Supporting Statement for

**FERC-725S (Mandatory Reliability Standards: Emergency Preparedness**

**and Operations (EOP) Reliability Standards)**

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review and approve modifications to the FERC-725S (Mandatory Reliability Standards: Emergency Preparedness and Operations (EOP) Reliability Standards) under OMB Control No. 1902-0270 for a three-year period. The FERC-725S collection was modified in Docket No. RD23-1-000 (Order Approving Extreme Cold Weather Reliability Standards EOP-011-3 and EOP-012-1 and Directing Modification of Reliability Standard EOP-012-1).

EOP-011-1 is the most recently replaced standard with version EOP-011-2 going into effect on April 1, 2023. After the Commission approved EOP-011-2, NERC revised that standard and submitted a revised version, EOP-011-3 and new EOP-012-1 to further update the Emergency Preparedness and Operations Standards. The updates in RD23-1-000 are from NERC’s petition’s submitted Standards (EOP-011-3 and EOP-012-1) that were approved by the Commission February 16, 2023, with their effective dates starting in 2024.

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

**Background.** On August 8, 2005, The Electricity Modernization Act of 2005, which is Title XII of the Energy Policy Act of 2005[[1]](#footnote-3) (EPAct 2005), was enacted into law. EPAct 2005 added a new section 215 to the Federal Power Act (FPA),**[[2]](#footnote-4)** which requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, subject to Commission review and approval. Once approved by the Commission, the Reliability Standards may be enforced by the ERO, subject to Commission oversight, or by the Commission independently.

In 2006, the Commission certified North American Electric Reliability Corporation (NERC) as the ERO pursuant to section 215 of the FPA.

Pursuant to section 215 of the Federal Power Act (FPA),[[3]](#footnote-5) the Commission has approved Emergency Preparedness and Operations (EOP) Reliability Standards EOP-004-4 (Event Reporting), EOP-005-3 (System Restoration from Blackstart Resources), EOP-006-3 (System Restoration Coordination), EOP-008-2 (Loss of Control Center Functionality), EOP-010-1 (Geomagnetic Disturbance Operations), and EOP-011-2 (Emergency Operations) submitted by the North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO). The Commission also approved the associated violation risk factors, violation severity levels, implementation plans, and effective dates of the Reliability standards EOP-004-4, EOP-005-3, EOP-006-3 and EOP-008-2, EOP-010-1, and EOP-011-2.

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

FERC-725S consists of Emergency Preparedness and Operations (EOP) Reliability Standards, EOP-004-4 (Event Reporting), EOP-005-3 (System Restoration from Blackstart Resources), EOP-006-3 (System Restoration Coordination), and EOP-008-2 (Loss of Control Center Functionality), EOP-010-1 (Geomagnetic Disturbance Operations), and EOP-011-1 (Emergency Operations). These Reliability Standards enhance reliability by:

(1) providing accurate reporting of events to NERC’s event analysis group to analyze the impact on the reliability of the bulk electric system (Reliability Standard EOP-004-4).

(2) delineating the roles and responsibilities of entities that support system restoration from blackstart resources which generate power without the support of the bulk electric system (Reliability Standard EOP-005-3).

(3) clarifying the procedures and coordination requirements for reliability coordinator personnel to execute system restoration processes (Reliability Standard EOP-006-3).

(4) refining the required elements of an operating plan used to continue reliable operations of the bulk electric system in the event that primary control center functionality is lost (Reliability Standard EOP-008-2).

(5) addressing the effects of operating Emergencies by ensuring each Transmission Operator and Balancing Authority has developed Operating Plan(s) to mitigate operating Emergencies, and that those plans are coordinated within a Reliability Coordinator Area (EOP-010-1).

(6) streamlining the requirements for Emergency operations of the Bulk Electric

System. Attachment 1 [to the Standard], which is incorporated into Requirements R2 and R6, provides the process and descriptions of the levels used by the Reliability Coordinator when communicating the condition of a Balancing Authority that is experiencing an Energy Emergency (EOP-011-1).

**EOP-004-4 Requirements and Measures**

**R1.** Each Responsible Entity shall have an event reporting Operating Plan in accordance with EOP-004-4 Attachment 1 that includes the protocol(s) for reporting to the Electric Reliability Organization and other organizations (e.g., the Regional Entity, company personnel, the Responsible Entity’s Reliability Coordinator, law enforcement, or governmental authority).

**M1.** Each Responsible Entity will have a dated event reporting Operating Plan that includes protocol(s) and each organization identified to receive an event report for event types specified in EOP-004-4 Attachment 1 and in accordance with the entity responsible for reporting.

**R2.** Each Responsible Entity shall report events specified in EOP-004-4 Attachment 1 to the entities specified per their event reporting Operating Plan by the later of 24 hours of recognition of meeting an event type threshold for reporting or by the end of the Responsible Entity’s next business day (4 p.m. local time will be considered the end of the business day).

**M2.** Each Responsible Entity will have as evidence of reporting an event to the entities specified per their event reporting Operating Plan either a copy of the completed EOP-004-4 Attachment 2 form or a DOE-OE-417 form; and some evidence of submittal (e.g., operator log or other operating documentation, voice recording, electronic mail message, or confirmation of facsimile) demonstrating that the event report was submitted by the later of 24 hours of recognition of meeting an event type threshold for reporting or by the end of the Responsible Entity’s next business day (4 p.m. local time will be considered the end of the business day).

**EOP-004-4 Evidence Retention**

The Responsible Entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

• Each Responsible Entity shall retain the current Operating Plan plus each version issued since the last audit for Requirement R1, and Measure M1.

• Each Responsible Entity shall retain evidence of compliance since the last audit for Requirement R2 and Measure M2.

If a Responsible Entity is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the duration specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

**EOP-005-3 Requirements and Measures**

**R1.** Each Transmission Operator shall develop and implement a restoration plan approved by its Reliability Coordinator. The restoration plan shall be implemented to restore the Transmission Operator’s System following a Disturbance in which one or more areas of the Bulk Electric System (BES) shuts down and the use of Blackstart Resources is required to restore the shutdown area to a state whereby the choice of the next Load to be restored is not driven by the need to control frequency or voltage regardless of whether the Blackstart Resource is located within the Transmission Operator’s System.

**M1.** Each Transmission Operator shall have a dated, documented System restoration plan developed in accordance with Requirement R1 that has been approved by its Reliability Coordinator as shown with the documented approval from its Reliability Coordinator and will have evidence, such as operator logs, voice recordings or other operating documentation, voice recordings or other communication documentation to show that its restoration plan was implemented for times when a Disturbance has occurred, in accordance with Requirement R1.

**R2**. Each Transmission Operator shall provide the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the effective date of the plan.

**M2.** Each Transmission Operator shall have evidence such as dated electronic receipts or registered mail receipts that it provided the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the effective date of the plan in accordance with RequirementR2.

**R3**. Each Transmission Operator shall review its restoration plan and submit it to its Reliability Coordinator annually on a mutually-agreed, predetermined schedule.

**M3.** Each Transmission Operator shall have documentation such as a dated review signature sheet, revision histories, dated electronic receipts, or registered mail receipts, that it has annually reviewed and submitted the Transmission Operator’s restoration plan to its Reliability Coordinator in accordance with Requirement R3.

**R4.** Each Transmission Operator shall submit its revised restoration plan to its Reliability Coordinator for approval, when the revision would change its ability to implement its restoration plan.

**M4.** Each Transmission Operator shall have documentation such as dated review signature sheets, revision histories, dated electronic receipts, or registered mail receipts, that it has submitted the revised restoration plan to its Reliability Coordinator in accordance with Requirement R4.

