

NAGF News October - December 2023



Regulatory Advocacy and Collaboration - The NAGF continues to engage FERC, NERC, and Regional Entities through increased communications and participation on industry initiatives. During 4Q2023, the NAGF worked with membership to develop and provide formal comments regarding a number of active NERC projects and draft NERC Alerts thus helping to ensure that the technical capabilities, constraints, and economics of generator equipment are considered in the development of reliability policy.

Inside this edition:

2024 NAGF Membership Dues

NAGF Annual Compliance Conference

NAGF Activities

Working Groups

NAGF Opportunities to Influence

FERC and NERC Activity Highlights

2024 NAGF Membership Dues

The invoices for 2024 membership dues were emailed to the respective company contacts in December. Note that 2024 membership dues payment are net 30-days and dues amounts are unchanged from 2023. They can be paid by three methods:

- Credit card using the NAGF website link: <https://generatorforum.org/pay-now/>
(Please make sure you fill in all of the appropriate payment fields to ensure you get credit for the payment)
- Check mailed to the NAGF PO Box on the Invoice
- ACH initiated by the member company

Please feel free to contact the NAGF Treasurer - James Rappach jarappach@aep.com for assistance with dues payment and with any questions.

NAGF Annual Compliance Conference

The 13th Annual North American Generator Forum GENERating Reliability and Resiliency Compliance Conference was held on October 10 - 12, 2023 at NERC's offices in Atlanta, GA. The theme for this year's virtual meeting was generator reliability and resiliency. The event format was In-Person with a remote attendance option available. Presentations and recordings are available on the NAGF website home page and in the NAGF website file cabinet under the *Annual Compliance Conference* directory. Planning will begin soon for the 2024 conference so please reach out to Venona Greaff venona_greaff@oxy.com to provide input or to join the planning committee.

NAGF Activities

1. NAGF Formal Comments regarding NERC Projects

NERC instituted a prioritization process for the active NERC Projects that consists of 3 levels:

- High Priority - Projects to be completed by 2024. Consists of 11 active projects.
- Medium Priority – Projects to be completed by 2025 and beyond. Consists of 4 active projects.
- Low Priority – Consists of 10 projects.

See the "Reliability Standards Under Development" page on the NERC website for more details.

[Reliability Standards Under Development \(nerc.com\)](https://www.nerc.com/Reliability-Standards-Under-Development)

During the 4Q2023, the NAGF has been actively engaged in the following NERC Projects to help ensure the generator sector perspective is heard and understood:

- **Project 2016-02 CIP Standards Virtualization Modifications Draft #5
(NERC Priority Level: High)**

[Project 2016-02 Modifications to CIP Standards \(nerc.com\)](https://www.nerc.com/Project-2016-02-Modifications-to-CIP-Standards)

The NAGF CIP Working Group has been following this project and worked with membership to review/gather input regarding the proposed Draft #5 modifications. The NAGF comments were submitted during the ballot/formal comment period that ended November 29, 2023. The Draft #5 ballot passed (CIP-003, 004, 005, 007, and 010).

- **Project 2020-04: CIP-012 Draft #4
(NERC Priority Level – Medium)**

[Project 2020-04 Modifications to CIP-012 \(nerc.com\)](https://www.nerc.com/Project-2020-04-Modifications-to-CIP-012)

The purpose of this project is to address the FERC directive in Order No. 866 to develop modifications to the CIP Reliability Standards to require protections regarding the availability of communication links and data communicated between BES Control Centers. The NAGF CIPWG is following this project as well. NAGF comments for CIP012

Draft #4 were submitted to NERC during the balloting/formal comment period that ended November 2nd - ballot was approved.

