

133 FERC ¶ 61,161  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 40

Docket No. RM10-16-000

System Restoration Reliability Standards

(November 18, 2010)

AGENCY: Federal Energy Regulatory Commission

ACTION: Notice of Proposed Rulemaking

SUMMARY: Under section 215 of the Federal Power Act (FPA), the Federal Energy Regulatory Commission (Commission) proposes to approve Reliability Standards EOP-001-1 (Emergency Operations Planning), EOP-005-2 (System Restoration from Blackstart Resources), and EOP-006-2 (System Restoration Coordination) submitted to the Commission by the North American Electric Reliability Corporation, the Electric Reliability Organization (ERO) certified by the Commission. In addition, the Commission seeks comment from the ERO and other interested parties regarding specific concerns. The Commission may determine that, after considering such comments, it is appropriate to direct the ERO, under section 215(d)(5) of the FPA, to develop additional modifications to proposed EOP-005-2 and EOP-006-2. The proposed Reliability Standards require that plans, facilities and personnel are prepared to enable system restoration using designated blackstart resources.

DATES: Comments are due [insert date that is 60 days after publication in the **FEDERAL REGISTER**].

ADDRESSES: You may submit comments, identified by Docket No. RM10-16-000 and in accordance with the requirements posted on the Commission's web site,

<http://www.ferc.gov>. Comments may be submitted by any of the following methods:

- **Agency Web Site**: Documents created electronically using word processing software should be filed in native applications or print-to-PDF format, and not in a scanned format, at <http://www.ferc.gov/docs-filing/efiling.asp>.
- **Mail/Hand Delivery**: Commenters unable to file comments electronically must mail or hand deliver their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. These requirements can be found on the Commission's web site, see, e.g., the "Quick Reference Guide for Paper Submissions," available at <http://www.ferc.gov/docs-filing/efiling.asp> or via phone from FERC Online Support at 202-502-6652 or toll-free at 1-866-208-3676.

FOR FURTHER INFORMATION CONTACT:

David O'Connor (Technical Information)  
Office of Electric Reliability  
Division of Reliability Standards  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426  
(202) 502-6695

Nick Henery (Technical Information)  
Office of Electric Reliability  
Division of Reliability Standards  
Federal Energy Regulatory Commission  
888 First Street, NE Washington, DC 20426  
(202) 502-8636

Terence Burke (Legal Information)  
Office of the General Counsel  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426  
(202) 502-6498

Jonathan First (Legal Information)  
Office of the General Counsel  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426  
(202) 502-8529

SUPPLEMENTARY INFORMATION

133 FERC ¶ 61,161  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

System Restoration Reliability Standards

Docket No. RM10-16-000

NOTICE OF PROPOSED RULEMAKING

(November 18, 2010)

1. Under section 215 of the Federal Power Act (FPA),<sup>1</sup> the Commission proposes to approve three Reliability Standards, EOP-001-1 (Emergency Operations Planning), EOP-005-2 (System Restoration from Blackstart Resources), and EOP-006-2 (System Restoration Coordination) developed by the North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), as well as the definition of the term “Blackstart Resource” to be added to the NERC Glossary of Terms. The proposed Reliability Standards were drafted to ensure plans, facilities and personnel are prepared to enable system restoration from blackstart resources in order that reliability is maintained during system restoration. The Commission also seeks comment from the ERO and other interested entities regarding the Commission’s specific concerns discussed below. The Commission may determine that, after considering such comments, it is appropriate to direct the ERO, under section 215(d)(5) of the FPA, to develop additional modifications to proposed EOP-005-2 and

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<sup>1</sup> 16 U.S.C. 824o (2006).

EOP-006-2. The Commission also proposes to approve the retirement of the currently effective Reliability Standards EOP-001-0 (Emergency Operations Planning), EOP-005-1 (System Restoration Plans), EOP-006-1 (Reliability Coordination – System Restoration), and EOP-009-0 (Documentation of Blackstart Generating Unit Test Results) as well as the definition of “Blackstart Capability Plan” from the NERC Glossary of Terms, which are superseded by the proposed Reliability Standards EOP-001-1, EOP-005-2 and EOP-006-2.

2. “Blackstart” capability refers to the ability of a generating unit or station to start operating and delivering electric power without assistance from the electric system. Blackstart units are essential to restart generation and restore power to the grid in the event of an outage. As discussed below, NERC proposes to define “Blackstart Resource” as “a generating unit(s) and its associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus...” The proposed EOP Reliability Standards addressed in this rulemaking were developed by NERC to ensure that applicable entities prepare plans, facilities and personnel to enable system restoration from blackstart resources in order that reliability is maintained during restoration.

3. In Order No. 693, the Commission determined that it would not take action on certain proposed Reliability Standards that require supplemental information from a Regional Entity. Such Reliability Standards refer to regional criteria or procedures that have not been submitted to the Commission for approval and, as such, are referred to as

“fill-in-the-blank” standards.<sup>2</sup> Pending Reliability Standard EOP-007-0 is one such fill-in-the-blank standard. The proposed Reliability Standards provide a national approach to address the Commission’s concerns regarding pending EOP-007-0, as set forth in Order No. 693. Thus, in addition to the retirement of certain currently effective EOP Reliability Standards, we also propose to approve NERC’s to withdrawal of pending Reliability Standard EOP-007-0.

## **I. Background**

### **A. Section 215 of the FPA**

4. Section 215 of the FPA requires a Commission-certified ERO to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. If approved, the Reliability Standards are enforced by the ERO, subject to Commission oversight, or by the Commission independently.

