AGENCY:  Federal Energy Regulatory Commission.

ACTION:  Final Rule.

SUMMARY:  Under section 215(d)(2) of the Federal Power Act, the Federal Energy Regulatory Commission approves regional Reliability Standard, BAL-502-RFC-02 (Planning Resource Adequacy Analysis, Assessment and Documentation), developed by ReliabilityFirst Corporation (RFC) and submitted to the Commission by the North American Electric Reliability Corporation. The approved regional Reliability Standard requires planning coordinators within the RFC geographical footprint to analyze, assess and document resource adequacy for load in the RFC footprint annually, to utilize a “one day in ten years” loss of load criterion, and to document and post load and resource capability in each area or transmission-constrained sub-area identified. The Commission also approves four regional reliability definitions related to the approved regional Reliability Standard and the violation risk factors and violation severity levels assigned to the BAL-502-RFC-02 Requirements.
EFFECTIVE DATE: This Rule will become effective [Insert date that is 60 days after publication in the FEDERAL REGISTER].

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SUPPLEMENTARY INFORMATION:
1. Under section 215(d)(2) of the Federal Power Act (FPA), the Commission approves regional Reliability Standard BAL-502-RFC-02 (Planning Resource Adequacy Analysis, Assessment and Documentation), developed by ReliabilityFirst Corporation (RFC) and submitted to the Commission by the North American Electric Reliability Corporation (NERC). The approved regional Reliability Standard requires planning coordinators within the RFC geographical footprint to analyze, assess and document resource adequacy for load in the RFC footprint annually, to utilize a “one day in ten years” loss of load criterion, and to document and post load and resource capability in each area or transmission-constrained sub-area identified. The Commission also approves four regional reliability definitions related to the approved regional Reliability Standard and the violation risk factors and violation severity levels assigned to the BAL-502-RFC-02 Requirements.
I. **Background**

2. Section 215 of the FPA requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. Once approved, the Reliability Standards may be enforced by the ERO, subject to Commission oversight, or by the Commission independently.\(^1\) In July 2006, the Commission certified NERC as the ERO.\(^2\) Reliability Standards that the ERO proposes to the Commission may include Reliability Standards that are developed by a Regional Entity.\(^3\) In Order No. 672, the Commission urged uniformity of Reliability Standards, but recognized a potential need for regional differences.\(^4\) Accordingly, the Commission stated that:

   As a general matter, we will accept the following two types of regional differences, provided they are otherwise just, reasonable, not unduly discriminatory or preferential and in the public interest, as required under the statute: (1) a regional difference that is more stringent than the continent-wide Reliability Standard, including a regional difference that addresses matters that the continent-wide Reliability Standard


\(^3\) 16 U.S.C. 824o(e)(4).

does not; and (2) a regional Reliability Standard that is
necessitated by a physical difference in the Bulk-Power
System.[5]

A. **ReliabilityFirst**

3. On April 19, 2007, the Commission approved delegation agreements between
NERC and eight Regional Entities.6 In the Delegation Agreement Order, the
Commission accepted RFC as a Regional Entity and accepted RFC’s Standards
Development Manual, which sets forth the process for RFC’s development of regional
Reliability Standards.7 The RFC region is a less than interconnection-wide region that
covers all or portions of 14 states and the District of Columbia.

B. **Regional Reliability Standard BAL-502-RFC-02**

4. On December 14, 2009, NERC submitted for Commission approval, in accordance
with section 215(d)(1) of the FPA,8 regional Reliability Standard BAL-502-RFC-02 and
four associated new definitions.9 NERC stated that the proposed regional Reliability
Standard establishes requirements for planning coordinators in the RFC region regarding
resource adequacy assessment, which subject matter is not currently addressed in

5 Id. P 291.

6 See North American Electric Reliability Corp., 119 FERC ¶ 61,060, at P 316-350
(Delegation Agreement Order), order on reh’g, 120 FERC ¶ 61,260 (2007).

7 Id. P 339.

8 16 U.S.C. 824o.

9 NERC Petition for Approval of Proposed RFC Regional Reliability Standard
NERC’s continent-wide Reliability Standards. The stated purpose of this regional Reliability Standard is to establish common criteria, based on “one day in ten years” loss of load expectation principles, for the analysis, assessment and documentation of resource adequacy for load in the RFC region.

5. Regional Reliability Standard BAL-502-RFC-02 contains the following two main requirements. Requirement R1 requires each planning coordinator in RFC’s footprint to perform and document an annual resource adequacy analysis. The sub-requirements of Requirement R1 set forth the criteria to be used for the resource adequacy analysis. Requirement R2 requires each planning coordinator to annually document the projected load and resource capability for each area and transmission constrained sub-area identified in the analysis. The sub-requirements of Requirement R2 set forth the specific documentation requirements. Each of the two main requirements is assigned a violation risk factor (VRF) and violation severity level (VSL). RFC did not assign VRFs or VSLs to the sub-requirements.

6. The NERC Petition also includes the following four new regional definitions related to regional Reliability Standard BAL-502-RFC-02. First, “Resource Adequacy,”

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10 Id. at 7. NERC notes that it has a pending continent-wide project, Project 2009-05, Resource Adequacy Assessments, which is intended to address resource adequacy assessments.

11 NERC Petition at 7.

12 Currently, there are four registered planning coordinators in the RFC region: American Transmission Co., LLC; International Transmission Company (ITC Transmission); Midwest Independent Transmission System Operator, Inc. (Midwest ISO); and PJM Interconnection, LLC (PJM).
which is defined as the ability of supply-side and demand-side resources to meet the aggregate electrical demand (including losses). Second, “Net Internal Demand,” which is defined as the total of all end-use customer demand and electric system losses within specified metered boundaries, less Direct Control Load Management and Interruptible Demand. Third, “Peak Period,” which is defined as a period consisting of two (2) or more calendar months but less than seven (7) calendar months, which includes the period during which the responsible entity’s annual peak demand is expected to occur. Fourth, “Year One,” the planning year that begins with the upcoming annual Peak Period.

These four defined terms would apply in the RFC region only.

C. Notice of Proposed Rulemaking

7. On October 21, 2010, the Commission issued its Notice of Proposed Rulemaking (NOPR) proposing to approve regional Reliability Standard BAL-502-RFC-02, stating that the standard will improve the reliable operation of the Bulk-Power System by ensuring use in the RFC region of a common criterion, the “one day in ten years” principle, to assess resource adequacy during the planning horizon. In the NOPR, the Commission proposed to direct RFC, at the time it conducts its scheduled five-year review of regional Reliability Standard BAL-502-RFC-02, to: (1) add time horizons to the two main requirements, and (2) consider modifying the regional Reliability Standard to include a requirement that the planning coordinators identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning

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reserves determined from the resource adequacy analysis. The Commission also proposed to accept the four related definitions for inclusion in NERC’s Glossary for use with RFC’s regional Reliability Standards,\textsuperscript{14} and proposed to defer ruling on the proposed VRFs and VSLs for the standard.

