



# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Compliance Guidance

## Implementation Guidance

Craig Struck, Senior Auditor  
November 18, 2020

RELIABILITY | RESILIENCE | SECURITY





It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition. It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.



Participants are reminded that this meeting is public. Notice of the meeting was widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.



- Compliance Guidance Policy
- Program Enhancements
- Development, Review, and Endorsement Process
- Tools & Resources
- Question & Answers
  - Submit Your Questions via Chat Feature During Webinar
    - Focus is on process, not on Specific Implementation Guidance Documents

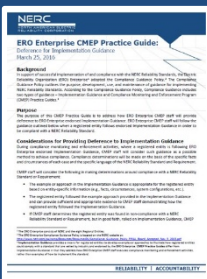


- Multiple Guidance Documents
  - CANs, CARs, Directives, Bulletins, etc.
- Desire to Consolidate Guidance
  - Reduce Confusion
- Compliance Guidance Review Team
  - Recommendation to NERC BOT
    - Finite/Limited Guidance Tools
- NERC BOT Approved CG Policy
- Supporting Tools and Resources Developed





## Compliance Guidance (CG)



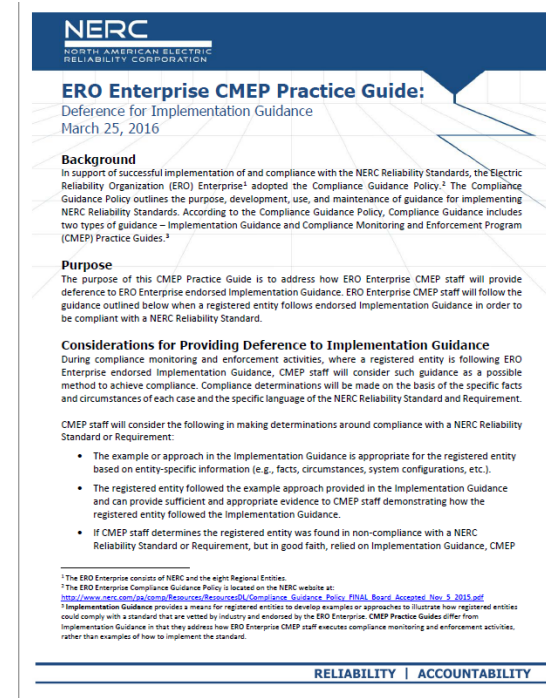
## CMEP Practice Guides (PG)



## Implementation Guidance (IG)



- **CMEP Practice Guides (PG)**
  - How CMEP Personnel Execute CMEP Activities
  - Developed by ERO Enterprise for ERO Enterprise
    - Approved by ERO Enterprise CMEP Management
  - Publically Posted
  - Current Practice Guides
    - Reliability Standard or Topic Specific
      - TOP-001-4, IRO-002-5, CIP-007-6, etc.
      - Phased Implementation of Reliability Standards
      - Annual/Calendar Month Guidelines
      - Auditor Deference to Implementation Guidance
      - Inverter Based Resources
      - BES Cyber Systems
    - 11 Approved / 3 Under Development







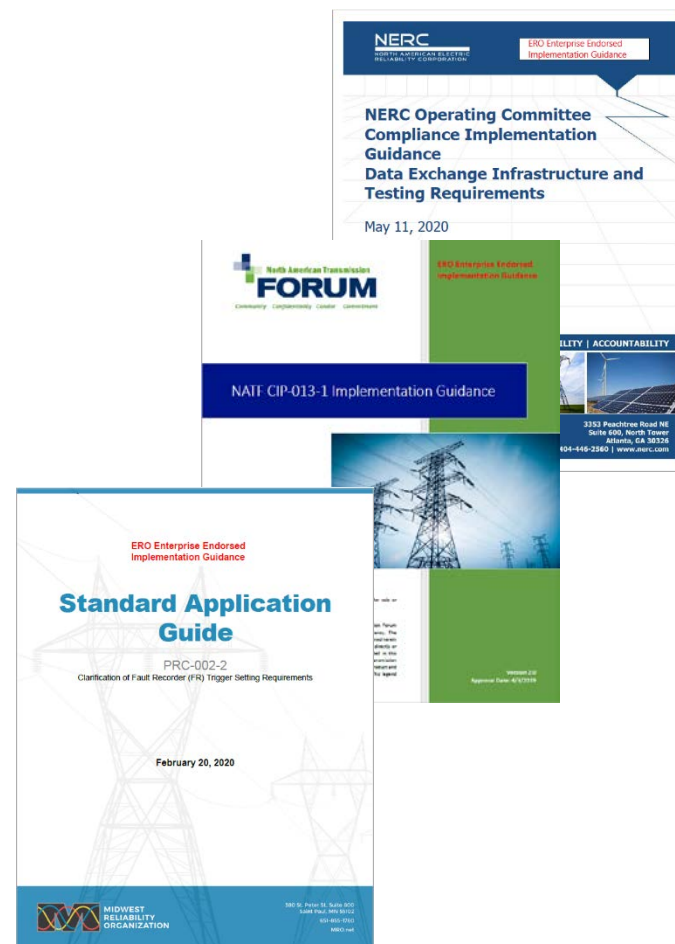
- **Implementation Guidance (IG)**
  - Examples or Approaches
    - Industry “Implement” Reliability Standards
  - Developed by Industry for Industry
    - Pre-Qualified Organization (PQO)
    - Standard Drafting Team (SDT)
    - Regional Entity Stakeholder Committees
  - Does Not Guarantee Compliance
    - Not only way to comply
    - Facts, Circumstances, and Configurations
  - Industry Vetted
  - Endorsed by ERO Enterprise
  - Publically Posted