5. In July 2006, the Commission certified NERC as the ERO.<sup>3</sup> Concurrent with its 2006 ERO Application, NERC submitted to the Commission a petition seeking approval of 107 proposed Reliability Standards, including nine Emergency Preparedness and Operations (EOP) Reliability Standards. The EOP group of Reliability Standards

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<sup>2</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 72 Fed. Reg. 16416 at P 297 (Apr. 4, 2007), FERC Stats. & Regs. ¶ 31,242, *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>3</sup> *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062 (ERO Certification Order), *order on reh’g & compliance*, 117 FERC ¶ 61,126 (2006), *aff’d sub nom. Alcoa, Inc. v. FERC*, 564 F.3d 1342 (D.C. Cir. 2009).

addresses preparations for emergencies, necessary actions during emergencies and system restoration and reporting following disturbances.

6. On March 16, 2007, the Commission issued Order No. 693, approving 83 of the 107 Reliability Standards filed by NERC,<sup>4</sup> including the Reliability Standards: EOP-001-0, EOP-005-1, EOP-006-1 and EOP-009-0.<sup>5</sup> The Commission neither approved nor remanded EOP-007-0 because it applied only to regional reliability organizations, but Order No. 693 did provide guidance for the ERO's further consideration of the Reliability Standard.<sup>6</sup> In addition, under section 215(d)(5) of the FPA, the Commission directed NERC to develop modifications to the EOP Reliability Standards to address certain issues identified by the Commission. At issue in the immediate proceeding are two new EOP standards, EOP-005-2 and EOP-006-2 that would replace the currently effective Reliability Standards EOP-005-1, EOP-006-1, and EOP-009-0 and necessitate a conforming change in EOP-001-0.

**B. Currently Effective EOP Reliability Standards**

**1. Reliability Standard EOP-005-1**

7. Currently effective Reliability Standard EOP-005-1 requires transmission operators, balancing authorities, and reliability coordinators to have a restoration plan, test the plan, train operating personnel in the restoration plan and to have the ability to

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<sup>4</sup> Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 304-1899.

<sup>5</sup> *Id.* P 542-676.

<sup>6</sup> *Id.* P 644.

restore the Interconnection using the plans following a blackout. In Order No. 693, the Commission directed the ERO to develop, through the Reliability Standard Development Process, a modification to EOP-005-1 that (i) identifies time frames for training and review of restoration plan requirements to simulate contingencies and prepare operators for anticipated and unforeseen events and (ii) gathers data from simulations and drills of system restoration on the time taken to restore power to nuclear power plants and report that information to the Commission.<sup>7</sup> The Commission also directed the ERO to consider various commenters suggestions in future revisions of the Reliability Standard.<sup>8</sup>

## 2. Reliability Standard EOP-006-1

8. In Order No. 693, the Commission also approved Reliability Standard EOP-006-1 addressing reliability coordination and system restoration. The Reliability Standard sets requirements for reliability coordinators during system restoration and requires that reliability coordinators have a coordinating role in system restoration to ensure reliability is maintained during system restoration. Under section 215 of the FPA, the Commission directed the ERO to develop a modification to EOP-006-1 to ensure that the reliability coordinator is involved in the development and approval of system restoration plans.<sup>9</sup>

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<sup>7</sup> *Id.* P 630.

<sup>8</sup> *Id.* P 628.

<sup>9</sup> *Id.* P 638.

### 3. **Reliability Standard EOP-007-0**

9. “Pending” Reliability Standard EOP-007-0 deals with establishing, maintaining and documenting regional blackstart capability plans. In Order No. 693, the Commission did not act on EOP-007-0 because it applies only to regional reliability organizations and as such was not acted on pending NERC’s providing additional information.<sup>10</sup> The Commission directed the ERO to consider various commenters suggestions relating to assigning compliance obligations directly to the entities that provide the pertinent data instead of to the Regional Entity, placing responsibility for the regional blackstart plan with the reliability coordinator rather than the Regional Entity, recognizing that nuclear units have no blackstart capability, revising the definition of a blackstart unit, and committing arrangements for coordinating blackstart capability to contracts.<sup>11</sup>

### 4. **Reliability Standard EOP-009-0**

10. Currently effective Reliability Standard EOP-009-0 deals with implementing and documenting testing of blackstart generating units. In Order No. 693, the Commission approved EOP-009-0. In addition, the Commission directed the ERO to consider suggestions for improvements raised during the comment period. One commenter stated

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<sup>10</sup> *Id.* P 297 and 644.

<sup>11</sup> *Id.* P 642–643, 647.

the Reliability Standard should provide details on what constitutes a blackstart test and another stated NERC should consolidate the Reliability Standard with EOP-007-0.<sup>12</sup>

## II. NERC Petition for Proposed EOP Reliability Standards

11. In a December 31, 2009 filing (NERC Petition), NERC requests Commission approval of its proposed definition of the term “Blackstart Resource” and proposed Reliability Standards EOP-001-1 (Emergency Operating Plan),<sup>13</sup> EOP-005-2 (System Restoration from Blackstart Resources) and EOP-006-2 (System Restoration Coordination). NERC also seeks to concurrently retire four currently effective Reliability Standards: EOP-001-0, EOP-005-1, EOP-006-1, and EOP-009-0 as well as the definition of “Blackstart Capability Plan” and withdraw pending Reliability Standard EOP-007-0.

