

NORTHEAST POWER COORDINATING COUNCIL, INC. 1040 AVE. OF THE AMERICAS, NEW YORK, NY 10018 (212) 840-1070 FAX (212) 302-2782

Québec Reliability Standards Compliance Monitoring and Enforcement Program Implementation Plan

2019 Annual Implementation Plan

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I. <u>Introduction</u>

The Québec Reliability Standards Compliance Monitoring and Enforcement Program Implementation Plan (Implementation Plan) is the annual operating plan carried out by the Northeast Power Coordinating Council, Inc. (NPCC), while performing its responsibilities and duties as described in the *Québec Reliability Standards Compliance Monitoring and Enforcement Program* (QCMEP). NPCC carries out QCMEP activities in accordance with the Agreement on the Implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program (QCMEP).

NPCC develops the annual Québec Implementation Plan using the same approach that is used during the development of the Electric Reliability Organization Compliance Monitoring and Enforcement Implementation Plan (ERO CMEP IP) and the NPCC Regional Compliance Monitoring and Enforcement Implementation Plan (NPCC CMEP IP). North American Electric Reliability Corporation (NERC) and NPCC have migrated to a risk-based approach to determine the degree of compliance oversight.

During the implementation year, NPCC, with approval from the Régie, may update the Québec Implementation Plan. Updates could be needed to reflect changes to compliance monitoring processes, major events, Régie orders, or other development. Any updates to the Québec Implementation Plan will be communicated to registered entities and NERC.

II. <u>Risk-based Compliance Oversight Framework</u>

NPCC will implement the Risk-based Compliance Oversight Framework (Framework) developed by the ERO Enterprise. That Framework focuses on identifying, prioritizing, and addressing risks to the electric power transmission system. The Framework allows NPCC to develop a monitoring plan tailored to each registered entity.

The Framework examines electric power transmission and generation risk as well as individual registered entity risk to determine the most appropriate method to monitor a registered entity's compliance with NERC Reliability Standards. This Framework also promotes examination of how registered entities operate.

A. Risk Elements

The first step of the Framework consists of identifying and prioritizing continent-wide risks based on the potential impact to reliability and the likelihood that such an impact might be realized, resulting in an annual compilation of ERO Enterprise risk elements. The ERO Enterprise identifies risk elements using data, including, but not limited to: compliance monitoring findings, experience gained through event analysis, data analysis; and the expert judgment of NERC, NPCC, and Regional Entity staff, committees, subcommittees (e.g. NERC Reliability Issues Steering Committee). Through the identification of risk elements, listed in Table 1, the ERO Enterprise maps a preliminary list of NERC Reliability Standards to the risk elements which are known as areas of focus and are identified as ERO CMEP IP in Table 3. NPCC also considers Northeastern North American risks, specific circumstances, and operational characteristics associated with registered entities within its footprint when identifying additional areas of focus for the NPCC Region. Through the identification of regional risk elements, listed in Table 2, NPCC maps a preliminary list of NERC Reliability Standards to the risk elements which are known as areas of focus and are identified as NPCC CMEP IP in Table 3.

NPCC also considers Quebec risks, specific circumstances, and operational characteristics associated with registered entities in Quebec. NPCC identifies additional areas of focus for the Quebec Region. These are identified as Quebec Specific in Table 3.

The areas of focus represent a starting pool of NERC Reliability Standards on which NPCC will focus its compliance monitoring efforts.

B. Inherent Risk Assessment

NPCC performs an Inherent Risk Assessment (IRA) of registered entities to categorize the potential risks posed by an individual registered entity to the reliability of the electric power transmission system. An IRA is performed by NPCC for all registered entities that have been considered for an audit in the annual implementation plan. This is performed in order to identify additional areas of focus and determine the registered entity's final compliance monitoring scope and oversight plan. An IRA considers entity-specific risk factors such as assets, systems, geography, interconnectivity, prior compliance history, and overall unique entity composition when determining the compliance oversight plan for a registered entity. These risk factors are evaluated against the violation risk factors included in the standard, and categorized as high, medium and low. The risk factors ratings will then serve to map to a proposed scope for monitoring purposes.

Where NPCC has little or no compliance monitoring history, NPCC is unlikely to remove NERC Reliability Standard requirements from an audit's scope. The final set of Reliability Standards and requirements subject to compliance monitoring activities will be determined by a given entity's IRA.

Approximately two months prior to receiving an audit notification, NPCC may request certain information from a registered entity to conduct the IRA. However, NPCC will use readily available information to the extent possible to conduct the IRA without requiring the submission of preaudit information from the registered entity.

