156 FERC ¶ 61,207 UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;

Cheryl A. LaFleur, Tony Clark, and Colette D. Honorable.

North American Electric Reliability Corporation

Docket No. RD16-6-000

ORDER APPROVING RELIABILITY STANDARDS

(Issued September 22, 2016)

- 1. On May 26, 2016, the North American Electric Reliability Corporation (NERC) submitted a petition seeking approval of proposed Reliability Standards IRO-018-1 (Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities) and TOP-010-1 (Real-time Reliability Monitoring and Analysis Capabilities). As discussed in this order, the Commission approves Reliability Standards IRO-018-1 and TOP-010-1 and NERC's proposed implementation plan, violation severity levels and, with the exceptions identified below, violation risk factors.
- 2. The Commission, as discussed below, directs NERC to submit a compliance filing within 60 days of the date of this order to modify the violation risk factor designations for Requirement R1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1 to "high."

I. Background and NERC Petition

3. The Commission certified NERC as the Electric Reliability Organization, as defined in section 215 of the Federal Power Act (FPA), in July 2006. In Order No. 693, the Commission approved 83 of 107 proposed Reliability Standards submitted by NERC,

¹ 16 U.S.C. § 824o(d) (2012).

² North American Electric Reliability Corp., 116 FERC \P 61,062, order on reh'g and compliance, 117 FERC \P 61,126 (2006), order on compliance, 118 FERC \P 61,190, order on reh'g 119 FERC \P 61,046 (2007), rev. denied sub nom. Alcoa Inc. v. FERC, 564 F.3d 1342 (D.C. Cir. 2009).

including the original Transmission Operations (TOP) and Interconnection Reliability Operations and Coordination (IRO) Reliability Standards. The Commission also directed NERC to address issues with respect to the TOP and IRO Reliability Standards regarding monitoring and analysis capabilities.

- NERC contends that the proposed Reliability Standards address: (1) the 4. directives in Order No. 693 requiring operators to have a minimum set of capabilities; (2) recommendations contained in the NERC Operating Committee Real-time Tools Best Practices Task Force Report published in 2008; and (3) a recommendation from the joint Commission-NERC report on the 2011 Arizona-Southern California outage. NERC explains that it developed the proposed Reliability Standards to improve real-time situational awareness capabilities and enhance reliable operations by requiring reliability coordinators, transmission operators, and balancing authorities to provide operators with awareness of monitoring and analysis capabilities, including alarm availability, so that operators may take appropriate steps to protect reliability. NERC states that the 2003 Blackout Report identified inadequate situational awareness as one of the key causes of that blackout, leading to a recommendation (Recommendation 22) for the evaluation of existing and adoption of new and better real-time tools for transmission operators and reliability coordinators. NERC adds that a recommendation (Recommendation 12) from the joint report on the 2011 Arizona-Southern California outage provided that entities "should take measures to ensure their real-time tools are adequate, operational, and run frequently enough to provide their operators the situational awareness necessary to identify and plan for contingencies and reliably operate their systems."
- 5. NERC states that, while existing Reliability Standards contain requirements to perform monitoring and real-time assessments, proposed Reliability Standards IRO-018-1 and TOP-010-1 build on these requirements to support effective situational awareness. NERC explains that the proposed Reliability Standards accomplish this by requiring applicable entities to: (1) provide notification to operators of real-time monitoring alarm failures; (2) provide operators with indications of the quality of information being provided by their monitoring and analysis capabilities; and (3) address deficiencies in the quality of information being provided by their monitoring and analysis capabilities.
- 6. Specifically, NERC states that proposed Reliability Standards IRO-018-1, Requirement R3 and TOP-010-1, Requirement R4 address situational awareness objectives by providing for operator awareness when key alarming tools are not performing as intended. Proposed Reliability Standard IRO-018-1, Requirement R3 requires reliability coordinators to have an alarm process monitor that provides notification to system operators when the failure of a real-time monitoring alarm processor has occurred. Proposed Reliability Standard TOP-010-1, Requirement R4 contains an identical requirement applicable to transmission operators and balancing authorities.

