Supporting Statement for

**FERC-725G, Mandatory Reliability Standards for the Bulk-Power System: PRC Standards, as modified by**

**the Proposed Rule in RM25-3-000**

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review and approve FERC-725G, Mandatory Reliability Standards for the Bulk-Power System: Protection and Control (PRC) Standards (Newly implemented PRC standards PRC-024-4 and PRC-029-1) under OMB Control Number 1902-0252. PRC-024-4 and PRC-029-1 are reliability standards for frequency and voltage protection settings and ride-through for Inverter-Based Resources (IBR).

Along with,

FERC-725G,Mandatory Reliability Standards for the Bulk-Power System: PRC Standards; (update to PRC-2-5, PRC-28-1, PRC30-1) in Order in Docket No. RD25-1-000,RD25-2-000,RD25-3-000, DLO published 2/26/2025.

1. **CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY**

On August 8, 2005, The Electricity Modernization Act of 2005, which is Title XII of the Energy Policy Act of 2005 (EPAct 2005), was enacted into law[[1]](#footnote-3). EPAct 2005 added a new section 215 to the Federal Power Act (FPA), which requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, subject to Commission review and approval.

Section 215 of the FPA requires a Commission-certified ERO to develop mandatory and enforceable Reliability Standards, subject to Commission review and approval.**[[2]](#footnote-4)** Once approved, the Reliability Standards may be enforced by the ERO subject to Commission oversight or by the Commission independently.**[[3]](#footnote-5)** In 2006, the Commission certified the North American Electric Reliability Corporation (NERC) as the ERO[[4]](#footnote-6) pursuant to section 215 of the FPA.**[[5]](#footnote-7)**

On March 16, 2007 (pursuant to section 215(d) of the FPA), the Commission issued Order No. 693, approving 83 of the 107 initial Reliability Standards filed by NERC. Order 693 addressed several Personal Performance, Training, and Qualification (PER) and Protection and Control (PRC) Reliability Standards. Some of them were approved, but others were approved with a Commission directive for NERC to make modifications. In the intervening years, numerous changes have been made to update, eliminate, or establish various Reliability Standards.

1. **HOW, BY WHOM, AND FOR WHAT PURPOSE THE INFORMATION IS TO BE USED AND THE CONSEQUENCES OF NOT COLLECTING THE INFORMATION**

**Final Rule RM25-3**

On November 4, 2024,[[6]](#footnote-8) in response to directives in Order No. 901, NERC submitted for Commission approval the proposed definition of the term Ride-through for the NERC Glossary of Terms, proposed Reliability Standards PRC-024-4 and PRC-029-1, the associated violation risk factors and violation severity levels, implementation plans and effective dates for Reliability Standards PRC-024-4 and PRC-029-1, and the retirement of currently effective Reliability Standard PRC-024-3.[[7]](#footnote-9) NERC asserts that proposed Reliability Standards PRC-024-4 and PRC-029-1 would ensure that applicable Bulk-Power System-connected resources ride-through system disturbances, avoiding reliability risks associated with unnecessary tripping and momentary cessation.[[8]](#footnote-10)

As a result, the Commission approved proposed Reliability Standards PRC-024-4 (Frequency and Voltage Protection Settings for Synchronous Generators, Type 1 and Type 2 Wind Resources, and Synchronous Condensers) and PRC-029-1 (Frequency and Voltage Ride-through Requirements for Inverter-Based Resources).

**DLO for RD25-1-000, RD25-2-000, RD25-3-000**

In general, information collection and record retention requirements related to Reliability Standards are not submitted to, or retained for audit by, FERC. Rather they are submitted to, or retained for audit by, NERC or the Compliance Enforcement Authority, as specified in each individual Reliability Standard. Absent the collections of information associated with Reliability Standards, reliability of the bulk-power system could become compromised, potentially resulting in outages.

Section 215 of the Federal Power Act (FPA)[[9]](#footnote-11) requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. The Commission has certified the North American Reliability Corporation (NERC) as the ERO. In addition, a Regional Entity may propose Reliability Standards to be effective in that region.**[[10]](#footnote-12)** Once approved, Reliability Standards may be enforced by the ERO subject to Commission oversight or by the Commission independently.

In the NERC PRC-028-1 Petition, NERC explains that proposed Reliability Standards PRC-028-1 and PRC-002-5 comply in part with the Commission’s directives in Order No. 901 regarding disturbance monitoring requirements for IBRs**[[11]](#footnote-13)** and would improve reliability by ensuring the availability of data from synchronous generating resources and IBRs necessary to facilitate the analysis of disturbances on the Bulk-Power System.**[[12]](#footnote-14)** NERC states that although Reliability Standard PRC-002-4 generally serves the purpose of capturing event data to analyze system disturbances, the disturbance monitoring requirements of the existing Standard do not apply to many IBRs, given their technical and operational characteristics.**[[13]](#footnote-15)** NERC explains that proposed Reliability Standard PRC-028-1 would address this reliability gap by extending disturbance monitoring and reporting requirements to all IBRs that are or will be subject to the Reliability Standards.**[[14]](#footnote-16)**

Proposed Reliability Standard PRC-028-1 applies to generator owners that own bulk-electric system IBRs, as well as generator owners that own non-bulk electric system IBRs that NERC will register under NERC’s registry criteria for IBR generator owners and generator operators.**[[15]](#footnote-17)** The proposed Standard would require applicable entities to install disturbance monitoring equipment on their IBRs in order to collect sequence of event recording, fault recording, and dynamic disturbance recording data.**[[16]](#footnote-18)** NERC explains that data collected under the proposed Standard would be used to evaluate IBR ride-through performance during system disturbances and provide data for IBR model validation to assist operators and planners in better accounting for IBR performance in the future.**[[17]](#footnote-19)** Additionally, the proposed Standard would require IBR generator owners to address failures of disturbance monitoring recording capabilities by either restoring function within specified timeframes or submitting corrective action plans indicating how and when recording capabilities would be restored.**[[18]](#footnote-20)**

Proposed Reliability Standard PRC-002-5 would replace Reliability Standard PRC-002-4 and clarify its applicability to non-IBR bulk electric system elements.**[[19]](#footnote-21)** Further, proposed Reliability Standard PRC-002-5 adds data collection and sharing requirements, as well as data formatting requirements, similar to those in proposed Reliability Standard PRC-028-1.**[[20]](#footnote-22)**

