

New Brunswick Energy and Utilities Board

Reliability Standards, Compliance and Enforcement Program

New Brunswick 2019 Annual Implementation Plan Version 1 December 18, 2018

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Version History

Version	Date	Changes
Draft	November 26, 2018	Initial Release
1	December 18, 2018	Corrected Planning Coordinator (PC) function to Planning Authority (PA), Corrected IRO- 008-2 R4 to Reliability Coordinator (RC) function.

1.0 Background

1.1 New Brunswick Compliance Framework

The <u>New Brunswick Energy and Utilities Board (NBEUB)</u> has the responsibility under the <u>Electricity Act</u> to adopt and enforce reliability standards in accordance with the <u>Reliability Standards Regulation (Regulations)</u>.

1.1.1 Reliability Standards

The NBEUB adopts North American Electric Reliability Corporation (NERC) reliability standards that have been approved by the Federal Energy Regulatory Commission (FERC) and filed by New Brunswick Power Corporation (NB Power), with or without modifications for application in NB. NB <u>Approved Reliability</u> <u>Standards (Reliability Standards)</u> are posted on the NBEUB website.

1.1.2 NB Bulk Power System (BPS)

The BPS in NB is determined according to the FERC approved definition of the Bulk Electric System (BES), as it appears in the "NERC Glossary of Terms Used in Reliability Standards". Under NB Regulations, the NBEUB may approve exceptions to the NB BPS.

1.1.3 Compliance Registry

The NBEUB maintains a <u>NB Compliance Registry</u> identifying those owners, users and operators of the BPS who must comply with Reliability Standards. NB registration requirements are generally based on the NERC functional model and registry criteria. The NB Compliance Registry is posted on the NBEUB website.

1.1.4 Compliance Monitoring

The NBEUB implements a compliance monitoring system for Reliability Standards that is generally based on the requirements of the NERC compliance program. The NB program is documented as the <u>New</u> <u>Brunswick Compliance Monitoring and Enforcement Program (NB CMEP) – Schedule A</u> to the Regulations. The NBEUB engages the Northeast Power Coordinating Council Inc. (NPCC), as a recognized compliance body under the Regulations, to assist with compliance monitoring activities in NB.

1.1.5 Enforcement

The NBEUB implements enforcement processes to ensure Registered Entities mitigate risks to reliability and may impose financial penalties and sanctions for violations of Reliability Standards. NPCC makes recommendations to the NBEUB, which may involve consultations with NERC, for enforcement action in NB.

2.0 New Brunswick Annual Implementation Plan (NB AIP)

2.1 Purpose

The purpose of the NB AIP is to identify the Reliability Standards that will be monitored in the upcoming year, the monitoring methods that will be used, and Registered Entity audit and compliance reporting schedules.

2.2 Development Process

The 2019 NB AIP is developed from the <u>NERC 2019 ERO Enterprise Compliance Monitoring and</u> <u>Enforcement Program Implementation Plan</u> (NERC IP), the NPCC 2019 CMEP Implementation Plan-Appendix A3 to the NERC IP (NPCC IP) and NB specific requirements.

The 2019 NERC IP takes into account continent wide risks to the reliability of the BPS and focuses compliance monitoring on Reliability Standards relating to Improper Management of Employee and Insider Access, Insufficient Long-Term Planning Due to Inadequate Models, Insufficient Operational Planning Due to Inadequate Models, Spare Equipment with Extended Lead Time, Inadequate Real-time Analysis During Tool and Data Outages, Improper Determination of Misoperations, Inhibited Ability to Ride Through Events, and Gaps in Program Execution.

The 2019 NPCC IP takes into consideration regional reliability risks and expands on the NERC IP to include additional compliance monitoring for Reliability Standards related to Improper BES Cyber System Classification, Improper Under Frequency Load Shedding Settings (UFLS) and Failure to Report Generator Capabilities.

The 2019 NB AIP includes NB specific requirements to address reliability risks associated with previous compliance history and new compliance responsibilities.

Appendix 1 Table 1 lists the Reliability Standards that will be the focus of compliance monitoring for 2019.