- **Implementation Guidance** (continued)
  - Current Implementation Guidance
    - 31 Endorsed
      - 20 Critical Infrastructure Protection (CIP)
      - 11 Operations & Planning (O&P)
    - 2 Under Review
      - O&P
    - 7 Under Development
    - CIP Lessons Learned and FAQ Documents
      - Were Accepted as IG





- Experience Gained
  - Lessons Learned
  - Best Practices
  - Improvement Opportunities
- Desire for Industry Input
  - Industry Surveys
    - Developers
    - Reviewers
    - Users
- Resulted in Enhanced Process and Tools





- Survey Results – Common Themes

- Transparency/Knowledge of Review and Endorsement Process
  - Long Review and Endorsement Times
  - Review Criteria
- Differing Viewpoints
  - Confusion on Endorsement Decisions
- Duplicative Guidance
  - Need for Collaboration
- Usefulness and Clarity
  - Differing Formats
  - Too Much Theory
- IG Timeliness
- IG Maintenance
- Need for Industry Outreach
- Update Compliance Guidance Webpage
- NERC Assistance During Development











- **Development**

- Implementation Guidance Training by NERC
  - Before Work Begins
- Utilize Development Tools
  - Avoid Pitfalls
- Collaborate
  - Avoid Duplicative Work
  - Leverage Knowledge
- IG Management
  - Ensure Guidance Remains Relevant and Useful
  - Periodic Review Requirement
- Submit







- **Review**

- Received by Subject Matter Experts (SME)
- Utilize Review Tools
- Collaborate
  - Internal Regional and NERC Departments
    - Compliance, Enforcement, Risk
- Vet
  - ERO Enterprise Task Forces
    - NERC and Regional Representatives
    - Operations & Planning Compliance Task Force
    - CIP Compliance Task Force
- Recommend
  - To ERO Enterprise CMEP Management
  - One ERO Enterprise Statement
    - Non-Endorsement Recommendations Only





- **Endorsement**

- ERO Enterprise CMEP Management
  - Receive Task Force Recommendation
  - Risk, Performance Management Group (RPMG)
- Collaborate on TF Recommendation
  - Openly Discuss Identified Issues
- Endorse or Not Endorse
- Final Review
  - NERC Director of Enforcement
- Notify, Post, Announce





- IG Template
- IG Under Consideration/Development Spreadsheet
- PQO/SDT Contact Information
- Non-Endorsed IG Tracking
- IG Development and Review Aid
- One Stop Shop
- Compliance Guidance Webpage



## • IG Template

- Survey Results Addressed:
  - Usefulness and Clarity
  - Differing Formats
  - Too Much Theory
- Common Look and Arrangement
  - Basic Sections
  - Common Sense Flow
- PQO Logo
  - Identify Owner
  - Acknowledgment of Work

PROPOSED Implementation Guidance - NOT ERO Enterprise Endorsed

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PQO  
LOGO  
HERE

**Implementation Guidance Title**  
Reliability Standard and Requirement  
Reliability Standard and Requirement (If Needed)

Date  
DELETE AFTER READING: PQO and SDT are strongly encouraged to reference the *Implementation Guidance Development and Review Aid* [here](#) prior to developing IG documents

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- **IG Template** (continued)
  - Title Page
    - Descriptive Information
    - Logos
  - Table of Contents
  - Introduction
  - Goal/Problem Statement
  - Reliability Standard
    - Requirement
      - Examples

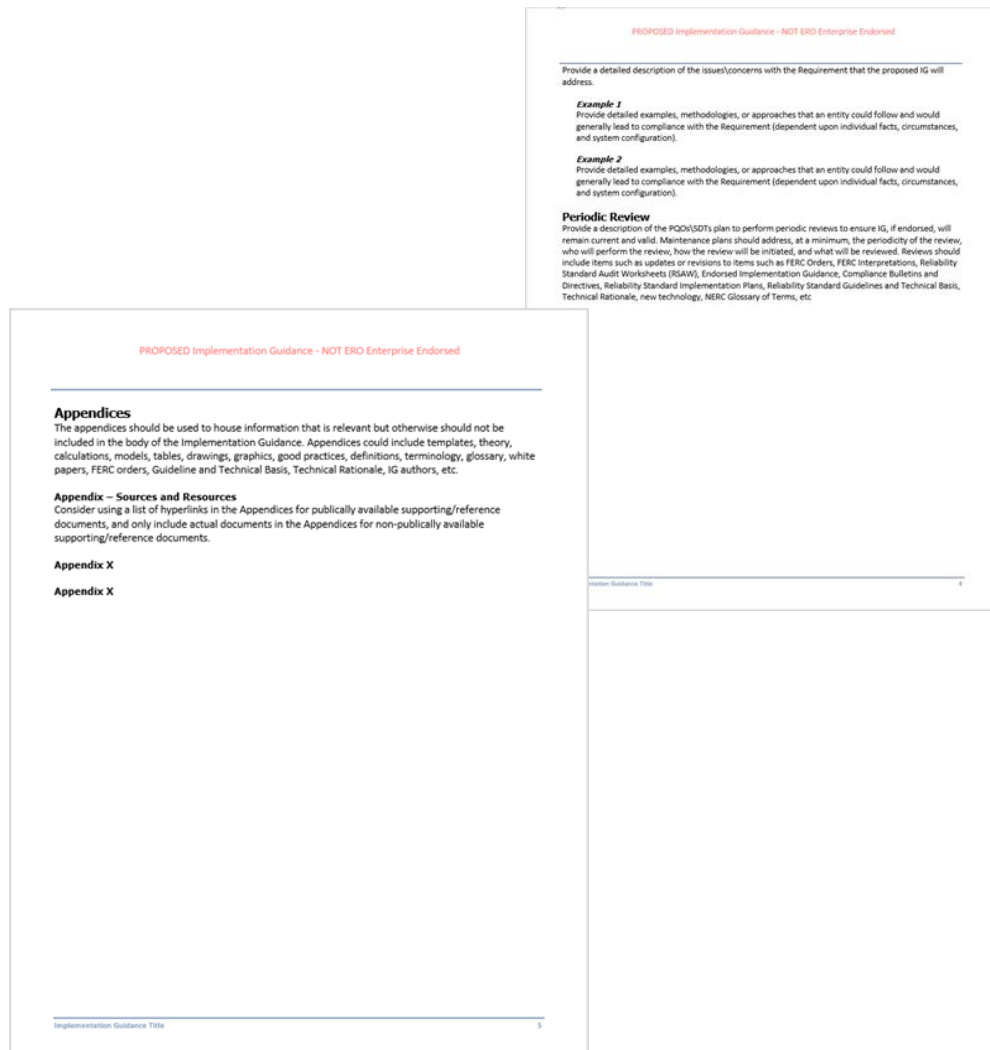
PROPOSED Implementation Guidance - NOT ERO Enterprise Endorsed	
Table of Contents	
Introduction	3
Goal/Problem Statement	3
Scope	3
Reliability Standard	3
Requirement X	3
Example 1	3
Example 2	3
Requirement Y	3
Example 1	4
Example 2	4
Periodic Review	4
Appendices	5
Appendix - Sources and Resources	5
Appendix X	5
Appendix Y	5