C. Internal Controls Evaluation

At NPCC's discretion, NPCC may perform a voluntary Internal Control Evaluation (ICE) to identify the degree that a registered entity has preventive, detective, and corrective processes in place to remain compliant with the NERC Reliability Standards.

NPCC will need to baseline a registered entity's compliance prior to introducing the possibility of a voluntary ICE. Therefore, NPCC may perform an ICE only if the entity has been audited at least once in the past.

During an ICE, the registered entity has an opportunity to provide, on a voluntary basis, information to NPCC about the internal controls it has in place and that effectively address the risks applicable to the entity for identifying, assessing, and correcting possible Non-Compliance with NERC Reliability Standards. The entity will need to demonstrate the effectiveness of such controls.

During the ICE engagement, NPCC will focus on the standards and requirements proposed by the registered entity to determine if the internal controls for those areas demonstrate effectiveness against the risk of possible Non-Compliance. The goal of an ICE is to ensure the effectiveness of the registered entity's internal controls. The reduction of the monitoring scope is not the goal of an ICE engagement.

For those registered entities who volunteer to undergo an ICE, NPCC will select the participants based on compliance audit monitoring schedules. Participants will be notified approximately six (6) months prior to receiving an audit notification.

D. Compliance Monitoring Tools

The Quebec Implementation Plan documents which of the compliance monitoring tools (i.e., offsite or on-site audits, spot checks, or guided self-certifications) are warranted. Reliability Coordinators, Balancing Authorities, and Transmission Operators will remain on an audit cycle of at least every three years. The remaining registered entity functions are on an audit cycle of at least every six years. The determination of the appropriate compliance monitoring tools will be adjusted, as needed, within a given implementation year.

E. Enforcement of Reliability Standards

The QCMEP permits risk-based enforcement of standards. When, in NPCC's evaluation, a Non-Compliance involves only a low-level risk for the reliability of electric power transmission and the registered entity takes steps to correct the Non-Compliance, NPCC will recommend the Non-Compliance be processed using the simplified identification, correction and monitoring procedure. Under the simplified procedure, if the situation is corrected to the Régie's satisfaction, no financial penalty or sanction is imposed on the registered entity. This process encourages prompt identification and correction of non-compliance issues by registered entities.

Penalties and sanctions are warranted for some moderate risk violations and most, if not all, high risk violations. Penalty or Sanction credits are typically offered when the registered entity offers valued behavior such as cooperation, accountability (affirmatively accepting responsibility for Non-Compliance), a culture of compliance, and self-identification of Non-Compliance.

III. Content of Annual Implementation Plan

A. Risk Elements

For 2019, the ERO Enterprise identified the risk elements below using the risk element development process, which considers data, reports, and publications that identify risks which translate into compliance monitoring. The 2019 risk elements are more focused from the risk elements identified in 2016 through 2018.

Table 1: Comparison of 2016-2018 Risk Elements and 2019 Risk Elements					
2016-2018 Risk Elements	2019 Risk Elements				
Critical Infrastructure Protection	Improper Management of Employee and Insider Access				
Extreme Physical Events Insufficient Long-Term Planning Due to Inadequate Models					
Maintenance and Management of BPS Assets	Insufficient Operational Planning Due to Inadequate Models				
Monitoring and Situational Awareness	Spare Equipment with Extended Lead Time				
Protection System Failures Inadequate Real-time Analysis During Tool and D					
Event Response/Recovery	Improper Determination of Misoperations				
Planning and System Analysis	Inhibited Ability to Ride Through Events				
Human Performance	Gaps in Program Execution				

For 2019, NPCC identified two additional regional risk elements applicable in Quebec.

Table 2: NPCC Regional Risk Elements						
Regional Risk Element	Justification					
Improper BES Cyber Systems Classification	In order to verify proper classification of BES Cyber Systems, and ensure appropriate protections are applied, NPCC will review select entities for compliance to CIP-002-5.1.					
Failure to Report Generator Capabilities	Accurate generator capabilities are necessary for the planning and operation of a reliable bulk electric system. This Standard is the leading non-compliance issue in the NPCC footprint on 2018. While the non-compliances were not deemed to be highly impactful individually, the high number of non-compliance issues is a concern.					

B. Reliability Standards Effective

The Régie adopts and makes effective NERC Reliability Standards and their Québec appendices (the Reliability Standards). The Reliability Standards effective in Québec and those to become effective in Québec are identified on the <u>Reliability Standards</u> webpage on the Régie's website.