- **Project 2020-06: Verification of Models and Data for Generators – IBR Glossary Terms**

(NERC Prioritization Level – Medium)

[Project 2020-06 Verifications of Models and Data for Generators \(nerc.com\)](#)

The purpose of this project is to revise MOD-026-1 and MOD-027-1 to clarify requirements related to IBRs and to require sufficient model verification to ensure accurate generator representation in dynamic simulations. The NAGF Variable Resources Working Group and the Standards Review Team are leading the efforts regarding this project. A webinar was held on October 10, 2023 to review the preliminary definitions and gather member input as a first step to developing draft NAGF comments. NAGF comments were submitted to NERC on October 24, 2023. Note that the SDT has revised the initial preliminary IBR Definitions and has reposted them as “Draft #1” with a ballot and formal comment period December 29, 2023 – January 9, 2024. The NAGF VRWG reviewed and gathered membership input regarding the proposed Draft #1 during its monthly webinar held on December 27, 2023. The NAGF VRWG and SRT will continue to monitor this project and keep membership informed accordingly.

- **Project 2021-02: VAR-002 Draft #3**

(NERC Priority Level: Low)

[Project 2021-02 Modifications to VAR-002-4.1 \(nerc.com\)](#)

The scope for this project is to revise VAR-002 to address issues regarding whether the Generator Operator of a dispersed power resource must notify its associated Transmission Operator upon a status change of a voltage controlling device on an individual generating unit; for example, if a single inverter goes offline in a solar facility. The NAGF Variable Resources Working Group continued its focus on this project by working with membership to develop formal comments for the proposed VAR-002-5 Draft #3 which were submitted during the comment period that ended November 6, 2023. The ballot for the proposed VAR-002 Draft #3 did not pass. The NAGF VRWG will continue to monitor this project and keep membership informed.

- **Project 2021-03: CIP-002 Draft #1**

(NERC Priority Level: High)

[Project 2021-03 CIP-002 \(nerc.com\)](#)

The purpose of this project is to:

- Transmission Owner Control Centers (TOCCs): Review CIP-002 and evaluate the categorization of TOCCs performing the functional obligations of a Transmission Operator, specifically those that meet medium impact criteria.
- CIP-002 & CIP-014: Review and replace/update the language “critical to the derivation of Interconnection Reliability Operating Limits (IROLs)” to appropriately identify Facilities that, if somehow compromised, could significantly impact the reliability of the Bulk Electric System (BES). In addition, perform a review of the applicability of Facilities identified by the Reliability Coordinator as critical to the derivation of IROLs to CIP-002 and CIP-014.
- CIP-002 Requirement R1 Parts 1.1 – 1.3: Consider if a protocol converter (aggregation of serial system-to-system communications from substations to Control Center BES Cyber Systems) meets the definition of a BES Cyber Asset by having an adverse impact to one or more facilities and the reliable operation on the BES.
- CIP-002: Revise CIP-002 to include identification and categorization of certain Cyber Assets (Electronic Access Control or Monitoring Systems, Physical Access Control Systems, and Protected Cyber Assets) associated with high and medium impact BES Cyber Systems.

The NAGF CIP Working Group worked with membership to gather input and develop NAGF formal comments which were submitted to NERC during the ballot/formal comment period that ended November 9, 2023. The Draft #1 ballot did not pass. The NAGF CIPWG will continue to monitor this project and keep membership informed.

- **Project 2021-07: Extreme Cold Weather Grid Operations, Preparedness, and Coordination**

(NERC Priority Level: High)

[Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination \(nerc.com\)](#)

The focus of this project is to address the nine (9) reliability related findings for new or enhanced NERC Reliability Standards proposed by the report from the Federal Energy Regulatory Commission (FERC), NERC, and Regional Entity Joint Staff Inquiry into the February 2021 Cold Weather Grid Operations published November 16, 2021. The NAGF CWPWG has been following this project through the various phases and postings. During the 4th quarter, the NAGF CWPWG held webinars to review and gather member input for the NAGF comment development effort regarding Phase 2 -EOP-012-2 Draft #2. The NAGF formal comments were submitted during the ballot/formal comment period that ended November 30, 2023. The Draft #2 ballot did not pass. The NAGF Cold Weather Preparedness Working Group will continue to monitor this project and keep membership informed.

