

NB Appendix
CIP-002-5.1a-NB-o - Cyber Security — BES Cyber System Categorization

This appendix establishes modifications to the FERC approved NERC standard CIP-002-5.1a for its specific application in New Brunswick. This appendix must be read with CIP-002-5.1a to determine a full understanding of the requirements of the standard for New Brunswick. Where the standard and appendix differ, the appendix shall prevail.

For the purpose of this standard the term "Bulk Electric System" and its acronym, "BES" shall mean the "bulk power system" as defined in the New Brunswick *Reliability Standards Regulation - Electricity Act*.

The term "BES Cyber Asset" as used in this Appendix or CIP-002-5.1a means "BPS Cyber Asset" as defined in section G.

The term "BES Cyber System" as used in this Appendix or CIP-002-5.1a means "BPS Cyber System" as defined in section G.

A. Introduction

- 1. Title:** Cyber Security — BES Cyber System Categorization
- 2. Number:** CIP-002-5.1a
- 3. Purpose:** No New Brunswick modifications
- 4. Applicability:**
 - 4.1. Functional Entities:** No New Brunswick modifications
 - 4.1.1.** No New Brunswick modifications
 - 4.1.2.** No New Brunswick modifications
 - 4.1.2.1.** No New Brunswick modifications
 - 4.1.2.1.1.** is part of a Load shedding program that is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard; and
 - 4.1.2.1.2.** No New Brunswick modifications
 - 4.1.2.2.** Each Special Protection System or Remedial Action Scheme where the Special Protection System or Remedial Action

Scheme is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard.

- 4.1.2.3.** Each Protection System (excluding UFLS and UVLS) that applies to Transmission where the Protection System is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard.

- 4.1.2.4.** No New Brunswick modifications

- 4.1.3.** No New Brunswick modifications

- 4.1.4.** No New Brunswick modifications

- 4.1.5.** No New Brunswick modifications

- 4.1.6.** No New Brunswick modifications

- 4.1.7.** No New Brunswick modifications

- 4.1.8.** No New Brunswick modifications

- 4.2. Facilities:** No New Brunswick modifications

- 4.2.1.** No New Brunswick modifications

- 4.2.1.1.** No New Brunswick modifications

- 4.2.1.1.1.** is part of a Load shedding program that is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard; and

- 4.2.1.1.2.** No New Brunswick modifications

- 4.2.1.2.** Each Special Protection System or Remedial Action Scheme where the Special Protection System or Remedial Action Scheme is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard.

4.2.1.3. Each Protection System (excluding UFLS and UVLS) that applies to Transmission where the Protection System is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or Regional Reliability Standard.

4.2.1.4. No New Brunswick modifications

4.2.2. Responsible Entities listed in 4.1 other than Distribution Providers:

No New Brunswick modifications

4.2.3. Exemptions: No New Brunswick modifications

4.2.3.1. No New Brunswick modifications

4.2.3.2. No New Brunswick modifications

4.2.3.3. No New Brunswick modifications

4.2.3.4. No New Brunswick modifications

5. Effective Dates:

CIP-002-5.1a shall become effective upon approval of the New Brunswick Energy and Utilities Board.

6. Background:

No New Brunswick modifications

BES Cyber Systems

No New Brunswick modifications

Reliable Operation of the Bulk Power System

No New Brunswick modifications

Real-time Operations

No New Brunswick modifications

Categorization Criteria

No New Brunswick modifications

Electronic Access Control or Monitoring Systems, Physical Access Control Systems, and Protected Cyber Assets that are associated with BES Cyber Systems

No New Brunswick modifications

Electronic Access Control or Monitoring Systems ("EACMS") – No New Brunswick modifications

Physical Access Control Systems ("PACS") – No New Brunswick modifications

Protected Cyber Assets ("PCA") – No New Brunswick modifications

B. Requirements and Measures

R1. No New Brunswick modifications;

- i. No New Brunswick modifications
- ii. No New Brunswick modifications
- iii. No New Brunswick modifications
- iv. No New Brunswick modifications
- v. No New Brunswick modifications

1.1. No New Brunswick modifications

1.2. No New Brunswick modifications

1.3. No New Brunswick modifications

M1. No New Brunswick modifications

R2. No New Brunswick modifications

2.1 No New Brunswick modifications

2.2 No New Brunswick modifications

M2. No New Brunswick modifications

C. Compliance

1. Compliance Monitoring Process:

1.1. Compliance Enforcement Authority:

The New Brunswick Energy and Utilities Board shall serve as the Compliance Enforcement Authority ("CEA").

1.2. Evidence Retention:

No New Brunswick modifications

1.3. Compliance Monitoring and Assessment Processes:

- No New Brunswick modifications

1.4. Additional Compliance Information

- No New Brunswick modifications

NB Appendix
CIP-002-5.1a-NB-o - Cyber Security — BES Cyber System Categorization

2. Table of Compliance Elements

R #	Time Horizon	VRF	Violation Severity Levels (CIP-002-5.1a)			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	No New Brunswick modifications					
R2						

D. Regional Variances

No New Brunswick modifications

E. Interpretations

No New Brunswick modifications

F. Associated Documents

No New Brunswick modifications

G. New Brunswick Definitions

BPS Cyber Asset: A Cyber Asset that if rendered unavailable, degraded, or misused would, within 15 minutes of its required operation, misoperation, or non-operation, adversely impact one or more Facilities, systems, or equipment, which, if destroyed, degraded, or otherwise rendered unavailable when needed, would affect the reliable operation of the bulk power system. Redundancy of affected Facilities, systems, and equipment shall not be considered when determining adverse impact. Each BPS Cyber Asset is included in one or more BPS Cyber Systems. (A Cyber Asset is not a BPS Cyber Asset if, for 30 consecutive calendar days or less, it is directly connected to a network within an ESP, a Cyber Asset within an ESP, or to a BPS Cyber Asset, and it is used for data transfer, vulnerability assessment, maintenance, or troubleshooting purposes.)

