBR-ROP\\_Compl\\_Filing\\_07172015\\_RR15-4\\_posting.pdf](https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/RBR-ROP_Compl_Filing_07172015_RR15-4_posting.pdf)

<sup>6</sup> FERC Order, Docket RR15-4-001, consulted online on November 19, 2021 at :

[https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order\\_RBR\\_ROP\\_10152015\\_RR15-4.pdf#page=9](https://www.nerc.com/FilingsOrders/us/FERCOrdersRules/Order_RBR_ROP_10152015_RR15-4.pdf#page=9)

<sup>7</sup> NERC Project 2017-07 Standards Alignment with Registration, consulted online on November 19, 2021 at:

<https://www.nerc.com/pa/Stand/Pages/Project201707StandardsAlignmentwithRegistration.aspx>

<sup>8</sup> Régie de l'énergie decision D-2020-067, consulted online on November 19, 2021 at : [http://publicsde.regie-energie.qc.ca/projets/523/DocPri/R-4104-2019-A-0017-Dec-Dec-2020\\_06\\_08.pdf](http://publicsde.regie-energie.qc.ca/projets/523/DocPri/R-4104-2019-A-0017-Dec-Dec-2020_06_08.pdf)

<sup>9</sup> In its decision [D-2015-195](#), the Régie approved the removal of the PSE and IA functions from the Register

Standards impacted by the RBR initiative	NERC Project	Standard Status in Québec
CIP-005-6 CIP-007-6 CIP-008-5 CIP-009-6 CIP-010-2 CIP-011-2		4173-2021.
FAC-010-3 FAC-011-3 FAC-014-2	Project 2015-09 – Establish and Communicate System Operating Limits (Planning Coordinator vs Planning Authority)	Filed with FERC
INT-004-3.1 INT-006-4	Standards Efficiency Review Phase 1	INT-004-3.1 retired by the Régie in D-2021-058 <sup>10</sup>  INT-006-5 adopted by the Régie in D-2021-058 <sup>11</sup>
MOD-032-1	The work of the System Planning Impact from Distributed Energy Resource Working Group (SPIDERWG) is ongoing pertaining to DERs. The 2017-07 standard drafting team will not take any action until the SPIDERWG has completed its efforts. (references to LSE to be removed)	Future NERC project
PRC-005-6	Project 2019-04 – Modifications to PRC-005-6 is currently in progress	NERC project in progress

### iii. Request for retirement of the LSE function in Docket R-3952-2015

Once the future NERC MOD-032-1 project is completed and FERC approves the standard or any subsequent version of the standards, a request will be filed by the Coordinator to withdraw the LSE function from the reliability model in Québec.

#### 1.4. Specific Provisions for Québec

There are no specific provisions for the MOD-031-3 and MOD-033-2 standards. For the FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-5 and TOP-003-4 standards, the Coordinator requests the renewal of the specific provisions from the previous versions of these standards.

<sup>10</sup> Régie de l'énergie decision D-2021-058, consulted online on November 19, 2021 at : [http://publicsde.regie-energie.qc.ca/projets/573/DocPrj/R-4149-2021-A-0004-Dec-Dec-2021\\_05\\_04.pdf](http://publicsde.regie-energie.qc.ca/projets/573/DocPrj/R-4149-2021-A-0004-Dec-Dec-2021_05_04.pdf)

<sup>11</sup> See footnote 10.

**i. Relation with the filing R-4001-2017**

The final agreement (hereinafter, the “Agreement”) relating to the transmission of confidential operating data from Rio Tinto Alcan (RTA) and the processing of this data by Hydro-Québec concerns the standards IRO-010-2 and TOP-003-3 as well as any new revision to these two standards.

The Coordinator is of the opinion that the new versions of the IRO-010-2 and TOP-003-3 standards requested for adoption within this filing, namely the IRO-010-3 and the TOP-003-4 standards, have no impact on the Agreement, nor on the processing of the file R-4001-2017.

Should the system provided for in the Agreement not be functional before August 1<sup>st</sup>, 2022, the specific provisions regarding generation facilities for industrial use would be reintegrated in the Québec appendices of the standards in filing R-4001-2017 and a reference would be added to the version history of the versions of the standards that are in effect. The Coordinator sees no issues in reconciling this filing with the main request and interim requests in the R-4011-2017 filing. This situation is similar to that was observed by the Coordinator and the Régie in the context of the R-4164-2021 filing related to the adoption of standards IRO-002-7 and TOP-001-5.