- **Project 2021-08: FAC-008-6 Draft #1**

(NERC Priority Level – Low)

[Project 2021-08 Modifications to FAC-008 \(nerc.com\)](#)

The scope of this project is to modify FAC-008, including any associated defined terms, to:

- Clarify the term “jointly owned”, and what information is required to be shared with neighboring entities.
- Permit inclusion of non-electrical equipment in the determination of GO Facility Ratings (R1).

The NAGF SRT led the efforts to develop NAGF comments regarding the proposed draft FAC-008 Draft #1. The NAGF held a webinar on October 10, 2023 to review the proposed draft and gather membership input as a first step to developing NAGF comments. The NAGF comments were submitted to NERC during the formal comment period that ended October 19, 2023. The Draft #1 ballot did not pass. The NAGF SRT will continue to monitor this project and keep membership informed accordingly.

- **Project 2022-02: MOD-032 Draft #2**

(NERC Priority Level: Low)

[Project 2022-02 Modifications to TPL-001 and MOD-032 \(nerc.com\)](#)

The focus of this project is to revise TPL-001-5 to provide clarity, or in some cases, expand the scope of requirements when considering the performance of DERs to ensure the accuracy of Transmission System Planning Assessments. Revisions to MOD-032-1 will address gaps in data collection for the purposes of modeling aggregate levels of DERs in planning assessments. The goal is to provide clarity and consistency for data collection across PCs and TPs when coordinating with the DP to gather aggregate load and aggregate DER data. The NAGF SRT Working Group worked with membership to develop NAGF formal comments on the proposed MOD-032-2 Draft #2. The NAGF formal comments were submitted to NERC during the ballot/comment period that ended November 20, 2023. The ballot for MOD-032-2 Draft #2 did not pass. The NAGF SRT will continue to monitor this project and keep membership informed accordingly.

- **Project 2023-04: CIP- 003 Draft #1**

(NERC Priority Level: High)

[Project 2023-04 Modifications to CIP-003 \(nerc.com\)](#)

The purpose of this project is to enhance low impact BES cyber systems to further mitigate a coordinated attack risk. This project will revise CIP-003-9 to add controls to authenticate

remote users, protect the information in transit, and detect malicious communications for assets containing low impact BES Cyber Systems with external routable connectivity. The NAGF CIP Working Group held a webinar on November 27, 2023 to gather membership input for developing draft NAGF comments. The NAGF finalized and submitted its comments during the ballot/formal comment period that ended December 7, 2023. The ballot for Draft #1 did not pass. The NAGF CIPWG will continue to monitor this project and keep membership informed accordingly.

- **NERC Rules of Procedure Inverter-Based Resources Revisions**

The proposed revisions were developed in response to a FERC directive to register owners and operators of inverter-based resources (IBR) that are connected to and have a material impact in the aggregate to the bulk power system (BPS), but are not currently required to register with NERC under the Bulk Electric System (BES) definition. The NAGF Variable Resources Working Group held a webinar on October 19, 2023 to review the proposed changes and gather membership input. NAGF comments were developed and submitted to NERC on October 30, 2023. The NAGF VRWG will continue to monitor this activity and keep membership informed.

- Pending:

- **Project 2020-06: IBR Glossary Terms Draft #1**

- The NAGF Variable Resources Working Group Monthly webinar was held on December 27th @ 11:00 am EST to review/discuss the proposed Draft #1 glossary terms and gather member input as a first step to developing NAGF comments.
 - 1Q2024 NERC “High Priority” Projects related to IBRs:
 - Project 2020-02: Modifications to PRC-024 (Gen Ride Through)
 - Project 2021-04: Modifications to PRC-002
 - Project 2023-02: Analysis and Mitigation of BES IBR Performance issues.
 - FERC Order 901 SARs

2. NAGF Bi-Weekly News Bullets

As part of the on-going effort to communicate GO/GOP regulatory and reliability issues of importance to NAGF membership in a timely manner, the NAGF continues to provide a short biweekly email identifying important current or upcoming activities. If you have any feedback or a topic to suggest for the bi-weekly news bullets communication, please contact Allen Schriver, NAGF Policy Coordinator aschriv@generatorforum.org.