C. Quebec Areas of Focus

NPCC compared the specific areas of focus that were developed in the 2019 ERO CMEP IP, including Appendix A3 2019 NPCC CMEP IP, with the Reliability Standards that are effective to develop the specific areas of focus for the 2019 Québec Implementation Plan. Some of the Reliability Standards identified in the 2019 ERO CMEP IP are a different version then those in effect in Québec. However, the requirements identified are either identical or substantially similar and therefore are included in the Actively Monitored List for Québec.

Table 3 shows the list of Reliability Standards and requirements that will be actively monitored by NPCC.

Table 3: Actively Monitored Standards and Requirements for 2019							
Area of Focus Identification	Risk Element	Standard	Requirement(s)	Monitored Function(s)			
NPCC CMEP IP	Improper BES Cyber System Classification	CIP-002-5.1	R1, R2	BA, DP, GOP, GO, RC, TOP, TO			
Québec Specific	Improper Management of Employee and Insider Access	CIP-003-6	R1, R3	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-004-6	R1, R2, R3, R4	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-005-5	R2	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-006-6	R1, R2, R3	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-007-6	R2, R3, R5	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-010-2	R1, R2, R3, R4	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Improper Management of Employee and Insider Access	CIP-011-2	R1, R2	BA, DP, GOP, GO, RC, TOP, TO			
ERO CMEP IP	Spare Equipment with Extended Lead Time	CIP-014-2	R1	ТО			
ERO CMEP IP	Spare Equipment with Extended Lead Time	CIP-014-2	R5	TO, TOP			
Québec Specific	Gaps in Program Execution	COM-002-4	R5	BA, RC, TOP			
Québec Specific	Gaps in Program Execution	EOP-005-2	R1, R6, R9, R10	ТОР			
Québec Specific	Gaps in Program Execution	EOP-006-2	R1, R9, R10	RC			
Québec Specific	Inhibited Ability to Ride Through Events	EOP-008-1	R3	RC			
Québec Specific	Inhibited Ability to Ride Through Events	EOP-008-1	R4	BA, TOP			
Québec Specific	Inhibited Ability to Ride Through Events	EOP-010-1	R1	RC			
Québec Specific	Inhibited Ability to Ride Through Events	EOP-010-1	R3	ТОР			
Québec Specific	Insufficient Operational Planning Due to Inadequate Models	EOP-011-1	R1	ТОР			
Québec Specific	Insufficient Operational Planning Due to Inadequate Models	EOP-011-1	R2	ВА			
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models	FAC-002-2	R1	PA, TP			

Table 3: Actively Monitored Standards and Requirements for 2019						
Area of Focus Identification	Risk Element	Standard	Requirement(s)	Monitored Function(s)		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models	FAC-002-2	R2, R5	GO		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models	FAC-002-2	R3	TO, DP, LSE		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models	FAC-002-2	R4	ТО		
ERO CMEP IP	Gaps in Program Execution	FAC-003-3	R1, R2, R3, R5, R6, R7	GO, TO		
ERO CMEP IP	Gaps in Program Execution	FAC-008-3	R6	GO, TO		
Québec Specific	Gaps in Program Execution	IRO-001-4	R2	DP, GOP, BA, TOP		
Québec Specific	Gaps in Program Execution	IRO-008-2	R1, R2, R5	RC		
ERO CMEP IP	Inadequate Real-time Analysis during Tool and Data Outages	IRO-008-2	R4	RC		
NPCC CMEP IP	Failure to Report Generator Capabilities	MOD-025-2	R1, R2	GO		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models and Insufficient Operational Planning Due to Inadequate Models	MOD-032-1	R2	BA, GO, LSE, RP, TO, TSP		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models and Insufficient Operational Planning Due to Inadequate Models	MOD-033-1	R1	РА		
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models and Insufficient Operational Planning Due to Inadequate Models	MOD-033-1	R2	RC, TOP		
Québec Specific	Gaps in Program Execution	PER-004-2	R1	RC		
Québec Specific	Gaps in Program Execution	PER-005-2	R3, R4	RC, TOP, BA, TO		
Québec Specific	Gaps in Program Execution	PER-005-2	R6	GOP		
Québec Specific	Gaps in Program Execution	PER-005-2	R1	RC, BA, TOP		
Québec Specific	Gaps in Program Execution	PER-005-2	R2	ТО		