NERC describes its proposed implementation plan for Reliability Standards PRC‑028-1 and PRC-002-5 as “a risk-based, phased-in compliance approach” that would require generator owners to implement disturbance monitoring equipment by no later than 2030.**[[21]](#footnote-23)** NERC further proposes a process by which generator owners may request an extension to implementation deadlines because of potential constraints outside of a generator owner’s control, such as supply chain delays.**[[22]](#footnote-24)**

The NERC PRC-030-1 Petition explains that proposed Reliability Standard PRC-030-1 was developed as part of a set of Reliability Standards in response to directives in Order No. 901 to develop requirements that address IBR ride-through settings and performance, data recording, and analysis and mitigation of unexpected IBR performance.**[[23]](#footnote-25)** The purpose of proposed Reliability Standard PRC-030-1 is to “[i]dentify, analyze, and mitigate unexpected [IBR] change of power output.”**[[24]](#footnote-26)** The proposed Reliability Standard covers both bulk electric system IBRs and non-bulk electric system IBRs**[[25]](#footnote-27)** and is applicable to generator owners that own: (1) IBRs that meet the bulk electric system definition criteria, and (2) non-bulk electric system IBRs that NERC will register in accordance with its Rules of Procedure.**[[26]](#footnote-28)**

Proposed Reliability Standard PRC-030-1 requires applicable entities to implement a documented process for the identification of any “complete facility loss of output or certain changes of real power output” and contains both thresholds**[[27]](#footnote-29)** for identification and exclusions from identification measures.**[[28]](#footnote-30)** Further, the Standard requires applicable entities in certain circumstances to conduct and report, if requested, an analysis of a real power change event.**[[29]](#footnote-31)** When identified as necessary by the required analysis, a generator owner must develop and implement a corrective action plan to address performance issues or provide a technical justification**[[30]](#footnote-32)** as to why corrective actions will not be implemented.**[[31]](#footnote-33)** Proposed PRC-030-1 further requires generator owners to update corrective action plans if corrective actions or schedules change, and notify associated reliability coordinators of completion of or changes to the corrective action plan. According to NERC, proposed PRC-030-1 is responsive to the Commission’s directive in Order No. 901 requiring NERC to develop Reliability Standards that require generator owners to communicate actual post-disturbance ramp rates to relevant planning coordinators, transmission planners, reliability coordinators, transmission operators, and balancing authorities.**[[32]](#footnote-34)**

NERC’s proposed implementation plan states that proposed Reliability Standard PRC-030-1 will become effective on the later of the first day of the first calendar quarter that is 12 months after the effective date of the Commission’s order approving (1)Reliability Standard PRC-030-1 or (2) Reliability Standard PRC‑029‑1 (Frequency and Voltage Ride-through Requirements for Inverter-Based Generating Resources).**[[33]](#footnote-35)** NERC’s proposed implementation plan further provides a phased-in compliance approach where bulk electric system IBRs must comply with all four requirements of Reliability Standard PRC-030-1 no later than the effective date of the Standard. Applicable non-bulk electric system IBRs must comply with all four requirements by the later of January 1, 2027, or the effective date of Reliability Standard PRC-030-1. NERC asserts that this phased-in implementation approach satisfies the Commission’s directive in Order No. 901 for all directed Reliability Standards to be effective and enforceable prior to 2030.**[[34]](#footnote-36)**

Notice of NERC’s three November 4, 2024, petitions were published in the *Federal Register*, 89 Fed. Reg. 88993 (Nov. 12, 2024), with interventions and protests due on or before December 4, 2024. Calpine Corporation, North Carolina Electric Membership Corporation, Solar Energy Industries Association, American Clean Power Association, Orsted Wind Power North America LLC, Invenergy Renewables, LLC, Dominion Energy Virginia, Eversource Energy Service Company, and RENEW Northeast, Inc. all filed timely motions to intervene in all or one of the dockets addressed in this order. Pursuant to Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2024), the timely, unopposed motions to intervene serve to make the entities that filed them parties to the proceedings in which they were filed. No comments or protests were submitted in any of the three dockets.

Pursuant to section 215(d)(2) of the FPA, we approve the proposed IBR definition for inclusion in the NERC Glossary, as well as proposed Reliability Standards PRC-028-1, PRC-002-5, and PRC-030-1, as just and reasonable and not unduly discriminatory or preferential and in the public interest.**[[35]](#footnote-37)** We also approve the proposed Reliability Standards’ associated violation risk factors and violation severity levels, as well as the proposed implementation plans. Finally, we approve the retirement of Reliability Standard PRC‑002-4 immediately prior to the effective date of proposed Reliability Standard PRC‑002‑5.

We determine that the proposed IBR definition and proposed Reliability Standards PRC-028-1, PRC-002-5, and PRC-030-1 satisfy many of the Commission’s relevant directives from Order No. 901 to establish performance requirements and requirements for sharing disturbance monitoring data and post-disturbance ramp rates for registered IBRs.**[[36]](#footnote-38)** Given the increase in the amount of IBRs connecting to the Bulk-Power System, as well as the importance of the new IBR definition and Reliability Standards PRC-028-1 and PRC‑030-1 to maintaining the reliable operation of the Bulk-Power System, we strongly encourage entities that are capable of complying earlier than the mandatory and enforceable

The FERC-725G now included the following PRC Reliability Standards:

**PRC-024-4**

* NERC explains that proposed Reliability Standard PRC-024-4 removes language relating to IBR functionality in Requirements R1, R2, R3, and R4 because IBR performance requirements are included in proposed Reliability Standard PRC-029-1. Instead, proposed Reliability Standard PRC-024-4 would maintain capability-based requirements for synchronous generators, synchronous condensers, and type 1 and type 2 wind resources because synchronous units do not require performance-based requirements to ride-through system disturbances.
* Specifically, NERC modified section 4.1.1 to restrict the applicability of proposed Reliability Standard PRC-024-4 to synchronous generators and type 1 and type 2 wind resources, and NERC added section 4.2.2 to include synchronous condensers and associated equipment as applicable facilities.