12. NERC states that the proposed Reliability Standards “represent significant revision and improvement from the current set of enforceable standards” and address the Commission’s directives in Order No. 693 related to the EOP standards.<sup>14</sup> NERC

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<sup>12</sup> *Id.* P 674, 676.

<sup>13</sup> Concurrent with its filing in this Docket, NERC filed a petition in Docket No. RM10-15-000 seeking approval of certain Interconnection Reliability Operating Limit (IRO) Reliability Standards. As part of its IRO filing, NERC proposed to retire Requirement R2 of EOP-001-0. Each petition proposes unique changes to EOP-001-0 reflecting the distinct issues addressed by the respective Reliability Standards drafting teams. NERC indicated in both petitions that it could not anticipate the sequence in which the Commission would act and therefore included two sets of proposed amendments to EOP-001-0 in each petition. The Commission will clarify upon issuance of Final Rules in each proceeding which revised version of EOP-001-0 it is addressing in its determination.

<sup>14</sup> NERC Petition at 4.

explains that, among other enhancements, “[t]he proposed revisions now clearly delineate the responsibilities of the Reliability Coordinator and Transmission Operator in the restoration process and restoration planning.”<sup>15</sup> NERC describes the proposed Reliability Standards as providing “specific requirements for what must be in a restoration plan, how and when it needs to be updated and approved, what needs to be provided to operators and what training is necessary for personnel involved in restoration processes.”<sup>16</sup> NERC requests that the Commission approve (1) the proposed Reliability Standards, (2) concurrent retirement of the currently effective EOP Reliability Standards, and (3) the revisions to the NERC Glossary of Terms. With regard to implementation, NERC proposes that the proposed EOP Reliability Standards, new definitions and retirements of effective standards be made effective twenty-four months after the first day of the first calendar quarter following applicable regulatory approval. Below, we describe each of the proposed EOP Reliability Standards.

**A. Blackstart Resource**

13. NERC requests approval of the term “Blackstart Resource” and the concurrent retirement of the term “Blackstart Capability Plan.” The proposed definition of “Blackstart Resource” is:

A generating unit(s) and its associated set of equipment which has the ability to be started without support from the System or is designed to remain energized without connection to the remainder of the System, with the ability to energize a bus, meeting the Transmission Operator’s

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<sup>15</sup> *Id.* 5.

<sup>16</sup> *Id.*

restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the Transmission Operator's restoration plan.

The term "Blackstart Capacity Plan" is currently used solely in EOP-007-0 and EOP-009-0, both of which NERC intends to replace with proposed Reliability Standards EOP-005-2 and EOP-006-2.

**B. Reliability Standard EOP-001-1**

14. Proposed Reliability Standard EOP-001-1 contains seven requirements for the stated purpose of requiring each transmission operator and balancing authority to develop, maintain and implement a set of plans to mitigate operating emergencies and to coordinate these plans with other transmission operators, balancing authorities and the reliability coordinator.<sup>17</sup> It modifies EOP-001-0 by deleting currently effective Requirement R3.4, which requires transmission operators and balancing authorities to develop, maintain and implement a set of plans for system restoration. According to NERC, the deletion is proposed because the new EOP-005-2 and EOP-006-2 incorporate and expand upon this requirement.

**C. Reliability Standard EOP-005-2**

15. Proposed Reliability Standard EOP-005-2 contains eighteen requirements for the stated purpose of ensuring that plans, facilities and personnel are prepared to enable system restoration from Blackstart Resources, and to ensure reliability is maintained

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<sup>17</sup> Reliability Standard EOP-001-1, Section A.3. (Purpose).

during restoration and priority is placed on restoring the Interconnection.<sup>18</sup> The proposed Reliability Standard applies to transmission operators, generation operators, and transmission owners, and distribution providers identified in the transmission operator's restoration plan. Requirement R1 requires each transmission operator to have a reliability coordinator-approved restoration plan utilizing Blackstart Resources and details the scope and elements of such a plan. Requirement R2 instructs each transmission operator to provide entities that have a role in the restoration plan with a description of their roles and tasks. Requirements R3 through R6 address annual plan reviews, updating practices, location of plans and plan verification. Following a disturbance, Requirements R7 and R8 provide guidance on following the plan or making needed adjustments and coordinating when re-synchronizing two systems together. Requirement R9 describes testing information the transmission operator must have to verify the Blackstart Resources meet required expectations. Requirements R10 to R12 cover system restoration training requirements for system operators and field switching personnel. Blackstart Resource agreements between the transmission operator and generator operator or mutually agreed upon procedures or protocols are addressed in Requirement R13. Duties of a generator owner with a Blackstart Resource are provided in Requirements R14 through R18, which address operating procedures, change notification, testing for each Blackstart Resource and training of operating personnel on

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<sup>18</sup> Reliability Standard EOP-005-2, Section A.4. (Purpose).

Blackstart Resources. NERC has requested that EOP-005-1 be retired upon the effectiveness of EOP-005-2.