- 7. In addition, NERC states that proposed Reliability Standard IRO-018-1, Requirement R1 obligates each reliability coordinator to implement an operating process or procedure to address the quality of the real-time data necessary to perform its real-time monitoring and real-time assessments. Proposed Reliability Standard TOP-010-1, Requirement R1 contains identical requirements applicable to transmission operators; Requirement R2 requires the same of balancing authorities.
- 8. Further, NERC explains that Reliability Standards IRO-018-1, Requirement R2 and TOP-010-1, Requirement R3 ensure that reliability coordinators and transmission operators, respectively, implement operating processes or procedures to address issues related to the quality of the analysis used in real-time assessments.
- 9. NERC submits that proposed Reliability Standards IRO-018-1 and TOP-010-1, together with other currently-effective and Commission-approved IRO and TOP Reliability Standards address the relevant reliability concerns underlying the Commission's Order No. 693 directives requiring operators to have a minimum set of capabilities. NERC's implementation plan provides that the proposed Reliability Standards would become effective the first day of the first calendar quarter that is 18 months following Commission approval.

II. Notice of Filing and Responsive Pleading

10. Notice of NERC's Petition was published on June 8, 2016 in the *Federal Register*, 81 Fed. Reg. 36,910 (2016), with comments, protests and motions to intervene due on or before June 22, 2016. Dominion Resources Services, Inc. (Dominion) filed a timely motion to intervene.

III. Discussion

11. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2016), the timely motion to intervene filed by Dominion serves to make it a party to this proceeding.

A. Reliability Standards IRO-018-1 and TOP-010-1

12. Pursuant to section 215(d)(2) of the FPA, the Commission approves Reliability Standards IRO-018-1 and TOP-010-1 as just, reasonable, not unduly discriminatory or preferential and in the public interest. Reliability Standards IRO-018-1 and TOP-010-1 improve real-time situational awareness capabilities and enhance reliable operations by requiring reliability coordinators, transmission operators, and balancing authorities to provide operators with an improved awareness of system conditions analysis capabilities, including alarm availability, so that operators may take appropriate steps to ensure reliability. The Reliability Standards accomplish this by requiring that applicable entities provide notification to operators of real-time system awareness and monitoring alarm

failures. We agree with NERC that requiring applicable entities to implement operating processes or operating procedures governing the quality of the information they are providing on monitoring and analysis capabilities will enhance reliability. Further, we determine that Reliability Standards IRO-018-1 and TOP-010-1, together with existing Commission-approved Reliability Standards, adequately address the relevant directives in Order No. 693. We also approve NERC's proposed implementation plan, violation severity levels and, with the exceptions discussed below, violation risk factors.

B. Violation Risk Factors

- 13. On May 18, 2007, the Commission established guidelines for determining whether to approve violation risk factors proposed by NERC.³ The Commission identified the following five factors for evaluating violation risk factors: (1) consistency with the conclusions of the 2003 Blackout Report; (2) consistency within a Reliability Standard, (3) consistency among Reliability Standards with similar requirements; (4) consistency with NERC's definition of the violation risk factor level; and (5) assignment of violation risk factor levels to those requirements in certain Reliability Standards that co-mingle a higher risk reliability objective and a lower risk reliability objective.⁴
- 14. NERC contends that it is appropriate, under the Commission's guidelines, to assign "medium" violation risk factors to Requirement R1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1. Regarding the first guideline, NERC maintains that the requirements are not directly connected to the conclusions or critical areas identified in the 2003 Blackout Report but, rather, address specific recommendations from a NERC technical committee.
- 15. NERC also contends that a "medium" violation risk factor for these requirements satisfies the second and third guidelines because it is consistent within the Reliability Standards and among other Reliability Standards with similar requirements. Specifically, NERC states that a "medium" violation risk factor comports with the second guideline because the Reliability Standards contain similar responsibilities for different applicable entities. NERC also explains that such a designation is consistent with other Reliability Standards that involve effective monitoring and control of the bulk electric system. As examples, NERC points to "medium" violation risk factor designations for Reliability

³ See North American Electric Reliability Corp., 119 FERC \P 61,145, order on reh'g, 120 FERC \P 61,145 (2007); North American Electric Reliability Corp., 123 FERC \P 61,284, at PP 20-35, order on reh'g & compliance, 125 FERC \P 61,212 (2008); North American Electric Reliability Corp., 135 FERC \P 61,166 (2011).