**R5.** Each Transmission Operator shall have a copy of its latest Reliability Coordinator approved restoration plan within its primary and backup control rooms so that it is available to all of its System Operators prior to its effective date.

**M5.** Each Transmission Operator shall have documentation that it has made the latest Reliability Coordinator approved copy of its restoration plan, in electronic or hardcopy format, in its primary and backup control rooms and available to its System Operators prior to its effective date in accordance with Requirement R5.

**R6.** Each Transmission Operator shall verify through analysis of actual events, a combination of steady state and dynamic simulations, or testing that its restoration plan accomplishes its intended function. This shall be completed at least once every five years.

**M6.** Each Transmission Operator shall have documentation, such as power flow outputs, that it has verified that its latest restoration plan will accomplish its intended function in accordance with Requirement R6.

**R7.** Each Transmission Operator shall have Blackstart Resource testing requirements to verify that each Blackstart Resource is capable of meeting the requirements of its restoration plan.

**M7.** Each Transmission Operator shall have documented Blackstart Resource testing requirements in accordance with Requirement R7.

**R8.** Each Transmission Operator shall include within its operations training program, annual System restoration training for its System Operators. This training program shall include training on the following:

8.1. System restoration plan including coordination with its Reliability  Coordinator and Generator Operators included in the restoration plan

8.2. Restoration priorities.

8.3. Building of cranking paths.

8.4. Synchronizing (reenergized sections of the System).

8.5. Transition of Demand and resource balance within its area to the Balancing  Authority.

**M8.** Each Transmission Operator shall have an electronic or hard copy of the training program material provided for its System Operators for System restoration training in accordance with Requirement R8.

**R9.** Each Transmission Operator, each applicable Transmission Owner, and each applicable Distribution Provider shall provide a minimum of two hours of System restoration training every two calendar years to their field switching personnel identified as performing unique tasks associated with the Transmission Operator’s restoration plan that are outside of their normal tasks.

**M9.** Each Transmission Operator, each applicable Transmission Owner, and each applicable Distribution Provider shall have an electronic or hard copy of the training program material provided to their field switching personnel for System restoration training and the corresponding training records including training dates and duration in accordance with Requirement R9

**R10.** Each Transmission Operator shall participate in its Reliability Coordinator’s restoration drills, exercises, or simulations as requested by its Reliability Coordinator.

**M10.** Each Transmission Operator shall have evidence that it participated in its Reliability Coordinator’s restoration drills, exercises, or simulations as requested in accordance with Requirement R10.

**R11.** Each Transmission Operator and each Generator Operator with a Blackstart Resource shall have written Blackstart Resource Agreements or mutually agreed upon procedures or protocols, specifying the terms and conditions of their arrangement. Such Agreements shall include references to the Blackstart Resource testing requirements.

**M11.** Each Transmission Operator and Generator Operator with a Blackstart Resource shall have the dated Blackstart Resource Agreements or mutually agreed upon procedures or protocols in accordance with Requirement R11.

**R12.** Each Generator Operator with a Blackstart Resource shall have documented procedures for starting each Blackstart Resource and energizing a bus.

**M12.** Each Generator Operator with a Blackstart Resource shall have dated documented procedures on file for starting each unit and energizing a bus in accordance with Requirement R12.

**R13.** Each Generator Operator with a Blackstart Resource shall notify its Transmission Operator of any known changes to the capabilities of that Blackstart Resource affecting the ability to meet the Transmission Operator’s restoration plan within 24 hours following such change.

**M13.** Each Generator Operator with a Blackstart Resource shall provide evidence, such as dated electronic receipts or registered mail receipts, showing that it notified its Transmission Operator of any known changes to its Blackstart Resource capabilities within 24 hours of such changes in accordance with Requirement R13.

**R14.** Each Generator Operator with a Blackstart Resource shall perform Blackstart Resource tests, and maintain records of such testing, in accordance with the testing requirements set by the Transmission Operator to verify that the Blackstart Resource can perform as specified in the restoration plan.

**M14.** Each Generator Operator with a Blackstart Resource shall maintain dated documentation of its Blackstart Resource test results and shall have evidence such as e-mails with receipts or registered mail receipts, that it provided these records to its Reliability Coordinator and Transmission Operator when requested in accordance with Requirement R14.

**R15.** Each Generator Operator with a Blackstart Resource shall provide a minimum of two hours of training every two calendar years to each of its operating personnel responsible for the startup of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following.

**M15.** Each Generator Operator with a Blackstart Resource shall have an electronic or hard copy of the training program material provided to its operating personnel responsible for the startup, energizing a bus and synchronization of its Blackstart Resource generation units and a copy of its dated training records including training dates and durations showing that it has provided training in accordance with Requirement R15.

**R16.** Each Generator Operator shall participate in its Reliability Coordinator’s restoration drills, exercises, or simulations as requested by its Reliability Coordinator.

**M16.** Each Generator Operator shall have evidence that it participated in its Reliability Coordinator’s restoration drills, exercises, or simulations if requested to do so in accordance with Requirement R16.

**EOP-005-3 Evidence Retention**

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

The Transmission Operator shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• Approved restoration plan and any restoration plans in effect since the last compliance audit for Requirement R1, Measure M1.

• Provided the entities identified in its approved restoration plan with a description of any changes to their roles and specific tasks prior to the effective date of the plan for the current calendar year and three prior calendar years for Requirement R2, Measure M2.

• Submission of the Transmission Operator’s annually-reviewed restoration plan to its Reliability Coordinator for the current calendar year and three prior calendar years for Requirement R3, Measure M3.

• Submission of a revised restoration plan to its Reliability Coordinator for all versions for the current calendar year and the prior three calendar years for Requirement R4, Measure M4.

• The current restoration plan approved by its Reliability Coordinator and any restoration plans for the last three calendar years that was made available in its control rooms for Requirement R5, Measure M5.

• The verification results for the current, approved restoration plan and the previous approved restoration plan for Requirement R6, Measure M6.

• The verification process and results for the current Blackstart Resource testing requirements and the last previous Blackstart Resource testing requirements for Requirement R7, Measure M7.

• Training program materials or descriptions for three calendar years for Requirement R8, Measure M8.

• Records of participation in all requested Reliability Coordinator restoration drills, exercises, or simulations since its last compliance audit, as well as one previous compliance audit period for Requirement R10, Measure M10.

If a Transmission Operator is found non-compliant for any requirement, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer. The Transmission Operator, applicable Transmission Owner, and applicable Distribution Provider shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• Training program materials or descriptions and training records for three calendar years for Requirement R9, Measure M9.

If a Transmission Operator, applicable Transmission Owner, or applicable Distribution Provider is found non-compliant for any requirement, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer. .

The Transmission Operator and Generator Operator with a Blackstart Resource shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• Current Blackstart Resource Agreements and any Blackstart Resource Agreements or mutually agreed upon procedures or protocols in effect since its last compliance audit for Requirement R11, Measure M11.

The Generator Operator with a Blackstart Resource shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• Current documentation and any documentation in effect since its last compliance audit on procedures to start each Blackstart Resource and for energizing a bus for Requirement R12, Measure M12.

• Notification to its Transmission Operator of any known changes to its Blackstart Resource capabilities over the last three calendar years for Requirement R13, Measure M13.

• The verification test results for the current set of requirements and one previous set for its Blackstart Resources for Requirement R14, Measure M14.

• Training program materials and training records for three calendar years for Requirement R15, Measure M15.