**D. Reliability Standard EOP-006-2**

16. Proposed Reliability Standard EOP-006-2 contains ten requirements for the stated purpose of ensuring that the reliability coordinator establishes plans and prepares personnel to enable effective coordination of the system restoration process, to maintain reliability during restoration and to place priority on restoring the Interconnection.<sup>19</sup> Requirement R1 requires reliability coordinators to have restoration plans that utilize Blackstart Resources and specifies the scope and elements of such plans. Requirement R2 covers distribution of the reliability coordinator's restoration plan. Requirements R3 through R5 provide for review of the reliability coordinator's restoration plan and the plans of each neighboring reliability coordinator and each transmission operator located in the reliability coordinator's area. Any conflicts between reliability coordinators' plans are to be resolved within thirty days, and transmission operators' plans shall be approved or disapproved, with stated reasons, within thirty days. Requirement R6 requires that the reliability coordinator must maintain copies of restoration plans in the reliability coordinator's primary and backup control room. Requirements R7 and R8 describe the roles of reliability coordinators to coordinate restoration efforts and authorize re-synchronizing of "island" areas. Requirements R9 and R10 address training and

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<sup>19</sup> Reliability Standard EOP-006-2, Section A.3. (Purpose).

participation in annual drills, exercises and simulations. NERC has requested with acceptance of EOP-006-2 that EOP-006-1 be retired.

### **III. Discussion**

17. We believe that the proposed glossary term “Blackstart Resource” and Reliability Standards EOP-001-1, EOP-005-2, and EOP-006-2 comply with the relevant directives set forth in Order No. 693. We also believe that the proposed EOP Reliability Standards represent an improvement in blackstart restoration requirements, as represented by NERC. Accordingly, under section 215(d)(2) of the FPA, the Commission proposes to approve the new term and proposed Reliability Standards as just, reasonable, not unduly discriminatory or preferential and in the public interest. In addition, the Commission seeks comment from the ERO and other interested parties regarding specific concerns and may determine, after considering such comments, that it is appropriate to direct the ERO, under section 215(d)(5) of the FPA, to develop additional modifications to proposed Reliability Standards EOP-005-2 and EOP-006-2. Below, we discuss each proposed EOP Reliability Standard and relevant concerns.

#### **A. EOP-001-1 Emergency Operation Planning**

18. The Commission proposes to approve EOP-001-1 as requested by NERC.<sup>20</sup> Current Requirement R3.4 of Reliability Standard EOP-001-0 requires each transmission operator and balancing authority to develop, maintain and implement system restoration

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<sup>20</sup> The version of EOP-001-1 that the Commission proposes to approve is the version contained in Exhibit A in the NERC Petition.

plans. The removal of that Requirement from EOP-001-0 is appropriate because NERC proposes to address system restoration plans in its new Reliability Standards EOP-005-2 and EOP-006-2. The Order No. 693 directives applicable to EOP-001-0 were not addressed in the NERC Petition since the proposed standards are narrowly focused on system restoration that is a part, and not the sole subject, of the EOP standards. We note that all of the Order No. 693 directives relating to EOP-001-0 are still applicable to EOP-001-1 and will need to be addressed by NERC in another filing.<sup>21</sup>

**B. EOP-005-2 System Restoration from Blackstart Resources**

19. The Commission proposes to approve proposed Reliability Standard EOP-005-2. The Reliability Standard effectively addresses the Commission's directive in Order No. 693 to develop time frames for training and review of restoration plan requirements to simulate contingencies and prepare operators for anticipated and unforeseen events. Requirements R3 and R4 set forth time frames for review of restoration plans. Frequency of testing Blackstart Resources is addressed in Requirement R9, and Requirement R6 requires each transmission operator to verify every five years through analysis of actual events, steady state and dynamic simulations, or testing that its restoration plan accomplishes its intended function. Periodic drills and training are the most effective method of demonstrating restoration plans are current and appropriate personnel are prepared, and proposed Requirements R10, R11 and R17 address training requirements

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<sup>21</sup> See Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 548, 554, 555, 561, 562 and 566.

for system operators, field switching personnel and generator operators with Blackstart Resources.

20. Proposed Requirement R11 of EOP-005-2 provides that applicable entities “shall provide a minimum of two hours of System restoration 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.” NERC’s Petition indicates that, in the development process, three stakeholders commented that the use of the term “unique tasks” is vague and requested a better definition and examples.<sup>22</sup> The Commission is also concerned that the applicable entities may not understand what the term “unique tasks” means, and we request comment on what is intended by that term. Also, given that there a variety of means by which the ERO, if necessary, can provide greater clarity regarding the term “unique tasks,” we request comment on whether guidance should be provided to the transmission operators, transmission owners and distribution providers who are responsible for providing training, and if so, how this guidance should be provided. In addition, we seek comment as to whether those tasks should be identified in each transmission operator’s restoration plan.

21. Requirement R5 of currently effective EOP-005-1 addresses periodic testing of telecommunication facilities needed to implement restoration plans. This requirement, however, is not carried over to proposed EOP-005-2. We recognize that currently

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<sup>22</sup> See NERC Petition, Exh. E (Record of Development of Proposed Reliability Standards) at 1429, 1500, and 1748 (as identified in the PDF version available on eLibrary on the FERC’s Home Page (<http://www.ferc.gov>)).

effective communication Reliability Standard COM-001-1.1 requires that reliability coordinators, transmission operators and balancing authorities manage, alarm, test and/or actively monitor vital telecommunication facilities, with special attention given to emergency facilities and equipment. Consistent with that requirement, the Commission proposes to require that the ERO develop a modification to EOP-005-2 that addresses this concern, for example, by specifying that such testing of telecommunication facilities be identified in the restoration plan and be part of any restoration drill, exercise or simulation. By placing the duty to test telecommunications facilities in the restoration plan, entities will ensure restoration-specific telecommunications equipment, phone lists and protocols are tested by restoration personnel as part of their ongoing restoration preparedness. In addition, recommendation 26 of the U.S. – Canada report<sup>23</sup> on the August 14, 2003 blackout recognizes that effective communication protocols during alerts and emergencies are essential to reliability. Consistent with the Blackout Report, applicable entities should have standing hotline networks or functional equivalents to receive timely and accurate information and should regularly test such communication networks.