2.3 Approval Process

NBEUB compliance staff, in consultation with NPCC, prepares a draft NB AIP. The NBEUB notifies NB Registered Entities and posts the draft NB AIP on its website for comments. At the end of the comment period the NBEUB will finalize the NB AIP and post the final version on its web site by January 1 of the monitoring year. The NB AIP may be subject to revision during the compliance year. In year revisions are typically not posted for comment, however Registered Entities will be notified of any revisions to the NB AIP and updated versions will be posted on the NBEUB website.

3.0 Compliance Monitoring

3.1 Audits

Audits will be carried out according to the schedules set out in the NB AIP. The NBEUB may also initiate unscheduled audits. The NBEUB will provide an initial notice to the Registered Entity confirming the pending audit and identify NPCC as the compliance body that will conduct the audit. NBEUB compliance staff will participate on the NPCC audit team. NPCC will provide an audit notice to the Registered Entity at least 60 days prior the audit date identifying the scope of the audit and audit team members. Audits may also include a review of any open investigations or mitigation actions related to the Registered Entity. The audit team will conduct the audit, prepare an audit report and review the report with the Registered Entity prior to forwarding it to the NBEUB. The NBEUB will review the report and provide the final audit report to the Registered Entity prior to posting a public version on its website. If an audit report identifies a potential violation, the audit report will not be released until the enforcement process is completed.

There are no Audits scheduled for 2019.

3.2 Self-Certifications

All Registered Entities are subject to reporting self-certification of compliance to the NBEUB according to the schedules established in the NB AIP. Self-certifications are made through the NBEUB <u>Compliance</u> <u>Monitoring and Reporting System (CMRS)</u>.

The NBEUB may initiate enforcement action for a late or non-submittal of a self-certification report.

The 2019 reporting schedules for self-certifications are set out in Appendix 3, Tables 2 to 7 (Type SC).

3.3 Spot Checks

The NBEUB may initiate a spot check at any time to verify a Registered Entity's compliance with a Reliability Standard. The NBEUB will provide the Registered Entity at least 20 days advanced notice of a spot check. Spot checks may be conducted by NBEUB compliance staff or by NPCC. The spot check process will require the Registered Entity to submit documentation that will be assessed by the spot check team to determine if a Registered Entity is in compliance with the Reliability Standard.

A draft spot check report will be prepared and made available to the Registered Entity for comments prior to being finalized. The NBEUB will provide the Registered Entity with a final spot check report.

Registered Entities that have had previous potential violations of Reliability Standards may be subject to spot checks for those Reliability Standards in 2019.

3.4 Periodic Data Submittals

Certain Reliability Standards contain provisions for the periodic reporting of data. Periodic data reports are made through the NBEUB CMRS according to the schedules established in the NB AIP.

The 2019 reporting schedules for data submittals are set out in Appendix 3, Tables 2 to 7 (Type PD).

3.5 Self-Reporting

A Registered Entity may self-report a possible violation with a Reliability Standard to the NBEUB through the NBEUB CMRS.

3.6 Compliance Investigations

The NBEUB may initiate a compliance investigation at any time in response to a system disturbance, complaint, suspected violation of a Reliability Standard, or on a recommendation from NERC or NPCC.

3.7 Complaints

A person may notify the NBEUB of a possible violation of a Reliability Standard by completing a <u>compliance</u> <u>complaint form</u> on the NBEUB website.

Appendix 1- Reliability Standards Subject to Active Compliance Monitoring in 2019