If a Generation Operator with a Blackstart Resource is found non-compliant for any requirement, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer.

The Generator Operator shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• Records of participation in all requested Reliability Coordinator restoration drills, exercises, or simulations since its last compliance audit for Requirement R16, Measure M1

If a Generation Operator is found non-compliant for any requirement, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer. The Compliance Enforcement Authority shall keep the last compliance audit records and all requested and submitted subsequent compliance audit reco

**EOP-006-3 Requirements and Measures**

**R1.** Each Reliability Coordinator shall develop and implement a Reliability Coordinator Area restoration plan. The scope of the Reliability Coordinator’s restoration plan starts when Blackstart Resources are utilized to re-energize a shutdown area of the Bulk Electric System (BES), or separation has occurred between neighboring Reliability Coordinators, or an energized island has been formed on the BES within the Reliability Coordinator Area. The scope of the Reliability Coordinator’s restoration plan ends when all of its Transmission Operators are interconnected and its Reliability Coordinator Area is connected to all of its neighboring Reliability Coordinator Areas. The restoration plan shall include:

**M1.** Each Reliability Coordinator shall have available a dated copy of its restoration plan and will have evidence, such as operator logs or other operating documentation, voice recordings, or other communication documentation to show that its restoration plan was implemented in accordance with Requirement R1.

**R2.** The Reliability Coordinator shall distribute its most recent Reliability Coordinator Area restoration plan to each of its Transmission Operators and neighboring Reliability Coordinators within 30 calendar days of creation or revision.

**M2.** Each Reliability Coordinator shall provide evidence such as electronic receipts, posting to a secure website with notification to affected entities, or registered mail receipts, that its most recent restoration plan has been distributed in accordance with Requirement R2.

**R3.** Each Reliability Coordinator shall review its restoration plan within 13 calendar months of the last review.

**M3.** Each Reliability Coordinator shall provide evidence such as a review signature sheet, or revision histories, that it has reviewed its restoration plan within 13 calendar months of the last review in accordance with Requirement R3.

**R4.** Each Reliability Coordinator shall review its neighboring Reliability Coordinator’s restoration plans and provide written notification of any conflicts discovered during that review within 60 calendar days of receipt.

**M4.** Each Reliability Coordinator shall provide evidence such as dated review signature sheets or electronic receipt that it has reviewed its neighboring Reliability Coordinator’s restoration plans and resolved any conflicts within the timing requirements of Requirement R4 and Requirement R4, Part 4.1.

**R5.** Each Reliability Coordinator shall review the restoration plans required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area.

**M5.** Each Reliability Coordinator shall provide evidence such as a dated review signature sheet or electronic receipt that it has reviewed, approved or disapproved, and notified its Transmission Operators within 30 calendar days following the receipt of the restoration plan from the Transmission Operator in accordance with Requirement R5.

**R6.** Each Reliability Coordinator shall have a copy of its latest restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area within its primary and backup control rooms so that it is available to all of its System Operators prior to the effective date.

**M6.** Each Reliability Coordinator shall have documentation such as electronic receipts that it has made the latest copy of its restoration plan and copies of the latest approved restoration plan of each Transmission Operator in its Reliability Coordinator Area available in its primary and backup control rooms and to each of its System Operators prior to the effective date in accordance with Requirement R6.

**R7.** Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators. This training program shall address the following:

7.1. The coordination role of the Reliability Coordinator; and

7.2. Re-establishing the Interconnection.

**M7.** Each Reliability Coordinator shall have an electronic copy or hard copy of its training records available showing that it has provided training in accordance with Requirement R7.

**R8.** Each Reliability Coordinator shall conduct two System restoration drills, exercises, or simulations per calendar year, which shall include the Transmission Operators and Generator Operators as dictated by the particular scope of the drill, exercise, or simulation that is being conducted.

**M8.** Each Reliability Coordinator shall have evidence, such as dated electronic documents, that it conducted two System restoration drills, exercises, or simulations per calendar year in accordance with Requirement R8. And each Reliability Coordinator shall have evidence that the Reliability Coordinator requested each applicable Transmission Operator and Generator Operator to participate per Requirement R8 and Requirement R8.

**EOP-006-3 Evidence Retention**

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

• The current restoration plan and any restoration plans in effect since the last compliance audit for Requirement R1, Measure M1.

• Distribution of its most recent restoration plan and any restoration plans in effect for the current calendar year and three prior calendar years for Requirement R2, Measure M2.

• Its reviewed restoration plan for the current review period and the last three prior review periods for Requirement R3, Measure M3.

• Reviewed copies of neighboring Reliability Coordinator restoration plans for the current calendar year and the three prior calendar years for Requirement R4, Measure M4.

• The reviewed restoration plans for the current calendar year and the last three prior calendar years for Requirement R5, Measure M5.

• The current, approved restoration plan and any restoration plans in effect for the last three calendar years was made available in its control rooms for Requirement R6, Measure M6.

• Actual training program materials or descriptions for three calendar years for Requirements R7, Measure M7.

• Records of all Reliability Coordinator restoration drills, exercises, or simulations since its last compliance audit, as well as one previous compliance audit period for Requirement R8, Measure M8.

If a Reliability Coordinator is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

**EOP-008-2 Requirements and Measures**

**R1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a current Operating Plan describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost. This Operating Plan for backup functionality shall include:

1.1. The location and method of implementation for providing backup functionality.

1.2. A summary description of the elements required to support the backup functionality. These elements shall include:

1.2.1. Tools and applications to ensure that System Operators have situational awareness of the BES.

1.2.2. Data exchange capabilities.

1.2.3. Interpersonal Communications.

1.2.4. Power source(s).

1.2.5. Physical and cyber security.

1.3. An Operating Process for keeping the backup functionality consistent with the primary control center.

1.4. Operating Procedures, including decision authority, for use in determining when to implement the Operating Plan for backup functionality.

1.5. A transition period between the loss of primary control center functionality and the time to fully implement the backup functionality that is less than or equal to two hours.

1.6. An Operating Process describing the actions to be taken during the transition period between the loss of primary control center functionality and the time to fully implement backup functionality elements identified in Requirement R1, Part 1.2. The Operating Process shall include:

1.6.1. A list of all entities to notify when there is a change in operating locations.

1.6.2. Actions to manage the risk to the BES during the transition from primary to backup functionality, as well as during outages of the primary or backup functionality.

1.6.3. Identification of the roles for personnel involved during the initiation and implementation of the Operating Plan for backup functionality

**M1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a dated, current, and in effect Operating Plan for backup functionality in accordance with Requirement R1, in electronic or hardcopy format.

**R2.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a copy of its current Operating Plan for backup functionality available at its primary control center and at the location providing backup functionality.

**M1.** Each Reliability Coordinator, Balancing

**M2.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have a dated, current, and in effect copy of its Operating Plan for backup functionality in accordance with Requirement R2, in electronic or hardcopy format, available at its primary control center and at the location providing backup functionality.

**R3.** Each Reliability Coordinator shall have a backup control center facility (provided through its own dedicated backup facility or at another entity’s control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards are applicable to the primary control center functionality. To avoid requiring a tertiary facility, a backup facility is not required during:

• Planned outages of the primary or backup facilities of two weeks or less

• Unplanned outages of the primary or backup facilities

**M3.** Each Reliability Coordinator shall provide dated evidence that it has a backup control center facility (provided through its own dedicated backup facility or at another entity’s control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) that provides the functionality required for maintaining compliance with all Reliability Standards that are applicable to the primary control center functionality in accordance with Requirement R3.

