NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Standard Authorization Request (SAR)

Complete and submit this form, with attachment(s) to the NERC Help Desk. Upon entering the Captcha, please type in your contact information, and attach the SAR to your ticket. Once submitted, you will receive a confirmation number which you can use to track your request.

The North American Electric Reliability Corporation (NERC) welcomes suggestions to improve the reliability of the bulk power system through improved Reliability Standards.

Requested information			
SAR Title:	Internal Network Security Monitoring (INSM) Standard Revisions		
Date Submitted:	July 1, 2025		
SAR Requester			
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Organization:	NERC		
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SAR Type (Check as many as apply)			
☐ New Standard ☒ Revision to Existing Standard ☒ Add, Modify or Retire a Glossary Term ☐ Withdraw/retire an Existing Standard		☐ Imminent Action/ Confidential Issue (SPM Section 10) ☐ Variance development or revision ☐ Other (Please specify)	
Justification for this proposed standard development project (Check all that apply to help NERC prioritize development)			
☒ Regulatory Initiation ☐ Emerging Risk (Reliability Issues Steering Committee) Identified ☐ Reliability Standard Development Plan		☐ NERC Standing Committee Identified ☐ Enhanced Periodic Review Initiated ☐ Industry Stakeholder Identified	
What is the risk to the Bulk Electric System (What Bulk Electric System (BES) reliability benefit does the proposed project provide?):			
FERC Order No. 907[1] directs NERC to develop modifications to Reliability Standard CIP-015-1 to extend internal network security monitoring (INSM) to include Electronic Access Control or Monitoring Systems (EACMS) and Physical Access Control Systems (PACS) outside of the Electronic Security Perimeter (ESP). The Commission's order describes that Reliability Standard CIP-015-1 is not fully responsive to the directive in Order No. 887 to implement INSM within the CIP-networked environment because proposed Reliability Standard CIP-015-1 excludes EACMS and PACS, which leaves a security gap. The inclusion of EACMS and PACS enhances early detection of anomalous or malicious			

[1] Critical Infrastructure Protection Reliability Standard CIP-015-1 – Cyber Security – Internal Network Security Monitoring, Order No. 907, 191 FERC ¶ 61,224 (2025

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activity and fills a reliability gap by addressing potential avenues for attackers to infiltrate BES Cyber Systems (BCS) within the ESP.
Purpose or Goal (What are the reliability gap(s) or risk(s) to the Bulk Electric System being addressed, and how does this proposed project provide the reliability-related benefit described above?):
This project will develop Reliability Standard CIP-015-1 modifications to implement FERC Order No. 907 directives by extending INSM to EACMS and PACS external to the ESP. Extending INSM implementation to EACMS and PACS outside the ESP provides reliability benefits by closing a reliability and security gap through addressing potential attack vectors that originate from outside the trust zone. Consistent with FERC Order No. 907, modifications should be submitted for FERC approval within 12 months of the final rule's effective date.
Project Scope (Define the parameters of the proposed project):
The Drafting Team (DT) will revise Reliability Standard CIP-015-1 and if necessary, create or revise definitions and/or existing CIP Standards to align with FERC Order No. 907. The scope of this project encompasses the extension of INSM to EACMS and PACS that are associated with the following BCS impact categories: • High impact BCS and their associated EACMS and PACS; and • Medium impact BCS with External Routable Connectivity (ERC) and their associated EACMS and PACS. The scope of this project explicitly excludes: • Medium impact BCS without ERC; and • Low impact BCS.
Detailed Description (Describe the proposed deliverable(s) with sufficient detail for a drafting team to execute the project. If you propose a new or substantially revised Reliability Standard or definition, provide: (1) a technical justification[2] of developing a new or revised Reliability Standard or definition, which includes a discussion of the risk and impact to reliability-of the BES, and (2) a technical foundation document (*e.g.,* research paper) to guide development of the Standard or definition):
Develop modifications to Reliability Standard CIP-015-01 that are forward-looking, objective-based, and extend INSM to the entirety of the CIP-networked environment, including EACMS and PACS outside of the ESP. Consistent with FERC Order No. 907, modifications should be made in accordance with the following: • The term CIP-networked environment is inclusive of EACMS and PACS and extends beyond the ESP to guard against attackers moving east-west within the EACMS or PACS network segments of the CIP-networked environment; and • The scope of CIP-networked environment includes the systems within the ESP and one or more of the following: (1) network segments that are connected to EACMS and PACS outside of the

[2] The NERC Rules of Procedure require a technical justification for new or substantially revised Reliability Standards. Please attach pertinent information to this form before submittal to NERC.