8. In addition, in the NOPR, the Commission sought clarification or comment on a few aspects of BAL-502-RFC-02. With respect to the regional Reliability Standard’s resource adequacy analysis, the Commission sought comment on three issues: (1) the loss of load calculation; (2) consideration of the capacity benefit margin; and (3) evaluation of common mode outages. The Commission also sought comment on: (1) how planning coordinators, when conducting the resource adequacy analysis, will address load and resources outside of the RFC footprint; (2) whether planning coordinators should have a common process or procedure that addresses the planning reserves assessments; and (3) whether the planning coordinators have experienced problems collecting the data necessary to perform the resource adequacy analysis.

9. In response to the NOPR, comments were filed by 13 interested parties. These comments assisted us in the evaluation of BAL-502-RFC-02. In the discussion below, we address the issues raised by these comments. In addition, five entities filed motions to intervene and three state utility commissions filed notices of intervention. Appendix A to this Final Rule lists the entities that filed comments and interventions.

\textsuperscript{14} NERC’s Glossary lists each term that has been defined for use in one or more of NERC’s continent-wide or regional Reliability Standards.
II. Discussion

10. In this Final Rule, the Commission approves regional Reliability Standard BAL-502-RFC-02 as just, reasonable, not unduly discriminatory or preferential, and in the public interest. To that end, the Commission finds that BAL-502-RFC-02 satisfies the Order No. 672 factors on how the Commission determines whether a regional Reliability Standard is just and reasonable in that BAL-502-RFC-02: (1) is clear and unambiguous regarding what is required and who is required to comply (planning coordinator); (2) has clear and objective measures for compliance and achieves a reliability goal (namely, providing a common framework for resource adequacy analysis, assessment, and documentation) using one effective methodology, and (3) is “more stringent” in that NERC’s continent-wide standards currently do not address assessment of resource adequacy in the planning horizon.

11. The Commission also denies the requests made by NARUC, Ohio PUC, Borlick, and the Illinois Commerce Commission that the Commission hold a technical conference in this proceeding to “foster needed dialogue” by state regulatory commissions, economists, and stakeholders regarding the one in ten years criterion. First, the Commission finds that there is adequate information in the record in this proceeding to act on NERC’s Petition. Second, the more appropriate venue to discuss technical details, such as the appropriateness of the one day in ten years criterion compared with other methodologies, is in the standards development process itself. The Commission’s decision here does not preclude other entities, such as NERC, from holding technical conferences to foster further dialogue and to discuss improvements in criteria used for resource planning.
The following discussion addresses first, the two challenges to approval of BAL-502-RFC-02, the Commission’s jurisdictional authority to approve a resource adequacy assessment standard and the propriety of using the one day in ten years criterion. As discussed below, on these two issues the Commission determines first, that it is within our authority to approve a resource adequacy assessment regional Reliability Standard and, second, that the one day in ten years criterion is a just and reasonable method to use to conduct resource adequacy assessments for purposes of BAL-502-RFC-02. Next, the Commission discusses the six issues on which we sought comment in the NOPR. Finally, the Commission discusses the following remaining issues related to BAL-502-RFC-02: (i) missing time horizons, (ii) effective date, (iii) regional definitions, and (iv) VRFs and VSLs.

A. Challenges to Approving BAL-502-RFC-02

NERC, RFC and other commenters support approval of regional Reliability Standard BAL-502-RFC-02. NARUC and Ohio PUC raise concerns regarding the Commission’s jurisdiction to approve this regional Reliability Standard. Commenters also raise concerns regarding the appropriateness of the one day in ten years criterion. These issues are discussed below.

1. Jurisdiction

Comments

NARUC and the Ohio PUC raise several jurisdictional arguments regarding the Commission’s authority under section 215 of the FPA to approve regional Reliability Standard BAL-502-RFC-02. These comments are endorsed by the Illinois Commerce Commission. NARUC and the Ohio PUC argue that the Commission lacks jurisdiction
under section 215 of the FPA to approve a regional Reliability Standard that pertains to resource adequacy, asserting that BAL-502-RFC-02 is, in reality, a capacity requirement that RFC has couched as a planning tool. The Ohio PUC quotes Order No. 672, in which the Commission stated: “The proposed Reliability Standard must address a reliability concern that falls within the requirements of section 215 of the FPA. That is, it must provide for the reliable operation of Bulk-Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities.” 15 The Ohio PUC and NARUC argue that BAL-502-RFC-02 fails this parameter as it does not provide for the reliable operation of Bulk-Power System facilities. Specifically, they point to the definitions of “Reliability Standard” and “Reliable Operation” set forth in section 215 of the FPA, which definitions they argue make clear that Congress did not intend for a resource adequacy planning criterion to be the subject of a FPA section 215 Reliability Standard. They claim that the statutory definition of “Reliability Standard,” specifically precludes the Commission from instituting any capacity requirements. 16 They next posit that the definition of “Reliable Operation” pertains to cascading outages, not the orderly

15 Ohio PUC Comments at 7, Order No. 672, FERC Stats. & Regs. ¶ 31,204 at P 331.

16 “Reliability Standard” is defined to mean “a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities, including cybersecurity protection, and the design of planned additions or modifications to such facilities to the extent necessary to provide for reliable operation of the bulk-power system, but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity.” 16 U.S.C. 824o(a)(3).
sheding of load due to a capacity shortage.\textsuperscript{17} The Ohio PUC argues that a lack of adequate resources to serve all “firm” load at current prices does not lead to “instability, uncontrolled separation, or cascading failures” in the Bulk-Power System. Thus, NARUC and Ohio PUC argue that BAL-502-RFC-02, which requires a resource adequacy assessment, does not address a reliability concern as resource adequacy issues are not relevant to the “Reliable Operation” of Bulk-Power System facilities as that term is defined in section 215 of the FPA.

15. NARUC and Ohio PUC also contend that resource adequacy is a traditional state concern that is outside of the Commission’s domain. They argue that both capacity requirements and resource adequacy planning criteria involve economic and policy decisions that impact the reasonableness of rates, generation decisions and retail demand response programs, all of which are within the states’ domain. The Ohio PUC states that a Commission-mandated resource adequacy Reliability Standard, such as BAL-502-RFC-02, infringes on a state’s authority to balance need for capacity investments against the risk of curtailments. Following up on this point, the Ohio PUC states in a footnote that it is unreasonable for anyone to argue that planning coordinators would plan using one criterion and then use a different criterion to make the economic determination of what

\textsuperscript{17} The term “Reliable Operation,” as defined in section 215(a)(4) of the FPA, means “operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”
resources should be acquired as doing so would be a waste of the planning coordinator’s
time and resources.