PROPOSED Implementation Guidance - NOT ERO Enterprise Endorsed	
<b>Introduction</b>	
Provide a brief introduction/background statement on the purpose of the subject Reliability Standard, what aspect of the purpose does the subject Requirement(s) address, and how the Requirement(s) addresses that aspect. Example topics could include; historical perspectives, relevant FERC orders, related guidance, committees work, standard revisions, how the need for the Implementation Guidance was identified, etc.	
<b>Goal/Problem Statement</b>	
Provide a brief problem statement, as applicable, to identify the goal of the Implementation Guidance or the problem(s) the Implementation Guidance addresses. Problem statements could speak to reliability challenges, compliance challenges, changing technology, differing viewpoints, etc.	
<b>Scope</b>	
Provide a brief statement on the scope of the proposed Implementation Guidance. State what is included, and what is not included, in the scope of the proposed Implementation Guidance document. This section should include a disclaimer stating that following the Implementation Guidance does not guarantee compliance and is based on precise language of the standard, individual facts, circumstances, system configuration, quality of evidence, etc.	
<b>Reliability Standard</b>	
Copy and the Paste the relevant sections of the subject Reliability Standard as applicable. Example sections could include the Purpose, Applicability, Effective Date, Compliance, etc.	
<b>Requirement X</b>	
Copy and the Paste the subject Requirement.	
Provide a detailed description of the issues/concerns with the Requirement that the proposed IG will address.	
<b>Example 1</b>	
Provide detailed examples, methodologies, or approaches that an entity could follow and would generally lead to compliance with the Requirement (dependent upon individual facts, circumstances, and system configuration).	
<b>Example 2</b>	
Provide detailed examples, methodologies, or approaches that an entity could follow and would generally lead to compliance with the Requirement (dependent upon individual facts, circumstances, and system configuration).	
<b>Requirement X</b>	
Copy and the Paste the subject Requirement.	
Implementation Guidance Title	



- **IG Template** (continued)
  - Periodic Review
    - Ensures Relevance
  - Appendices
    - Supporting Information





## • IG Under Consideration/Development Spreadsheet

- Survey Results Addressed:
  - Duplicative Guidance
  - Need for Collaboration
- Prevent/Reduce Duplicative Work
- Promotes Collaboration

Implementation Guidance Under Consideration or Development - Last Updated 10/30/2020			
Pre-Qualified Organization / Standard Drafting Team	Reliability Standard / Requirement(s)	Topic / Additional Information	ETA / Status*
Western Interconnection Compliance Forum (WICF)	CIP-002-6, Attachment 1, IRC 2.5 and 2.12	Station/substation containing multiple monitoring and control systems, and transmission systems associated with multiple Control Centers.	Under Development - Q3 2021
Project 2019-02 Standard Drafting Team	CIP-004-7	Cyber Security — Personnel & Training   Implementation Guidance for Reliability Standard CIP-004-7	Q3 - Q4 2021
EnergySec	CIP-005 R1, CIP-007 R1	The use of software defined networking in CIP environments	Under Development - Q1/Q2 2021
Project 2019-03 Standard Drafting Team	CIP-005	Cyber Security Supply Chain Risks	Q1 2021
Project 2019-03 Standard Drafting Team	CIP-010	Cyber Security Supply Chain Risks	Q1 2021
Project 2019-03 Standard Drafting Team	CIP-013	Cyber Security Supply Chain Risks	Q1 2021
Project 2019-02 Standard Drafting Team	CIP-011-3	Cyber Security — Information Protection   Implementation Guidance for Reliability Standard CIP-011-3	Q3 - Q4 2021





- **Pre-Qualified Organization and Standard Drafting Team Contact Information**
  - Survey Results Addressed:
    - Duplicative Guidance
    - Need for Collaboration
  - Companion Document to IG Under Development