⁴ North American Electric Reliability Corp., 119 FERC \P 61,145 at P 16.

Standards TOP-003-3, Requirement R5 and IRO-010-2, Requirement R3, which provide that applicable entities shall provide the data necessary for transmission operators and reliability coordinators to perform real-time monitoring and real-time assessments. In addition, NERC cites Reliability Standard TOP-001-3, Requirement R9, which requires transmission operators and balancing authorities to notify reliability coordinators and others of planned and unplanned outages of monitoring and assessment capabilities, which has also been assigned a "medium" violation risk factor.

- 16. NERC contends that the proposed designations are also consistent with NERC's definition of "medium" violation risk factor, and thus consistent with the fourth Commission guideline. NERC explains that the purpose of these Reliability Standards is to address recommendations regarding real-time situational awareness and to require entities to take steps to address data or analysis quality concerns to the extent that it affects their ability to perform real-time monitoring and analysis. NERC believes that violation of any of these requirements could directly affect the ability to effectively monitor and control the bulk electric system, but is unlikely to lead to bulk electric system instability, separation, or cascading failures.
- 17. With respect to the fifth guideline, NERC states that the proposed violation risk factor assignments do not reflect the lower of multiple reliability objectives as each applicable requirement contains one reliability objective.
- 18. We determine that the "medium" violation risk factors NERC proposes to assign to Requirement R1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1 are not consistent with the Commission's guidelines. As discussed below, NERC has not adequately justified the proposed "medium" violation risk factor designations. Specifically, we find that the proposed designations are inconsistent with NERC's definition of violation risk factor; the recommendations contained in the 2003 Blackout Report; and other Reliability Standards with similar requirements. Accordingly, we direct NERC to raise these violation risk factor designations to "high."
- 19. The fourth Commission guideline calls for consistency with NERC's definition of the appropriate violation risk factor level.⁵ The Commission-approved NERC definition for "high" violation risk factor states, in pertinent part, that a requirement should be "high" if a violation of the requirement "could place the bulk electric system at an unacceptable risk of instability, separation or cascading failures." In contrast, the Commission-approved NERC definition of "medium" violation risk factor provides that the violation of the underlying requirement "could directly affect the electrical state or

 $^{^5}$ See North American Electric Reliability Corp., 119 FERC \P 61,145 at PP 28-31.

the capability of the Bulk Electric System, or the ability to effectively monitor and control the Bulk Electric System ... [but] is unlikely to lead to Bulk Electric System instability, separation, or cascading failures." While NERC states that violation of any of the requirements could directly affect the ability to effectively monitor and control the bulk electric system, NERC contends that violation of these requirements is unlikely to lead to bulk electric system instability, separation, or cascading failures.

- 20. NERC's assertion that a violation of Requirement R1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1 is unlikely to lead to bulk electric system instability, separation, or cascading failures is unpersuasive. The 2003 Blackout Report identified four groups of causes of the blackout, one of which was failure of the interconnected transmission network's reliability organizations to provide effective real-time diagnostic support. As NERC noted in its petition, Recommendation 22 of the 2003 Blackout Report stated that NERC should "evaluate ... the real-time operating tools necessary for reliability [sic] operation and reliability coordination, including backup capabilities...." The 2003 Blackout Report also stated that NERC should require its Operating Committee to "give particular attention in its report to the development of guidance to control areas and reliability coordinators on the use of wide-area situation display systems and the integrity of data used in those systems."8 Real-time data quality is essential to ensure reliable operation of the interconnected transmission network. Given the importance of effective real-time diagnostic support recognized by NERC's Operating Committee and consistent with the 2003 Blackout Report, we conclude that first and fourth Commission guidelines support raising the violation risk factor designations for Requirement 1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1 to "high."
- 21. Regarding the third guideline, existing Reliability Standards require real-time monitoring and assessments by reliability coordinators (IRO-002-4 and IRO-008-2), transmission operators (TOP-001-3), and balancing authorities (TOP-001-3). Reliability Standards IRO-002-4, Requirements R3 and R4, IRO-008-2, Requirement R4, and TOP-001-3, Requirement R13 require monitoring and analysis of the bulk electric system and have "high" violation risk factors. The requirements of Reliability Standards IRO-018-1 and TOP-010-1 are designed to ensure the accuracy of the data used in these

⁶ U.S.-Canada Power System Outage Task Force, Final Blackout Report (April 2004) at 18, http://www.ferc.gov/industries/electric/indus-act/reliability/blackout/ch1-3.pdf.