16. NERC, RFC, and the PJM Power Providers respond to the jurisdictional questions
raised by NARUC and Ohio PUC in their reply comments. In its Petition, NERC
asserted that regional Reliability Standard BAL-502-RFC-02 does not adversely affect
competition or cause restriction on the grid because it does not require entities to secure
the needed resources as an outcome of the planning coordinators resource adequacy
analysis. In their reply comments, NERC, RFC, and PJM Power Providers reiterate that
BAL-502-RFC-02 is consistent with the provisions and stated goals of the Energy Policy

17. NERC counters NARUC’s and the Ohio PUC’s comments, arguing that section
215(a)(3), which contains the definition of “Reliability Standard,” does not preclude
NERC from including a resource adequacy planning criterion. NERC states that the key
distinction is between NERC’s ability to include resource adequacy planning criterion in
a Reliability Standard, which is clearly allowed under section 215(a)(3) and prior
Commission orders, and NERC’s ability to require the building or acquisition of new
generating capacity, which is prohibited by section 215(a)(3) of the FPA. To support this
argument, NERC quotes Order No. 672 in which the Commission stated:

We agree with PG&E’s recommendation that the Commission require the ERO to obtain information on resource adequacy and make related recommendations where entities are found to have inadequate resources. Resource adequacy is a fundamental aspect of reliability. The ERO is in a unique position to obtain and analyze information regarding resource adequacy across all regions of the Bulk-Power System in interconnected North America. Although section 215(a)(3) of the FPA provides that the term
Reliability Standard does not include any requirement to enlarge Bulk-Power System facilities or to construct new transmission capacity or generation capacity, it does not preclude the ERO from obtaining information relating to resource adequacy for the purposes of making its required reports on the adequacy of the Bulk-Power System pursuant to section 215(g) of the FPA.²⁸

NERC asserts that the common criterion established in regional Reliability Standard BAL-502-RFC-02 to be used to complete a resource adequacy assessment serves a reliability purpose as the “common criterion is necessary so that recommendations can be made in the [RFC] Region regarding inadequate resource adequacy requirements that could negatively impact the reliability of the bulk power system.”²⁹

18. RFC argues that Reliability Standards are not simply engineering standards and that many Reliability Standards, like BAL-502-RFC-02, involve long horizons and are intended to prevent the Bulk-Power System from coming anywhere near “instability, uncontrolled separation, or cascading failures.” As an example, RFC cites to NERC Reliability Standard FAC-010, which requires planning authorities to identify system operating limits (SOLs) and interconnection reliability operating limits (IROLs) in the planning horizon. RFC also cites to NERC Reliability Standard TPL-001, which requires that the transmission system be able to supply projected customer demands over the range of forecast system demands under no contingency conditions for the planning horizon. With respect to proposed regional Reliability Standard BAL-502-RFC-02, RFC states that the resource adequacy data produced under the standard will be a “valuable

²⁸ Order No. 672, FERC Stats. & Regs. ¶ 31,204 at P 806 (emphasis added).
²⁹ NERC Reply Comments at 5.
reliability tool that can be used by registered entities in working to ensure, well in 
advance of any identified concerns, that ‘instability, uncontrolled separation, or cascading 
failures’ never occur.”

19. With respect to NARUC and the Ohio PUC’s arguments that a resource adequacy 
assessment standard will infringe on areas within a state’s jurisdiction, RFC responds that 
BAL-502-RFC-02 does not encroach on the authority of the states to make the policy 
decisions that weigh resource adequacy against cost. RFC notes that states within the 
RFC region are free to use the data and documentation developed under BAL-502-RFC-
02 in imposing resource adequacy obligations and making policy decisions regarding 
what level of service they are willing to pay to achieve. RFC further asserts that each 
state commission remains the ultimate arbiter of economic decisions regarding how to 
balance capacity investments against the risk of curtailment as no economic decisions of 
any kind are mandated by BAL-502-RFC-02. RFC reiterates that the only enforceable 
mandate under BAL-502-RFC-02 is the obligation to perform and document the resource 
adequacy analysis in a consistent way across the RFC region.

Commission Determination

20. As explained herein, the Reliability Standard before us does not preclude or 
preempt any action by a state PUC with regard to resource adequacy. As the 
Commission has previously recognized, resource adequacy raises “complex jurisdictional

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20 RFC Reply Comments at 11.
concerns” which at times are at the “confluence of state-federal jurisdiction.”  

As the Commission stated in the order in which the Commission certified NERC as the ERO, with respect to FPA section 215(g), “Reliability Reports”:

> We agree . . . that the ERO’s assessments of Bulk-Power System reliability and adequacy cannot themselves provide the basis for preempting state or regional transmission planning and resource adequacy programs. The Commission can, however, order the ERO to submit adequacy assessments, including recommendations that some entities are found to have inadequate resources. In addition, our regulations provide for a determination of consistency between state actions and a Reliability Standard, as well as an assessment of the Reliability Standard’s effectiveness as the Commission may deem appropriate.  

Although the Commission was addressing the interplay between the ERO’s role with respect to resource adequacy assessments and states’ resource adequacy programs in the context of section 215(g), this interplay is equally relevant to the ERO’s role with respect to the development of Reliability Standards because the Commission is acknowledging that FPA section 215 establishes resource adequacy assessments as being relevant to reliability and, further, that the reliability aspect of resource adequacy assessments does not preempt state action.

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22 FPA section 215(g) provides that the “ERO shall conduct periodic assessments of the reliability and adequacy of the bulk-power system in North America.” 16 U.S.C. 824o(g) (emphasis added).

21. The Commission, by approving BAL-502-RFC-02, is not usurping, intruding on, or preempting any authority exclusively within a state’s jurisdiction because, as recognized in Order No. 672, the FPA does not reserve authority for the states over all matters related to or that flow from “resource adequacy.” Moreover, the “savings” provision in section 215, section 215(i)(3), is clear that nothing in section 215 shall be “construed to preempt any authority of any State to take action to ensure the safety, adequacy, and reliability of electric service within that State, as long as such [State] action is not inconsistent with any reliability standard.” As we have clarified in a prior order, the saving provision in section 215(i) is not a grant of new authority to the states, but merely preserves any authority states may have under state law “to take action to ensure the safety, adequacy, and reliability of electric service within that State, so long as such action is not inconsistent with any reliability standard . . . .”\(^{24}\) Thus, we do not agree with NARUC or the Ohio PUC that the approval of BAL-502-RFC-02 will impinge on states’ jurisdiction over matters related to resource adequacy. BAL-502-RFC-02 does not touch the establishment of specific resource adequacy requirements, and thus does not intrude on the state’s decisional authority with respect to building or acquisition of assets or capacity to meet resource adequacy needs.

22. With respect to the Ohio PUC’s argument that by approving a regional Reliability Standard mandating the use of a specific resource adequacy planning criterion (the one day in ten years criterion), the Commission is establishing that criterion as the *de facto*
criterion to be used to set resource investment requirements, this argument appears to be borne out of the Ohio PUC’s concern regarding preserving its authority to set resource adequacy standards. The standard does not impinge on Ohio PUC’s authority to set or determine how to meet resource adequacy standards. Contrary to the Ohio PUC’s concerns, the Commission believes that establishing a common criterion for resource planning will provide states with a uniform framework of information regarding resource adequacy. The information the reliability assessments provide would then be available to the states to use or could serve as a platform on which to layer additional factors, such as costs, as the states see fit.

23. The Commission also finds that the proposed resource adequacy analyses and documentation requirements in BAL-502-RFC-02 fall within the definition of “Reliability Standard” as that term is defined in section 215(a)(3) and pertain to the “Reliable Operation” of the Bulk-Power System as that term is defined in section 215(a)(4). Under section 215(a)(3), the only type of requirement that is explicitly precluded from being part of an enforceable Reliability Standard is a “requirement to enlarge [bulk-power system facilities] or to construct new transmission capacity or generation capacity.” BAL-502-RFC-02 does not include any such requirement. Specifically, BAL-502-RFC-02 mandates planning, it does not require entities to secure any resources as an outcome of the resource adequacy assessment.