Standard	Title
CIP-002-5.1a	Cyber Security — BES Cyber System Categorization
CIP-003-6	Cyber Security — Security Management Controls
CIP-004-6	Cyber Security — Personnel & Training
CIP-005-5	Cyber Security — Electronic Security Perimeter(s)
CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems
CIP-007-6	Cyber Security — System Security Management
CIP-008-5	Cyber Security — Incident Reporting and Response Planning
CIP-009-6	Cyber Security — Recovery Plans for BES Cyber Systems
CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability
	Assessments
CIP-011-2	Cyber Security — Information Protection
CIP-014-2	Physical Security
EOP-004-3	Event Reporting
EOP-004-4	Event Reporting
EOP-005-2	System Restoration from Blackstart Resources
EOP-005-3	System Restoration from Blackstart Resources
FAC-001-2	Facility Interconnection Requirements
FAC-001-3	Facility Interconnection Requirements
FAC-002-2	Facility Interconnection Studies
FAC-003-4	Transmission Vegetation Management
FAC-008-3	Facility Ratings
IRO-008-2	Reliability Coordinator Operational Analyses and Real-time Assessments
IRO-010-2	Reliability Coordinator Data Specification and Collection

Table 1 - Reliability Standards List

Standard	Title
MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability
MOD-032-1	Data for Power System Modeling and Analysis
MOD-033-1	Steady-State and Dynamic System Model Validation
NUC-001-3	Nuclear Plant Interface Coordination
PER-005-2	Operations Personnel Training
PRC-002-2	Disturbance Monitoring and Reporting Requirements
PRC-004-5(i)	Protection System Misoperation Identification and Correction
PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance
PRC-006-2	Automatic Underfrequency Load Shedding
PRC-006-NPCC-1	Automatic Underfrequency Load Shedding
PRC-008-0	Underfrequency Load Shedding Equipment Maintenance Programs
PRC-010-2	Undervoltage Load Shedding
PRC-011-0	UVLS System Maintenance and Testing
PRC-012-2	Remedial Action Schemes
PRC-015-1	Remedial Action Scheme Data and Documentation
PRC-016-1	Remedial Action Scheme Misoperations
PRC-017-1	Remedial Action Scheme Maintenance and Testing
PRC-018-1	Disturbance Monitoring Equipment Installation and Data Reporting
PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
PRC-023-4	Transmission Relay Loadability
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings
PRC-025-1	Generator Relay Loadability
PRC-026-1	Relay Performance During Stable Power Swings
TOP-001-4	Transmission Operations

Table 1 - Reliability Standards List (Cont'd)

Standard	Title
ТОР-003-3	Operational Reliability Data
TPL-001-4	Transmission System Planning Performance Requirements
TPL-007-1	Transmission System Planned Performance for Geomagnetic Disturbance Events
VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules

Table 1 - Reliability Standards List (Cont'd)

Note: The above table lists Reliability Standards that have been identified by the NBEUB as areas of focus for compliance monitoring in 2019, however Registered Entities are required to be compliant with all Reliability Standards applicable to their registration functions and therefore may be subject to additional compliance monitoring in 2019.

Appendix 2 – Annual Audit Plan

There are no Audits scheduled for 2019.

Appendix 3 – Compliance Reporting Schedules

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Kent Hills Wind LP	GO	FAC-003-4	Transmission Vegetation Management	PD		01/01/2019	03/31/2019	04/20/2019
Kent Hills Wind LP	GO	FAC-003-4	Transmission Vegetation Management	PD		04/01/2019	07/31/2019	08/20/2019
Kent Hills Wind LP	GO	FAC-003-4	Transmission Vegetation Management	PD		08/01/2019	09/30/2019	10/20/2019
Kent Hills Wind LP	GO	FAC-003-4	Transmission Vegetation Management	PD		10/01/2019	12/31/2019	01/20/2020
Kent Hills Wind LP	GO, GOP	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	SC	R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Kent Hills Wind LP	GO, GOP	CIP-007-6	Cyber Security — System Security Management	SC	R2, R3, R5	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO, GOP	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	FAC-002-2	Facility Interconnection Studies	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	FAC-003-4	Transmission Vegetation Management	SC	R1, R2, R3, R5, R6, R7	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	FAC-008-3	Facility Ratings	SC	R6	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	MOD-032-1	Data for Power System Modeling and Analysis	SC	R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-004-5(i)	Protection System Misoperation Identification and Correction	SC	R1, R3	01/01/2019	12/31/2019	03/20/2020