Pre-Qualified Organization (PQO) Contact Information - Last Updated 11/4/2020			
Pre-Qualified Organization / Standard Drafting Team	Primary Contact Information	Alternate Contact Information	Additional Information
American Public Power Association (APPA)	Name: Nathan Mitchell Email: nmitchell@publicpower.org Phone: (202) 467-2900	Name: D. Patterson Email: dpatterson@publicpower.org Phone: (202) 467-2900	American Public Power Association 2451 Crystal Drive, Suite 1000 Arlington, VA 22202, USA Phone: (202) 467-2900 <a href="https://www.publicpower.org/">https://www.publicpower.org/</a>
Canadian Electricity Association (CEA)	Name: Leah Michalopoulos Email: michalopoulos@electricity.ca Phone: (613) 230-9263	Name: Michael Powell Email: powell@electricity.ca Phone: (613) 230-9263	Canadian Electricity Association 275 Slater Street, Suite 1500 Ottawa, Ontario Canada K1P 5H9 Phone: (613) 230-9263 <a href="https://electricity.ca/">https://electricity.ca/</a>
Edison Electric Institute (EEI)	Name: Andrea Koch Email: akoch@eei.org Phone: (202) 508-5000	Name: Mark Gray Email: mgray@eei.org Phone: (202) 508-5000	Edison Electric Institute 701 Pennsylvania Avenue, N.W. Washington, D.C. 20004-2696 Phone: (202) 508-5000 <a href="https://www.eei.org/pages/default.aspx">https://www.eei.org/pages/default.aspx</a>
Electric Power Supply Association (EPSA)	Name: Nancy Bagot Email: nbagot@epsa.org Phone: (202) 628-8200	Name: Email: Phone:	Electric Power Supply Association 1401 New York Avenue, NW, Suite 950 Washington, DC 20005-2110 Phone: (202) 628-8200 <a href="https://epsa.org/">https://epsa.org/</a>
Electricity Consumers Resource Council (ELCON)	Name: Travis Fisher Email: tfisher@elcon.org Phone: (202) 302-9953	Name: Charles Acquard Email: cacquard@elcon.org Phone: (202) 682-1390	Electricity Consumers Resource Council 1101 K Street, NW, Suite 700 Washington, D.C. 20005 Phone: (202) 682-1390 elcon@elcon.org <a href="https://elcon.org/">https://elcon.org/</a>



- **Non-Endorsed IG Tracking**
  - Survey Results Addressed:
    - Transparency in Review and Endorsement Process
      - Review Criteria
    - NERC Assistance During Development
  - Lessons learned to Avoid Prior Pitfalls

Non-Endorsed Implementation Guidance - Last Updated 10/30/2020			
Year	Implementation Guidance Title	Additional Information	Date Announced
2020	CIP-004-6 and CIP-011-2 Cloud Solutions and Encrypting BCS1 (NERC RSTC)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because several points of concern have been identified. First, the proposed guidance is too prescriptive, missing necessary elements of the requirement, and provides inaccurate statements that are contrary to the current language of the standards. This in turn could mislead an entity into a possible noncompliance (e.g. shared compliance responsibilities, initial timeframe for personnel revocations, etc.). In addition, the proposed guidance has an "Evidence Example" table in which it prescribes that all listed artifacts are necessary to demonstrate compliance. While these elements may be appropriate to demonstrate compliance, mandating all the artifacts may not be consistent with the requirements and/or entity specific facts and circumstances. Lastly, the ERO Enterprise highlighted numerous other issues which will be shared with the RSTC for them to address prior to resubmitting for future ERO Enterprise endorsement.	10/30/2020
	CIP-008-6 Incident Reporting and Response Planning (2018-02 SDT)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because there are several concerns within the document which resulted in the guide not receiving a unanimous vote to endorse. To summarize the concerns, the guide is clearer than the previous version submitted; however, some statements are not appropriate for Implementation Guidance. These statements may be viewed as an ERO Enterprise audit approach and/or directing CMEP staff decision making. In conclusion, the ERO Enterprise is not planning on endorsing the guidance; however, we will be providing detailed feedback to the drafters.	10/30/2020
	CIP-010-2 Configuration Change Management & Monitoring ((MRO CMEPAC)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because in its current state, the proposed guidance does not align with criterion outlined in the Implementation Guidance Development Aid, namely it is overly broad, large, has misleading statements that could lead an entity to a possible noncompliance, and attempts to be all encompassing. Furthermore, there are several references to obsolete technologies and tools not fully vetted by the ERO Enterprise that could potentially lead entities into operational, as well as compliance, issues. Lastly, there were numerous other issues highlighted by the ERO Enterprise. These details will be sent to the creators of the guidance document to be addressed for future consideration of ERO endorsement.	10/30/2020
	MOD-025-2 Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability (MRO CMEPAC)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because it does not appear to provide useable examples of compliance and repeats the Standard in order to interpret it. The given example at the back lacks detailed engineering analysis, and the mention of "use other data sources" does not explain how to conduct the Real and Reactive Power capability tests.	10/30/2020
	TPL-007-4 Transmission System Planned Performance for Geomagnetic Disturbance Events (OC)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because it does not provide specific approaches or examples for the requirements addressed.	10/30/2020
	CIP-005-6, R2.4 and R2.5, Vendor Remote Access (NATF)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because there are created definitions that could mislead entities into possible non-compliance. The IG includes an incorrect statement that the method does not need to be able to distinguish between vendor remote access sessions and non-vendor remote access sessions, which directly conflicts with the Reliability Standard.	3/10/2020
	CIP-010-2, R4, Transient Cyber Assets (NATF)	The ERO Enterprise declined to endorse this proposed Implementation Guidance document because some issues remain from the 2017 non-endorsement. Some of the examples or approaches to compliance need to be further refined. Models should be referenced as examples rather than definitions to avoid entity confusion. IG could mislead an entity to not consider all 3 sub-parts of Attachment 1, Section 1.2 as part of a solution.	3/10/2020



- **IG Development and Review Aid**
  - Survey Results Addressed:
    - Transparency in Review and Endorsement Process
    - Review Criteria
  - Used by Developers and Reviewers

**NERC**  
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RELIABILITY CORPORATION

## Implementation Guidance Development and Review Aid

October 2020

Implementation Guidance (IG) provides a means for industry<sup>1</sup> to develop examples or approaches to illustrate how registered entities could comply with a Standard. Examples provided in IG are not exclusive, as there are likely other methods for implementing efforts to comply with a Standard. The ERO Enterprise's endorsement<sup>2</sup> of an example means the ERO Enterprise CMEP staff will give these examples deference when conducting compliance monitoring activities. Registered entities can rely upon the example and be reasonably assured that compliance requirements will be met with the understanding that compliance determinations depend on facts, circumstances, and system configurations.