24. BAL-502-RFC-02 also falls within the definition of Reliability Standard, as it provides for the **reliable operation** of the Bulk-Power System because it serves to identify potential resource adequacy deficiencies in a planning horizon with time to mitigate projected resource adequacy problems before shortages of resources occur in the operating horizon. Shortages of resources in the operating horizon can lead to blackouts and even cascading outages. Under these conditions, operators may be continually challenged to balance load with energy to prevent major power or voltage swings across the grid that can lead to blackouts and cascading outages. Because the standard does not prescribe that action must be taken, entities with authority for planning and siting new resources, including demand response resources or any other resource type, can determine the appropriate course of action, if any, that should be taken, including performing additional resource adequacy studies. The standard therefore does not preclude or preempt any action by a state commission with regard to resource adequacy. The Ohio PUC argues that NERC and RFC “conflate[] resource adequacy with reliable operation of the Bulk-Power System,” stating that the definition of “Reliable Operation” cannot be enlarged and manipulated to include planning to build such capacity.\(^{26}\) The Commission finds that the Ohio PUC, in making this argument, is reading into BAL-502-RFC-02 a requirement that registered entities within RFC build or acquire new generating capacity. Such a requirement simply does not exist in BAL-502-RFC-02.

\(^{26}\) Ohio PUC Comments at 5-6.
25. Ohio PUC further argues that a lack of adequate resources to serve firm load does not lead to “instability, uncontrolled separation or cascading failures,” which are hallmarks of the term “Reliable Operation.” We disagree with the Ohio PUC’s interpretation of the definition of “Reliable Operation” as stated in section 215. A more careful reading reveals that the “hallmarks” of this term, instability, uncontrolled separation or cascading failures, are not to occur upon the unanticipated failure of a system element. If resources cannot meet load, or are insufficient to provide a reserve margin above expected load, then instability, uncontrolled separation or cascading failures can result from the unanticipated loss of a system element. If this situation occurs, reliable operation is not achieved due to resource inadequacy. Thus, like other planning standards, BAL-502-RFC-02 provides for the reliable operation of the Bulk-Power System as it will help identify areas of concern that, if left unresolved, could result in future instability, uncontrolled separation, or cascading failures of the Bulk-Power System.

26. The only other affirmative limitation on the scope of Commission-approved and enforceable Reliability Standards under FPA section 215 is the savings clause in section 215(i)(2), which states: “This section does not authorize the ERO or the Commission to order the construction of additional generation or transmission capacity or to set and enforce compliance with standards for adequacy or safety of electric facilities or services.”

27 Regional Reliability Standard BAL-502-RFC-02 does not set any resource

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27 16 U.S.C. 824o(i)(2).
adequacy standards. Specifically, BAL-502-RFC-02 does not impose on any registered entity a resource adequacy obligation because the standard contains no requirement for an entity to construct or otherwise invest in additional transmission, distribution, or generation resources or capacity. Nothing in BAL-502-RFC-02 requires any entity to use or take any action with respect to the resulting resource adequacy assessment. Regional Reliability Standard BAL-502-RFC-02 only requires a resource adequacy analysis and documentation of such analysis. Importantly, the Commission is not, through BAL-502-RFC-02, setting, enforcing or in any way mandating the resource adequacy levels that are derived through the BAL-502-RFC-02 resource adequacy analyses. Accordingly, BAL-502-RFC-02 does not run afoul of the prohibitions in FPA sections 215(a)(3) or 215(i)(2).

2. **One Day in Ten Years Criterion**

27. Regional Reliability Standard BAL-502-RFC-02 requires planning coordinators to perform an annual resource adequacy analysis and calculate a planning reserve margin that meets the “one day in ten years” criterion.\(^{28}\) The analysis must be “performed or verified separately” for: (i) year one, (ii) for one year falling in the second through fifth years, and (iii) at least one year in the sixth through tenth years.\(^{29}\)

\(^{28}\) The “one day in ten years” criterion is used to plan resource adequacy such that reserve margins are planned so that the expected frequency of loss of load due to inadequate resources does not exceed 0.1 events per year, which equates to one event in ten years.

\(^{29}\) See proposed Reliability Standard BAL-502-RFC-02, Requirement R1.2.
Comments

28. Several commenters expressed that the “one day in ten years” criterion is not economically efficient, is outdated, and is too conservative of a requirement.\(^{30}\) OCC comments that the “one day in ten years” criterion does not account for changes in the electric industry such as markets, demand response, energy advancements, distributed generation, energy efficiency or the smart grid. Thus, OCC recommends that the Commission consider alternative planning reserve margin methodologies rather than a conservative one day in ten years methodology. The Ohio PUC argues that the one day in ten years criterion has not been shown to be just and reasonable because: (1) the criterion is outdated; (2) it may negatively impact competition such as the development of price responsive demand; and (3) no analysis has been done to confirm that a one day in ten years criterion produces a reserve margin that reasonably balances the value of avoiding scarcity and the cost of maintaining the target reserve margin.

29. Carden supports annual resource adequacy assessments that are based on common criteria for reliability. Wilson comments that the conservative assumptions in a one day in ten years analysis often lead to less reliance on neighboring systems that results in excess generation.

30. Responding to these criticisms of the one day in ten years criterion, RFC points out that the only RFC stakeholder that voted against the BAL-502-RFC-02 cast a

\(^{30}\) See Comments submitted by Borlick, Carden, OCC, Ohio PUC, and Wilson.
negative vote because that stakeholder favors implementing a continent-wide resource adequacy planning standard rather than a regional standard. RFC asserts that the one day in ten years criterion is just and reasonable because its use will ensure, for the first time, that similar assessments of resource adequacy are performed for every part of the RFC region, including in states that have deregulated electric markets, which will provide a consistent and mutually understandable target against which to assess adequacy. RFC rejects as unreasonable, burdensome and unnecessary the other commenters’ suggestion that the one day in ten years criterion must be first proven to balance the benefit of avoiding scarcity with the cost of maintaining an appropriate reserve. RFC further notes that even though the criterion used in regional Reliability Standard BAL-502-RFC-02 could be improved in the future, that does not make the standard unreasonable now. To that end, RFC encourages interested parties to participate regularly in its regional Reliability Standards development process as well as at its informal stakeholder meetings.

**Commission Determination**

31. The comments on this issue reveal a level of disagreement regarding the appropriateness of using the “one day in ten years” criterion for an annual resource adequacy assessment. In approving this regional Reliability Standard, the Commission need not determine that the “one day in ten years” criterion represents the most effective or most economically efficient method of measuring resource adequacy. Rather, the Commission is to determine whether the proposed standard is just and reasonable, not unduly discriminatory or preferential, and in the public interest. Thus, in this case, the Commission considers whether the requirements in BAL-502-RFC-02 are a just and
reasonable means of achieving the reliability objective of the standard. As noted by RFC in its reply comments, the reliability objective of BAL-502-RFC-02 is to provide a common framework for analyzing, assessing, and documenting resource adequacy, in part to resolve RFC’s concerns regarding the lack of standardization and the lack of a measure for resource adequacy in deregulated states within its footprint. The Commission finds that BAL-502-RFC-02 achieves the reliability objective of establishing a common criteria for analyzing, assessing and documenting resource adequacy in a just and reasonable manner through the imposition of the one day in ten years criterion for measuring resource adequacy. The Commission emphasizes that the one day in ten years criterion is one common approach for resource adequacy assessment, and by approving this regional Reliability Standard, the Commission does not establish the one day in ten years criterion to be the *de facto*, or the only acceptable metric for resource adequacy assessment. Rather, the Commission is acknowledging that the one day in ten years criterion is a well-established and common criterion for assessing resource adequacy. The use of a known and understood criterion should result in

31 RFC Reply Comment at 13.


(continued…)
consistent, transparent and understandable resource adequacy analyses within the RFC region, and thus meets the reliability goal of establishing a common criterion to assess resource adequacy.