22. Given the importance of communication to the restoration process, however, the Commission further believes that testing should be done more frequently than during annual drills, exercises or simulations (as is contained in the currently effective

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<sup>23</sup> *U.S.-Canada Power System Outage Task Force, Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations* at 161 (April 2004) (Blackout Report), available at <http://www.ferc.gov/industries/electric/indus-act/blackout.asp>.

Requirement R5 of EOP-005-1). The Commission is concerned that in an emergency event, communication devices must be readily available and functioning properly.<sup>24</sup> For example, wireless devices may be missing or non-functional and emergency contact information may be out of date. A relatively unintrusive, periodic test or drill of communications may provide greater assurance that communications equipment is available for responding in an emergency. The Commission invites comment on this issue.

**C. EOP-006-2 System Restoration Coordination**

23. Proposed Reliability Standard EOP-006-2, is intended to ensure that plans are established and personnel are prepared to enable effective coordination of the system restoration process to ensure reliability is maintained during restoration. The Commission proposes to approve EOP-006-2 as it addresses the Commission's directive in Order No.693 to ensure the reliability coordinator is involved in the development and approval of system restoration plans.

24. Under proposed Reliability Standard EOP-005-2, Requirement R1.4 requires the transmission operator to identify each Blackstart Resource and its characteristics. Currently effective Reliability Standard EOP-007-0 similarly requires the Regional Entity to maintain a database of Blackstart Resources, but these requirements have no counterpart in EOP-006-2. The Commission is concerned that the absence of a counterpart to such a requirement in EOP-006-2 could deny the Reliability Coordinator a

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<sup>24</sup> Information on the relationship between communications and electricity is available from Public Safety & Homeland Security Bureau of the Federal Communications Commission. See <http://www.fcc.gov/pshs/>.

potentially useful tool in maintaining reliability. Since the reliability coordinator is responsible for overall system awareness, the Commission invites comments as to why the current EOP-007-0 requirement was not carried forward into proposed Reliability Standard EOP-006-2 and whether it would be beneficial to include a provision in EOP-006-2 that would require the reliability coordinator to maintain a database of each Blackstart Resource within its area.

25. While proposed EOP-005-2 Requirement R6 requires each transmission operator to verify through analysis of actual events, simulations or testing that its restoration plan accomplishes its intended function, there is no similar requirement in proposed EOP-006-2 regarding the reliability coordinator's restoration plan. The Commission is concerned that the absence of a comparable verification requirement may have a detrimental effect on the quality of Reliability Coordinators' planning. Accordingly we seek comment on whether the same or similar requirement (verification through actual events, steady state and dynamic simulations or testing) should apply to reliability coordinators.

26. Pursuant to proposed EOP-006-2 Requirements R5 and R5.1, the reliability coordinators must review the restoration plans required of transmission operators by EOP-005-2 and must approve or disapprove the plans within 30 days of receipt. We are concerned that no clear guidance is provided on how a transmission operator should handle a situation where the reliability coordinator disapproves a transmission operator's plan. Although the reliability coordinator is the final authority, should there be a give and take with the transmission operator whose restoration plan contains an element that the reliability coordinator believes is incompatible with another restoration plan? If

neighboring transmission operators have conflicting plans, how will the reliability coordinator determine which plan needs to change? We invite comment on how a transmission operator should proceed when a transmission operator's plan is rejected by a reliability coordinator.

**D. Withdrawal of EOP-007-0 and Retirement of EOP-009-0**

27. The Commission proposes to allow NERC to withdraw pending Reliability Standards EOP-007-0 and to retire EOP-009-0 because, as explained by NERC, the requirements contained in those standards are now included in proposed Reliability Standards EOP-005-2 and EOP-006-2.

**E. Proposed Data Reporting Requirement**

28. Given the importance of having effective blackstart and restoration plans and well-trained personnel in place to address system restoration events, the Commission proposes that the ERO collect data on the performance of system restoration exercises conducted by transmission operators and reliability coordinators. Results from restoration exercises are typically maintained as evidence of compliance but generally not shared with other entities or available from a single source and thus are not available for others to learn from. Accordingly, the collection of this data will assist the ERO and Commission in identifying the effectiveness of restoration plans, establishing best practices among transmission operators and reliability coordinators, and determining the affects on personnel performance. The ERO could, for example, use this information to develop and disseminate "lessons learned" regarding black start capability.

29. Thus, under section 39.2(d) of the Commission's regulations, we propose to direct the ERO to gather data and establish a database that can be accessed by transmission operators, reliability coordinators and the Commission regarding transmission operator and reliability coordinator system restoration drills, exercises and simulations. In particular, we propose that the database should include: (1) the duration of each drill, exercise and/or simulation; (2) the amount of load considered lost at the beginning of the drill, exercise and/or simulation; (3) the amount of load restored at the conclusion of the event; (4) whether the drill, exercise and/or simulation was table top, walk through simulation or computer simulation; (5) which entities participated in the drill, exercise and/or simulation; and (6) whether Blackstart Resources were used. Reliability coordinators, transmission operators and the ERO will be able to use this data to identify the effectiveness of restoration plans and to help identify improvements that may be necessary or that could enhance restoration. The Commission seeks comment on the proposed data collection including the benefits of the information to be provided in the proposed collection, the types of information proposed to be collected, and any potential burden of the proposed collection.