In order to ensure IG documents are beneficial to industry Pre-Qualified Organizations (PQO) and Standard Drafting Teams (SDT) should consider developing IG before it is needed by industry. Additionally, in order to reduce the amount of IG documents addressing the same or closely related issues the PQO and SDT<sup>3</sup> should consider collaborating with other [PQO and SDT contacts](#) who may be developing similar guidance. Proactively [notifying NERC](#) of IG under development, or under consideration for development, will ensure the [IG Under Development/Consideration Tracking](#) spreadsheet remains current and useful. PQO and SDT are encouraged to utilize the [ERO Enterprise Implementation Guidance Template](#) when developing or revising Implementation Guidance.

**Proposed IG should consider items in the table below to reduce risk of non-endorsement.**

<sup>1</sup> Pre-Qualified Organizations (PQO) and Standard Drafting Teams (SDT)  
<sup>2</sup> The ERO Enterprise endorses the examples and approaches only. The ERO Enterprise endorsement does not include supporting documentation or links included in IG appendices such as white papers, theory, background, history, FAQ, etc.  
<sup>3</sup> The BOT Approved Compliance Guidance Policy, Footnote 7, states "The drafting team can and should reach out to industry for assistance, as needed".

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**Color Code Key:**

Automatic Non-Endorsement

Increased Likelihood of Non-Endorsement

Multiple Occurrences/Severity of Occurrences could lead to Non-Endorsement

Implementation Guidance Development Aid		
	Items for Consideration	✓
1.	Ensure IG does not conflict with, or change, the Purpose or Applicability of the Reliability Standard.	
2.	Ensure IG does not conflict with, or change, the meaning or intent of the Requirement and Measure.	
3.	Ensure IG does not include language that attempts to describe an audit approach.	
4.	Ensure IG does not conflict with, or contradict, FERC or ERO Enterprise documents such as FERC Orders, FERC Interpretations, Reliability Standard Audit Worksheets (RSAW), Endorsed Implementation Guidance, Compliance Bulletins and Directives, Reliability Standard Implementation Plans, Reliability Standard Guidelines and Technical Basis, NERC Glossary of Terms, etc.	
5.	Ensure IG does not make the Reliability Standard and Requirement less restrictive.	
6.	Ensure IG does not lead the entity to believe there are additional compliance obligations that are not specifically required by the subject Reliability Standard and Requirement.	
7.	Ensure IG does not skip steps or stop short of complying, and addresses the entire Requirement in sufficient detail.	
8.	Ensure IG provides specific examples or approaches to compliance.	
9.	Ensure IG is not a whitepaper, position paper, concept paper, FAQ, or technical reference document.	
10.	Ensure the body of the IG document only includes specific examples or approaches to compliance and does not include supporting/reference information that should be housed in the Appendices. NOTE: Appendices could include templates, theory, calculations, models, tables, drawings, graphics, good practices, definitions, terminology, glossary, white papers, FERC orders, Guideline and Technical Basis, Technical Rationale, IG authors, etc.	
11.	Ensure IG is not region specific, such as guidance for a Regional Reliability Standard.	
12.	Ensure IG includes a plan for PQO/SDT periodic reviews and updates to ensure guidance remains current and valid. Reviews should include elements such as updates or revisions to items such as FERC Orders, FERC Interpretations, Reliability Standard	



	<b>Audit Worksheets (RSAW), ERO Endorsed IG, Compliance Bulletins and Directives, Reliability Standard Implementation Plans, Reliability Standard Guidelines and Technical Basis, Technical Rationale, new technology, NERC Glossary of Terms, etc.</b>	
13.	Consider utilizing the <a href="#">ERO Enterprise Implementation Guidance Template</a> to allow for a common look and feel, and user familiarity.	
14.	Consider if an entity followed the approach or example, would it generally lead the entity to compliance.	
15.	Ensure IG only addresses one, or very limited and closely related, Reliability Standards and Requirements to ensure it is not unnecessarily large or attempts to be all encompassing.	
16.	Consider using a list of hyperlinks in the Appendices for publicly available supporting/reference documents, and only include actual documents in the Appendices for non-publicly available supporting/reference documents.	
17.	Ensure specialized terminology, such as used by technical committees, is defined in the IG document and the definition does not conflict with related terminology defined in the NERC Glossary of terms.	
18.	Ensure IG capitalizes terms defined in the NERC Glossary of Terms.	
19.	Consider using softer words such as "should consider", "may want to", "recommended", etc. when the processes, procedures, or approaches described are examples and are not mandatory.	
20.	Consider using language that is clear, concise, and complete, and focuses on the quality (not quantity) of subject material.	
21.	Consider the Applicability of the subject Reliability Standard and Requirement, and if the guidance is written in a manner that is useful to all applicable registered functions.	
22.	Consider using the specific language of the subject Reliability Standard and Requirement rather than attempting to explain the criteria (i.e. the Requirement) using different verbiage, when possible.	
23.	Ensure the IG does not reference inactive Reliability Standards or use terminology that was used in previous versions of a Reliability Standard, and are no longer in use in the subject version of the subject Reliability Standard.	
24.	Ensure IG correctly references footnotes, citations, illustrations, table numbers, Attachments, Addendums, Appendices, Etc.	
25.	Consider the reliability, credibility, validity of external sources being cited. NOTE: IG should be standalone documents and should not rely on external sources.	
26.	Ensure the latest version web site links, resources, etc. is being referenced.	
27.	Consider eliminating, or limiting, the use of embedded documents if used.	
28.	Consider spelling out, or defining, acronyms during their initial use.	
29.	Consider using illustrations such as diagrams, sample records, flowcharts, templates, etc.	