32. The Commission does not disagree with commenters’ arguments that the one day in ten years criterion could be improved upon as an assessment tool or replaced with another methodology, but this does not mean that RFC’s proposed one day in ten years criterion is unjust or unreasonable. NERC endorsed the one day in ten years criterion in its Petition, stating that “experience has demonstrated that correlating generating capacity and customer load in a ‘loss of load’ methodology with a target of ‘one day in 10 year’ criterion has provided adequate generating capacity in real time operation . . . to supply all customer firm loads, even under extreme conditions.”

The Commission further notes that approving this regional Reliability Standard with the one day in ten years criterion does not prevent future changes or improvements to this resource assessment methodology. Our approval of BAL-502-RFC-02 does not prevent RFC or NERC from proposing other methodologies from replacing the one day in ten years criterion to assess

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five use the one day in ten years LOLE criteria); PJM Interconnection, L.L.C., PJM Generation Adequacy Analysis: Technical Methods Capacity Adequacy Planning Department, at 1 (October 2003), available at http://www.nerc.com/docs/pc/ris/PJM_Generation_Adequacy_Analysis_Technical_Methods.pdf (stating “This ‘one day in ten year’ loss-of-load expectation (LOLE) is the standard observed in most NERC regions and is the basis for determining PJM’s required Installed Reserve Margin (IRM).”).

33 NERC Petition at 10.
resource adequacy and determine a level of planning reserve margin necessary to maintain reliability of the Bulk-Power System.34

33. The only obligations under BAL-502-RFC-02 are analysis and documentation requirements. This regional Reliability Standard does not specify how the results of the analysis required in this standard are to be used. For example, BAL-502-RFC-02 does not require state commissions to use the resource assessment analysis resulting from BAL-502-RFC-02 for economic decisions regarding resource adequacy requirements. Thus, the Commission rejects the Ohio PUC’s argument that the one day in ten years criterion is unreasonable because the criterion does not consider the economics of resource adequacy such as the cost of additional resources or the value of energy to the consumers whose service would be interrupted in the event of a shortfall. Certainly, the BAL-502-RFC-02 assessments will be available as a tool to help inform the policy decisions to determine the level of service entities are willing to pay for and resource adequacy requirements. However, the Commission repeats, these activities are not required by this regional Reliability Standard.

34. In response to the Ohio PUC’s claim that BAL-502-RFC-02 was developed with limited visibility to and involvement by many of those most involved in resource adequacy issues, e.g., state commissions and economists, the Commission emphasizes that BAL-502-RFC-02 was developed through an open and transparent process, allowing

anyone with an interest to participate. As documented by RFC, during the standard development process, entities had multiple opportunities to express concerns regarding anything related to the regional Reliability Standard, including the one day in ten year criterion. The RFC Reliability Standards Development Procedure (RSDP) also includes an opportunity for submitting a “standard authorization request” to suggest a modification to any regional Reliability Standard or development of a new regional Reliability Standard. The Commission also notes that RFC will review BAL-502-RFC-02 at least every five years, thereby affording future opportunities for interested entities to participate in these reviews.

B. Issues Regarding Specific BAL-502-RFC-02 Requirements

35. In the NOPR, the Commission stated that it believes that the factors or characteristics to be considered in the resource adequacy analysis as set forth in Requirement R1 of BAL-502-RFC-02 are a technically sound means to set up the analysis for ascertaining the probability of not having enough resources in order to meet demand and avoid loss of load. In addition, the Commission sought clarification regarding three aspects of the resource adequacy analysis: (i) the loss of load calculation, (ii) use of capacity benefit margin; and (iii) the meaning of common mode outages.

1. Loss of Load Calculation

36. Regional Reliability Standard BAL-502-RFC-02, Requirement R1.1 states that the planning coordinator’s assessment shall calculate a planning reserve margin that results in the sum of probabilities for loss of load for each planning year equal to 0.1, or

35 NERC Petition at 5-6, 19-21; RFC Reply Comments at 15-16.
comparable to “one day in ten years” when available capacity will not meet the load.

With respect to the loss of load calculation, BAL-502-RFC-02 specifically identifies two circumstances that do not contribute to the loss of load probability: (1) utilization of direct control load management and (2) curtailment of interruptible load.

Notwithstanding these two exceptions to the loss of load probability, the Commission sought comment on how other system operator actions, such as voltage reduction or other, non-voluntary types of load reduction plans, would be modeled and documented in this analysis.

**Comments**

37. RFC and Midwest ISO comment that real-time operating actions, like voltage reductions or other non-voluntary types of load reduction plans are not intended to be included in the BAL-502-RFC-02 assessment. RFC and Midwest ISO explain that these types of load reduction are only considered during the operating horizon and are not included in planning time frame assessments to comply with requirements associated with the planning horizon.

36 **NERC** defines direct control load management (DCLM) as “Demand-Side Management that is under the direct control of the system operator. DCLM may control the electric supply to individual appliances or equipment on customer premises. DCLM as defined here does not include Interruptible Demand.” *Glossary of Terms Used in NERC Reliability Standards*, April 20, 2010 (NERC Glossary), available at: http://www.nerc.com/docs/standards/rs/Glossary_of_Terms_2010April20.pdf.

37 The NERC Glossary defines Interruptible Load as “Demand that the end-use customer makes available to its Load-Serving Entity via contract or agreements for curtailment.”

38 NOPR, FERC Stats. & Regs. ¶ 32,662 at P 18.
38. Borlick, Midwest ISO, OCC, Ohio PUC and Wilson comment on various demand side resources and their inclusion or exclusion from the BAL-502-RFC-02 resource adequacy assessment. Borlick comments that price responsive demand should not be counted both in Requirement R1.3.1 (load forecast characteristics)\(^{39}\) and in Requirement R1.4 (resource availability characteristics).\(^{40}\) Midwest ISO states that the regional Reliability Standard does not limit which demand response programs are excluded from the loss of load calculation, thereby allowing for, not preventing, future innovations in demand side programs. OCC asserts that the NOPR and BAL-502-RFC-02 imply that voluntary curtailment services, including demand response, are completely excluded from consideration in the loss of load calculation. OCC further argues that complete exclusion of voluntary curtailment service from the loss of load calculation would undervalue demand response resources. OCC states that demand response resources should be taken into account in the loss of load calculation because they reduce the need

\(^{39}\) BAL-502-RFC-1, Requirement R1.3.1 sets forth the load forecast characteristics that are to be included and documented in the resource adequacy analysis. Specifically, Requirement R1.3.1 identifies the following six load forecast characteristics: (1) median (50:50) forecast peak load; (2) load forecast uncertainty; (3) load diversity; (4) seasonal load variations; (5) daily demand modeling assumptions; and (6) contractual arrangements concerning curtailable/interruptible demand.