**PRC-029-1 - proposed Requirements: R1-R4**

**R1**

Under proposed Requirement R1 each generator owner of a NERC-registered IBR must “ensure the design and operation is such that each IBR meets or exceeds Ride-through requirements, in accordance with the ‘must Ride-through zone’ as specified in Attachment 1” of proposed Reliability Standard PRC-029-1, except in the following four conditions specified by the Standard:**[[37]](#footnote-39)**

* The IBR needed to electrically disconnect in order to clear a fault;
* The voltage at the high-side of the main power transformer went outside an accepted hardware limitation, in accordance with Requirement R4;
* The instantaneous positive sequence voltage phase angle change is more than 25 electrical degrees at the high-side of the main power transformer and is initiated by a non-fault switching event on the transmission system; or
* The Volts per Hz (V/Hz) at the high-side of the main power transformer exceed 1.1 per unit for longer than 45 seconds or exceed 1.18 per unit for longer than 2 seconds.**[[38]](#footnote-40)**

**R2**

Under proposed Requirement R2, each generator owner of a NERC-registered IBR must adhere to voltage ride-through performance criteria during system disturbances unless a documented hardware limitation exists in accordance with Requirement R4.[[39]](#footnote-41) NERC asserts that proposed Requirement R2 satisfies the following directives: (1) that NERC develop performance-based Reliability Standards that require IBRs to ride-through voltage system disturbances; and (2) that IBRs inject current and perform frequency support during a disturbance by requiring IBRs remain connected and fulfill control and regulation functions to Ride-through a system disturbance.[[40]](#footnote-42)

**R3**

Under proposed Requirement R3, each generator owner of a NERC-registered IBR must ensure that its IBR adheres to ride-through requirements during frequency excursion events by continuing to exchange current and remain electrically connected in accordance with the “must ride-through zone” as specified in the proposed Reliability Standard’s Attachment 2 and while the “absolute rate of change of frequency (RoCoF) magnitude is less than or equal to 5 Hz/second, unless a documented hardware limitation exists in accordance with Requirement R4.”[[41]](#footnote-43) NERC explains that proposed Requirement R3 contains a wider frequency ride-through band than presently exists in Reliability Standard PRC-024-3 and is consistent with IEEE 2800-2022.[[42]](#footnote-44)

**R4**

Proposed Requirement R4 would allow each generator owner of an existing legacy IBR, i.e., one in service by the effective date of PRC-029-1, to obtain an exemption to the voltage and frequency ride-through requirements if the generator owner would need hardware replacements to comply with Requirements R1 through R3. The generator owner must submit documentation to the relevant Compliance Enforcement Authority—typically a Regional Entity—that “must accept that all aspects of the documentation specified in proposed Requirement R4 have been provided by the Generator Owner before an exemption can [be] granted.”**[[43]](#footnote-45)** According to NERC, this last requirement “would ensure that NERC has visibility into each hardware exemption that is granted and that [it has] been accurately limited to the particular limitation of the hardware.”**[[44]](#footnote-46)**

NERC explains that it determined that an exemption process for generator owners of legacy IBRs for voltage and frequency performance requirements is necessary. In its petition, NERC expressed concern that hardware limitations would lead entities to take units offline to retrofit IBRs or risk noncompliance and could determine that the economically prudent course of action is to retire the units.**[[45]](#footnote-47)** The implementation plan gives generator owners 12 months to request an exemption following the effective date of the Reliability Standard, after which NERC will not accept further exemption requests.**[[46]](#footnote-48)** If the hardware causing the limitation is replaced later, the generator owner must communicate this information to the planning coordinator, transmission planner, reliability coordinator, and transmission operator within 90 days of the hardware replacement and comply with Requirements R1 through R3.**[[47]](#footnote-49)** Further, NERC explains that the exemptions must be specific and limited to the voltage or frequency bands and associated duration that cannot be satisfied or as to the number of cumulative voltage deviations within a ten-second period that the equipment can ride-through if it is less than four deviations within any ten-second period.**[[48]](#footnote-50)**

NERC asserts that proposed Requirement R4 meets the directive that NERC determine whether the new or modified Reliability Standards provide an opportunity for certain generator owners of IBRs that are currently in operation and unable to meet performance requirements to request an exemption from voltage ride-through performance requirements.**[[49]](#footnote-51)** NERC determined that a frequency exemption was also necessary and appropriate because of hardware-based capability limitations for a significant amount of installed IBRs, a concern that was raised during the IBR technical conference convened by NERC.**[[50]](#footnote-52)**

The Commission directs NERC to develop and submit a single informational filing, to the Commission, 18 months after the conclusion of the exemption request period in proposed Requirement R4 to assess the reliability impacts of the exemptions in a timely and comprehensive manner. The Commission directs NERC to include in its informational filing an assessment of the reliability impacts of the exemptions with the following datafor (1) each Interconnection and (2) each reliability coordinator area (within that Interconnection) within the United States:

* Total number of IBRs for which NERC-registered generator owners will be subject to compliance with Reliability Standard PRC-029-1;
* Aggregated megawatts (MW) capacity of IBRs for which NERC-registered generator owners will be subject to compliance with Reliability Standard PRC-029-1;
* Total number of IBRs for which NERC-registered generator owners requested exemptions;
* Aggregated MW capacity of IBRs for which NERC-registered generator owners requested exemptions;
* Total number of IBRs for which NERC-registered generator owners were granted exemptions;
* Aggregated MW capacity of IBRs for which NERC-registered generator owners were granted exemptions;
* Total number of granted exemptions by exemption type (voltage and/or frequency);
* Aggregated MW capacity of granted exemptions by exemption type (voltage and/or frequency);
* Total number of granted exemptions by IBR type (wind, solar PV, BESS, fuel cell); and
* Aggregated MW capacity of granted exemptions by IBR type (wind, solar PV, BESS, fuel cell).

Additionally, the informational filing must also include an analysis of the reasons that entities provided for exemptions (both granted and denied), an evaluation of the efficacy of the exemption process, and any recommendations to modify either the substance or procedural aspects of the exemption process.

The following PRC standards are currently incorporated in FERC-725G: PRC-002, PRC-006, PRC-012, PRC-019, PRC-023, PRC-024, PRC-025, PRC-026, PRC-027, PRC-028, PRC-029, and PRC-030. A high-level description of the purpose of each standard is provided below with details of the requirements and measures (reporting requirements), and evidence retention requirements (reporting requirements) provided in the ROCIS Supplementary document section.

**PRC-002-5 (Disturbance Monitoring and Reporting Requirements)**

Purpose is to have adequate data available to facilitate analysis of Bulk Electric System (BES) Disturbances.