**F. Violation Risk Factors/Violation Security Levels**

30. To determine a base penalty amount for a violation of a Requirement within a Reliability Standard, NERC must first determine an initial range for the base penalty amount. To do so, NERC assigns a violation risk factor to each Requirement and sub-Requirement of a Reliability Standard that relates to the expected or potential impact of a violation of the Requirement on the reliability of the Bulk-Power System. The

Commission has established guidelines for evaluating the validity of each violation risk factor assignment.<sup>25</sup>

31. NERC also will assign each Requirement and sub-Requirement one of four violation severity levels – low, moderate, high, and severe – as measurements for the degree to which the Requirement was violated in a specific circumstance. On June 19, 2008, the Commission issued an order establishing four guidelines for the development of violation severity levels.<sup>26</sup>

32. With respect to proposed Reliability Standards EOP-005-2 and EOP-006-2, NERC proposes to assign violation risk factors only to the main Requirements and did not propose violation risk factors for any of the sub-Requirements.<sup>27</sup> NERC noted that such

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<sup>25</sup> See *North American Electric Reliability Corp.*, 119 FERC ¶ 61,145, *order on reh'g*, 120 FERC ¶ 61,145, at P 8-13 (2007) (Violation Risk Factor Rehearing Order). The guidelines are: (1) consistency with the conclusions of the Blackout Report; (2) consistency within a Reliability Standard; (3) consistency among Reliability Standards; (4) consistency with NERC's definition of the violation risk factor level; and (5) treatment of requirements that co-mingle more than one obligation.

<sup>26</sup> *North American Electric Reliability Corp.*, 123 FERC ¶ 61,284, at P 20-35 (Violation Severity Level Order), *order on reh'g & compliance*, 125 FERC ¶ 61,212 (2008). The guidelines provide that VSL assignments should: (1) not lower the current level of compliance; (2) ensure uniformity and consistency in the determination of penalties; (3) be consistent with the corresponding requirement; and (4) be based on a single violation.

<sup>27</sup> We note that in *Version Two Facilities Design, Connections and Maintenance Reliability Standards*, Order No. 722, 126 FERC ¶ 61,255, at P 45 (2009), the ERO proposed to develop violation risk factors and violation severity levels for Requirements but not sub-requirements. The Commission denied the proposal as “premature” and, instead, encouraged the ERO to “develop a new and comprehensive approach that would better facilitate the assignment of violation severity levels and violation risk factors.” As directed, on March 5, 2010, NERC submitted a comprehensive approach that is currently pending with the Commission in Docket No. RR08-4-005.

practice is consistent with NERC's August 10, 2009 Informational Filing Regarding the Assignment of violation risk factors and violation severity levels.<sup>28</sup> With respect to proposed Reliability Standard EOP-001-1, NERC proposes to carry forward the violation risk factors and violation severity levels currently assigned to the existing Reliability Standard EOP-001-0.

33. On May 5, 2010, NERC incorporated by reference into Docket No. RR08-4-005,<sup>29</sup> its August 10, 2009 information filing in which NERC proposes assigning violation risk factors and violation severity levels only to the main Requirements in each Reliability Standard, and not to the sub-Requirements. Because the violation risk factors and violation severity levels for proposed Reliability Standards EOP-001-1, EOP-005-2, and EOP-006-2 are affected by the NERC's pending petition, we propose to defer discussion on the proposed violation risk factors and violation severity levels assigned to EOP-001-1, EOP-005-2, and EOP-006-2 until after we act on NERC's petition in Docket No. RR08-4-005.

#### **G. Summary**

34. We propose to approve proposed Reliability Standards EOP-001-1, EOP-005-2 and EOP-006-2 as well as the definition of the term "Blackstart Resource" as just, reasonable, not unduly discriminatory or preferential, and in the public interest. We also

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<sup>28</sup> NERC Petition at 22.

<sup>29</sup> Docket No. RR08-4-005 comprises NERC's March 5, 2010 Violation Severity Level Compliance Filing submitted in response to Order No. 722. *See* Order No. 722, 126 FERC ¶ 61,255 at P 45.

seek comment from the ERO and other interested entities regarding the Commission's specific concerns discussed above. The Commission may determine after considering such comments that it is appropriate to direct the ERO, under section 215(d)(5) of the FPA, to develop additional modifications to proposed EOP-005-2 and EOP-006-2. We also propose to approve the retirement of the currently effective Reliability Standards EOP-001-0, EOP-005-1, EOP-006-1, and EOP-009-0 as well as the definition of "Blackstart Capability Plan" which are superseded by the proposed Reliability Standards EOP-001-1, EOP-005-2, and EOP-006-2, and we also propose to allow NERC to withdraw the pending Reliability Standard EOP-007-0.

#### **IV. Information Collection Statement**

35. The Office of Management and Budget (OMB) regulations require approval of certain information collection requirements imposed by agency rules.<sup>30</sup> Upon approval of a collection(s) of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of this rule will not be penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number. The Paperwork Reduction Act<sup>31</sup> requires each federal agency to seek and obtain OMB approval before undertaking a

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<sup>30</sup> 5 C.F.R. § 1320.11.