\(^{40}\) BAL-502-RFC-1, Requirement R1.4 requires the consideration in the resource adequacy analysis of eight resource availability characteristics and documentation of how and why they were included in the analysis or why they were not included. The resource availability characteristics include: (1) availability and deliverability of fuel; (2) common mode outages that affect resource availability; (3) environmental or regulatory restrictions of resource availability; (4) any other demand (load) response programs not included in the resource availability analysis; (5) sensitivity to resource outage rates; (6) impacts of extreme weather/drought conditions that affect unit availability; (7) modeling assumptions for emergency operation procedures used to make reserves available; and (8) market resources not committed to serving load within the planning coordinator area.
for additional capacity. Accordingly, OCC urges the Commission to require including historical demand response rates for resources in the loss of load calculation. The Ohio PUC comments that price responsive demand is not accounted for in this regional Reliability Standard. Last, Wilson notes that approving BAL-502-RFC-02 could actually prevent demand response or price responsive demand from developing.

**Commission Determination**

39. Based on the Midwest ISO and RFC comments, the Commission accepts that for planning assessments conducted under BAL-502-RFC-02, typical system operator actions, such as voltage reduction or other non-voluntary types of load reduction plans should not be included given that they pertain to the operating, not planning, horizon. The Commission agrees with Borlick’s comment, and emphasizes that any type of demand response program, including price responsive demand, should not be represented twice in the assessment under both Requirement R1.3.1 and Requirement R1.4. The clause contained in Requirement R1.4 for considering “Any other demand (Load) response programs not included in R1.3.1” (emphasis added) is sufficient to prevent any responsible entity from counting any type of demand response program multiple times within this assessment.

40. The Commission also agrees with Midwest ISO’s comment that BAL-502-RFC-02’s requirements are not so restrictive that they would limit any specific types of demand response programs from being included in the BAL-502-RFC-02 assessment. Contrary to the comments from OCC, Ohio PUC and Wilson, the requirements for conducting the BAL-502-RFC-02 assessment are general enough to include interruptible loads, voluntary curtailment services, price responsive demand, and other types of
demand response programs, and therefore would not hinder the development of new programs or technologies related to demand-side resources. Regarding OCC’s comment that BAL-502-RFC-02 completely excludes voluntary curtailment services from consideration in the loss of load calculation, thus undervaluing demand response, the Commission notes that demand response is addressed elsewhere in the assessment. While Requirement R1.1.1 makes clear that utilization of direct control load management or curtailment of interruptible demand shall not contribute to the loss of load probability, Requirement R1.1.1 does not prevent demand related resources from being considered under other parts of the assessment, such as under Requirement R1.3.1 or R1.4.

41. Specifically, the Commission agrees with OCC that historical demand response rates or performance should be considered in the BAL-502-RFC-02 assessment to determine the effectiveness of a demand response program and typical performance achieved by the demand response program. Assessing how resources, including demand side resources, have performed in the past, how a resource’s performance changed over time, and how a resource’s performance varied under different scenarios is an effective way to estimate how the resource might perform under the conditions considered for the analysis. To that end, the Commission notes that BAL-502-RFC-02, Requirement R1.3.2 includes “historical resource performance and any projected changes” as one of the resource characteristics to be considered in performing the resource adequacy analysis. Similarly, Requirement R1.4 requires consideration of resource availability characteristics of “any other demand (Load) response programs not included in R1.3.1,” which could include historical performance of such demand response programs. Requirement R1.4 also requires the planning coordinator to document how and why each
resource availability characteristic was included in the analysis, or why the characteristic was not included.

42. Based on the foregoing, the Commission affirms that the loss of load calculation performed under Requirement R1.1 of BAL-502-RFC-02 does not include typical system operator actions or non-voluntary types of load loss. The Commission further notes that demand response programs should be considered under aspects of a BAL-502-RFC-02 resource adequacy assessment, specifically under either R1.3.1 or R1.4 as appropriate.

2. **Use of Capacity Benefit Margin**

43. With respect to the capacity benefit margin (CBM), the Commission in the NOPR noted that the requirements do not explicitly state whether planning coordinators may rely upon CBM to satisfy BAL-502-RFC-02’s requirements. During the standard development posting period, RFC received comments regarding potential conflicts or lack of coordination between BAL-502-RFC-02 and the continent-wide NERC Reliability Standard MOD-004-1 – Capacity Benefit Margin.42 The Commission stated

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41 NOPR, FERC Stats. & Regs. ¶ 32,662 at P 19. The NERC Glossary defines capacity benefit margin (CBM) as “the amount of firm transmission transfer capability preserved by the transmission provider for Load-Serving Entities (LSE), whose loads are located on that Transmission Service Provider’s system, to enable access by the LSEs to generation from interconnected systems to meet generation reliability requirements. Preservation of CBM for an LSE allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. The transmission transfer capability preserved as CBM is intended to be used by the LSE only in times of emergency generation deficiencies.” *Glossary of Terms Used in NERC Reliability Standards*, April 20, 2010, available at: http://www.nerc.com/docs/standards/rs/Glossary_of_Terms_2010April20.pdf.

42 See NERC Petition, Exhibit C, Comments from ITC Transmission.
in the NOPR that it does not believe that BAL-502-RFC-02 conflicts with NERC Reliability Standard MOD-004-1. However, the Commission noted that there could be some confusion regarding whether CBM could or could not be used in order to meet the requirements of BAL-502-RFC-02, and sought comment on the issue.

**Comments**

44. Carden, Midwest ISO, RFC and Wilson responded to the Commission’s question regarding utilization of CBM to meet BAL-502-RFC-02’s requirements. Carden and Wilson support allowing CBM to be used to meet the requirements for the planning reserve margins. Midwest ISO comments that BAL-502-RFC-02 correctly neither excludes nor includes the use of CBM to meet the requirements. RFC states that CBM alone cannot satisfy the regional Reliability Standard.

**Commission Determination**

45. Based on these comments, the Commission understands and agrees that the intent of BAL-502-RFC-02 is that while CBM may be used to meet the requirements, it is not mandatory to include CBM in the assessment. The Commission also understands and agrees, as RFC stated, that CBM cannot be the only source assessed in order to satisfy BAL-502-RFC-02’s requirements.

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43 NOPR, FERC Stats. & Regs. ¶ 32,662 at P 19. Reliability Standard MOD-004-1 addresses CBM, or a capacity preserved for firm transmission transfer capability. Conversely, the Requirements in proposed Reliability Standard BAL-502-RFC-02 address an analysis regarding the capability of generation to serve the projected load. While CBM could be a method of meeting the Requirements of BAL-502-RFC-02, the two Reliability Standards do not contradict each other.
3. **Meaning of Common Mode Outages**

46. With respect to Requirement R1.4, which requires the resource adequacy analysis to consider resource availability characteristics including “common mode outages that affect resource availability,” the Commission sought comment on whether planning coordinators, when evaluating “common mode outages that affect resource availability” will consider only outages within the generation facility, or if the analysis will also consider outages of transmission facilities that would have an impact on resource or generator availability.  

**Comments**

47. Both Midwest ISO and RFC agree that Requirement R1.4 only explicitly requires common mode outages of resources, but does not limit the consideration of transmission outages that could affect resource deliverability. Midwest ISO further explains that Requirements R1.3.3 and R1.3.4 apply to transmission facilities within and outside of the planning coordinator area and these requirements properly allow for the inclusion and documentation of consideration of common mode outages within a study, while not explicitly requiring the consideration of common mode outages.