**1.5. Proposed Effective Dates**

The implementation plan<sup>12</sup> for NERC Project 2017-07 proposed that the FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-5 and TOP-003-4 standards become effective on the first day of the first calendar quarter that is three (3) months after the effective date of the applicable regulatory approval.

Given the importance of having uniform practices with mandatory standards in effect harmonized with the United States, the Coordinator requests an effective date on the first day of the first calendar quarter<sup>13</sup> that is three (3) months after the adoption date of the revised standards in this file. The Coordinator considers that the criterion established by the Régie to have a minimum period between the date of adoption and the entry into force of 60 days<sup>14</sup> is respected given the minor modifications to the standard which are limited to the deletion of 2 terms as well as the approval of the standard by FERC without additional regulatory deadlines.

**i. Relation with the filing R-4001-2017**

With regards to the IRO-010-3 and TOP-003-4 standards, the Coordinator is not of the opinion that it is necessary to extend the implementation period to the implementation time of the system provided for in the Agreement. In the event that the system is not operational on the scheduled date of August 1<sup>st</sup>, 2022, a compliance decision taking into account the evolution of the standards could be rendered in the R-4001-2017 filing

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<sup>12</sup> NERC Project 2017-07 Implementation Plan, consulted online on November 19, 2021 at: [https://www.nerc.com/pa/Stand/Project201707StandardsAlignmentwithRegistration/2017-07\\_Implementation\\_Plan\\_Clean\\_January2020.pdf](https://www.nerc.com/pa/Stand/Project201707StandardsAlignmentwithRegistration/2017-07_Implementation_Plan_Clean_January2020.pdf)

<sup>13</sup> According to the decision [D-2015-168](#), the Régie fixed the effective date of the standards on the first day of the first calendar quarter following the adoption date. (in French only)

<sup>14</sup> According to the decision [D-2106-011](#), the Régie fixed the minimum delay to 60 days between the adoption and effective date of standards. (in French only)

### 1.6. Standards or Requirements to Retire

The current version of FAC-002-2, IRO-010-2, MOD-031-2, MOD-033-1, PRC-006-3 and TOP-003-3 standards that are in effect are to be retired when the FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-4 and TOP-003-4 standards comes into effect.

### 1.7. Modifications to the Glossary

No modifications.

### 1.8. Modifications to the Register

No modifications.

## 2. ASSESSMENT OF RELEVANCE

As previously stated, the modifications to the standards covered in this project fall into three categories. The sections below explain how these modifications are relevant in Québec.

### 2.1. Retirement of the LSE function

In its compliance filing<sup>15</sup>, NERC provided four reasons for the removal of the LSE function from the NERC Compliance Registry (NCR):

- i. The Glossary definition of an LSE<sup>16</sup> reflects the fact that the activities performed by the LSEs are primarily commercial in nature. Owners and operators of BES Elements are registered under other functions. The LSE ensures an adequate power supply for its customers, including contracting for associated transmission service, to deliver that supply to a DP, who is responsible for the final delivery to its end use customers. The NERC Functional Model<sup>17</sup> similarly provides that “[u]nlike the Distribution Provider, the Load-Serving Entity, does not have Bulk Electric System assets (“wires”) but does take title to energy.” The LSE only receives instructions and relays information to the Distribution Providers and Transmission Operators and as a result, LSEs cannot take actions on the grid to impact reliability.
- ii. Tasks assigned to the LSE function under the NERC Reliability Standards would continue to be provided by other functions in support of reliability, pursuant to tariffs, market rules, market rules, market protocols and other market agreements.
- iii. LSE obligations continue under Tariffs, Market Agreements, Market Rules and Market Protocols. The deregistered LSEs represent a small percentage of load in their respective BA areas.
- iv. NERC reviewed current and historical compliance monitoring and enforcement activities as to organizations registered for the LSE function and concluded that no violations by an entity in its LSE function has caused or exacerbated system disturbances or events.

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<sup>15</sup> See footnote 5.

<sup>16</sup> The [Glossary](#) defines an LSE as an entity that secures energy and transmission service (and related Interconnected Operations Services) to serve the electrical demand and energy requirements of its end-use customers.