Table 2 – Kent Hills Wind LP 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Kent Hills Wind LP	GO	PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	SC	R3	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R13	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	SC	R1	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-023-4	Transmission Relay Loadability	SC	R1, R2, R6	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GO	PRC-025-1	Generator Relay Loadability	SC	R1	01/01/2019	12/31/2019	03/20/2020
Kent Hills Wind LP	GOP	VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules	SC	R3	01/01/2019	12/31/2019	03/20/2020

Table 2 – Kent Hills Wind LP 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Caribou	GO	FAC-003-4	Transmission Vegetation Management	PD		01/01/2019	03/31/2019	04/20/2019
Caribou	GO	FAC-003-4	Transmission Vegetation Management	PD		04/01/2019	07/31/2019	08/20/2019
Caribou	GO	FAC-003-4	Transmission Vegetation Management	PD		08/01/2019	09/30/2019	10/20/2019
Caribou	GO	FAC-003-4	Transmission Vegetation Management	PD		10/01/2019	12/31/2019	01/20/2020
Caribou	GO, GOP	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-005-5	Cyber Security-Electronic Security Perimeter(s)	SC	R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-007-6	Cyber Security — System Security Management	SC	R2, R3, R5	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Caribou	GO, GOP	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020

Table 3 – Caribou 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Caribou	GO	FAC-002-2	Facility Interconnection Studies	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	FAC-003-4	Transmission Vegetation Management	SC	R1, R2, R3, R5, R6, R7	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	FAC-008-3	Facility Ratings	SC	R6	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	MOD-032-1	Data for Power System Modeling and Analysis	SC	R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-004-5(i)	Protection System Misoperation Identification and Correction	SC	R1, R3	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	SC	R3	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R13	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	SC	R1	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-023-4	Transmission Relay Loadability	SC	R1, R2, R6	01/01/2019	12/31/2019	03/20/2020

 Table 3 – Caribou 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Caribou	GO	PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Caribou	GO	PRC-025-1	Generator Relay Loadability	SC	R1	01/01/2019	12/31/2019	03/20/2020
Caribou	GOP	VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules	SC	R3	01/01/2019	12/31/2019	03/20/2020

 Table 3 – Caribou 2019 Compliance Reporting Schedule

Table 4 – Emera 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Emera	GO	FAC-003-4	Transmission Vegetation Management	PD		01/01/2019	03/31/2019	04/20/2019
Emera	GO	FAC-003-4	Transmission Vegetation Management	PD		04/01/2019	07/31/2019	08/20/2019
Emera	GO	FAC-003-4	Transmission Vegetation Management	PD		08/01/2019	09/30/2019	10/20/2019
Emera	GO	FAC-003-4	Transmission Vegetation Management	PD		10/01/2019	12/31/2019	01/20/2020
Emera	GO, GOP	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R2	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Emera	GO, GOP	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	SC	R2	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-007-6	Cyber Security — System Security Management	SC	R2, R3, R5	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Emera	GO, GOP	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Emera	GO	FAC-002-2	Facility Interconnection Studies	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Emera	GO	FAC-003-4	Transmission Vegetation Management	SC	R1, R2, R3, R5, R6, R7	01/01/2019	12/31/2019	03/20/2020
Emera	GO	FAC-008-3	Facility Ratings	SC	R6	01/01/2019	12/31/2019	03/20/2020
Emera	GO	MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020

 Table 4 – Emera 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Emera	GO	MOD-032-1	Data for Power System Modeling and Analysis	SC	R2	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-004-5(i)	Protection System Misoperation Identification and Correction	SC	R1, R3	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	SC	R3	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R13	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	SC	R1	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-023-4	Transmission Relay Loadability	SC	R1, R2, R6	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Emera	GO	PRC-025-1	Generator Relay Loadability	SC	R1	01/01/2019	12/31/2019	03/20/2020
Emera	GOP	VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules	SC	R3	01/01/2019	12/31/2019	03/20/2020