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45 Requirements R1.3.3 and R1.3.4 list items that must be considered in conducting the BAL-502-RFC-02 resource adequacy analysis. R1.3.3 refers to transmission limitations that prevent the delivery of generation reserves. R1.3.4 refers to assistance from other interconnected systems including multi-area assessment considering transmission limitations into the study area.
Commission Determination

48. Based on the RFC and Midwest ISO comments, the Commission understands that common mode outages discussed in Requirement R1.4 do not explicitly require consideration of transmission facility outages. Notwithstanding that Requirement R1.4 does not explicitly require consideration of transmission facility outages, the Commission agrees with the Midwest ISO that nothing in the standard limits a planning coordinator’s flexibility to consider such outages.

49. Consistent with Midwest ISO comments, the Commission understands Requirements R1.3.3 and R1.3.4 apply to transmission facilities, specifically documenting transmission limitations that would prevent the delivery of generation reserves and considering transmission limitations impacting assistance from other interconnected systems. These transmission limitations could include, but do not explicitly require, outage assessments of transmission facilities that would result in preventing delivery of generation reserves. The Commission notes that the outage assessment would likely benefit from analyzing transmission facility outages that would directly impact the ability to deliver resources to demand, or decrease the amount of resources delivered to an area from interconnected systems. Not all transmission facilities would need to be included in the assessment as many individual transmission facilities would have minimal impact on resource deliverability. Thus, determining which transmission outages to assess would require some engineering judgment to determine the impact of the transmission outage on resource deliverability. The Commission encourages planning coordinators to consider transmission outages to
determine which, if any, transmission outages have the greatest impact on delivery of resources and to include those limiting elements when evaluating common mode outages.

C. **Other Issues Raised in NOPR**

1. **Missing Time Horizons**

50. The NERC Petition explained that the template for Reliability Standards dictates that each main requirement in a Reliability Standard be assigned one of the following time horizons:\(^{46}\) (1) long-term Planning (a planning horizon of one year or longer), (2) operations planning (operating and resource plans from day-ahead up to and including seasonal), (3) same-day operations (routine actions required within the timeframe of a day, but not real-time), (4) real-time operations (actions required within one hour or less to preserve the reliability of the bulk electric system), and (5) operations assessment (follow-up evaluations and reporting of real time operations). In the Petition, NERC noted the absence of a time horizon in BAL-502-RFC-02 and explained that RFC had stated that it did not include time horizons because its Commission-approved Reliability Standard Development Process does not include time horizons as a required element in its template for Reliability Standards. As stated in the NERC Petition, RFC also noted that “the [BAL-502-RFC-02] focuses on ‘planning oriented’ subject matter for one year

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\(^{46}\) Time horizons are used as a factor in determining the size of a sanction. If an entity violates a Requirement and there is no time to mitigate the violation because the Requirement takes place in real-time, then, depending on the violation’s specific facts, the sanction associated with the violation generally would be higher than it would be for violation of a Requirement that could be mitigated over a longer period of time. See NERC’s “Time Horizons” document, available on NERC’s website at http://www.nerc.com/files/Time_Horizons.pdf.
and beyond,” and, as such, the appropriate time horizon, long-term planning, is relatively straightforward.\textsuperscript{47}

51. In the NOPR, the Commission noted that it is important to identify the time horizons for each Reliability Standard, but acknowledged that time horizons are not critical to its determination of whether to approve a Reliability Standard. Moreover, the Commission agreed with RFC that with respect to BAL-502-RFC-02, the time horizon “long-term planning” can be gleaned from the context of the standard for the purpose of determining the severity of a violation risk factor, or for determining the penalty for a violation. Based on RFC’s statement that it is moving towards requiring the assignment of time horizons as part of its standard drafting process, the Commission proposed to direct RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review.

\textbf{Comments}

52. RFC states in its comments that it does not oppose the Commission’s proposal to direct RFC to add time horizons to BAL-502-RFC-02 during its scheduled five-year review. The only other commenter on the issue of time horizons, Midwest ISO, supports the NOPR’s proposal, noting that time horizons should be specifically identified in Reliability Standards because they are a factor for determining the size of a sanction.

\textsuperscript{47} NERC Petition at 24.
53. The Commission agrees with the Midwest ISO that time horizons are a factor in NERC’s determination of a penalty for a violation and acknowledges that RFC is modifying its standards development process such that it will include time horizons as an element in its regional Reliability Standards template. Accordingly, as proposed in the NOPR, the Commission directs RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review.

2. Proposed Effective Date

54. Proposed regional Reliability Standard BAL-502-RFC-02’s stated effective date is “upon RFC Board approval,” which occurred on December 4, 2008. In the NOPR, the Commission noted that, while the effective date for Commission approved Reliability Standards is generally “the first day of the first quarter after regulatory approval,” with respect to BAL-502-RFC-02, no additional implementation time is necessary as the four registered planning coordinators in the RFC region are already subject to BAL-502-RFC-02 by the terms of the RFC membership agreement. Accordingly, the Commission proposed in the NOPR that BAL-502-RFC-02 become mandatory and enforceable on the effective date of the Commission’s final rule approving the regional Reliability Standard.

Comments

55. Dominion is the sole commenter regarding the effective date. Dominion, noting the potential pitfalls that may occur when regions like RFC implement multiple effective
dates for the same standard,\textsuperscript{48} seeks two clarifications. First, Dominion requests that the Commission clarify that the effective date of regional Reliability Standard BAL-502-RFC-02 is the effective date of the Commission’s final rule approving the standard and that the standard will be enforced prospectively only. Second, Dominion requests that the Commission clarify that all future regional Reliability Standards shall not have effective dates that are prior to the effective date of the Commission’s order approving the regional Reliability Standard and that RFC should modify its governance documents accordingly.

\textbf{Commission Determination}

56. Under section 215(d)(2) of the FPA, it is clear that a proposed Reliability Standard “shall take effect upon approval by the Commission.” Accordingly, a Reliability Standard cannot have an effective date in the United States that is prior to the effective date of the final rule issued by the Commission approving the Reliability Standard at issue. Thus, the effective date of BAL-502-RFC-02 is the effective date of this Final Rule, and further, BAL-502-RFC-02 first becomes enforceable upon this effective date.\textsuperscript{49}

3. \textbf{Provision of Data}

57. In the NOPR, the Commission, noting that BAL-502-RFC-02 does not require other entities (load-serving entities, balancing authorities, transmission operators, 

\textsuperscript{48} Dominion notes that with respect to BAL-502-RFC-02, the stated effective date is “upon RFC Board approval,” which was December 4, 2008. However, under section 215 of the FPA, a Reliability Standard may not become effective until after Commission approval.

\textsuperscript{49} For this Final Rule, the effective date is 60 days after publication in the \textit{Federal Register}. 
resource planners, or transmission planners) to provide the planning coordinators subject to BAL-502-RFC-02 the necessary data for the resource adequacy analysis, sought comment on whether the planning coordinators have encountered problems with collecting necessary data in order to complete the resource adequacy assessment that is the subject of BAL-502-RFC-02.

**Comments**

58. In response, both RFC and the Midwest ISO report that, to their knowledge planning coordinators have not had problems collecting the necessary data.