30.	Consider the value of developing IG that addresses Reliability Standards and Requirements that are subject to near future retirement or revision.	
31.	Consider including a disclaimer that following the IG does not guarantee compliance.	
32.	Standard Drafting Teams (SDT) should write clear compliance expectations into the Requirements of the Reliability Standard, and not in IG (Applicable to SDT only).	
33.	Consider reaching out to NERC Compliance staff <a href="#">here</a> with questions that arise during development.	
34.	Consider reaching out to NERC Compliance staff <a href="#">here</a> regarding a preliminary review of proposed IG prior to formal submittal.	
35.	Consider reaching out to NERC Standards Program Contacts <a href="#">here</a> with questions regarding standard revisions or development, as needed.	



- Standards One Stop Shop
  - Survey Results Addressed: Duplicative Guidance, IG Timeliness
  - Spreadsheet Includes Links to Related Guidance
  - Maintained by NERC Standards Department

Status	Standard Version	Board Adopted Date	Effective Date of Standard	Inactive Date	Implementation Plan	Related Documents	Public Notes	FERC Orders (Date Issued)	RSAs (Enforceable Standards Only)	Lessons Learned	Compliance Guidance
Inactive	<a href="#">CIP-002-5.1</a>	9/27/2013	7/1/2016	12/26/2016	<a href="#">Implementation Plan</a>		Errata approved by the SC on 9/27/2013. See also CIP V5 Effective Dates here under Key Resources: <a href="http://www.nerc.com/pa/CIP/Pages/Transition-Program.aspx">http://www.nerc.com/pa/CIP/Pages/Transition-Program.aspx</a>	<a href="#">11/22/2013</a>	<a href="#">BSA</a>	<a href="#">CIP Version 5 Transition Program</a>	<a href="#">5/20/2016, Compliance Guidance Updates</a>
Mandatory Subject to Enforcement	<a href="#">CIP-002-5.1a</a>	11/2/2016	12/27/2016		<a href="#">Implementation Plan</a>	<a href="#">Interpretation</a>	Interpretation of CIP-002-5.1 for Energy Sector Security Consortium (EnergySec)		<a href="#">BSA</a>		<a href="#">2/3/2018</a>
Filed and Pending Regulatory Approval	<a href="#">CIP-002-6</a>	5/14/2020			<a href="#">Implementation Plan</a>						
Inactive	<a href="#">CIP-003-3</a>	12/16/2009	10/1/2010	6/30/2016	<a href="#">Implementation Plan</a>			<a href="#">3/31/2010</a>	<a href="#">BSA</a>		
Inactive	<a href="#">CIP-003-3a</a>	11/7/2013		6/30/2016	<a href="#">Implementation Plan</a>				<a href="#">BSA</a>		
Inactive	<a href="#">CIP-003-5</a>	11/26/2012		6/30/2016	<a href="#">Implementation Plan</a>			<a href="#">11/22/2013</a>		<a href="#">CIP Version 5 Transition Program</a>	
Inactive	<a href="#">CIP-003-6</a>	2/12/2015	7/1/2016	12/31/2019	<a href="#">Implementation Plan</a>		With the approval of CIP-003-7 and its associated Implementation Plan, entities will not be required to implement CIP-003-6, Requirement R2, Attachment 1, Sections 2 and 3. Instead, entities will implement CIP-003-7, Requirement R2, Attachment 1 Sections 2 and 3 on January 1, 2020. See Implementation Plan for CIP-003-7.			<a href="#">CIP Version 5 Transition Program</a>	<a href="#">5/20/2016, Compliance Guidance Updates</a>





- NERC Homepage ([www.nerc.com](http://www.nerc.com))
  - Survey Results Addressed: Update Compliance Guidance Webpage

The screenshot shows the NERC homepage with the following elements:

- Header:** NERC logo, search bar, and links for Account Log-In/Register and Contact Us.
- Navigation Bar:** Links for About NERC, Governance, Committees, **Program Areas & Departments** (circled in red), Standards, Initiatives, Filings & Orders, and Newsroom.
- Main Content Area:** A large image of power lines with the text: "The vision for the Electric Reliability Organization Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system. Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid."
- Footer:** RELIABILITY | RESILIENCE | SECURITY

**Headlines & News**

- ▶ APPA, E-ISAC Partner on Cybersecurity Summit November 13, 2020
- ▶ Robb to Participate in New England-Canada Business Council Conference November 09, 2020
- ▶ Collaboration, Coordination Key to Success in Addressing Risks November 05, 2020
- ▶ Cancel to Address Senior Canadian Electricity Executives November 02, 2020
- ▶ ERO Enterprise Further Extends Self-Logging Program Expansion and Deferment of On-Site Activities October 27, 2020
- ▶ Statement on FERC's October Open Meeting Action October 15, 2020

Newsroom Archives | Follow on Twitter @NERC\_Official | Follow on LinkedIn

**Standards**

NERC's Standards program ensures the reliability of the bulk power system by developing quality reliability standards in a timely manner that are effective, clear, consistent and technically sound.