<sup>31</sup> 44 U.S.C. § 3501-20.

collection of information directed to ten or more persons, or continuing a collection for which OMB approval and validity of the control number are about to expire.<sup>32</sup>

36. The Commission is submitting these reporting and recordkeeping requirements to OMB for its review and approval under section 3507(d) of the Paperwork Reduction Act. Comments are solicited on the Commission's need for this information, whether the information will have practical utility, the accuracy of provided burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected, and any suggested methods for minimizing the respondent's burden, including the use of automated information techniques.

37. This Notice of Proposed Rulemaking (NOPR), proposes to approve three new Reliability Standards, EOP-001-1, EOP-005-2 and EOP-006-2 governing system restoration from blackstart, which standards will replace currently effective Reliability Standards EOP-001-0, EOP-005-1, EOP-006-1, and EOP-009-0 as well as pending Reliability Standard EOP-007-0, all of which the Commission addressed in Order No. 693. Rather than creating entirely new blackstart requirements, the proposed Reliability Standards EOP-005-2 and EOP-006-2 instead consolidate and upgrade the overall quality of the existing Reliability Standards governing blackstart planning, testing and training and ensure enhanced coordination of the Bulk-Power System restoration process. Thus, this proposed rulemaking does not impose entirely new burdens on the effected entities. For example, the currently effective restoration Reliability Standards require transmission

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<sup>32</sup> 44 U.S.C. § 3502(3)(A)(i), 44 U.S.C. § 3507(a)(3).

operators to create, maintain and test restoration plans and train personnel in those plans. Similarly, reliability coordinators are currently required to have a role in coordinating system restoration and in focusing on restoration of the Interconnection, and generation owners and operators are currently required to test and report the results of the start up and operation of blackstart generating units. Accordingly, the requirements imposed by proposed Reliability Standards EOP-005-2 and EOP-006-2 are more specific but not necessarily more expansive than currently effective EOP Reliability Standards addressing restoration requirements. However, the Commission's proposal that the ERO gather and report data on the performance of system restoration exercises does enlarge the duties placed on the affected entities.

38. Public Reporting Burden: Our estimate below regarding the number of respondents is based on the NERC compliance registry as of September 28, 2010. According to the registry, there are 26 reliability coordinators and 176 transmission operators that would be involved in providing information. However, under NERC's compliance registration program, entities may be registered for multiple functions, so there is some double counting involved in these numbers. Proposed EOP-006-2 requires the reliability coordinator to conduct two system restoration drills, exercises or simulations per calendar year involving transmission operators and generation operators. Depending on the scope of the drill, exercise or simulation, certain transmission operators or generation operators may not be required to provide data to the reliability coordinator in any given year. Proposed reliability Standard EOP-005-2 requires generator operators with Blackstart Resources who have not already done so to document in writing both the

terms of their blackstart arrangements with their transmission operator and their procedures for energizing a bus. The registry indicates there are 773 generator operators, but we estimate of these the requirements will apply to 230. Lastly, EOP-005-2 requires transmission owners and distribution providers whose field switching personnel have unique tasks under a restoration plan to provide two hours of training every two years. The registry shows a net 678 entities that might be required to carry out such training as a result of these Reliability Standards. Given these parameters, the Commission estimates that the Public Reporting burden for the requirements contained in this NOPR is as follows:

Data Collection	No. of Respondents	No. of Annual Responses	Hours Per Respondent	Total Annual Hours
FERC-725A				
Reliability coordinators reporting data to NERC on annual basis	26	1	Reporting: 8	Reporting: 208
			Recordkeeping: 8	Recordkeeping: 208
Transmission operators reporting data to their reliability coordinator and reducing blackstart arrangements to writing	176	1	Compliance: 116	Compliance: 20,416
			Recordkeeping: 16	Recordkeeping: 2816
Generator operator system restoration responsibilities	230	1	80	18,400

including Testing and maintaining records				
Transmission owner and distribution provider training and recordkeeping	678	1	8	5,424
Total				47,472 hours

Information Collection Costs: The Commission seeks comments on the costs to comply with these requirements and recordkeeping burden associated with the proposed Reliability Standards.

- Total Annual hours for Collection: (Reporting/Compliance + recordkeeping) = hours.
- Reporting/Compliance = 44,448 hours @ \$132/hour = \$5,867,136
- Recordkeeping = 3,024 hours @ \$17/hour = \$51,408
- Total Cost = \$5,918,544
- Title: Mandatory Reliability Standards for the Bulk-Power System
- Action: Proposed Collection of Information.
- OMB Control No: 1902-0244
- Respondents: Business or other for profit, and/or not for profit institutions.
- Frequency of Responses: Annually.
- Necessity of the Information: This proposed rule would approve revised

Reliability Standards that modify the existing requirement for system restoration from a blackstart. The proposed Reliability Standards require some entities to commit

agreements or understandings to writing and/or draft written procedures. Other entities may have to produce and maintain training materials. A proposed directive to those Reliability Standards would require entities to report annually to the ERO who will in turn report to the Commission regarding transmission operator and reliability coordinator system restoration drills, exercises and simulations.

- Internal review: The Commission has reviewed the requirements pertaining to the proposed Reliability Standards for the Bulk-Power System and determined that the proposed requirements are necessary to meet the statutory provisions of the Energy Policy Act of 2005. These requirements conform to the Commission's plan for efficient information collection, communication and management within the energy industry. The Commission has assured itself, by means of internal review, that there is specific, objective support for the burden estimates associated with the information requirements.