4. NAGF 4Q2023 Quarterly Member Webinar

The NAGF has quarterly webinars to enhance communication and engage NAGF members regarding recent NAGF activities, upcoming initiatives, and acquire member feedback regarding activities of interest. The 4Q2023 webinar was held on 12/14/23. Meeting minutes were emailed to membership and are available in the NAGF website file cabinet under the “Meetings\Quarterly\2023” folder. Please contact Allen Schriver, NAGF Policy Coordinator aschriv@generatorforum.org for more information.

5. NAGF Communications to Members

During the 4Q2023, the NAGF continued to provide members notifications regarding important current or upcoming reliability and resiliency activities, educational opportunities, and opportunities to shape future policy:

- NAGF Bi-Weekly News Bullets
- NAGF Quarterly Newsletters
- NERC Projects – NAGF comment development
- Working Group Monthly Webinar reminders

6. NAGF Staffing Addition - NAGF Policy Coordinator

The NAGF Board of Directors is pleased to announce that Allen Schriver has rejoined the NAGF as the NAGF Policy Coordinator. Allen will be responsible for providing member communications, working group support, and virtually participating in NERC/FERC activities.

Working Group Updates

The NAGF currently has six (6) Working Groups. A short summary of 4Q2023 Working Group activities is provided below along with Working Group Leader's contact information if you would like to join the group:

Cold Weather Preparedness **David Lemmons, Greybeard CS** davidl@greybeardcs.com
Jennifer Taylor, BP Wind jennifer.taylor@bp.com

The Cold Weather Preparation Working Group continues to work with the Project 2021-07 Cold Weather Standard drafting Team to develop a reasonable and efficient standard to address improved generator and Balancing Authority performance during cold weather events. The drafting team has been responsive to the recommendations submitted by the NAGF. The primary issues identified by the NAGF in the most recent proposed standard were addressed as of this date, although modifications to the standard are still possible. In addition to the efforts related to the proposed standard, the CWPWG has been working with members to provide assistance with issues seen during audits and development of cold weather plans to address EOP-011-2 and EOP-012-1. The CWPWG meets monthly and all members are welcome to attend.

CIP **Matthew Hartung, EDP Renewables** matthew.hartung@edpr.com
Kelly Crist, ENGIE NA kelly.crist@engie.com

The CIP Working Group is charged with reviewing cyber security issues that impact the generation sector. During 4Q2023, this working group continued to monitor the following NERC projects under development:

- Project 2016-02: Modification to CIP Standards
- Project 2020-04: Modifications to CIP-012
- Project 2022-05: Modifications to CIP-008 Reporting Thresholds
- Project 2023-03: INSM SAR
- Project 2023-04: Modifications to CIP-003 SAR
- Project 2023-06 - CIP-014 Risk Assessment Refinement

This working group holds monthly meetings on the second Tuesday of every month (meeting information is located on the NAGF website event calendar). This working group meets monthly and is open to all NAGF members.

Markets and Policy **Leadership Opportunity**

The focus of this new working group is on FERC, NERC, and other government entity activities that impact the energy markets as well as energy policies applicable to electric generators. The kick-off webinar for this new working group is scheduled for January 24, 2024 from 2-3 pm EST. If you are interested in leading this working group, please contact Allen Schriver aschriver@generatorforum.org.

Physical Security **Jarod Bleiweiss, NAES** jarod.bleiweiss@naes.com

The NAGF Physical Security working group is focused on sharing of generator physical security issues as well as promoting physical security practices, threat mitigation strategies, incident prevention/response, training, and other relevant topics to enhance generator physical security and reliability. This working group held its quarterly webinar on December 18th during which items discussed included E-ISAC Physical Security Bulletins of Interest, interest in Vendor presentations, and Active NERC Projects Under Development:

- Project 2023-01: EOP-004 IBR Event Reporting

- Project 2023-06: CIP-014 Risk Assessment Refinement

The next meeting/webinar is scheduled for March 5, 2024 from 1-2 pm EST. This working group meets quarterly and is open to all NAGF members.