**R4.** Each Balancing Authority and Transmission Operator shall have backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) that includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that are applicable to a Balancing Authority’s and Transmission Operator’s primary control center functionality. To avoid requiring tertiary functionality, backup functionality is not required during:

• Planned outages of the primary or backup functionality of two weeks or less

• Unplanned outages of the primary or backup functionality

**M4.** Each Balancing Authority and Transmission Operator shall provide dated evidence that its backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that are applicable to a Balancing Authority’s or Transmission Operator’s primary control center functionality in accordance with Requirement R4.

**R5.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall annually review and approve its Operating Plan for backup functionality.

**M5.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have evidence that its dated, current, and in effect Operating Plan for backup functionality, in electronic or hardcopy format, has been reviewed and approved annually and that it has been updated within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1 in accordance with Requirement R5.

**R6.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards.

**M6.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have dated evidence that its primary and backup functionality do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards in accordance with Requirement R6.

**R7.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct and document results of an annual test of its Operating Plan that demonstrates:

**M7.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall provide evidence such as dated records, that it has completed and documented its annual test of its Operating Plan for backup functionality, in accordance with Requirement R7.

**R8.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of its primary or backup functionality and that anticipates that the loss of primary or backup functionality will last for more than six calendar months shall provide a plan to its Regional Entity within six calendar months of the date when the functionality is lost, showing how it will re-establish primary or backup functionality.

**M8.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of their primary or backup functionality and that anticipates that the loss of primary or backup functionality will last for more than six calendar months shall provide evidence that a plan has been submitted to its Regional Entity within six calendar months of the date when the functionality is lost showing how it will re-establish primary or backup functionality in accordance with Requirement R8.

**EOP-008-2 Evidence Retention**

The following evidence retention period(s) identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The applicable entity shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall retain its dated, current, in effect Operating Plan for backup functionality plus all issuances of the Operating Plan for backup functionality since its last compliance audit in accordance with Measurement M1.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall retain a dated, current, in effect copy of its Operating Plan for backup functionality, with evidence of its last issue, available at its primary control center and at the location providing backup functionality, for the current year, in accordance with Measurement M2.

• Each Reliability Coordinator shall retain dated evidence for the time period since its last compliance audit, that it has demonstrated that it has a backup control center facility (provided through its own dedicated backup facility or at another entity’s control center staffed with certified Reliability Coordinator operators when control has been transferred to the backup facility) in accordance with Requirement R3 that provides the functionality required for maintaining compliance with all Reliability Standards that are applicable to the primary control center functionality in accordance with Measurement M3.

• Each Balancing Authority and Transmission Operator shall retain dated evidence for the time period since its last compliance audit, that it has demonstrated that it’s backup functionality (provided either through a facility or contracted services staffed by applicable certified operators when control has been transferred to the backup functionality location) in accordance with Requirement R4 includes monitoring, control, logging, and alarming sufficient for maintaining compliance with all Reliability Standards that are applicable to a Balancing Authority’s and Transmission Operator’s primary control center functionality in accordance with Measurement M4.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator, shall retain evidence for the time period since its last compliance audit, that its dated, current, in effect Operating Plan for backup functionality, has been reviewed and approved annually and that it has been updated within sixty calendar days of any changes to any part of the Operating Plan described in Requirement R1 in accordance with Measurement M5.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall retain dated evidence for the current year and for any Operating Plan for backup functionality in effect since its last compliance audit, that its primary and backup functionality do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards in accordance with Measurement M6.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall retain evidence for the current calendar year and the previous calendar years, such as dated records, that it has tested its Operating Plan for backup functionality, in accordance with Measurement M7.

• Each Reliability Coordinator, Balancing Authority, and Transmission Operator that has experienced a loss of their primary or backup functionality and that anticipates that the loss of primary or backup functionality would last for more than six calendar months shall retain evidence for the current in effect document and any such documents in effect since its last compliance audit that a plan has been submitted to its Regional Entity within six calendar months of the date when the functionality is lost showing how it will re-establish primary or backup functionality in accordance with Measurement M8

**EOP-010-1 Requirements and Measures**

**R1.** Each Reliability Coordinator shall develop, maintain, and implement a GMD Operating Plan that coordinates GMD Operating Procedures or Operating Processes within its Reliability Coordinator Area. At a minimum, the GMD Operating Plan shall include:

1.1 A description of activities designed to mitigate the effects of GMD events on the reliable operation of the interconnected transmission system within the Reliability Coordinator Area.

1.2 A process for the Reliability Coordinator to review the GMD Operating Procedures or Operating Processes of Transmission Operators within its Reliability Coordinator Area

**M1**. Each Reliability Coordinator shall have a current GMD Operating Plan meeting all the provisions of Requirement R1; evidence such as a review or revision history to indicate that the GMD Operating Plan has been maintained; and evidence to show that the plan was implemented as called for in its GMD Operating Plan, such as dated operator logs, voice recordings, or voice transcripts.

**R2.** Each Reliability Coordinator shall disseminate forecasted and current space weather information to functional entities identified as recipients in the Reliability Coordinator's GMD Operating Plan.

**M2.** Each Reliability Coordinator shall have evidence such as dated operator logs, voice recordings, transcripts, or electronic communications to indicate that forecasted and current space weather information was disseminated as stated in its GMD Operating Plan.

**R3.** Each Transmission Operator shall develop, maintain, and implement a GMD Operating Procedure or Operating Process to mitigate the effects of GMD events on the reliable operation of its respective system. At a minimum, the Operating Procedure or Operating Process shall include:

3.1. Steps or tasks to receive space weather information.

3.2. System Operator actions to be initiated based on predetermined conditions.

3.3. The conditions for terminating the Operating Procedure or Operating Process.

**M3**. Each Transmission Operator shall have a GMD Operating Procedure or Operating Process meeting all the provisions of Requirement R3; evidence such as a review or revision history to indicate that the GMD Operating Procedure or Operating Process has been maintained; and evidence to show that the Operating Procedure or Operating Process was implemented as called for in its GMD Operating Procedure or Operating Process, such as dated operator logs, voice recordings, or voice transcripts.

**EOP-010-1 Evidence Retention**

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The Reliability Coordinator and Transmission Operator shall keep data or evidence to show compliance as identified below unless directed by its CEA to retain specific evidence for a longer period of time as part of an investigation:

The responsible entities shall retain documentation as evidence for three years.

If a responsible entity is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time specified above, whichever is longer.

The CEA shall keep the last audit records and all requested and submitted subsequent audit records.

**EOP-011-1 Requirements and Measures**

**R1.** Each Transmission Operator shall develop, maintain, and implement one or more Reliability Coordinator-reviewed Operating Plan(s) to mitigate operating Emergencies in its Transmission Operator Area. The Operating Plan(s) shall include the following, as applicable.

1.1. Roles and responsibilities for activating the Operating Plan(s);

1.2. Processes to prepare for and mitigate Emergencies including:

1.2.1. Notification to its Reliability Coordinator, to include current and projected conditions, when experiencing an operating Emergency;

1.2.2. Cancellation or recall of Transmission and generation outages;

1.2.3. Transmission system reconfiguration;

1.2.4. Redispatch of generation request;

1.2.5. Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and

1.2.6. Reliability impacts of extreme weather conditions.

**M1.** Each Transmission Operator will have a dated Operating Plan(s) developed in accordance with Requirement R1 and reviewed by its Reliability Coordinator; evidence such as a review or revision history to indicate that the Operating Plan(s) has been maintained; and will have as evidence, such as operator logs or other operating documentation, voice recordings or other communication documentation to show that its Operating Plan(s) was implemented for times when an Emergency has occurred, in accordance with Requirement R1.