**PRC-006-5 (Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance)**

Purpose: To establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures.

**PRC-012-2 (Remedial Action Schemes)**

Purpose: To ensure that Remedial Action Schemes (RAS) do not introduce unintentional or unacceptable reliability risks to the Bulk Electric System (BES).

**PRC-019-2 (Coordination of Generating Unit or Plant Capabilities, Voltage**

**Regulating Controls, and Protection)**

Purpose is to verify coordination of generating unit Facility or synchronous condenser voltage regulating controls, limit functions, equipment capabilities and Protection System settings.

**PRC-023-6 (Transmission Relay Loadability)**

Purpose: Protective relay settings shall not limit transmission loadability; not interfere with system operators’ ability to take remedial action to protect system reliability and; be set to reliably detect all fault conditions and protect the electrical network from these faults.

**PRC-024-4 (Frequency and Voltage Protection Settings for Synchronous Generators, Type 1 and Type 2 Wind Resources, and Synchronous Condensers)**

Purpose is to assure that protection of synchronous generators, type 1 and type 2 wind resources, and synchronous condensers do not cause tripping during defined frequency and voltage excursions in support of the Bulk Power System (BPS).

**PRC-025-2 (Generator Relay Loadability)**

Purpose is to set load-responsive protective relays associated with generation Facilities at a level to prevent unnecessary tripping of generators during a system disturbance for conditions that do not pose a risk of damage to the associated equipment.

**PRC-026-2 (Relay Performance During Stable Power Swings)**

Purpose is to ensure that load-responsive protective relays are expected to not trip in response to stable power swings during non-Fault conditions.

**PRC-027-1 (Coordination of Protection Systems for Performance During Faults)**

Purpose is to maintain the coordination of Protection Systems installed to detect and isolate Faults on Bulk Electric System (BES) Elements, such that those Protection Systems operate in the intended sequence during Faults.

**PRC-029-1 (Frequency and Voltage Ride-through Requirements for Inverter-based Resource)**

Purpose is to ensure that IBRs Ride-through to support the Bulk Power System (BPS) during and after defined frequency and voltage excursions.

1. **DESCRIBE ANY CONSIDERATION OF THE USE OF IMPROVED INFORMATION TECHNOLOGY TO REDUCE THE BURDEN AND TECHNICAL OR LEGAL OBSTACLES TO REDUCING BURDEN**

The use of current or improved technology is not covered in Reliability Standards and is therefore left to the discretion of each reporting entity. Commission staff estimates that nearly all of the respondents are likely to make and keep related records in an electronic format. Each of the eight Regional Entities has a well-established compliance portal for registered entities to electronically submit compliance information and reports. The compliance portals allow documents developed by the registered entities to be attached and uploaded to the Regional Entity’s portal. Compliance data can also be submitted by filling out data forms on the portals. These portals are accessible through an internet browser password protected user interface.

1. **DESCRIBE EFFORTS TO IDENTIFY DUPLICATION AND SHOW SPECIFICALLY WHY ANY SIMILAR INFORMATION ALREADY AVAILABLE CANNOT BE USED OR MODIFIED FOR USE FOR THE PURPOSE(S) DESCRIBED IN INSTRUCTION NO. 2**

The Commission periodically reviews filing requirements concurrent with OMB review or as the Commission deems necessary to eliminate duplicative filing and to minimize the filing burden. This information is not available elsewhere. Reliability Standards are developed by a collaborative process which requires industry participation. The Commission is unaware of any other source of information similar to the additional requirements.

The standard-developing group (the ERO and various stakeholders) think these areas need to be addressed and documented as indicated in the NERC Petition.

1. **METHODS USED TO MINIMIZE THE BURDEN IN COLLECTION OF INFORMATION INVOLVING SMALL ENTITIES**

Small entities generally can reduce their burden by taking part in a joint registration organization or a coordinated function registration. These options allow an entity the ability to share its compliance burden with other similar entities.

Detailed information regarding these options is available in NERC’s Rules of Procedure at sections 507 and 508.

1. **CONSEQUENCE TO FEDERAL PROGRAM IF COLLECTION WERE CONDUCTED LESS FREQUENTLY**

PRC Reliability Standards on Bulk-Power System elements are an integral part of reliable grid operation. Protection systems are designed to detect and isolate faulty elements on a system, thereby limiting the severity and spread of system disturbances, and preventing possible damage to protected elements. The Commission finds that the currently effective Reliability Standards do not adequately address the risks posed by the increasing numbers of IBRs connecting to the Bulk-Power System. The collection cannot be collected less frequently, as the voltage and frequency protection must be set to avoid tripping during defined frequency and voltage excursions. The ride-through requirements of proposed PRC-029, Requirements R1 through R3 should strengthen the reliability of the Bulk-Power System by ensuring that IBRs are designed and operated to remain connected to the Bulk-Power system and continue to inject real and/or reactive current during system disturbances. PRC Reliability Standards were established such that the declining frequency is arrested and recovered in accordance with NPCC performance requirements. The collection cannot be collected less frequently, as the proper targets need to be set in terms load tripping at the required frequency set points. Over time the amount of load on will change and if not reviewed it may result in missing targeted values and cause frequency decline that would trip generation leading to widespread uncontrolled outages.

Each transmission owner, generator owner, and distribution provider

shall provide its planning coordinator, transmission operator, and reliability

coordinator with an updated list of circuits associated with those transmission line

relays at least once each calendar year.

1. **EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION**

There are no special circumstances as described in 5 CFR 1320.5(d)(2).

1. **DESCRIBE EFFORTS TO CONSULT OUTSIDE THE AGENCY: SUMMARIZE PUBLIC COMMENTS AND THE AGENCY’S RESPONSE TO THESE COMMENTS**

The ERO process to develop Reliability Standards is a collaborative process involving the ERO, Regional Entities and other stakeholders developing and reviewing drafts, and providing comments, vetting, and voting (possibly multiple rounds) on the standards, with the final proposed standard submitted to the FERC for review and approval.

**Final Rule RM25-3**

The NOPR for RM25-3 was issued on December 19, 2024, and published in the Federal Register on January 21, 2025. There were 20 comments received. Comments mostly supported approving the two reliability standards. Some recommendations comments and recommendations are provided below:

Commenters generally support the NOPR proposal to approve the proposed definition of the term Ride-through and proposed Reliability Standard PRC-024-4 as maintaining a protection-based standard for synchronous resources, as well as the removal of references to IBRs.  Although many commenters supported approving proposed Reliability Standard PRC-029-1, several raised concerns with the exception and exemption provisions therein.