Table 4 – Emera 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
NB Power	GO, TO	FAC-003-4	Transmission Vegetation Management	PD		01/01/2019	03/31/2019	04/20/2019
NB Power	GO, TO	FAC-003-4	Transmission Vegetation Management	PD		04/01/2019	07/31/2019	08/20/2019
NB Power	GO, TO	FAC-003-4	Transmission Vegetation Management	PD		08/01/2019	09/30/2019	10/20/2019
NB Power	GO, TO	FAC-003-4	Transmission Vegetation Management	PD		10/01/2019	12/31/2019	01/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R2	01/01/2019	12/31/2019	03/20/2020
NB Power	DP, GO, GOP, TO	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	SC	R2	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-007-6	Cyber Security — System Security Management	SC	R2, R3, R5	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, DP, GO, GOP, RC, TOP, TO	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
NB Power	то	CIP-014-2	Physical Security	SC	R1, R5	01/01/2019	12/31/2019	03/20/2020
NB Power	PA, TP, TO, DP, GO	FAC-002-2	Facility Interconnection Studies	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
NB Power	GO, TO	FAC-003-4	Transmission Vegetation Management	SC	R1, R2, R3, R5, R6, R7	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
NB Power	GO, TO	FAC-008-3	Facility Ratings	SC	R6	01/01/2019	12/31/2019	03/20/2020
NB Power	RC	IRO-008-2	Reliability Coordinator Operational Analyses and Real- time Assessments	SC	R4	01/01/2019	12/31/2019	03/20/2020
NB Power	GO	MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
NB Power	BA, GO, RP, TO, TSP	MOD-032-1	Data for Power System Modeling and Analysis	SC	R2	01/01/2019	12/31/2019	03/20/2020
NB Power	PA, RC, TOP	MOD-033-1	Steady-State and Dynamic System Model Validation	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
NB Power	GO, TO	PRC-004-5(i)	Protection System Misoperation Identification and Correction	SC	R1, R3	01/01/2019	12/31/2019	03/20/2020
NB Power	GO, TO, DP	PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	SC	R3	01/01/2019	12/31/2019	03/20/2020
NB Power	GO, TO, DP	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R4, R7, R13	01/01/2019	12/31/2019	03/20/2020
NB Power	TO, GO	PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	SC	R1	01/01/2019	12/31/2019	03/20/2020
NB Power	TO, GO, PC	PRC-023-4	Transmission Relay Loadability	SC	R1, R2, R6	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
NB Power	GO	PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
NB Power	TO, GO	PRC-025-1	Generator Relay Loadability	SC	R1	01/01/2019	12/31/2019	03/20/2020
NB Power	ТОР <i>,</i> РА, ТР	TOP-001-4	Transmission Operations	SC	R13	01/01/2019	12/31/2019	03/20/2020
NB Power	РА, ТР	TPL-001-4	Transmission System Planning Performance Requirements	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
NB Power	GOP	VAR-002-4.1	Generator Operation for Maintaining Network Voltage Schedules	SC	R3	01/01/2019	12/31/2019	03/20/2020

Table 6 – Saint John Energy 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Saint John Energy	DP	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Saint John Energy	DP	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	SC	R2	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-007-6	Cyber Security — System Security Management	SC	R2, R3, R5	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	FAC-002-2	Facility Interconnection Studies	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Saint John Energy	DP	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R4, R7	01/01/2019	12/31/2019	03/20/2020