⁷ *Id.* at 159 (Recommendation 22).

⁸ *Id*.

existing Reliability Standards to perform the required monitoring and analysis activities of the bulk electric system. The quality of the data is an essential element of the monitoring and analysis process. Accordingly, it would be incongruous to designate requirements mandating monitoring and assessments as "high" while designating requirements meant to ensure the accuracy of the data on which those assessments rely with a lower "medium" violation risk factor.

- 22. We are not persuaded by NERC's reliance on the violation risk factors in existing Reliability Standards TOP-003-3 and IRO-010-2 to support assigning a "medium" violation risk factor to Requirement 1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1. Reliability Standards TOP-003-3 and IRO-010-2 address documentation and specification of data. In contrast, Reliability Standards IRO-018-1, Requirement R1 and TOP-010-1, Requirements R1 and R2 go beyond documentation and specification of data and require the development of an operating process or operating procedure to evaluate "the quality of the Real-time data necessary to perform [] Real-time data monitoring and Real-time Assessments or analysis functions." This distinction justifies assigning a higher violation risk factor to Reliability Standards IRO-018-1, Requirement R1 and TOP-010-1, Requirements R1 and R2.
- 23. Nor are we persuaded by NERC's citation of a "medium" violation risk factor for Reliability Standard TOP-001-3, Requirement R9. This requirement mandates that each transmission operator and balancing authority notify its reliability coordinator and known impacted interconnected entities of, among other things, all planned outages, and unplanned outages of 30 minutes or more, for monitoring and assessment capabilities, and associated communication channels between the affected entities. This is a

⁹ NERC Petition at 14 ("maintaining adequate situational awareness is essential for the reliable operation of the Bulk Power System ... situational awareness means 'ensuring that accurate information on current system conditions ... is continuously available...").

¹⁰ The data specifications in Reliability Standards TOP-003-2, Requirement R5 and IRO-010-2, Requirement R3, cited by NERC, are for "mutually agreeable" formats, processes for resolving conflicts, and security protocols. These mutually agreeable procedural aspects likely would not be developed in Real-time.

¹¹ NERC Petition at 18. NERC emphasizes the importance of the quality of this type of data by noting that "[e]ntities continue to address lower-priority data quality issues (i.e., data quality issues not affecting Real-time monitoring or analysis) according to their operating practices." *Id.*

notification requirement, not a real-time performance requirement. The notified entity already is subject to performance requirements relating to its real-time monitoring and assessment capabilities.

IV. Information Collection Statement

- 24. The Paperwork Reduction Act (PRA) requires each federal agency to seek and obtain Office of Management and Budget (OMB) approval before undertaking a collection of information directed to ten or more persons or contained in a rule of general applicability. OMB regulations require approval of certain information collection requirements imposed by agency rules. Upon approval of a collection of information, OMB will assign an OMB control number and an expiration date. Respondents subject to the filing requirements of an agency rule will not be penalized for failing to respond to the collection of information unless the collection of information displays a valid OMB control number.
- 25. The Commission will submit the information collection requirements to OMB for its review and approval. The Commission solicits public comments on its need for this information, whether the information will have practical utility, the accuracy of burden and cost estimates, ways to enhance the quality, utility, and clarity of the information to be collected or retained, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques. Comments are due [60 days after publication in the FEDERAL REGISTER].
- 26. The Commission is approving the proposed Reliability Standards IRO-018-01 (Reliability Coordinator Real-time Reliability Monitoring and Analysis Capabilities, associated with FERC-725Z (Mandatory Reliability Standards: IRO Reliability Standards)) and TOP-010-1 (Real-time Reliability Monitoring and Analysis Capabilities, associated with FERC-725A (Mandatory Reliability Standards for the Bulk Power System)).
- 27. The Commission finds that the new TOP and IRO Reliability Standards improve reliability by providing rigorous functional requirements for real-time monitoring and analysis. Reliability Standards IRO-018-1 and TOP-010-1 were created to improve real-time situational awareness capabilities and enhance reliable operations by requiring reliability coordinators, transmission operators, and balancing authorities to provide

¹² 44 U.S.C. § 3507(d) (2012).