Table 3: Actively Monitored Standards and Requirements for 2019							
Area of Focus Identification	Risk Element	Standard	Requirement(s)	Monitored Function(s)			
ERO CMEP IP	Improper Determination of Misoperations	PRC-004-5(i)	R1, R3	GO, TO, DP			
Québec Specific	Improper Determination of Misoperations	PRC-004-5(i)	R5	DP, GO, TO			
Québec Specific	Improper Determination of Misoperations	PRC-005-2	R1, R4, R5	DP, GO, TO			
ERO CMEP IP	Gaps in Program Execution	PRC-005-2	R3	DP, GO, TO			
ERO CMEP IP	Inhibited Ability to Ride Through Events	PRC-019-1	R1	GO, TO			
ERO CMEP IP	Inhibited Ability to Ride Through Events	PRC-023-3	R1, R2	DP, GO, TO			
ERO CMEP IP	Inhibited Ability to Ride Through Events	PRC-023-3	R6	РА			
ERO CMEP IP	Inhibited Ability to Ride Through Events	PRC-025-1	R1	DP, GO, TO			
ERO CMEP IP	Inadequate Real-time Analysis during Tool and Data Outages	TOP-001-3	R13	ТОР			
ERO CMEP IP	Insufficient Operational Planning Due to Inadequate Models	TOP-003-3	R1	ТОР			
ERO CMEP IP	Insufficient Operational Planning Due to Inadequate Models	TOP-003-3	R2	BA			
Québec Specific	Gaps in Program Execution	TOP-003-3	R5	DP, GO, GOP, BA, LSE, TO, TOP			
ERO CMEP IP	Insufficient Long-Term Planning Due to Inadequate Models and Insufficient Operational Planning Due to Inadequate Models	TPL-001-4	R1, R2, R3, R4	PA, TP			
ERO CMEP IP	Spare Equipment with Extended Lead Time	TPL-001-4	R2.1.5	PA, TP			
Québec Specific	Inadequate Real-time Analysis During Tool and Data Outages	VAR-001-4.1	R1, R2, R5	TOP			
Québec Specific	Inadequate Real-time Analysis During Tool and Data Outages	VAR-002-3	R2, R3	GOP			

IV. Compliance Monitoring

A. Compliance Audits

Compliance Audits are carried out according to the schedule set out in the Québec Implementation Plan. The Annual Audit Plan for this 2019 Québec Implementation Plan is in Table 4 below.

Table 4: Audit plan for 2019							
Off-site Operations & Planning Audits							
Registered Entity	Acronym	Functions Audited	Audit Date				
Énergie éolienne Vents du Kempt S.E.C.	VDK	GO/GOP	TBD				
Éoliennes de l'Érable S.E.C.	EER	GO/GOP	TBD				
Kruger Énergie Montérégie S.E.C.	MON	GO/GOP	TBD				
Hydro-Québec TransÉnergie	HQT	TO/TP/TSP/PA/DP	TBD				
On-site Operations & Planning Audits							
Registered EntityAcronymFunctions AuditedAudit Date							
Hydro-Québec - Contrôle des mouvements d'énergie (une direction d'HQT)	HQCMÉ	RC, BA, TOP	TBD				

B. Guided Self-Certification

NPCC, as authorized or requested by the Régie, may implement Guided Self-Certifications on a quarterly basis. The Guided Self-Certification notification from NPCC will identify whether the guided self-certification applies to the entire Reliability Standard or whether it applies to specific requirements and/or sub-requirements. The notification will also provide a specific amount of time to respond and will provide information on the evidence required to support the Guided Self-Certification.

NPCC is not identifying waivers to self-certifications in 2019. However, 2019 self-certifications are not required for any Reliability Standard that is not identified during a Guided Self-Certification in 2019.

Since CIP-002-5.1 forms the basis for compliance with the remainder of the CIP standards, NPCC will issue guided self-certifications to most Quebec registered entities for CIP-002-5.1 requirements R1 and R2.2 and CIP-003-6 requirement R3. On approximately October 1, 2019, guided self-certification notifications will be sent requiring the registered entities to provide evidence as required by the standard and to specify if they own high, medium, and low impact BES Cyber Systems.

C. Spot Checks

NPCC, as authorized or requested by the Régie, may initiate a Spot Check at any time. NPCC will provide the registered entity at least 20 days advanced notice of a Spot Check.

D. Non-Compliance Self-Reporting

A registered entity shall submit a Non-Compliance Self-Report at the time the registered entity becomes aware that it is not complying or may not have complied with a Reliability Standard declared in effect by the Régie, or that a change in the severity of a previously reported Non-Compliance has occurred. Reports will be made through the Régie's *Système de dépôt électronique* – *Surveillance des normes* (the SDÉ-SN).

