# Summary of Proposed Reliability Standards:

Eleven CIP Reliability Standards addressing virtualizations and other matters identified during implementation of previous CIP Reliability Standards versions.

## Details of Standard(s) Development

Reliability Standards Authority: NERC

Standard(s)

- CIP-002-7 Cyber Security BES Cyber System Categorization
- CIP-003-10 Cyber Security Security Management Controls
- CIP-004-8 Cyber Security Personnel & Training
- CIP-005-8 Cyber Security Electronic Security Perimeter(s)
- CIP-006-7 Cyber Security Physical Security of BES Cyber Systems
- CIP-007-7 Cyber Security Systems Security Management
- CIP-008-7 Cyber Security Incident Reporting and Response Planning
- CIP-009-7 Cyber Security Recovery Plans for BES Cyber Systems
- CIP-010-5 Cyber Security Configuration Change Management and Vulnerability Assessments
- CIP-011-4 Cyber Security Information Protection
- CIP-013-3 Cyber Security Supply Chain Risk Management

Purpose

To facilitate the use of the full range of virtualized technologies securely and to address the risks associated with virtualized environments.



Change Type:	FERC DIRECTIVE
Affected Functional Entities:	<ul> <li>Balancing Authority (BA)</li> <li>Distribution Provider (DP)</li> <li>Generator Operator (GOP)</li> <li>Generator Owner (GO)</li> <li>Reliability Coordinator (RC)</li> <li>Transmission Operator (TOP)</li> <li>Transmission Owner (TO)</li> </ul>
Ballot Results:	<ul> <li>CIP-002-7 84.62 % Quorum / 94.37 % Approval</li> <li>CIP-003-10 85.86% Quorum / 93.63% Approval</li> <li>CIP-004-8 86.1% Quorum / 86.3% Approval</li> <li>CIP-005-8 86.1% Quorum / 75.73% Approval</li> <li>CIP-006-7 83.84% Quorum / 94.7% Approval</li> <li>CIP-007-7 86.01% Quorum / 90.24% Approval</li> <li>CIP-008-7 83.84% Quorum / 96.05% Approval</li> <li>CIP-009-7 83.84% Quorum / 95.08% Approval</li> <li>CIP-010-5 86.44.84% Quorum / 76.98% Approval</li> <li>CIP-011-4 83.84% Quorum / 86.21% Approval</li> <li>CIP-013-3 83.84% Quorum / 86.47% Approval</li> </ul>
Ontario Participant Support:	<ul> <li>CIP-002-7: There were 253 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/253).</li> <li>CIP-003-10: There were 255 votes cast by NERC registered entities. 1 OEB rate-regulated entity voted affirmative (1/255).</li> <li>CIP-004-8: There were 254 votes cast by NERC registered entities. 1 OEB rate-regulated entity voted negative (1/254).</li> <li>CIP-005-8: There were 254 votes cast by NERC registered entities. 1 OEB rate-regulated entity voted negative (1/254).</li> <li>CIP-005-8: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/249).</li> <li>CIP-007-7: There were 254 votes cast by NERC registered entities. 1 OEB rate-regulated entity voted affirmative (1/254).</li> <li>CIP-007-7: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entity voted affirmative (3/249).</li> <li>CIP-008-7: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/249).</li> <li>CIP-008-7: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/249).</li> <li>CIP-009-7: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/249).</li> <li>CIP-009-7: There were 249 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/249).</li> </ul>

•	CIP-010-5: There were 255 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted affirmative (3/255). CIP-011-4: There were 249 votes cast by NERC registered entities. 2 OEB rate-regulated entities voted negative and one OEB rate-regulated entity voted affirmative (3/249). CIP-013-3: There were 249 votes cast by NERC registered entities. 2 OEB rate-regulated entities voted negative and one OEB rate-regulated entity voted affirmative (3/249).

Impact Within Ontario

Not Assessed.

Date	Action
May 9, 2024	Adopted by NERC Board of Trustees
June 10, 2024	NERC Petition for Approval
August 19, 2024	IESO Posting Date
December 17, 2024	End of OEB Review Period
TBD	FERC Order Issued
TBD	US Mandatory Enforcement Date
TBD	<ul> <li>Ontario Enforcement Date (Milestones in Reliability Standard Development and Lifecycle)</li> </ul>

## Standard Development Milestones

### Summary

The NERC CIP Reliability Standards are being updated based of FERC Order 822 (NERC Project 2016-2) to provide Responsible Entities the flexibility to adopt innovative technologies such as virtualization while maintaining strong security.

The proposed revisions to the CIP Reliability Standards and NERC Glossary aim to support reliability by addressing virtualization's use in CIP-covered environments, allowing entities to leverage virtualization's efficiencies and security enhancements.

The proposed standards provide a framework adaptable to newer technologies and innovative security models, acknowledging that virtualization adoption will vary across entities. Key changes are proposed for the technical CIP Reliability Standards, including CIP-005-8, CIP-007-7, and CIP-010-5. These updates support various security models, recognize virtualization infrastructure through new terms, broaden change management approaches beyond baseline configurations, and manage the accessibility and attack surfaces of virtualized environments.

The proposed changes to the NERC CIP Reliability Standards facilitate the secure adoption of virtualization technologies, allowing Responsible Entities to implement new security techniques and adapt to evolving technologies while ensuring robust security measures.

## Other Salient Information

### **Stakeholder Consultation**

#### **NERC Reliability Standards Development Procedure**

- NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC Standard Processes Manual;
- NERC's rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards;
- The development process is open to any person or entity with a legitimate interest in the reliability of the Bulk Power System. NERC considers the comments of all stakeholders;
- Stakeholders must approve, and the NERC Board of Trustees must adopt, a new or revised Reliability Standard before NERC submits the Reliability Standard to FERC for approval;
- NERC provided public notices for comments and balloting as follows:
  - Standard Authorization Request posted for comment: March 23 April 4, 2016
  - First Posting:
  - Second Posting:
  - Third Posting:
  - Forth Posting:
  - Fifth Posting:
  - Final Ballot:

January 22 – March 22, 2021 June 30 – September 1, 2021 February 18 – April 12, 2022 August 17 – October 7, 2022 October 3 – November 29, 2023 April 3 – April 12, 2024

### **IESO Reliability Standards Standing Committee**

- The purpose of the Reliability Standards Standing Committee (RSSC) is to assist market participants to develop a more comprehensive understanding of their reliability obligations by:
  - Notifying participants of reliability-related information on new and developing reliability standards;
  - Providing a forum to discuss and develop consensus comments on new and developing reliability standards; and
  - Engaging participants in the standard development process of NERC and NPCC.
- The majority of stakeholder engagement takes place by email communications and is open to any stakeholder wishing to join
- The IESO presented the proposed changes at the following RSSC meetings:
  - April 13, 2017
  - September 15, 2017
  - January 18, 2018
  - September 16, 2019
  - November 25, 2019
  - March 11, 2021
  - June 10, 2021
  - October 21, 2021
  - April 14, 2022
  - August 22, 2022
  - September 14, 2023
  - March 14, 2024
  - June 13, 2024