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ESP; (2) network segments between EACMS and PACS outside of the ESP; or (3) network segments that are internal to EACMS and PACS outside of the ESP; and • Communication between PACS and controllers and communications to and from EACMS used solely for electronic access monitoring are included in the term CIP-networked environment. Extending INSM implementation to EACMS and PACS outside the ESP provides reliability benefits by closing a reliability and security gap through addressing potential attack vectors that originate outside the trust zone. Extending INSM implementation ensures that BCSs benefit from monitoring of east-west traffic within groups of EACMS and PACS.
Cost Impact Assessment, if known (Provide a paragraph describing the potential cost impacts associated with the proposed project):
Beyond the time and resources needed to serve on the DT, the cost to entities will vary based on their current system architecture. While many entities may have INSM for EACMS and PACS in place, others may not, which could require a significant cost investment depending on their footprint.
Please describe any unique characteristics of the BES facilities that may be impacted by this proposed standard development project (*e.g.*, Dispersed Generation Resources):
None.
To assist the NERC Standards Committee in appointing a drafting team with the appropriate members, please indicate to which Functional Entities the proposed standard(s) should apply (*e.g.*, Transmission Operator, Reliability Coordinator, etc. See the NERC Rules of Procedure Appendix 5A:
Applicability will be the same as current CIP Standards - Balancing Authority, Distribution Provider, Generator Operator, Generator Owner, Reliability Coordinator, Transmission Operator, Transmission Owner.
Do you know of any consensus building activities[3] in connection with this SAR? If so, please provide any recommendations or findings resulting from the consensus building activity.
The SAR has been developed in response to FERC Order No. 907. Order No. 907 was consistent with feedback provided by NERC and industry through the Notice of Proposed Rulemaking (NOPR) process.
Are there any related standards or SARs that should be assessed for impact as a result of this proposed project? If so, which standard(s) or project number(s)?
The following projects and Reliability Standards should be assessed for impact: • CIP-015-1 • Standards Project 2022-05 Modifications to CIP-008 Reporting Threshold • Standards Project 2023-09 Risk Management for Third-party Cloud Services Other CIP Reliability Standards as necessary to accomplish FERC Order No. 907 directives
Are there alternatives (e.g., guidelines, white paper, alerts, etc.) that have been considered or could meet the objectives? If so, please list the alternatives with the benefits of using them.
This SAR has been developed pursuant to FERC Order No. 907.

[3] Consensus building activities are occasionally conducted by NERC and/or project review teams. They typically are conducted to obtain industry inputs prior to proposing any standard development project to revise, or develop a standard or definition.

Reliability Principles	
Does this proposed standard development project support at least one of the following Reliability Principles (Reliability Principles)? Please check all those that apply.	
☐	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
☐	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
☐	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
☐	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
☐	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
☐	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
☒	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
☒	8. Bulk power systems shall be protected from malicious physical or cyber attacks.

Market Interface Principles	
Does the proposed standard development project comply with all of the following Market Interface Principles?	Enter (yes/no)
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Yes
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Yes
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Yes
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards.	Yes

Identified Existing or Potential Regional or Interconnection Variances	
Region(s)/ Interconnection	Explanation
N/A	

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SAR Status Tracking (Check off as appropriate).	
☒ Draft SAR reviewed by NERC Staff ☐ Draft SAR presented to SC for acceptance ☐ DRAFT SAR approved for posting by the SC	☐ Final SAR endorsed by the SC ☐ SAR assigned a Standards Project by NERC ☐ SAR denied or proposed as Guidance document
Risk Tracking.	
☐ Grid Transformation ☐ Resilience/Extreme Events	☐ Energy Policy ☐ Critical Infrastructure Interdependencies
☐ Security Risks	

Version History

Version	Date	Owner	Change Tracking
1	June 3, 2013		Revised
1	August 29, 2014	Standards Information Staff	Updated template
2	January 18, 2017	Standards Information Staff	Revised
2	June 28, 2017	Standards Information Staff	Updated template
3	February 22, 2019	Standards Information Staff	Added instructions to submit via Help Desk
4	February 25, 2020	Standards Information Staff	Updated template footer
5	August 14, 2023	Standards Development Staff	Updated template as part of Standards Process Stakeholder Engagement Group
6	June 4, 2023	Standards Information Staff	Updated link to the NERC Reliability Principles