* The Commission received comments about the proposed Standard on the following topics, discussed below:  (1) approving proposed Reliability Standard PRC-029-1; (2) requests for a new exception under Requirement R1 for certain HVDC-connected IBRs and a new exemption under Requirement R4 for long-lead time projects; and (3) requests for clarity regarding the documentation necessary to secure exemptions.

Responses:

* The Commission adopted the NOPR proposal to approve the addition of the term Ride-through to the NERC Glossary of Terms because the term will provide a clear and consistent understanding of the term when used in Reliability Standards.
* Proposed Reliability Standard PRC-029-1 fulfills the IBR performance requirement directives of Order No. 901. The Commission found that Requirements R1 through R3 will strengthen the reliability of the Bulk-Power System by addressing abnormal tripping, interruption of current injection, and reduced power output.  Further, the Commission concluded that NERC developed a reasonable process in Requirement R4 for generator owners to seek an exemption to Requirements R1 through R3 for hardware limitations.
* The Commission adopted the NOPR proposal to approve the exceptions under Requirement R1 and exemptions for legacy IBRs under Requirement R4 of proposed Reliability Standard PRC-029-1 as proposed by NERC.  As noted by NERC, the proposed Reliability Standards, including the proposed exceptions and exemptions, were drafted consistent with the Commission’s directives in Order No. 901. However, the Commission directed NERC to determine whether, and if so how, to account for the equipment limitations of HVDC-connected IBRs with choppers and long-lead time projects.
* Lastly, the Commission directed NERC to develop modifications to proposed Requirement R4 of PRC-029-1 responsive to the concern that some legacy IBRs may not be able to secure the necessary documentation for an exemption due to circumstances outside of their control.

The Final Rule was published on July 29, 2025.

**DLO RD25-1-000,RD25-2-000,RD25-3-000**

The Commission published a 60-day notice[[51]](#footnote-53) in Docket No. RD25-1-000, RD25-2-000, RD25-3-000 in the Federal Register requesting comments. No comments were received in response to the 60-day Notice.

In addition, the Commission is publishing a 30-day Notice in the Federal Register**[[52]](#footnote-54)**.

1. **EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS**

The Commission does not make payments or provide gifts for respondents related to these collections.

1. **DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS**

According to the NERC Rules of Procedure, “…a Receiving Entity shall keep in confidence and not copy, disclose, or distribute any Confidential Information or any part thereof without the permission of the Submitting Entity, except as otherwise legally required.” This serves to protect confidential information submitted to NERC or Regional Entities.

Responding entities do not submit the information collected for Reliability Standards to FERC. Rather, they submit the information to NERC, the regional entities, or maintain it internally. Since there are no submissions made to FERC, FERC provides no specific provisions in order to protect confidentiality.

1. **PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE, SUCH AS SEXUAL BEHAVIOR AND ATTITUDES, RELIGIOUS BELIEFS, AND OTHER MATTERS THAT ARE COMMONLY CONSIDERED PRIVATE.**

This collection does not contain any questions of a sensitive nature.

1. **ESTIMATED BURDEN OF COLLECTION OF INFORMATION**

**Final Rule RM25-3**

The Commission’s request to OMB will reflect the following:

The Commission bases its paperwork burden estimates on the additional paperwork burden presented by Reliability Standards PRC-024-4 and PRC-029-1, as modified, and new Reliability Standards, respectively, and the directive for NERC to submit one informational filing related to ride-through exemption requests.**216**  Reliability Standards are objective-based and allow entities to choose compliance approaches best tailored to their systems.  The NERC Compliance Registry, as of September 2024, identifies the following unique U.S. entities that are subject to mandatory compliance with Reliability Standard PRC-024-4:  1,294 generator owners will have an additional compliance burden.  It is estimated that there will be no additional compliance burden for transmission owners that have synchronous condensers, as that data is not included in the NERC Compliance Registry, and transmission owners are already subject to Reliability Standard PRC-024-3.  The estimated unique U.S. entities subject to Reliability Standard PRC-029-1 compliance are based on numbers supplied by NERC, with 591 registered generator owners that own bulk electric system (BES) battery, solar, and wind facilities and 781 generator owners that own non-BES facilities.**217**  Based on these assumptions, we estimate the following reporting burden:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Proposed Changes in Burden PRC-024-4 Docket No. RM25-3-000 | | | | | |
| Reliability Standard | Type and Number of Entity**218** (1) | Number of Annual Responses Per Entity (2) | Total Number of Responses (1)\*(2)=(3) | Average Number of Burden Hours per Response**219**(4) | Total Burden Hours (3)\*(4)=(5) |
| Annual Collection PRC-024-4 FERC-725G | | | | | |
| Annual review and record retention | 1,294 (GO) | 1 | 1,294 | 20 hrs. $ 63.52/hr | 25,880 hrs. $ 1,643,897.60 |
| Total for PRC-024-4 |  |  | 1,294 | 20 hrs. $ 63.52/hr | 25,880 hrs. $ 1,643,897.60 |

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| Annual Changes Proposed in the Final Rule Approving Reliability Standard PRC-029-1 in Docket No. RM25-3-000 | | | | | |
| Reliability Standard | Type and Number of Entity**220** (1) | Number of Annual Responses Per Entity (2) | Total Number of Responses  (1)\*(2)=(3) | Average Number of Burden Hours per Response**221**(4) | Total Burden Hours  (3)\*(4)=(5) |
| Annual Collection PRC-029-1 FERC-725G | | | | | |
| Annual review and record retention | 591 (BES IBR GO) | 1 | 591 | 40 hrs.  $ 63.52/hr. | 23,640 hrs.  $ 1,501,612.80 |
| 781 (Non-BES IBR GO) | 1 | 781 | 80 hrs.  $ 63.52/hr. | 62,480 hrs.  $ 3,968,729.60 |
| Total for PRC-029-1 |  |  | 1,372 |  | 86,120 hrs.  $ 5,470,342.40 |

The responses and burden hours for Years 1-3 will total respectively as follows:

* Year 1-3 each:  for Reliability Standard PRC-024-4 will be 1,294 responses; 25,880 hours; and
* Year 1-3 each:  for Reliability Standard PRC-029-1 will be 1,372 responses; 86,120 hours.
* The annual cost burden for each year One to Three is $1,643,897.60 for Reliability Standard PRC-024-4; and $5,470,342.40 for Reliability Standard PRC-029-1.