**R2.** Each Balancing Authority shall develop, maintain, and implement one or more Reliability Coordinator-reviewed Operating Plan(s) to mitigate Capacity Emergencies and Energy Emergencies within its Balancing Authority Area. The Operating Plan(s) shall include the following, as applicable:

2.1. Roles and responsibilities for activating the Operating Plan(s);

2.2. Processes to prepare for and mitigate Emergencies including:

2.2.1. Notification to its Reliability Coordinator, to include current and projected conditions when experiencing a Capacity Emergency or Energy Emergency;

2.2.2. Requesting an Energy Emergency Alert, per Attachment 1;

2.2.3. Managing generating resources in its Balancing Authority Area to address:

2.2.3.1. capability and availability;

2.2.3.2. fuel supply and inventory concerns;

2.2.3.3. fuel switching capabilities; and

2.2.3.4. environmental constraints.

2.2.4. Public appeals for voluntary Load reductions;

2.2.5. Requests to government agencies to implement their programs to achieve necessary energy reductions;

2.2.6. Reduction of internal utility energy use;

2.2.7. Use of Interruptible Load, curtailable Load and demand response; 2.2.8. Provisions for operator-controlled manual Load shedding that minimizes the overlap with automatic Load shedding and are capable of being implemented in a timeframe adequate for mitigating the Emergency; and

2.2.9. Reliability impacts of extreme weather conditions

**M2.** Each Balancing Authority will have a dated Operating Plan(s) developed in accordance with Requirement R2 and reviewed by its Reliability Coordinator; evidence such as a review or revision history to indicate that the Operating Plan(s) has been maintained; and will have as evidence, such as operator logs or other operating documentation, voice recordings, or other communication documentation to show that its Operating Plan(s) was implemented for times when an Emergency has occurred, in accordance with Requirement R2.

**R3.** The Reliability Coordinator shall review the Operating Plan(s) to mitigate operating Emergencies submitted by a Transmission Operator or a Balancing Authority regarding any reliability risks that are identified between Operating Plans.

**M3.** The Reliability Coordinator will have documentation, such as dated e-mails or other correspondences that it reviewed Transmission Operator and Balancing Authority Operating Plans within 30 calendar days of submittal in accordance with Requirement R3.

**R4.** Each Transmission Operator and Balancing Authority shall address any reliability risks identified by its Reliability Coordinator pursuant to Requirement R3 and resubmit its Operating Plan(s) to its Reliability Coordinator within a time period specified by its Reliability Coordinator.

**M4.** The Transmission Operator and Balancing Authority will have documentation, such as dated emails or other correspondence, with an Operating Plan(s) version history showing that it responded and updated the Operating Plan(s) within the timeframe identified by its Reliability Coordinator in accordance with Requirement R4.

**R5.** Each Reliability Coordinator that receives an Emergency notification from a Transmission Operator or Balancing Authority within its Reliability Coordinator Area shall notify, within 30 minutes from the time of receiving notification, other Balancing Authorities and Transmission Operators in its Reliability Coordinator Area, and neighboring Reliability Coordinators.

**M5.** Each Reliability Coordinator that receives an Emergency notification from a Balancing Authority or Transmission Operator within its Reliability Coordinator Area will have, and provide upon request, evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent evidence that will be used to determine if the Reliability Coordinator communicated, in accordance with Requirement R5, with other Balancing Authorities and Transmission Operators in its Reliability Coordinator Area, and neighboring Reliability Coordinators .

**R6.** Each Reliability Coordinator that has a Balancing Authority experiencing a potential or actual Energy Emergency within its Reliability Coordinator Area shall declare an Energy Emergency Alert, as detailed in Attachment 1.

**M6.** Each Reliability Coordinator, with a Balancing Authority experiencing a potential or actual Energy Emergency within its Reliability Coordinator Area, will have, and provide upon request, evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or equivalent evidence that it declared an Energy Emergency Alert, as detailed in Attachment 1, in accordance with Requirement R6

**EOP-011-1 Evidence Retention**

The Balancing Authority, Reliability Coordinator, and Transmission Operator shall keep data or evidence to show compliance, as identified below, unless directed by its Compliance Enforcement Authority (CEA) to retain specific evidence for a longer period of time as part of an investigation. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

* The Transmission Operator shall retain the current Operating Plan(s), evidence of review or revision history plus each version issued since the last audit and evidence of compliance since the last audit for Requirements R1 and R4and Measures M1 and M4.
* The Balancing Authority shall retain the current Operating Plan(s), evidence of review or revision history plus each version issued since the last audit and evidence of compliance since the last audit for Requirements R2 and R4, and Measures M2 and M4.
* The Reliability Coordinator shall maintain evidence of compliance since the last audit for Requirements R3, R5, and R6 and Measures M3, M5, and M6.

If a Balancing Authority, Reliability Coordinator or Transmission Operator is found non-compliant, it shall keep information related to the non-compliance until found compliant.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

**EOP-011-2 Requirements and Measures**

The requirements of EOP-011-2 included the requirements from EOP-011-1 and added two additional requirements:

**R7.** Each Generator Owner shall implement and maintain one or more cold weather preparedness plan(s) for its generating units. The cold weather preparedness plan(s) shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations**]**

7.1. Generating unit(s) freeze protection measures based on geographical location and plant configuration;

7.2. Annual inspection and maintenance of generating unit(s) freeze protection measures;

7.3. Generating unit(s) cold weather data, to include:

7.3.1. Generating unit(s) operating limitations in cold weather to include:

7.3.1.1. capability and availability;

7.3.1.2. fuel supply and inventory concerns;

7.3.1.3. fuel switching capabilities; and

7.3.1.4. environmental constraints.

7.3.2. Generating unit(s) minimum:

7.3.2.1. design temperature; or

7.3.2.2. historical operating temperature; or

EOP-011-2 Emergency Preparedness and Operations Page 5 of 16 7.3.1.3. current cold weather performance temperature determined by an engineering analysis.

**M7.** Each Generator Owner will have evidence documenting that its cold weather preparedness plan(s) was implemented and maintained in accordance with Requirement R7.

**R8**. Each Generator Owner in conjunction with its Generator Operator shall identify the entity responsible for providing the generating unit-specific training, and that identified entity shall provide the training to its maintenance or operations personnel responsible for implementing cold weather preparedness plan(s) developed pursuant to Requirement R7.

**M8.** Each Generator Operator or Generator Owner will have documented evidence that the applicable personnel completed training of the Generator Owner’s cold weather preparedness plan(s). This evidence may include, but is not limited to, documents such as personnel training records, training materials, date of training, agendas or learning objectives, attendance at pre-work briefings, review of work order tasks, tailboards, attendance logs for classroom training, and completion records for computer-based training in fulfillment of Requirement R8.

**In project RD23-1-000,** NERC created new Reliability Standard EOP-012-1 that has seven Requirements, five of which are new and two of which have been moved from Reliability Standard EOP-011-2 (Requirements R7 and R8) and revised EOP-011-3 was updated to reflect the reduction of Requirements in existing EOP-011-2. The biggest effect in the manhour burden was from the addition of EOP-011-2 and the most recent changes in EOP-011-3 and EOP-012-1.