Standards Review Team

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The Standards Review Team (SRT) works directly with NERC to address Generator Owners and Generator Operators' concerns regarding enforceable standards and standards under development. The SRT is currently reviewing the following high and medium priority projects:

- Project 2016-02 Modifications to CIP Standards
- Project 2020-02: Modifications to PRC-024-4
- Project 2020-04 Modifications to CIP-012
- Project 2020-06 Verifications of Models and Data for Generators
- Project 2021-01 Modifications to MOD-025 and PRC -019
- Project 2021-03: CIP-002
- Project 2021-04: Modifications to PRC-002
- Project 2021-07 Extreme Cold Weather Grid Operations
- Project 2022-03: Energy Assurance with Energy-Constrained Resources
- Project 2023-01 EOP-004 IBR Event Reporting
- Project 2023-02 Performance of IBRs
- Project 2023-03 INSM
- Project 2023-04 Modifications to CIP-003
- Project 2023-06: CIP-014 Risk Assessment Refinement

The SRT generally meets on the first Wednesday of every month and is open to all NAGF members (meeting information is located on the NAGF Group site event calendar). The next monthly meeting is scheduled for January 3, 2024.

Variable Resources

Blake Huddleston, ENGIE
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The Variable Resources Working Group's focus is on NERC Reliability Standards implementation and best practice sharing for utility scale Variable Resources (mainly for wind and solar) connected at transmission voltages of 100kV or greater. Distributed Energy Resources (DER) topics are also welcomed in this working group. During Q42023, topics included active NERC Projects on IBRs and recent NERC Data Requests. This group is open to all NAGF members and occurs on the fourth Wednesday of every month (meeting information is located on the NAGF website event calendar). The next meeting will be held on January 24, 2024.

NAGF Opportunities to Influence

What can the NAGF do to provide value to its members? Challenging generator compliance, operations, or equipment technical issues are unlikely to be unique and membership input on such issues helps to define the direction of the organization as well as provide value to its members. Important issues can be raised via the NAGF Group site Discussion Board, through working group participation, or by contacting Allen Schriver, NAGF Policy Coordinator aschriver@generatorforum.org.

FERC and NERC Activity Highlights

1. NERC Inverter-Based Resources Work Plan and FERC Order 901

FERC Docket No. RM22-4-000 - Registration of Non-BES Inverter-Based Resources (IBRs)

On November 17, 2022, the Federal Energy Regulatory Commission (FERC) directed NERC to file a work plan to identify and register unregistered owners and operators of IBR that in the aggregate, materially impact the reliable operation of the Bulk-Power System. NERC will require entities who own and/or operate IBR non-BES inverter-based generating resources that have an aggregate nameplate

capacity of greater than or equal to 20 MVA delivering such capacity to a common point of connection at a voltage greater than or equal to 60 kV to be Registered and to follow NERC Standards. NERC has posted draft revisions to the NERC Rules of Procedure (ROP) on its website, sought comments and is now considering these comments. NERC plans to present a Consideration of Comments Matrix and updated ROP proposal to the NERC Board of Trustees (Board) in February of 2024. NERC will also post a Whitepaper on this in January 2024.