Registered entities should include sufficient information in Self-Reports to permit NPCC to assess the Non-Compliance and the risk it poses to the reliability of the electric power transmission system. This must include a description, scope, and root cause(s) of the Non-Compliance. Self-Reports should also include a comprehensive description of any mitigation measures and whether they have concluded or are still in progress. The mitigation measures must correct the issue, address the contributing cause(s), and prevent recurrence.

E. Periodic Data Submittals

NPCC requires Periodic Data Submittals (PDS) at the dates stated in the applicable Reliability Standard, according to the schedule specified in the Implementation Plan or, with the Régie's approval, on an as-needed basis. PDS are made into the SDÉ-SN. The PDS schedule for 2019 is provided in Table 5.

NPCC is not identifying waivers to PDS in 2019. However, 2019 PDS are not required for any Reliability Standard that is not identified in this Implementation Plan.

Reliability Standard	Requirement	Text	Function	Submit To	Submittal Frequency	Due Dates
BAL-003-1.1	RI	Each Frequency Response Sharing Group (FRSG) or Balancing Authority that is not a member of a FRSG shall achieve an annual Frequency Response Measure (FRM) (as calculated and reported in accordance with Attachment A) that is equal to or more negative than its Frequency Response Obligation (FRO) to ensure that sufficient Frequency Response is provided by each FRSG or BA that is not a member of a FRSG to maintain Interconnection Frequency Response equal to or more negative than the Interconnection Frequency Response Obligation.	ВА	NPCC and Régie through SDE-SN	Annually	March 7, 2019
EOP-004-2	R2	Each Responsible Entity shall report events per their Operating Plan within 24 hours of recognition of meeting an event type threshold for reporting or by the end of the next business day if the event occurs on a weekend (which is recognized to be 4 PM local time on Friday to 8 AM Monday local time).	See Standard	NERC	Per Standard	Event Driven
EOP-008-1	R8	Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of their primary or backup functionality and that anticipates that the loss of primary or backup functionality will last for more than six calendar months shall provide evidence that a plan has been submitted to its Regional Entity within six calendar months of the date when the functionality is lost showing how it will re-establish primary or backup functionality in accordance with Requirement R8.	RC/BA/TOP	NPCC and Régie through SDE-SN	Per Standard	Within six calendar months of the date when the functionality is lost (Event Driven)
FAC-003-4	C.1.4	The applicable Transmission Owner and applicable Generator Owner will submit a quarterly report to its Regional Entity, or the Regional Entity's designee, identifying all Sustained Outages of applicable lines operated within their Rating and all Rated Electrical Operating Conditions as determined by the applicable Transmission Owner or applicable Generator Owner to have been caused by vegetation, except as excluded in footnote 2, and include as a minimum the following:	TO/GO	NPCC and Régie through SDE-SN	Quarterly	Within 20 days after the end of the quarter AND only if there was a qualifying event in the previous quarter (Event Driven)
PRC-002-2	R12	Each Transmission Owner and Generator Owner shall, within 90-calendar days of the discovery of a failure of the recording capability for the SER, FR or DDR data, either: • Restore the recording capability, or • Submit a Corrective Action Plan (CAP) to the Regional Entity and implement it.	TO/GO	NPCC and Régie through SDE-SN	Per Standard	Within 90 calendar days of the discovery of a failure of the recording capability for the SER, FR or DDR data (Event Driven)
PRC-023-4	R5	Each Transmission Owner, Generator Owner, and Distribution Provider that sets transmission line relays according to Requirement R1 criterion 12 shall provide an updated list of the circuits associated with those relays to its Regional Entity at least once each calendar year, with no more than 15 months between reports, to allow the ERO to compile a list of all circuits that have protective relay settings that limit circuit capability	TO/GO/DP	NPCC and Régie through SDE-SN	Annually	Only if the entity chooses to set relays on circuits according to Criterion 12 of R1, the entity must at least once each calendar year, with no more than 15 months between reports, provide the updated list to NPCC
PRC-023-4	R6.2	Provide the list of circuits to all Regional Entities, Reliability Coordinators, Transmission Owners, Generator Owners, and Distribution Providers within its Planning Coordinator are within 30 calendar days of the establishment of the initial list and within 30 calendar days of any changes to that list.	PC	NPCC and Régie through SDE-SN	Per Standard	Within 30 calendar days of the establishment of the initial list and within 30 days of any changes to list (Event Driven)

V. <u>NPCC Submission Attestation</u>

NPCC attests that this 2019 Québec Implementation Plan is both necessary and sufficient at this time for the compliance monitoring of the Reliability Standards in effect in Québec.