Table 6 – Saint John Energy 2019 Compliance Reporting Schedule

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	EOP-004-3	Event Reporting	SC	R1, R2, R3	01/01/2019	09/30/2019	10/20/2019
Irving Oil Refining G.P.	то	FAC-001-2	Facility Interconnection Requirements	SC	R1, R3	01/01/2019	06/31/2019	07/20/2019
Irving Oil Refining G.P.	ТО	EOP-005-2	System Restoration from Blackstart Resources	SC	R11	01/01/2019	09/30/2019	10/20/2019
Irving Oil Refining G.P.	ТО	CIP-002-5.1a	Cyber Security — BES Cyber System Categorization	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-003-6	Cyber Security — Security Management Controls	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-004-6	Cyber Security — Personnel & Training	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	CIP-005-5	Cyber Security — Electronic Security Perimeter(s)	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	CIP-006-6	Cyber Security — Physical Security of BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-007-6	Cyber Security — System Security Management	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-008-5	Cyber Security — Incident Reporting and Response Planning	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-009-6	Cyber Security — Recovery Plans for BES Cyber Systems	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-010-2	Cyber Security — Configuration Change Management and Vulnerability Assessments	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	CIP-011-2	Cyber Security — Information Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	CIP-014-2	Cyber Security — Information Protection	SC	R1, R2, R3, R4, R5, R6	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	EOP-004-4	Event Reporting	SC	R1, R2	01/10/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	EOP-005-3	System Restoration from Blackstart Resources	SC	R9	01/10/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	FAC-001-3	Facility Interconnection Requirements	SC	R1, R2, R3	07/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	FAC-002-2	Facility Interconnection Studies	SC	R3, R4	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	FAC-003-4	Transmission Vegetation Management	SC	R1 – R7	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	FAC-008-3	Facility Ratings	SC	R3, R6, R8	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	IRO-010-2	Reliability Coordinator Data Specification and Collection	SC	R3	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	MOD-025-2	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability	SC	R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	MOD-032-1	Data for Power System Modeling and Analysis	SC	R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	NUC-001-3	Nuclear Plant Interface Coordination	SC	R2, R3, R4, R6, R8, R9	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PER-005-2	Operations Personnel Training	SC	R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-002-2	Disturbance Monitoring and Reporting Requirements	SC	R1, R2, R3, R4, R6, R8, R9, R10, R11, R12	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-004-5(i)	Protection System Misoperation Identification and Correction	SC	R1, R2, R3, R4, R5, R6	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-005-6	Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	PRC-006-2	Automatic Underfrequency Load Shedding	SC	R8, R9, R10	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	PRC-006-NPCC- 1	Automatic Underfrequency Load Shedding	SC	R4, R5, R6, R7, R10, R11, R12, R18, R22, R23	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-008-0	Underfrequency Load Shedding Equipment Maintenance Programs	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-010-2	Undervoltage Load Shedding	SC	R2, R7	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	PRC-011-0	UVLS System Maintenance and Testing	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	PRC-012-2	Remedial Action Schemes	SC	R1, R3, R5, R6, R7, R8	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	PRC-015-1	Remedial Action Scheme Data and Documentation	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-016-1	Remedial Action Scheme Misoperations	SC	R1, R2, R3	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-017-1	Remedial Action Scheme Maintenance and Testing	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-018-1	Disturbance Monitoring Equipment Installation and Data Reporting	SC	R1, R2, R3, R4, R5, R6	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-019-2	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	SC	R1, R2	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	PRC-023-4	Transmission Relay Loadability	SC	R1, R2, R3, R4, R5	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	PRC-025-1	Generator Relay Loadability	SC	R1	01/01/2019	12/31/2019	03/20/2020

Registered Entity	Function	Standard	Title	Туре	Req's	Start of Reporting Period	End of Reporting Period	Due Date
Irving Oil Refining G.P.	то	PRC-026-1	Relay Performance During Stable Power Swings	SC	R1, R2, R3, R4	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	то	TOP-003-3	Operational Reliability Data	SC	R5	01/01/2019	12/31/2019	03/20/2020
Irving Oil Refining G.P.	ТО	TPL-007-1	Transmission System Planned Performance for Geomagnetic Disturbance Events	SC	R6	01/01/2019	12/31/2019	03/20/2020

Glossary

Acronym	Definition			
SC	Self-Certification			
PD	Periodic Data Submittal			
BA	Balancing Authority			
DP	Distribution Provider			
GO	Generator Owner			
GOP	Generator Operator			
IA	Interchange Authority			
LSE	Load Serving Entity			
PA	Planning Authority			
PSE	Purchasing-Selling Entity			
RC	Reliability Coordinator			
RP	Resource Planner			
RSG	Reserve Sharing Group			
то	Transmission Owner			
ТОР	Transmission Operator			
ТР	Transmission Planner			
TSP	Transmission Service Provider			