¹³ 5 C.F.R. § 1320 (2016).

operators with awareness of monitoring and analysis capabilities, including alarm availability, so that entities may take appropriate steps to ensure reliability.

28. The Commission approves Reliability Standards IRO-018-1 and TOP-010-1, which enhance reliability by accomplishing Blackout Report Recommendation 22 to evaluate and adopt better real-time tools for operators and reliability coordinators and establish requirements to perform real-time monitoring and analysis capabilities to support reliable system operations. The new Reliability Standards build upon existing requirements to support effective real-time monitoring and analysis and improved situational awareness, and thereby enhance reliable operations. Reliability Standard IRO-018-1 is applicable to reliability coordinators. Reliability Standard TOP-010-1 applies to transmission operators and balancing authorities.

<u>Public Reporting Burden</u>: The new TOP and IRO Reliability Standards require applicable entities to provide notification to operators of real-time monitoring of alarm failures. The new standards also require applicable entities to implement operating processes or operating procedures to: (i) provide operators with indication(s) of the quality of information being provided by their monitoring and analysis capabilities; and (ii) address deficiencies in the quality of information being provided by their monitoring and analysis capabilities. Our estimates regarding the number of respondents are based on the NERC Compliance Registry as of April 21, 2016. According to the NERC Compliance Registry, there are 11 reliability coordinators, 100 balancing authorities and 171 transmission operators registered. The additional estimated burden and cost related to the changes in Docket No. RD16-6 are as follows:

| FERC-725Z, changes due to Reliability Standard IRO-018-1 | | | | | | | | |
|--|--|---|---|------------------------------------|--|---|---|--|
| Entity | Requireme nts & Period | No. of Respond ents ¹⁴ | Annual No. of Responses per Respondent (2) | Total No. of Responses (1)*(2)=(3) | Average Burden & Cost Per Response ¹⁵ (4) | Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5) | Cost per Responden t (\$) (5)÷(1) | |
| RC ¹⁶ | Year 1 Implementat ion (reporting) | 11 | 1 | 11 | 60 hrs.; \$3,852.00 | 660 hrs.; \$42,372.00 | \$3,852.00 | |
| | Starting in Year 2 (annual reporting) | 11 | 1 | 11 | 32 hrs.; \$2,054.40 | 352 hrs.; \$22,598.40 | \$2,054.40 | |
| | Annual Record Retention | 11 | 1 | 11 | 2 hrs.; \$75.38 | 22 hrs.; \$829.18 | \$75.38 | |
| TOTAL BURDEN HRS. PER YEAR | | | | | | 682 hrs. in Year 1; 374 hrs. per year starting in Year 2 | | |

¹⁴ The number of respondents is the estimated number of entities for which there is a change in burden from the current standards to the proposed standards, not the total number of entities from the current or proposed standards that are applicable.

¹⁵ The estimated hourly costs (salary plus benefits) are based on Bureau of Labor Statistics (BLS) information, as of May 2015 (at http://www.bls.gov/oes/current/naics2_22.htm, with updated benefits information for March 2016 at http://www.bls.gov/news.release/ecec.nr0.htm), for an electrical engineer (code 17-2071, \$64.20/hour), and for information and record clerks (code 43-4199, \$37.69/hour). The hourly figure for engineers is used for reporting; the hourly figure for information and record clerks is used for document retention.

¹⁶ The following Requirements and the associated measures <u>apply</u> to RCs: Requirement R1: A revised data specification and writing the required operating Process/Operating Procedure; Requirement R2: Quality monitoring logs and the data errors and corrective action logs; and Requirement R3: Alarm process monitor performance logs.