**DLO 25-1-000, RD25-2-000, RD25-3-000**

The Commission bases its paperwork burden estimates on the additional paperwork burden presented by the proposed revisions to Reliability Standard PRC-002-5 and new Reliability Standards PRC-028-1 and PRC-030-1.  The new glossary term Inverter-Based Resource (IBR) is not expected to generate any new burden as it is a definition used within the body of Reliability Standards.  Reliability Standards are objective-based and allow entities to choose compliance approaches best tailored to their systems. As of November 20, 2024, the NERC Compliance Registry identified 12 reliability coordinators, 325 transmission owners, and 1,238 generator owners as unique U.S. entities that are subject to mandatory compliance with Reliability Standard PRC-002-5. Additionally, these entities will have additional burdens given that the revisions to Reliability Standard PRC-002-5 will focus on synchronous generation and updates to SER, FR, and DDR data being supplied to the reliability coordinator, regional entity, or NERC. Burden estimates for the unique U.S. entities for new PRC-028-1 and PRC-030-1 are taken from numbers supplied by NERC, with 591 registered generator owners that own bulk electric system solar and wind facilities and a median 755 generator owners that own non bulk electric system facilities. Based on these assumptions, we estimate the following reporting burden:

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| **Proposed Changes in Burden PRC-002-5 Docket No. RD25-1** | | | | | |
| **Reliability Standard** | **Type and Number of Entity[[53]](#footnote-55)**  **(1)** | **Number of Annual Responses Per Entity**  **(2)** | **Total Number of Responses**  **(1)\*(2)=(3)** | **Average Number of Burden Hours per Response[[54]](#footnote-56)**  **(4)** | **Total Burden Hours**  **(3)\*(4)=(5)** |
| **Annual Collection PRC-002-5 FERC-725G** | | | | | |
| **Annual review and record retention** | 12 (RC) | 1 | 12 | 8 hrs.  $ 70.67/hr. | 96 hrs.  $ 6,784.32 |
| 325 (TO) | 1 | 325 | 8 hrs.  $ 70.67/hr. | 2,600 hrs.  $ 183,742.00 |
| 1,238 (GO) | 1 | 1,238 | 8 hrs.  $ 70.67/hr. | 9.904 hrs.  $ 699,915.68 |
| **Total for PRC-002-5** |  |  | **1,575** |  | 12,600 hrs.  $ 890,442.00 |

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| **Proposed Burden PRC-028-1 Docket No. RD25-2** | | | | | |
| **Reliability Standard** | **Type and Number of Entity[[55]](#footnote-57)**  **(1)** | **Number of Annual Responses Per Entity**  **(2)** | **Total Number of Responses**  **(1)\*(2)=(3)** | **Average Amount of Burden Hours per Response[[56]](#footnote-58)**  **(4)** | **Total Burden Hours**  **(3)\*(4)=(5)** |
| **Annual Collection PRC-028-1 FERC-725G** | | | | | |
| **Annual review and record retention** | 591 (BES IBR GO) | 1 | 591 | 80 hrs.  $ 70.67/hr. | 47,280 hrs.  $ 3,341,277.60 |
| 755 (Non-BES IBR GO) | 1 | 755 | 80 hrs.  $ 70.67/hr. | 60,400 hrs.  $ 4,268,468.00 |
| **Total for PRC-028-1** |  |  | **1,346** |  | 107,680 hrs.  $ 7,609,745.60 |

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| **Proposed Burden PRC-030-1 Docket No. RD25-3** | | | | | |
| **Reliability Standard** | **Type and Number of Entity[[57]](#footnote-59)**  **(1)** | **Number of Annual**  **Responses Per Entity**  **(2)** | **Total Number of Responses**  **(1)\*(2)=(3)** | **Average Number of Burden Hours per Response[[58]](#footnote-60)**  **(4)** | **Total Burden Hours**  **(3)\*(4)=(5)** |
| **Annual Collection PRC-030-1 FERC-725G** | | | | | |
| **Annual review and record retention** | 591 (BES IBR GO) | 0.5 | 296 | 40 hrs.  $ 70.67/hr. | 11,840 hrs.  $ 836,732.80 |
| 755 (Non-BES IBR GO) | 0.5 | 378 | 40 hrs.  $ 70.67/hr. | 15,120 hrs.  $ 1,068,530.40 |
| **Total for PRC-030-1** |  |  | 674 |  | 26,960 hrs.  $ 1,905,263.20 |

The responses and burden hours for Years 1-3 will total respectively as follows:

* Year 1-3 each: for proposed Reliability standard PRC-002-5 will be 1,575 responses; 12,600 hours;
* Year 1-3 each: for proposed Reliability Standard PRC-028-1 will be 1,346 responses; 107,680 hours; and
* Year 1-3 each: for proposed Reliability Standard PRC-030-1 will be 674 responses; 26,960 hours.
* The annual cost burden for each Year 1-3 is $890,442.00 for proposed Reliability Standard PRC-002-5; $7,609,745.60 for Proposed Reliability Standard PRC-028-1; and $1,905,263.20 for proposed Reliability Standard PRC-030-1.

1. **ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS**

There is no start-up, capital, or other non-labor hour cost associated with the Paperwork Reduction Act (PRA) aspects of this Final Rule in RM25-3-000. All costs are associated with burden hours and are addressed in Questions 12 and 15.

1. **ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT**

The Regional Entities and NERC do most of the data processing, monitoring and compliance work for Reliability Standards. Any involvement by the Commission is covered under the FERC-725 collection (OMB Control No. 1902-0225) and is not part of this request or package.

The PRA Administrative Cost (estimate of $7,978 per collection annually) is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act of 1995 (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. This average annual cost includes requests for extensions, all associated rulemakings or orders, and other changes to the collection, as well as necessary publications in the Federal Register.

|  |  |  |
| --- | --- | --- |
|  | **Number of Employees (FTE)** | **Estimated Annual Federal Cost** |
| Analysis and Processing of filings[[59]](#footnote-61) | 0 | 0 |
| PRA Administrative Cost |  | $7,978 |
| **FERC Total** |  | $7,978 |

1. **REASONS FOR CHANGES IN BURDEN INCLUDING THE NEED FOR ANY INCREASE**

**Final Rule RM25-3**

The adoption of new Reliability Standard PRC-029-1 and the revised PRC-024-4 would result in an increase in the number of responses and annual time burden. PRC-024-4 will increase the annual number of responses from 1,003 to 1,294 and an increase to the annual time burden from 8,024 to 25,880 .