39. Interested persons may obtain information on the reporting requirements by contacting: Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426 [Attention: Ellen Brown, Office of the Executive Director, Phone: (202) 502-8663, fax: (202) 273-0873, e-mail: [DataClearance@ferc.gov](mailto:DataClearance@ferc.gov)]. Comments on the requirements of this order may also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503 [Attention: Desk Officer for the Federal Energy Regulatory Commission]. For security reasons, comments should be sent by e-mail to OMB at [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov). Please reference 1902-0244 and the docket number of this proposed rulemaking in your submission.

**V. Environmental Analysis**

40. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.<sup>33</sup> The actions proposed here fall within the categorical exclusion in the Commission's regulations for rules that are clarifying, corrective or procedural, for information gathering, analysis, and dissemination.<sup>34</sup> Accordingly, neither an environmental impact statement nor environmental assessment is required.

**VI. Regulatory Flexibility Act Analysis**

41. The Regulatory Flexibility Act of 1980 (RFA)<sup>35</sup> generally requires a description and analysis of final rules that will have significant economic impact on a substantial number of small entities. Many of the entities, i.e., reliability coordinators, transmission operators, generation operators, transmission owners and distribution providers identified in the transmission operator's restoration plan, to which the requirements of this rule would apply do not fall within the definition of small entities,<sup>36</sup> but most transmission owners and most distribution providers would be deemed small entities. The proposed

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<sup>33</sup> *Regulations Implementing the National Environmental Policy Act*, Order No. 486, 52 FR 47897 (Dec. 17, 1987), FERC Stats. & Regs. ¶ 30,783 (1987).

<sup>34</sup> 18 C.F.R. § 380.4(a)(5).

<sup>35</sup> 5 U.S.C. § 601-12.

<sup>36</sup> The RFA definition of "small entity" refers to the definition provided in the Small Business Act (SBA), which defines a "small business concern" as a business that is independently owned and operated and that is not dominant in its field of operation. *See* 15 U.S.C. § 632. According to the SBA, a small electric utility is defined as one that has a total electric output of less than four million MWh in the preceding year.

Reliability Standards clarify the elements of restoration plans and training requirements and give reliability coordinators a greater role in review and approval of plans, but the proposed Reliability Standards reflect primarily a continuation of existing system restoration requirements currently applicable to reliability coordinators, transmission operators and generation operators.

42. Based on available information regarding NERC's compliance registry, and our best assessment of the application of the proposed Reliability Standards, approximately 1,110 entities will be responsible for compliance with proposed Reliability Standards EOP-005-2 and EOP-006-2, of which approximately 678 are transmission owners and distribution providers not already subject to the existing system restoration Reliability Standards. Of the 678 transmission owners and distribution providers, only that subset whose field switching personnel are identified in the restoration plan as having unique tasks will be subject to a new requirement under the proposed standards, *i.e.*, providing two hours of system restoration training every two calendar years to such personnel. The Commission estimates that this requirement will impose a cost of perhaps \$1,056 per year on transmission owners and distribution providers, and indeed for some entities there will be no additional cost because field personnel are already being trained in restoration tasks and therefore should not present significant operating costs. Based on the foregoing, the Commission certifies that this proposed Reliability Standard will not have a significant impact on a substantial number of small entities.

43. Based on this understanding, the Commission certifies that this rule will not have a significant economic impact on a substantial number of small entities. Accordingly, no regulatory flexibility analysis is required.

## **VII. Comment Procedures**

44. The Commission invites interested persons to submit comments on the matters and issues proposed in this notice to be adopted, including any related matters or alternative proposals that commenters may wish to discuss. Comments are due [Insert 60 days from publication in the **FEDERAL REGISTER**]. Comments must refer to Docket No. RM10-16-000, and must include the commenter's name, the organization they represent, if applicable, and their address in their comments.

45. Commenters may submit comments, identified by Docket No. RM10-16-000 and in accordance with the requirements posted on the Commission's web site, <http://www.ferc.gov>. Comments may be submitted by any of the following methods:

- **Agency Web Site:** Documents created electronically using word processing software should be filed in native applications or print-to-PDF format, and not in a scanned format, at <http://www.ferc.gov/docs-filing/efiling.asp>.
- **Mail/Hand Delivery:** Commenters unable to file comments electronically must mail or hand deliver their comments to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street, NE, Washington, DC 20426. These requirements can be found on the Commission's web site, see, e.g., the "Quick Reference Guide for Paper Submissions," available at <http://www.ferc.gov/docs-filing/efiling.asp> or via phone from FERC Online Support at 202-502-6652 or toll-free at 1-866-208-3676.

46. All comments will be placed in the Commission's public files and may be viewed, printed, or downloaded remotely as described in the Document Availability section below. Commenters on this proposal are not required to serve copies of their comments on other commenters.

### **VIII. Document Availability**

47. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through FERC's Home Page (<http://www.ferc.gov>) and in FERC's Public Reference Room during normal business hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street, NE, Room 2A, Washington, DC 20426.

48. From FERC's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

49. User assistance is available for eLibrary and the FERC's website during normal business hours from FERC Online Support at 202-502-6652 (toll free at 1-866-208-3676) or email at [ferconlinesupport@ferc.gov](mailto:ferconlinesupport@ferc.gov), or the Public Reference Room at (202)

502-8371, TTY (202)502-8659. E-mail the Public Reference Room at  
public.referenceroom@ferc.gov.

By direction of the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.