**EOP-011-3** requirements include the requirements from EOP-011-1, but supersedes the effective dates of EOP-011-1.

**EOP-012-1** include requirements 7 and 8 (now R3 and R5) from EOP-011-2, and five new requirements (R1, R2, R4, R6, and R7 including:

**R1:** For each generating unit(s) with a commercial operation date subsequent to [Effective Date of this requirement], the Generator Owner shall: [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning, Operations Planning]

* Implement freeze protection measures that provide capability to operate for a period of not less than twelve (12) continuous hours at the Extreme Cold Weather Temperature for the unit(s), assuming a concurrent twenty (20) mph wind speed on any exposed Generator Cold Weather Critical Components; or
* Explain in a declaration any technical, commercial, or operational constraints, as defined by the Generator Owner, that preclude the ability to implement appropriate freeze protection measures to provide capability of operating for twelve (12) hours at the documented Extreme Cold Weather Temperature.

**M1.** Each Generator Owner will have dated evidence that demonstrates it has the capability to operate in accordance with Requirement R1. Acceptable evidence may include, but is not limited to, the following (electronic or hardcopy format): Documentation of cold weather preparedness plan, documentation of design features, any declaration that contains dated documentation to support constraints identified by the Generator Owner.

**R2:** For each generating unit(s) in commercial operation prior to [Effective Date of this requirement], the Generator Owner shall ensure its generating unit(s) add new or modify existing freeze protection measures as needed to provide the capability to operate for a period of not less than one (1) hour at the unit(s) Extreme Cold Weather Temperature. Generating unit(s) that are not capable of operating for one (1) hour at its Extreme Cold Weather Temperature shall develop a Corrective Action Plan (CAP) for the identified issues, including identification of any needed modifications to the cold weather preparedness plan required under Requirement R3. [Violation Risk Factor: Medium] [Time Horizon: Long-term Planning, Operations Planning]

**M2.** Each Generator Owner will have dated evidence that demonstrates it has freeze protection measures for its unit(s) in accordance with R2, or it has developed a CAP for the identified issues. Acceptable evidence may include the following (electronic or hardcopy format): Identification of generating units minimum temperature per Part 3.5.2 which is equal to or lessthan the unit’s Extreme Cold Weather Temperature, documentation of freeze protection measures, cold weather preparedness plan, and CAP(s)

**R4:** Once every five calendar years, each Generator Owner shall for each generating unit: [Violation Risk Factor: Low] [Time Horizon: Operations Planning, Real-Time Operations]

* 4.1 Calculate the Extreme Cold Weather Temperature, and update the cold weather preparedness plan if this temperature is now lower than the previous lowest calculation;
* 4.2 Review its documented generating unit(s) minimum temperature contained within its cold weather preparedness plan(s), pursuant to Part 3.5.2; and
* 4.3 Review whether its generating units have the freeze protection measures required to operate at the Extreme Cold Weather Temperature pursuant to R1 or R2 as applicable, and if not develop a CAP for the identified issues, including identification of any needed modifications to the cold weather preparedness plan required under Requirement R3.

**M4:** Each Generator Owner will have dated, documented evidence that it reviewed temperature data and updated its cold weather preparedness plan(s) in accordance with Requirement R4.

**R6:** Each Generator Owner that owns a generating unit that experiences a Generator Cold Weather Reliability Event shall develop a CAP, within 150 days or by July 1, whichever is earlier, that contains at a minimum: [Violation Risk Factor: High] [Time Horizon: Long-term Planning]

* 6.1 A summary of the identified cause(s) for the Generator Cold Weather Reliability Event, where applicable, and any relevant associated data;
* 6.2 A review of applicability to similar equipment at other generating units owned by the Generator Owner;
* 6.3 An identification of any temporary operating limitations or impacts to the cold weather preparedness plan, that would apply until execution of the corrective action(s) identified in the CAP.

**M6.** Each Generator Owner will have documented evidence that it developed a CAP in accordance with Requirement R6. Acceptable evidence may include, but is not limited to, the following dated documentation (electronic or hardcopy format): CAP(s) and updated cold weather preparedness plan(s) where indicated as needed by the CAP.

**R7:** Each Generator Owner shall:[Violation Risk Factor: Medium][Time Horizon: Long-term Planning]

* 7.1 Implement each CAP developed pursuant to Requirements R2, R4, or R6, or explain in a declaration why corrective actions are not being implemented due to any technical, commercial, or operational constraints as defined by the Generator Owner.
* 7.2 Update each CAP if actions or timetables change, until completed.

**M7.** Each Generator Owner shall have dated evidence that demonstrates it implemented each CAP, including updating actions or timetables, or has explained in a declaration why corrective actions are not being implemented in accordance with Requirement R7. Acceptable evidence may include, but is not limited to the following dated documentation (electronic or hardcopy format): records that document the implementation of each CAP and the completion of actions for each CAP including revision history of each CAP. Evidence may also include work management program records, work orders, and maintenance records. Any declaration shall contain dated documentation to support constraints identified by the Generator Owner

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

The use of current or improved technology and the medium are not covered in Reliability Standards and are therefore left to the discretion of each respondent. We think that nearly all the respondents are likely to make and keep related records in an electronic format. Each of the six 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.

These collections do not require industry to file the information with the Commission. However, they do contain information collection and record retention requirements for which using current technology is an option.

4. **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. EOP Reliability Standards do not duplicate any filing requirements.

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

In general, small entities may reduce their burden by taking part in a joint registration organization or a coordinated functional registration. These options allow a small entity to share the compliance burden with other entities and, thus, to minimize their own compliance burden.

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

If the requirements of these standards were performed less frequently, NERC would not be provided any information to allow assessment of the compliance. Adequate planning for operating emergencies and responding to those emergencies is critical for the reliable operation of the bulk power system. The frequency of reporting is conducted once per year for all entities.

* Reliability Standard EOP-004-4 requires reporting of events by responsible entities. The reportable events under the proposed Reliability Standard are collected and used to examine the underlying causes of events, track subsequent corrective action to prevent recurrence of such events, and develop lessons learned for industry.
* Reliability Standard EOP-005-3 ensures plans, facilities, and personnel are prepared to enable system restoration from blackstart (the ability to restart generation following a blackout) resources to ensure reliability is maintained during restoration and priority is placed on restoring the Interconnection. Failure to follow this Reliability Standard could result in delays in restoration efforts.
* Reliability Standard EOP-006-3 establishes how personnel should prepare, execute, and coordinate system restoration processes to maintain reliability and to restore the Interconnection. Failure to follow this Reliability Standard could result in delay in restoration efforts.
* Reliability Standard EOP-008-2 ensures continued reliable operations of the bulk electric system if a control center becomes inoperable. Failure to follow this Reliability Standard could result in a control center not being able to perform operations of the BES in an effective manner.
* Reliability Standard EOP-010-1 mitigates the effects of geomagnetic disturbance (GMD) events by implementing Operating Plans, Processes, and Procedures. Failure to follow this Reliability Standard may results in an entity not being able to respond to a GMD Event.
* Reliability Standard EOP-011-1 addresses the effects of operating Emergencies by ensuring each Transmission Operator and Balancing Authority has developed Operating Plan(s) to mitigate operating Emergencies, and that those plans are coordinated within a Reliability Coordinator Area. Failure to follow this Reliability Standard may result in an entity not being able to effectively mitigate operating Emergencies to preserve the BES.
* Reliability Standard EOP-012-1 addresses the effects of operating in extreme cold weather by ensuring each Generator Owner has developed and implemented plan(s) to mitigate the reliability impacts of extreme cold weather on its generating units. Failure to follow the EOP-012-1 may result in Generator Owner not being able to provide power to customers during extreme cold weather events as the generating units have been adversely affected.