The responses and burden hours for Years 1-3 will total respectively as follows:

* Year 1-3 each:  for Reliability Standard PRC-024-4 will be 1,294 responses; 25,880 hours; and
* Year 1-3 each:  for Reliability Standard PRC-029-1 will be 1,372 responses; 86,120 hours.
* The annual cost burden for each year One to Three is $1,643,897.60 for Reliability Standard PRC-024-4; and $5,470,342.40 for Reliability Standard PRC-029-1.

**DLO RD25-1-000, RD25-2-000, RD25-3-000**

The following table shows the total burden for the collection of information. The format, labels, and definitions of the table follow the ROCIS submission system’s “Information Collection Request Summary of Burden” for the metadata.

**Program Change Due to Agency Discretion**

Increase was due to newly adopted PRC-028-1 and PRC-30-1. There was an increase in responses and decrease in burden hours for PRC-002-5 version update from 595 to 1,575 in responses and 59,450 to 12,600 in burden hours.

The responses and burden hours for Years 1-3 will total respectively as follows:

* Year 1-3 each: for proposed Reliability standard PRC-002-5 will be 1,575 responses; 12,600 hours;
* Year 1-3 each: for proposed Reliability Standard PRC-028-1 will be 1,346 responses; 107,680 hours; and
* Year 1-3 each: for proposed Reliability Standard PRC-030-1 will be 674 responses; 26,960 hours.
* The annual cost burden for each Year 1-3 is $890,442.00 for proposed Reliability Standard PRC-002-5; $7,609,745.60 for Proposed Reliability Standard PRC-028-1; and $1,905,263.20 for proposed Reliability Standard PRC-030-1.

**Program Change due to Adjustment in Estimate**

* PRC-23-6 One time 1-3 years responses and burden hours were removed because years 3 has ended.

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| --- | --- | --- | --- | --- |
| **FERC-725G** | **Total Request** | **Previously Approved** | **Change due to Adjustment in Estimate** | **Change Due to Agency Discretion** |
| Annual Number of Responses | 21,052 | 17,032 | -643 | +4,663 |
| Annual Time Burden (Hr.) | 1,015,811 | 833,184 | -9139 | +191,766 |
| Annual Cost Burden ($) | 0 | 0 | 0 | 0 |

1. **TIME SCHEDULE FOR PUBLICATION OF DATA**

There are no data publications.

1. **DISPLAY OF EXPIRATION DATE**

The expiration date is posted at <https://www.ferc.gov/enforcement-legal/legal/information-collections> .

1. **EXCEPTIONS TO THE CERTIFICATION STATEMENT**

The Commission does not use statistical methods for these collections.