BPS Cyber System: One or more BPS Cyber Assets logically grouped by a responsible entity to perform one or more reliability tasks for a functional entity.

CIP-002-5.1a - Attachment 1

Impact Rating Criteria

No New Brunswick modifications

1. High Impact Rating (H)

No New Brunswick modifications

1.1. No New Brunswick modifications

1.2. No New Brunswick modifications

1.3. No New Brunswick modifications

1.4. No New Brunswick modifications

2. Medium Impact Rating (M)

No New Brunswick modifications

2.1. No New Brunswick modifications

2.2. No New Brunswick modifications

2.3. No New Brunswick modifications

2.4. No New Brunswick modifications

2.5. No New Brunswick modifications

Voltage Value of a Line	Weight Value per Line
No New Brunswick modifications	

2.6. No New Brunswick modifications

2.7. No New Brunswick modifications

2.8. No New Brunswick modifications

2.9. No New Brunswick modifications

2.10. Each system or group of Elements that performs automatic Load shedding under a

common control system, without human operator initiation, of 300 MW or more implementing undervoltage load shedding (UVLS) or underfrequency load shedding (UFLS) under a load shedding program that is subject to one or more requirements in a New Brunswick Energy and Utilities Board approved reliability standard or regional reliability standard.

2.11. No New Brunswick modifications

2.12. No New Brunswick modifications

2.13. No New Brunswick modifications

3. Low Impact Rating (L)

No New Brunswick modifications

3.1. No New Brunswick modifications

3.2. No New Brunswick modifications

3.3. No New Brunswick modifications

3.4. No New Brunswick modifications

3.5. No New Brunswick modifications

3.6. No New Brunswick modifications

Guidelines and Technical Basis

Section 4 – Scope of Applicability of the CIP Cyber Security Standards

No New Brunswick modifications

Section “4.1. Functional Entities” is a list of functional entities to which the standard applies. If the entity is registered as one or more of the functional entities listed in section 4.1, then the CIP Cyber Security Standards apply. Note that there is a qualification in section 4.1 that restricts the applicability in the case of Distribution Providers to only those that own certain types of systems and equipment listed in 4.2.

No New Brunswick modifications

No New Brunswick modifications

CIP-002-5.1a

No New Brunswick modifications

Entity Registration	RC	BA	TOP	TO	DP	GOP	GO
Dynamic Response	No New Brunswick modifications						
Balancing Load & Generation							
Controlling Frequency							
Controlling Voltage							
Managing Constraints							
Monitoring and Control							
Restoration							
Situation Awareness							
Inter-Entity coordination							

Dynamic Response

No New Brunswick modifications

Balancing Load and Generation

No New Brunswick modifications

Controlling Frequency (Real Power)

No New Brunswick modifications

Controlling Voltage (Reactive Power)

No New Brunswick modifications

Managing Constraints

No New Brunswick modifications

Monitoring and Control

No New Brunswick modifications

Restoration of BES

No New Brunswick modifications

Situational Awareness

No New Brunswick modifications

Inter-Entity Coordination

No New Brunswick modifications

Applicability to Distribution Providers

It is expected that only Distribution Providers that own or operate facilities that qualify in the Applicability section will be subject to these Version 5 Cyber Security Standards. Distribution Providers that do not own or operate any facility that qualifies are not subject to these standards. The qualifications are based on the requirements for registration as a Distribution Provider and on the requirements applicable to Distribution Providers in New Brunswick Energy and Utilities Board approved reliability standard EOP-005.

Requirement R1:

No New Brunswick modifications

Attachment 1

Overall Application

No New Brunswick modifications

High Impact Rating (H)

No New Brunswick modifications

Medium Impact Rating (M)

Generation

No New Brunswick modifications

Transmission

No New Brunswick modifications

Low Impact Rating (L)

No New Brunswick modifications

Restoration Facilities

No New Brunswick modifications

Use Case: CIP Process Flow

No New Brunswick modifications

NB Appendix
CIP-002-5.1a-NB-o - Cyber Security — BES Cyber System Categorization

Rationale:

No New Brunswick modifications

Rationale for R1:

No New Brunswick modifications

Rationale for R2:

No New Brunswick modifications

Version History (maintained by NBEUB)

Version	NBEUB Approval Date	NB Appendix Effective Date	Change Tracking	Comments
o	o6/o7/17	o6/o7/17	1. Specify that the term "Bulk Electric System" and its acronym "BES" shall mean the "bulk power system" as defined in the New Brunswick Reliability Standards Regulation – Electricity Act 2. Establish the NERC defined terms for BES Cyber System and BES Cyber Asset as BPS Cyber System and BPS Cyber Asset in Section G 3. "NERC" was replaced with "NBEUB" to recognize that registered	Approved under Matter 353.

NB Appendix
CIP-002-5.1a-NB-o - Cyber Security — BES Cyber System Categorization

			entities in New Brunswick are required to comply with Board approved reliability standards. 4. "Effective Date" section was replaced with "CIP-002-5.1a shall become effective upon approval of the New Brunswick Energy and Utilities Board." 5. Specify the Compliance Enforcement Authority is the NBEUB.	

Appendix 1

Requirement Number and Text of Requirement
No New Brunswick modifications
Questions
No New Brunswick modifications
Responses
No New Brunswick modifications