| FERC-725A, changes due to TOP-010-1 in Docket No. RD16-6-000 | | | | | | | |
|--|---|--|--|------------------------------------|---------------------------------------|---|---|
| Entity | Requirements & Period | No. of Re spon dents 17 (1) | Annual No. of Responses per Respondent (2) | Total No. of Responses (1)*(2)=(3) | Average Burden & Cost Per Response 18 | Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5) | Cost per Respondent (\$) (5)÷(1) |
| BA ¹⁹ | Year 1 Implementatio n (reporting) | 100 | 1 | 100 | 70 hrs.; \$4,494.00 | 7,000 hrs.; \$449,400.00 | \$4,494.00 |
| | Starting in Year 2 (annual reporting) | 100 | 1 | 100 | 42 hrs.; \$2,696.40 | 4,200 hrs.; \$269,640.00 | \$2,696.40 |
| TOP ²⁰ | Year 1 implementation (reporting) | 171 | 1 | 171 | 70 hrs.; \$4,494.00 | 11,970 hrs.; \$768,474.00 | \$4,494.00 |
| | Starting in Year 2 (annual reporting) | 171 | 1 | 171 | 40 hrs. \$2,568.00 | 6,840 hrs.; \$439,128.00 | \$2,568.00 |

¹⁷ The number of respondents is the number of entities in which a change in burden from the current standards to the proposed exists, not the total number of entities from the current or proposed standards that are applicable.

¹⁸ The estimated hourly costs (salary plus benefits) are based on Bureau of Labor Statistics (BLS) information, as of May 2015 (at http://www.bls.gov/oes/current/naics2_22.htm, with updated benefits information for March 2016 at http://www.bls.gov/news.release/ecec.nr0.htm), for an electrical engineer (code 17-2071, \$64.20/hour), and for information and record clerks record keeper (code 43-4199, \$37.69/hour). The hourly figure for engineers is used for reporting; the hourly figure for information and record clerks is used for document retention.

¹⁹ The following Requirements and associated measures apply to balancing authorities: Requirement R1: A revised data specification and writing the required operating process/operating procedure; and Requirement R2: quality monitoring logs and the data errors and corrective action logs.

²⁰ The following Requirements and associated measures apply to transmission operators: Requirement R1: A revised data specification and writing the required operating process/operating procedure; and Requirement R3: alarm process monitor performance logs to maintain performance logs and corrective action plans.

| | | 271 | 1 | 271 | 2hrs | 542 hrs.; | |
|-----------|----------------------------|-----|---|-----|---------|--------------------|---------|
| BA/TOP | Annual Record Retention | | | | \$75.38 | \$20,427.98 | \$75.38 |
| Total | | | | | | 19,512 hrs. in | |
| Burden | | | | | | Year 1; 11,582 | |
| Hours Per | | | | | | hrs. per year, | |
| Year | | | | | | starting in Year 2 | |

29. The Commission finds that that the new standards clarify and improve upon the currently-effective TOP and IRO Reliability Standards by designating requirements in the new standards that apply to transmission operators and balancing authorities for the TOP standards and reliability coordinators for the IRO standards. Thus, the Commission finds that there are benefits to clarifying and bringing efficiencies to the TOP and IRO Reliability Standards, consistent with the Commission's policy promoting increased efficiencies in Reliability Standards and reducing requirements that are either redundant with other currently-effective requirements or have little reliability benefit.

<u>Title</u>: FERC-725Z (Mandatory Reliability Standards: IRO Reliability Standards) and FERC-725A (Mandatory Reliability Standards for the Bulk-Power System)

<u>Action</u>: Proposed revisions to existing information collections

OMB Control No: 1902-0276 (FERC-725Z); 1902-0244 (FERC-725A)

Respondents: Businesses or other for-profit institutions; not-for-profit institutions.

<u>Frequency of Responses</u>: One-time implementation and ongoing.

<u>Necessity of the Information</u>: Reliability Standards IRO-018-1 and TOP-010-1 enhance reliability by adopting better real-time tools for reliability coordinators, transmission operators, and balancing authorities and also establish requirements for real-time monitoring and analysis capabilities to support reliable system operations.

30. 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, e-mail: DataClearance@ferc.gov, Phone: (202) 502-8663, fax: (202) 273-0873].

V. <u>Effective Date</u>

31. This order will become effective upon issuance.

The Commission orders:

- (A) Reliability Standards IRO-018-1 and TOP-010-1 are hereby approved, as discussed in the body of this order.
- (B) NERC is hereby directed to submit a compliance filing within 60 days of the date of this order designating the violation risk factors for Requirement R1 of Reliability Standard IRO-018-1 and Requirements R1 and R2 of Reliability Standard TOP-010-1 as "high," as discussed in the body of this order.

By the Commission.

(SEAL)

Kimberly D. Bose, Secretary.