FERC Docket No. RD22-12-000: Reliability Standards to Address Inverter-Based Resources (Issued October 19, 2023)

FERC is requiring NERC to:

- By November 4, 2024, NERC must submit new or modified Reliability Standards that establish IBR performance requirements, including requirements addressing frequency and voltage ride through, post disturbance ramp rates, phase lock loop synchronization, and other known causes of IBR tripping or momentary cessation. NERC must also submit, by November 4, 2024, new or modified Reliability Standards that require disturbance monitoring data sharing and post-event performance validation for registered IBRs.
 - By November 4, 2025, NERC must submit new or modified Reliability Standards addressing the interrelated directives concerning: (1) data sharing for registered IBRs, unregistered IBRs, and IBR-DERs in the aggregate; and (2) data and model validation for registered IBRs, unregistered IBRs, and IBRDERS in the aggregate.
 - By November 4, 2026, NERC must submit new or modified Reliability Standards addressing planning and operational studies for registered IBRs, unregistered IBRs, and IBR-DERs in the aggregate.
- [Federal Register :: Reliability Standards To Address Inverter-Based Resources](#), pages 9-10

2. FERC Reliability Technical Conference

At the FERC Reliability Technical Conference held on November 9, 2023, Jim Robb, NERC CEO posed the following in his opening statement:

“The bulk power system (BPS) is at an inflection point. The electric transmission grid is highly reliable and resilient and has grown more so under the current reliability regime. Yet the risk profile to customers is steadily deteriorating. Factors contributing to this deterioration include:

- Rapid, often disorderly transformation of the generation resource base,
- Performance issues associated with replacement resources as conventional units retire,
- Wide-area, long duration extreme weather events, which are becoming more frequent,
- And increased demand due to electrification, coupled with slow development of new energy infrastructure needed to support grid resilience and the clean energy future.”

<https://www.ferc.gov/media/nerc-2023-statement>

FERC and NERC in agreement on:

Need to focus on recommendations for action to help prevent loss of generation during future extreme winter weather events. The Winter Storm Elliot Report identifies recommendations that cover cold weather reliability improvements for power generators, natural gas infrastructure, gas-electric coordination and electric grid operations. FERC Chairman Willie Phillips stated that we must make major improvements to the cold weather reliability of both the natural gas and electricity production and grid systems. He also noted that someone must have authority to establish and enforce natural gas reliability standards and called attention to a letter from the Market Monitors of all six RTOs and ISOs expressing support for the recommendations in NAESB’s gas/electric harmonization reform report which endorsed creation of a NERC-like reliability organization for the natural gas industry.

<https://www.ferc.gov/news-events/news/ferc-nerc-release-final-report-lessons-winter-storm-elliott>

In addition, both FERC Chairman Willie Phillips and NERC President and CEO Jim Robb noted they remain concerned about the potential closure of the Everett Marine LNG Terminal (Everett) in New England and the impact it might have for the reliability and affordability of the region’s energy supplies.

<https://www.ferc.gov/news-events/news/joint-statement-ferc-nerc-reliability>

3. NERC Board of Trustee Meeting 12/12/2023

Board Chair Ken DeFontes described the urgent need to strengthen winterization standards and expressed disappointment that the recent vote on the cold weather preparation standard EOP-012-2 failed to pass. As a result, NERC is in danger of not meeting FERC's February 16, 2024, deadline for a revised standard. NERC will be requesting the Standards Committee to authorize a further procedural waiver to attempt another ballot immediately following the Holidays. He noted that if the Standards Committee does not authorize this waiver, or the January ballot does not pass the Board will have no other choice but to invoke a special rule to address FERC directives.

<https://www.nerc.com/news/Headlines%20DL/Board%2012DEC23.pdf>

4. FERC-NERC-Texas RE Blackout Study Report

The subject study was presented at the FERC Commission Meeting on December 19th. The study which was prepared by staff from FERC, NERC and the regional entities, evaluated the availability of "blackstart" resources in the Texas Interconnection during extreme cold weather conditions. The study recommends that state and other authorities with jurisdiction facilitate and moderate engagement among all entities necessary for developing and implementing blackstart system restoration plans. It also recommends that they assess the impact of a blackout on the natural gas supply chain and develop a coordinated blackstart system restoration plan that meets the needs of both the electric and natural gas industries.

<https://ferc.gov/news-events/news/blackstart-study-recommends-collaboration-planning-resilience>