1. The Energy Policy Act of 2005, Pub. L. No 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005), codified at 16 U.S.C. 824o (2006). [↑](#footnote-ref-3)
2. Id. 824o(c), (d). [↑](#footnote-ref-4)
3. Id. 824o(e). [↑](#footnote-ref-5)
4. “Electric Reliability Organization” or “ERO” means the organization certified by the Commission the purpose of which is to establish and enforce Reliability Standards for the Bulk-Power System, subject to Commission review. [↑](#footnote-ref-6)
5. North American Electric Reliability Corp., 116 FERC ¶ 61,062, order on reh’g and compliance, 117 FERC ¶ 61,126 (2006), order on compliance, 118 FERC ¶ 61,190, *order on reh’g*, 119 FERC ¶ 61,046 (2007), *aff’d sub nom. Alcoa Inc. v. FERC*, 564 F.3d 1342 (D.C. Cir. 2009). [↑](#footnote-ref-7)
6. Following the issuance of Order No. 901, NERC submitted an informational filing that included its Order No. 901 Work Plan with four key milestones for meeting the directives of Order No. 901. Milestone 1: submit Work Plan (completed Jan. 17, 2024). Milestone 2: submit new or modified Reliability Standards to address performance requirements and post-event performance validation for registered IBRs (completed with NERC’s filing of three petitions on Nov. 4, 2024). Milestone 3: submit new or modified Reliability Standards to address data sharing and model validation by Nov. 4, 2025. Milestone 4: submit new or modified Reliability Standards to address planning and operational studies requirements for all IBRs by Nov. 4, 2026. NERC, Informational Filing Regarding the Development of Reliability Standards Responsive to Order No. 901, Docket No. RM22-12-000, at 6 (filed Jan. 17, 2024). [↑](#footnote-ref-8)
7. NERC Petition at 2-3, 5. Proposed Reliability Standards PRC-024-4 and PRC-029-1 are not attached to this notice of proposed rulemaking. The proposed Reliability  
   Standards are available on the Commission’s eLibrary document retrieval system in Docket No. RM25-3-000 and on the NERC website, www.nerc.com. [↑](#footnote-ref-9)
8. *Id.* at 1, 19. [↑](#footnote-ref-10)
9. 16 U.S.C. 824o [↑](#footnote-ref-11)
10. 16 U.S.C. § 824o(e)(4). A Regional Entity is an entity that has been approved by the Commission to enforce Reliability Standards under delegated authority from the ERO. *See* 16 U.S.C. § 824o(a)(7) and (e)(4). [↑](#footnote-ref-12)
11. NERC states that proposed Reliability Standard PRC-028-1 does not address the Commission’s Order No. 901 directive regarding the validation of registered IBR models using disturbance monitoring data, which NERC intends to address during Milestone 3 of its Order No. 901 Work Plan. *See* NERC PRC-028-1 Petition at 35-36. [↑](#footnote-ref-13)
12. *Id.* at 19. [↑](#footnote-ref-14)
13. *Id.* at 21-22. [↑](#footnote-ref-15)
14. *Id.* at 2. [↑](#footnote-ref-16)
15. *Id.* at 22; *see also* NERC, *Rules of Procedure*, App. 5B (Statement of Compliance Registry Criteria) (June 27,2024), https://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx. [↑](#footnote-ref-17)
16. NERC PRC-028-1 Petition at 23-31. [↑](#footnote-ref-18)
17. *Id.* at 2. [↑](#footnote-ref-19)
18. *Id.* at 34-35. [↑](#footnote-ref-20)
19. *Id.* at 38. [↑](#footnote-ref-21)
20. *See id.* [↑](#footnote-ref-22)
21. *Id.* at 39. [↑](#footnote-ref-23)
22. *Id.* [↑](#footnote-ref-24)
23. *See* NERC PRC-030-1 Petition at 1; *see also* Order No. 901, 185 FERC ¶ 61,042 at P 208. [↑](#footnote-ref-25)
24. NERC PRC-030-1 Petition at 16. [↑](#footnote-ref-26)
25. Applicable non-bulk electric system IBRs include those non-bulk electric system IBRs that either have or contribute to an aggregate nameplate capacity of greater than or equal to 20 MVA, connected through a system designed primarily for delivering such capacity to a common point of connection at a voltage greater than or equal to 60 kV. *See id.* at 17, 32. [↑](#footnote-ref-27)
26. *See N. Am. Elec. Reliability Corp.*,183 FERC ¶ 61,116, at P 52 (2023) (citing *Registration of Inverter-based Res*., 181 FERC ¶ 61,124, at P 33 (2022) (directing NERC to ensure IBR owners and operators are registered and required to comply with applicable Reliability Standards within 36 months of Commission approval of the NERC Registration Work Plan (May 18, 2026))). [↑](#footnote-ref-28)
27. Proposed Reliability Standard PRC-030-1 establishes a minimum threshold of at least 20 MW and at least 10% of the plant’s gross nameplate rating, occurring within a four second period, that NERC states would make the self-identification of events manageable for both small and large facilities. *See* NERC PRC-030-1 Petition at 19. [↑](#footnote-ref-29)
28. *Id.* at 18, 21 (describing those slower changes in Real Power that are excluded from the identification requirements in Requirement R1 because they are anticipated with normal operations or expected responses). [↑](#footnote-ref-30)
29. *Id.* at 22-24. [↑](#footnote-ref-31)
30. Primary characteristics of an acceptable technical justification for not performing corrective actions include “interconnection requirements on IBR performance extending beyond those in place at the time of interconnection” and corrective actions would require significant material modifications or a qualified change. *See id.* at 26. [↑](#footnote-ref-32)
31. *Id.* at 24. [↑](#footnote-ref-33)
32. *See* Order No. 901, 185 FERC ¶ 61,042 at P 208. [↑](#footnote-ref-34)
33. *See* NERC PRC-030-1 Petition at 32. [↑](#footnote-ref-35)
34. *See* Order No. 901, 185 FERC ¶ 61,042 at P 226. [↑](#footnote-ref-36)
35. 16 U.S.C. 824o(d)(2). [↑](#footnote-ref-37)
36. *See* Order No. 901, 185 FERC ¶ 61,042 at PP 1-8. [↑](#footnote-ref-38)
37. *Id.* at 25. [↑](#footnote-ref-39)
38. *Id.* at 26. [↑](#footnote-ref-40)
39. *Id.* at 29-33. [↑](#footnote-ref-41)
40. *Id.* at 42. [↑](#footnote-ref-42)
41. *Id.* at 33. [↑](#footnote-ref-43)
42. *Id.* at 36. [↑](#footnote-ref-44)
43. *Id.* at 40. [↑](#footnote-ref-45)
44. *Id.* [↑](#footnote-ref-46)
45. *Id.* at 38. [↑](#footnote-ref-47)
46. *Id.* at 37. [↑](#footnote-ref-48)
47. *Id.* at 41. [↑](#footnote-ref-49)
48. *Id.* at 39. [↑](#footnote-ref-50)
49. *Id.* at 44. [↑](#footnote-ref-51)
50. *Id.* at 38-39. [↑](#footnote-ref-52)
51. 90 FR 10717, February 26, 2025 [↑](#footnote-ref-53)
52. 90 FR 34857, July 24, 2025 [↑](#footnote-ref-54)
53. The “Number of Entity” data is compiled from the November 20, 2024, edition of the NERC Compliance Registry. [↑](#footnote-ref-55)
54. The estimated hourly cost (salary plus benefits) is a combination of the following categories from the Bureau of Labor Statistics (BLS) website, http://www.bls.gov/oes/current/naics2\_22.htm: 75% of the average of an Electrical Engineer (17-2071) $79.31/hr., $79.31 x 0.75 = $59.4825 ($59.48/hour); and 25% of an Information and Record Clerk (43-4199) $44.74/hr., $44.74 x 0.25 = 11.185 ($11.19/hour); for a total of ($59.48+$11.19 = **$70.67/hour**). [↑](#footnote-ref-56)
55. The “Number of Entity” data is compiled from the November 20, 2024, edition of the NERC Compliance Registry. [↑](#footnote-ref-57)
56. The estimated hourly cost (salary plus benefits) is a combination of the following categories from the Bureau of Labor Statistics (BLS) website, http://www.bls.gov/oes/current/naics2\_22.htm: 75% of the average of an Electrical Engineer (17-2071) $79.31/hr., $79.31 x 0.75 = $59.4825 ($59.48/hour); and 25% of an Information and Record Clerk (43-4199) $44.74/hr., $44.74 x 0.25 = $11.185 ($11.19/hour); for a total of ($59.48 + $11.19 = **$70.67/hour**). [↑](#footnote-ref-58)
57. The “Number of Entity” data is compiled from the November 20, 2024, edition of the NERC Compliance Registry. [↑](#footnote-ref-59)
58. The estimated hourly cost (salary plus benefits) is a combination of the following categories from the Bureau of Labor Statistics (BLS) website, http://www.bls.gov/oes/current/naics2\_22.htm: 75% of the average of an Electrical Engineer (17-2071) $79.31/hr., 79.31 x 0.75 = 59.4825 ($59.48/hour); and 25% of an Information and Record Clerk (43-4199) $44.74/hr., $44.74 x 0.25% = 11.185 ($11.19/hour); for a total of ($59.48 + $11.19 = **$70.67/hour**). [↑](#footnote-ref-60)
59. Based on the Commission’s FY (Fiscal Year) 2025 average cost (for wages plus benefits), $103.00/hour is used. [↑](#footnote-ref-61)