<sup>17</sup> Reliability Functional Model Technical Document, version 5 (Functional Model) at page 26, consulted online on November 19, 2021 available at: [http://www.nerc.com/pa/Stand/Functional%20Model%20Archive%201/FM\\_Technical\\_Document\\_V5\\_2009Dec1.pdf](http://www.nerc.com/pa/Stand/Functional%20Model%20Archive%201/FM_Technical_Document_V5_2009Dec1.pdf)

The Coordinator considers that these reasons are equally relevant in Québec. Despite the retirement of the LSE function in the applicability sections of the FAC-002-3, IRO-010-3, MOD-031-3 and TOP-003-4, standards, HQD remains registered as a DP or RP, therefore tasks assigned to the LSE function under the NERC Reliability Standards would continue to be provided by these other functions in support of reliability

## **2.2. Revision to ensure consistent use of the term Planning Coordinator**

The Planning Authority (PA) definition in the Appendix 5B of the Rules of Procedure was updated to reflect interchangeability with the term Planning Coordinator (PC)<sup>18</sup>. Conforming changes were made to align the Reliability Standards with the RBR initiative by changing “PA” to “PC”. The Coordinator considers that this revision is relevant for Québec. In the Régie approved Glossary, the definition for the PC refers to the definition of the PA and are therefore interchangeable.

## **2.3. Addition of the UFLS-Only Distribution Provider function**

NERC proposes that Underfrequency Load Shedding-only Distribution Provider or “UFLS-Only Distribution Providers” be required to comply only with the PRC-006-5 and the PRC-006-NPCC-2 Reliability Standards. A “UFLS-Only Distribution Provider” is a Distribution Provider that is the responsible entity that owns, controls, or operates Underfrequency Load Shedding Protection System(s) needed to implement a required Underfrequency Load Shedding Program designed for the protection of the Bulk Electric System, but that does not meet any of the other criteria for registration as a Distribution Provider.

In Québec, Hydro-Québec TransÉnergie, as the Transmission Owner (TO), is the sole entity that owns, controls or operates the UFLS. Given that the requirements applicable to the UFLS-Only Distribution Provider are also applicable to the TO, the addition of the UFLS-Only Distribution Provider function in the applicability section of the PRC-006-5 has no impact in Québec.

## **2.4. Conclusion on the assessment of relevance**

At the time of this public consultation, the Standards Alignment with Registration project is under review at the Ontario Energy Board<sup>19</sup>. As for the neighbouring network of New Brunswick, the FAC-002-3, IRO-010-3, MOD-031-3, MOD-033-2, PRC-006-4, TOP-003-4 standards have been adopted by the New Brunswick Energy and Utilities Board.<sup>20</sup>

In accordance with the 2009 agreement between the Régie, NERC and the NPCC and with the authorization of the Québec government,<sup>21</sup> these standard revisions were developed and approved by recognized agencies in North America, including Québec or in neighboring systems. For the reasons presented above, in the opinion of the Coordinator, the modifications to the proposed standards have no impact on the system reliability in Québec.

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<sup>18</sup> NERC Petition for Approval of Risk-Based Registration Initiative Rules of Procedures Revisions, consulted online on November 19, 2021 at:

[https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Petition\\_RBR\\_Initiative\\_ROP\\_12112014.pdf#page=430](https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/Petition_RBR_Initiative_ROP_12112014.pdf#page=430)

<sup>19</sup> OEB Review Process, retrieved on November 19, 2021 at: <https://www.ieso.ca/en/Sector-Participants/System-Reliability/OEB-Review-Process>

<sup>20</sup> New Brunswick Energy and Utilities Board, consulted online on November 19, 2021 at: <https://nbeub.ca/fr/reliability-standards>

<sup>21</sup> Agreement entered into in accordance with Order-in-Council 443-2009 dated April 8, 2009. [http://www.regie-energie.qc.ca/audiences/normes\\_fiab\\_tranp\\_elec/Entente\\_Regie\\_NERC\\_NPCC\\_5mai09.pdf](http://www.regie-energie.qc.ca/audiences/normes_fiab_tranp_elec/Entente_Regie_NERC_NPCC_5mai09.pdf) (in French only).

### 3. PRELIMINARY IMPACT ASSESSMENT

This section presents the Reliability Coordinator's preliminary impact assessment.

Standard	Impacts		
	Implementation	Maintenance	Follow-up
FAC-002-3	Low	Low	Low
IRO-010-3	Low	Low	Low
MOD-031-3	Low	Low	Low
MOD-033-2	Low	Low	Low
PRC-006-5	Low	Low	Low
TOP-003-4	Low	Low	Low

#### Legend:

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

### 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 reliability standards with the Régie de l'énergie.