**Electricity ISAC**

E-ISAC gathers security information, coordinates incident management, and communicates mitigation strategies with stakeholders within the electricity industry, across interdependent sectors, and with government partners.

**Calendar**

Standards	Reliability Risk Management
Reliability Assessment & Performance Analysis	Compliance
Board of Trustees	System Operator Certification and Continuing Education

View All Events

**Reliability Assessment & Performance Analysis**

The Reliability Assessment and Performance Analysis program assesses, measures and investigates historic trends and future projections to improve bulk power system reliability.



- NERC Homepage ([www.nerc.com](http://www.nerc.com))
  - Survey Results Addressed: Update Compliance Guidance Webpage

The screenshot shows the NERC homepage. The navigation bar includes links for About NERC, Governance, Committees, Program Areas & Departments (highlighted with a red circle), Standards, Initiatives, Filings & Orders, and Newsroom. A red arrow points from the 'Program Areas & Departments' link to a dropdown menu containing the following items: Compliance & Enforcement, Organization Registration and Certification, Standards, Electricity ISAC, Reliability Assessment & Performance Analysis, Reliability Risk Management, and System Operator Certification & Credential Maintenance Program.

The main content area features a large image of power lines and a text block stating: "The North American Electric Reliability Organization Enterprise, which is comprised of NERC and the six Regional Entities, is secure North American bulk power system. Our mission is to assure the effective and efficient reliability and security of the grid."

Below the main content area, there are several sections:

- Headlines & News:** A list of recent news items, including "APPA, E-ISAC Partner on Cybersecurity Summit" and "Cancel to Address Senior Canadian Electricity Executives".
- Calendar:** A table showing upcoming events, including "Standards", "Reliability Risk Management", "Compliance", and "System Operator Certification and Continuing Education".
- Standards:** A section with a large image of power lines and text stating: "NERC's Standards program ensures the reliability of the bulk power system by developing quality reliability standards in a timely manner that are effective, clear, consistent and technically sound."
- Electricity ISAC:** A section with a large image of a hand pointing at a screen displaying error messages and text stating: "E-ISAC gathers security information, coordinates incident management, and communicates mitigation strategies with stakeholders within the electricity industry, across interdependent sectors, and with government partners."
- Reliability Assessment & Performance Analysis:** A section with a line graph showing trends and text stating: "The Reliability Assessment and Performance Analysis program assesses, measures and investigates historic trends and future projections to improve bulk power system reliability."



- NERC Compliance Webpage
  - Survey Results Addressed: Update Compliance Guidance Webpage

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Home > Program Areas & Departments > Compliance & Enforcement

## Compliance & Enforcement

NERC's compliance efforts are comprised of key activities.

**Compliance Monitoring** is the process used to assess, investigate, evaluate, and audit in order to measure compliance with NERC Reliability Standards. Standards are developed, adopted, and approved through the Reliability Standards Development program and placed into effect pursuant to FERC orders or to applicable authorities in other North American jurisdictions. This statutory responsibility is set forth in section 215(e) of the Federal Power Act as well as 18 C.F.R. §39.7.

**Compliance Enforcement** is the process by which NERC issues sanctions and ensures mitigation of confirmed violations of mandatory NERC Reliability Standards. As part of these efforts, NERC can also issue directives to immediately address and deter new or further violations, irrespective of their presence or status (i.e., confirmed or alleged). Sanctioning of confirmed violations is determined pursuant to the NERC Sanction Guidelines and is based heavily upon the Violation Risk Factors and Violation Severity Levels of the standards requirements violated and the violations' duration. Entities found in violation of any standard must submit a mitigation plan for approval by NERC and, once approved, must execute this plan as submitted.

**Regional Entity Compliance Monitoring and Enforcement Programs** NERC relies on the Regional Entities to enforce the NERC Reliability Standards with bulk power system owners, operators, and users through approved regional delegation agreements. Regional Entities are responsible for monitoring compliance of the registered entities within their regional boundaries, assuring mitigation of all violations of approved Reliability Standards and assessing penalties and sanctions for failure to comply.

Regional hearing processes are available to resolve contested violations or penalties or sanctions. If resolution cannot be achieved at the regional level, NERC maintains an appeals process to hear disputes.

Registered entities or other relevant industry stakeholders can report any perceived inconsistency in the methods, practices, or tools of two or more Regional Entities through the Consistency Reporting Tool located on the [ERO Enterprise Program Alignment Process](#) page.

**Who Must Comply?**  
All bulk power system owners, operators, and users must comply with NERC-approved

**Program Contacts**

- NERC Certification
- NERC Registration
- NERC Enforcement

**Calendar**

View Compliance Events

**Standards, Compliance, and Enforcement Bulletins**

- Standards, Compliance, and Enforcement Bulletin - November 16–22, 2020  
November 16, 2020
- Standards, Compliance, and Enforcement Bulletin - November 9–15, 2020  
November 09, 2020
- Standards, Compliance, and Enforcement Bulletin - November 2–8, 2020  
November 02, 2020
- Standards, Compliance, and Enforcement Bulletin - October 26–November 1, 2020  
October 26, 2020
- Standards, Compliance, and Enforcement Bulletin - October 19–25, 2020  
October 19, 2020

[More Standards, Compliance, and Enforcement Bulletins](#)



- NERC Compliance Guidance Webpage
  - Survey Results Addressed: Update Compliance Guidance Webpage

The screenshot shows the NERC Compliance Guidance Webpage. The page has a blue header with the NERC logo and navigation links. The main content area is titled "Compliance Guidance" and contains text about the success of compliance monitoring and enforcement. A sidebar on the left lists various compliance-related topics. A table of "Key Resources" is highlighted with a red circle and labeled "1". A table of "Implementation Guidance" is highlighted with a red circle and labeled "2". A table of "CMEP Practice Guides" is highlighted with a red circle and labeled "3".