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

The Emergency Preparedness and Operation (EOP) family of Reliability Standards represent Requirements that may need to occur in near real-time operations which if not done could place the operations of the electric system into an unknown state or lead to possible cascading, voltage instability, or uncontrolled separation. For the 30-day timeframes, those were set by industry to assign responsibility to entities to communicate with others that need to plan and operate the BES in a reliable manner.

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

The FERC Order on Reliability Standards was published in the Federal Register thereby providing public utilities and licensees, state commissions, Federal agencies, and other interested parties an opportunity to submit data, views, comments or suggestions concerning the proposed collections of data.

The modifications to FERC 725S in RD23-1-000 are a result of the ongoing effort by the Commission to enhance the reliability of the bulk-power system. Specifically, RD23-1-000 approves additional standards (than what is included in the current FERC 725S) for extreme cold weather events. The Commission solicited comments for 60 days upon the approval of the reliability standards which were published in the Federal Register on March 3, 2023 (88 FR 14994). The Commission received no comments.

FERC also published a 30 day public notice and invited public comment to OMB on May 17, 2023 (88 FR 31502).

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

No payments or gifts have been made to respondents.

10. **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 due to the 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.

11. **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**

These collections do not contain any questions of a sensitive nature.

12. **ESTIMATED BURDEN OF COLLECTION OF INFORMATION**

The following table details Reliability Standards EOP-010-1, EOP-011-1, EOP-004-4, EOP-005-3, EOP-006-3, and EOP-008-2 in FERC-725S (OMB Control No. 1902-0270). The burden[[4]](#footnote-6) for FERC-725S reflects an increase from the previous versions of the Reliability Standards in total burden hours and cost based on adjustments in the additional entities and changes to hourly cost.[[5]](#footnote-7)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Table 1: Current costs and burden related to FERC-725S (1902-0270)** | | | | | | |
| **Reliability Standard and Associated Requirement** | **Number of Respondents (1)** | **Annual Number of Responses per Respondent**  **(2)** | **Total Number of Responses (1)\*(2)=(3)** | **Average Burden & Cost Per Response**  **(4)** | **Total Annual Burden & Total Annual Cost**  **(3)\*(4)=(5)** | **Cost per Respondent**  **($)**  **(5)÷(1)** |
| **EOP-010-1** |  | | | | | |
|  | 181 | 1 | 181 | 20 hrs.;  $1,660 | 3,620 hrs.; $300,460 | $1,660 |
| **EOP-011-1** |  |  |  |  |  |  |
|  | 12 | 1 | 12 | 1,500 hrs.;  $124,500 | 18,000 hrs.;  $1,494,000 | $124,500 |
| **EOP-004-4, EOP-005-3, EOP-006-3, EOP-008-2** |  |  |  |  |  |  |
|  | 280 | 1 | 280 | 250.58[[6]](#footnote-8) hrs.;  $20,798 | 70,162.4 hrs.;  $5,234,440 | $20,798 |
| **Total EOP before modifications in RD23-1-000** | **473** |  |  |  | **91,782 hrs.;**  **$7,028,900** |  |
|  |  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 2: Proposed Changes Due to Modifications in Docket No. RD23-1-000** | | | | | |
| **Reliability Standard & Requirement** | **Type[[7]](#footnote-9) and Number of Entity**  (1) | **Number of Annual Responses Per Entity**  **(**2) | **Total Number of Responses**  **(1)\*(2)=(3)** | **Average Number of Burden Hours per Response**[[8]](#footnote-10)  **(4)** | **Total Burden Hours**  **(3)\*(4)=(5)** |
| **FERC-725S – Proposed estimates due to RD23-1 for EOP-011-3** | | | | | |
| **One Time Estimate - Years 1 and 2 in EOP-011-3** | | | | | |
| EOP-011-3 | 168 (TOP) | 1 | 168 | 60 hrs.  $3,893.40 | 10,080 hrs.[[9]](#footnote-11)  $654,091.2 |
| EOP-011-3**[[10]](#footnote-12)** | 98 (BA) | 1 | 98 | 6 hrs.  $389.34 | 588 hrs.9  $38,155.32 |
| EOP-011-3**[[11]](#footnote-13)** | 12 (RC) | 1 | 12 | 28 hrs.  $1,816.92 | 336 hrs.9  $21,803.04 |
| **Sub-total of EOP-011-3 (One time)** |  |  | 278 | 94 hours  $ 6,099.66 | **11,004 hrs.9**  **$714,049.56** |
| **Ongoing Estimate – Year 3 ongoing EOP-011-3** | | | | | |
| EOP-011-3**[[12]](#footnote-14)** | 168 (TOP) | 1 | 168 | 10 hrs.  $648.90 | 1,680 hrs.  $109,015.20 |
| EOP-011-3**[[13]](#footnote-15)** | 98 (BA) | 1 | 98 | 10 hrs.  $648.90 | 980 hrs.  $63,592.20 |
| EOP-011-3**[[14]](#footnote-16)** | 12 (RC) | 1 | 12 | 14 hrs.  $908.46 | 168 hrs.  $10,901.52 |
| **Sub-Total of EOP-011-3 (ongoing)** |  |  | 278 |  | 2,828  $183,508.92 |
| **Sub-Total of ongoing burden averaged over three years** |  |  | 92.67 (rounded) |  | 942.67 hrs. (rounded)  $61,169.64 |
| **Proposed Total Burden Estimate of EOP-011-3** |  |  | **370.67** |  | **11,946.67 hrs.**  **$775,219.42** (rounded) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 3: Proposed Changes Due to Modifications in Docket No. RD23-1-000 for EOP-012-1** | | | | | |
| **Reliability Standard & Requirement** | **Type and Number of Entity**  (1) | **Number of Annual Responses Per Entity**  **(**2) | **Total Number of Responses**  **(1)\*(2)=(3)** | **Average Number of Burden Hours per Response[[15]](#footnote-17)**  **(4)** | **Total Burden Hours**  **(3)\*(4)=(5)** |
| **FERC-725S** | | | | | |
| **One Time Estimate - Years 1 and 2 EOP-012-1** | | | | | |
| EOP-012-1**[[16]](#footnote-18)** | 1,107 (GO) | 1 | 1,107 | 150 hrs.  $9,733.50 | 166,050 hrs.9  $10,774,984.50 |
| EOP-012-1 | 981 (GOP) | 1 | 981 | 10 hrs.  $648.90 | 9,810 hrs.9  $636,570.90 |
| **Sub-Total for EOP-012-1 (one-time)** |  |  | 2,088 | 160 hrs.  $10,382.40 | 175,860 hrs.9  $11,411,555.40 |
| **Ongoing Estimate – Year 3 ongoing EOP-012-1** | | | | | |
| EOP-012-1 | 1,107 (GO) | 1 | 1,107 | 40 hrs.  $ 2,595.60 | 40,680 hrs.  $ 2,639,725.20 |
| EOP-012-1 | 981 (GOP) | 1 | 981 | 10 hrs.  $648.90 | 9,810 hrs.  $ 636,570.90 |
| **Sub-Total for EOP-012-1 (ongoing)** |  |  | 2,088 | 50 hrs.  $ 3,244.50 | 50,490 hrs.  $ 3,276,296.10 |
| **Sub-Total of ongoing burden averaged over three years** |  |  | 696 | 33.33 hours | 16,830 hrs.  $1,092,098.70 |
| **Proposed Total Burden Estimate of EOP-012-1** |  |  | **2,784** |  | **192,690 hrs.**  **$12,503,654.10** |

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

There are no start-up or other non-labor costs.