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About NERC Governance Committees Program Areas & Departments Standards Initiatives Filings & Orders Newsroom

Home > Program Areas & Departments > Compliance & Enforcement > Compliance Guidance

Compliance Guidance

A key factor in the success of compliance monitoring and enforcement of mandatory standards rests on a common understanding among industry and ERO Enterprise Compliance Monitoring and Enforcement Program (CMEP) staff of how compliance can be achieved and demonstrated. For many standards, this is straightforward. For others, a variety of approaches may achieve the same objective.

In November 2015, the NERC Board of Trustees approved the Compliance Guidance Policy, located under Key Resources. Compliance Guidance under the Compliance Guidance Policy includes two types:

- **Implementation Guidance**, which provides examples for implementing a standard; and
- **CMEP Practice Guides**, which provide direction to ERO Enterprise CMEP staff on approaches to carry out compliance monitoring and enforcement activities.

**Implementation Guidance** is developed by industry and vetted through pre-qualified organizations. In order for an organization to become pre-qualified, a member of that organization must submit an application to the Compliance and Certification Committee. Vetted examples can then be submitted to the ERO Enterprise for endorsement, and, if endorsed, the ERO Enterprise would give the example deference during CMEP activities with consideration of facts and circumstances. Implementation Guidance would not prescribe the only approach to implementing a standard and entities may choose alternative approaches that better fit their situation. Draft Implementation Guidance will be posted below while it is being considered for ERO Enterprise endorsement. Once the Implementation Guidance is endorsed, it will be moved to the ERO Enterprise-Endorsed Implementation Guidance section. Draft Implementation Guidance that does not receive ERO Enterprise endorsement will be removed.

CMEP Practice Guides are developed solely by the ERO Enterprise to reflect the independent, objective professional judgment of ERO Enterprise CMEP staff, and, at times, may be initiated following policy discussions with industry stakeholders. Following development, they are posted for transparency on the NERC website.

For additional information, please contact [complianceguidance@nerc.net](mailto:complianceguidance@nerc.net).

**Key Resources**

- Compliance Guidance Policy
- Implementation Guidance Development Aid
- Implementation Guidance Submittal Form
- Implementation Guidance Under Consideration or Development
- Non-Endorsed Implementation Guidance
- Pre-Qualified Organization Application
- Pre-Qualified Organizations Contact Information
- Pre-Qualified Organizations
- Retired Implementation Guidance
- Standards One-Stop Shop

**Implementation Guidance**

Type	Title	Date	Standards Family
ERO Enterprise-Endorsed Implementation Guidance (31)			
ERO Enterprise-Endorsed Implementation Guidance for Inactive Reliability Standards (1)			
Pre-qualified Implementation Guidance (2)			

**CMEP Practice Guides**

	Date	Standards Family
CMEP Practice Guide Phased Implementation Completion Percentages	3/24/2017	
CMEP Practice Guide: Deference for Implementation Guidance	5/20/2016	





- NERC Compliance Guidance Webpage
  - Key Resources





- NERC Compliance Guidance Webpage
  - Implementation Guidance

2 Implementation Guidance

Type	Title	Date	Standards Family
ERO Enterprise-Endorsed Implementation Guidance (31)			
CIP (20)			
FAC (1)			
MOD (1)			
PRC (4)			
TOP (3)			
	TOP-010-1(i) R3 and IRO-018-1(i) R2 - RTA Quality of Analysis (OC)	3/12/2020	TOP
	TOP-001-3 R13 and IRO-008-2 R4 Real Time Assessments (OC)	5/21/2018	TOP
	System Operating Limit Definition and Exceedance White Paper	3/24/2017	TOP
TPL (2)			
ERO Enterprise-Endorsed Implementation Guidance for Inactive Reliability Standards (1)			
Proposed Implementation Guidance (2)			
PRC (1)			
	PRC-019-2 Coordination of Voltage Control Systems Protection Systems and Equipment Capabilities (RSTC)	11/12/2020	PRC
TOP (1)			
	TOP-001-4 and IRO-002-5 Data Exchange Infrastructure and Testing (OC) - 2020	6/17/2020	TOP



- NERC Compliance Guidance Webpage
  - CMEP Practice Guides

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CMEP Practice Guides

Type	Title	Date	Standards Family
	CMEP Practice Guide Phased Implementation Completion Percentages	3/24/2017	
	CMEP Practice Guide: Deference for Implementation Guidance	5/20/2016	
	CMEP Practice Guide TOP-001-4 and IRO-002-5 Redundant and Diversely Routed	7/11/2018	TOP
	CMEP Practice Guide Information to be Considered by CMEP Staff Regarding Inverter-Based Resources_V1.1	3/15/2019	
	CMEP Practice Guide Calendar Month Annual	4/19/2019	
	CMEP Practice Guide BES Cyber System Information	4/26/2019	CIP
	CMEP Practice Guide Evaluation of Facility Ratings and System Operating Limits	6/17/2020	FAC
	CMEP Practice Guide TOP-002-4, R6, R7 Determination of Provisions of Operating Plans	7/15/2020	TOP
	CMEP Practice Guide Regarding Inverter-Based Resources	7/15/2020	
	CMEP Practice Guide - CIP-002-5.1a R1 - Generation Segmentation	9/15/2020	CIP
	CMEP Practice Guide - CIP-007-6 R1 Part 1.1 - SVCHost	9/15/2020	CIP



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A stylized map of North America is centered on the slide. The map is divided into three horizontal color bands: a light blue band across the top (Canada), a dark blue band across the middle (USA), and a light grey band across the bottom (Mexico). The text "Questions and Answers" is overlaid on the dark blue band.

# Questions and Answers