Total Capital and Start-up cost: $0

Total Operation, Maintenance, and Purchase of Services: $0

All of the costs in the RD23-1-000 are associated with burden hours (labor) and described in Questions #12 and #15 in this supporting statement.

**14. 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 (OMB Control No. 1902-0255).

The Commission does incur the costs associated with obtaining OMB clearance for the collections under the Paperwork Reduction Act (PRA). The PRA Administrative Cost is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. FERC estimates the annual cost for this effort to be $**7,694** for each of thecollections.

|  |  |  |
| --- | --- | --- |
| **FERC-725S** | **Number of Employees (FTEs)** | **Estimated Annual Federal Cost** |
| Analysis and Processing of filings | 0 | $0 |
| Paperwork Reduction Act Administrative Cost[[17]](#footnote-19) |  | $**7,694** |
| **TOTAL** |  | $**7,694** |

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

The following table details Reliability Standards EOP-010-1, EOP-011-1, EOP-004-4, EOP-005-3, EOP-006-3, and EOP-008-2 in FERC-725S (OMB Control No. 1902-0270). The burden being added for FERC-725S reflects an increase in total burden hours due to the modifications in RD23-1-000.

In project RD23-1-000, NERC created new Reliability Standard EOP-012-1 that has seven Requirements, five of which are new and two of which have been moved from Reliability Standard EOP-011-2 (Requirements R7 and R8) and revised EOP-011-3 was updated to reflect the reduction of Requirements in existing EOP-011-2. The biggest effect in the manhour burden was revised EOP-011-2 and the most recent changes EOP-011-3 and EOP-012-1 the burden was not as much as it as it involved movement of Requirement between standards.

The significant increase in burden is due to both the modifications in RD23-1-000 and the apparent missing collection activities in EOP-011-2 which are recently effective standards (April 1, 2023), but include additional burden compared to EOP-011-1, which is being removed in the Order in Docket No. RD23-1-000. The total burden hours in EOP-011-2 totaled 244,390 hrs. (one-time costs) and 101,350 hrs. (ongoing) beginning April 1, 2023.Additionally, the collection had a total of 2,237 respondents. When including EOP-011-2 respondents and burden to the EOP-011-1 collection activities currently in ROCIS, the totals become 2,710 respondents and 274,595.33 burden hours. These totals would reflect the total respondents and burden hours if EOP-011-2 was entered into ROCIS. When considering the total EOP-011-1 and EOP-011-2 burden numbers, the total change due to RD23-1-000 remains an increase albeit a much smaller increase of: **906 respondents and 3,824 (rounded) hours.**

The Tables below represent changes in burden due to the modifications in RD23-1-000 compared to what is current in ROCIS.

|  |  |  |  |
| --- | --- | --- | --- |
| **Changes to FERC 725S due to Docket RD23-1-000** | | | |
| **FERC-725S Modification** | **Current Inventory (hours)** | **Current Inventory**  **(responses)** | **Total Change Due to RD23-1-000** |
| Removal of EOP-011-1 | 18,000 hrs | 12 | -18,000 hrs.  -12 responses |
| New EOP-011-3 | 0 | 0 | +11,946.67 hrs.  +370.67 responses |
| New EOP-012-1 | 0 | 0 | +**192,690** hrs.  +2,784 responses |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FERC-725S** | **Total Request** | **Previously Approved** | **Change due to Adjustment in Estimate** | **Change Due to Agency Discretion** |
| Annual Number of Responses | 3,616 | 473 | 0 | 3,143 |
| Annual Time Burden | 284,900 | 91,782 | 0 | 193,118 |
| Annual Cost Burden ($) | $0 | $0 | $0 | $0 |

16. **TIME SCHEDULE FOR THE PUBLICATION OF DATA**

There is no publication of data associated with FERC-725S collections of information.

17. **DISPLAY OF THE EXPIRATION DATE**

The expiration dates are posted on ferc.gov at <http://www.ferc.gov/docs-filing/info-collections.asp>

18.**EXCEPTIONS TO THE CERTIFICATION STATEMENT**

There are no exceptions for FERC-725S.

1. 16 U.S.C. 824d(a) [↑](#footnote-ref-3)
2. 16 U.S.C. 824*o*. The approved Reliability Standards are available on the NERC website, [www.nerc.com](http://www.nerc.com). [↑](#footnote-ref-4)
3. 16 U.S.C. 824*o*. [↑](#footnote-ref-5)
4. Burden is defined as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, refer to 5 Code of Federal Regulations 1320.3. [↑](#footnote-ref-6)
5. The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2022, for 75% of the average of an Electrical Engineer (17-2071) - $77.02, mechanical engineers (17-2141) - $67.79. $77.02 + $67.79/2 = 72.405 x .75 = 54.303 ($54.30-rounded) ($54.30/hour) and 25% of an Information and Record Clerk (43-4199) $42.35 x .25% = 10.5875 ($10.59 rounded) ($10.59/hour), for a total ($54.30+$10.59) of **$64.89/hour**. [↑](#footnote-ref-7)
6. Burden hours per response may also include any methods for improvement not limited to trainings, drills, simulations, testing, etc. [↑](#footnote-ref-8)
7. TOP=Transmission Operator, BA=Balancing Authority, GO=Generator Owner, GOP=Generator Operator and RC=Reliability Coordinator. [↑](#footnote-ref-9)
8. The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2022, for 75% of the average of an Electrical Engineer (17-2071) - $77.02, mechanical engineers (17-2141) - $67.79. $77.02 + $67.79/2 = 72.405 x .75 = 54.303 ($**54.30**-rounded) **($54.30/hour)** and 25% of an Information and Record Clerk (43-4199) $42.35 x .25% = 10.5875 **($10.59** rounded) ($10.59/hour), for a total ($54.30+$10.59 = $**64.89/hour**). [↑](#footnote-ref-10)
9. The one-time burden reflected here is the total over a three-year period, but in reality will occur over the first 2 years. In other words, this is the total burden expected for one-time costs with the hours occurring in years 1 and 2 and zero hours in year 3. [↑](#footnote-ref-11)
10. Reduce the estimate for balancing authorities from EOP-011-2 down from previous 60 hours to 6 hours for EOP-011-3. [↑](#footnote-ref-12)
11. Reduce the estimate for reliability coordinators from EOP-011-2 down from previous 40 hours to 28 hours for EOP-011-3. [↑](#footnote-ref-13)
12. Reduce the estimate for transmission operators from EOP-011-2 down from previous 50 hours to 10 hours for EOP-011-3. [↑](#footnote-ref-14)
13. Reduce the estimate for balancing authorities from EOP-011-2 down from previous 50 hours to 10 hours for EOP-011-3. [↑](#footnote-ref-15)
14. Reduce the estimate for reliability coordinators from EOP-011-2 down from previous 20 hours to 14 hours for EOP-011-3. [↑](#footnote-ref-16)
15. The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2022, for 75% of the average of an Electrical Engineer (17-2071) - $77.02, mechanical engineers (17-2141) - $67.79. $77.02 + $67.79/2 = 72.405 x .75 = 54.303 ($**54.30**-rounded) **($54.30/hour)** and 25% percent of   
    an Information and Record Clerk (43-4199) $42.35 x .25% = 10.5875 **($10.59** rounded) ($10.59/hour), for a total ($54.30+$10.59 = $**64.89/hour**). [↑](#footnote-ref-17)
16. The estimates for the generator owner and generator operator are being moved from the current EOP-011-2 to the new EOP-012-1. [↑](#footnote-ref-18)
17. The PRA Administrative Cost is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. [↑](#footnote-ref-19)