**Commission Determination**

59. Based on the comments of Midwest ISO and RFC, and the fact that no entity has raised a concern about the ability of RFC’s planning coordinators’ to obtain the data necessary to comply with BAL-502-RFC-02, we are satisfied that no action is necessary now on this issue.

4. **Consideration of Resources Beyond the RFC Footprint**

60. In the NOPR, the Commission sought comment on how to address load and resources outside of the RFC footprint during a planning assessment and on how entities currently perform this task or other similar planning tasks where load and resources are located outside of boundaries required by the assessment.

**Comments**

61. RFC states that current Requirements R1.3.4, R1.6 and R1.7 address consideration of resources beyond the RFC footprint. Midwest ISO comments that while a common method for considering external support or modeling external systems appears beneficial, this would be an onerous task, and might limit valid methodologies for considering
external support. Midwest ISO further comments that it considers resource adequacy on a footprint-wide basis, and includes resources outside of the RFC footprint, holding the entire Midwest ISO region to the “one day in ten years” criterion. Midwest ISO notes that if other regional entities develop potentially conflicting regional Reliability Standards, Midwest ISO could be subject to conflicting Reliability Standards for its planning coordinator footprint.

**Commission Determination**

62. The Commission agrees with RFC’s comment that Requirements R1.3.4, R1.6 and R1.7 are a means to address consideration of resources outside of the RFC footprint. By identifying what assistance from external areas is included in the assessment (R1.3.4) and what capacity resources and load are included within the planning coordinator area (R1.6 and R1.7), an entity can determine the area for which the assessment is being performed, and whether or not that area includes areas beyond the RFC footprint. The Commission agrees with Midwest ISO that identifying a common process for all planning coordinators to use might be onerous and might limit valid methodologies for determining whether or not to consider resources or loads outside of the RFC footprint when conducting the BAL-502-RFC-02 resource adequacy assessment. However, the Commission expects that, as a foundational element of a reliability assessment, each planning coordinator would document its own consideration of resources and loads in the assessment.\(^{50}\)

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\(^{50}\) For example, the PJM Manual 20: PJM Resource Adequacy Analysis, Section 3 provides “a guide for fostering consistency from year to year and across all related analysis,” and further describes input data and models, including what is identified as the PJM area and areas adjacent to PJM referred to as the “World.” See PJM Manual 20:
5. **Planning Gap Identification**

63. In the NOPR, the Commission noted that BAL-502-RFC-02 does not include a requirement to document any gap between the planning reserve margin calculated in Requirement R1.1 (the amount of planning reserve needed to ensure a “one day in ten years” criterion) and the actual planning reserve determined in the resource adequacy analysis. The Commission stated that it believes that it would be useful for planning coordinators to identify and document a deficiency in planning reserves to help ensure that entities are aware of potential risks regarding the capability to balance resources and demand in a planning timeframe. Accordingly, the Commission proposed to direct RFC, when reviewing BAL-502-RFC-02 during its scheduled five-year review, to consider modifying BAL-502-RFC-02 to include a new requirement to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis. The Commission further clarified that this would be a documentation requirement only and would not require entities to install additional generation or transmission capacity.

**Comments**

64. RFC submitted the sole comment on this issue. RFC supports the proposal in the NOPR on this issue and stated that it “will consider modifying the Standard in its scheduled five-year review, to include a requirement to identify any gap between the

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needed amount of planning reserves defined in Requirement 1.1 and the planning reserves determined from the [Resource Adequacy] Analysis."51

**Commission Determination**

65. The Commission accepts RFC’s commitment to consider, at the time of its five-year review, whether to add a requirement to BAL-502-RFC-02 that would require Planning Coordinators to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis.

**D. Regional Definitions**

66. Regional Reliability Standard BAL-502-RFC-02 includes four new defined terms that apply only to the RFC region: Resource Adequacy, Net Internal Demand, Peak Period, and Year One. In the NOPR, the Commission proposed to accept the four new defined terms to be applicable only in the RFC region.

**Comments**

67. No comments were filed regarding the four regional definitions.

**Commission Determination**

68. The Commission approves the inclusion of the four new regional definitions related to BAL-502-RFC-02 in the NERC Glossary, specifically as RFC regional terms.

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

69. With respect to BAL-502-RFC-02, RFC assigned VRFs only to the two main requirements and did not propose VRFs for any of the sub-requirements.52 RFC assigned

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51 RFC Comment at 6.
Requirement R1 a “medium” VRF and Requirement R2 a “lower” VRF. Requirement R1 is assigned a “medium” VRF based on RFC and NERC’s conclusion that it is a Requirement in a planning time frame and, if violated, could affect the capability of the Bulk-Power System. Requirement R2 is assigned a “lower” VRF because it is a documentation only requirement and therefore is considered to be administrative. Similarly, RFC assigned VSLs only to the main Requirements, R1 and R2, of proposed BAL-502-RFC-02, and not to any of the sub-requirements. NERC notes that RFC’s assignment of VRFs and VSLs only to the main requirements is consistent with NERC’s “roll-up” proposal in its August 10, 2009 Informational Filing Regarding the Assignment of VRFs and VSLs.\textsuperscript{53} NERC also stated that RFC followed applicable NERC and FERC guidance in developing the VSLs and VRFs for BAL-502-RFC-02.

In the NOPR, the Commission proposed deferring action on the proposed VRFs and VSLs assigned to BAL-502-RFC-02 until after the Commission acts on NERC’s pending petition in Docket No. RR08-4-005, in which NERC proposes a “roll-up” approach for VRF and VSL assignments by which NERC would only assign VRFs and VSLs to the main requirements and not to the sub-requirements.

\textsuperscript{52} 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 VRFs and VSLs 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 in Docket No. RR08-4-005, which is currently pending before the Commission.

\textsuperscript{53} NERC Petition at 24.
Comments

71. Borlick and Midwest ISO comment on the VRF and VSL assignments. The Midwest ISO states that the VRF for Requirement R1 should be assigned a lower VRF because Requirement R1 will never directly affect the electrical state of the RFC Region. Borlick makes a generic comment regarding VSLs, stating that “the assignment of qualitative [VSLs] to various infractions is too ‘fluffy’.”

Commission Determination

72. A VRF is assigned to each 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. VRFs are either: lower, medium or high. The Commission has established guidelines for evaluating the validity of each VRF assignment.

73. NERC will also define up to four VSLs (low, moderate, high, and severe) as measurements for the degree to which the requirement was violated in a specific circumstance. For a specific violation of a particular Requirement, NERC or the Regional Entity will establish the initial value range for the base penalty amount by finding the intersection of the applicable VRF and VSL in the base penalty amount table.

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54 Borlick Comments at 7.

55 The specific definitions of high, medium and lower are provided in North American Electric Reliability Corp., 119 FERC ¶ 61,145, at P 9 (VRF Order), order on reh ‘g, 120 FERC ¶ 61,145 (2007) (VRF Rehearing Order).

56 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 com-mingle more than one obligation. See VRF Rehearing Order, 120 FERC ¶ 61,145 at P 8-13.
in Appendix A of its sanction guidelines. On June 19, 2008, the Commission issued an order establishing four guidelines for the development of VSLs.\footnote{North American Electric Reliability Corp., 123 FERC ¶ 61,284, at P 20-35 (VSL Order), \textit{order on reh’g & compliance}, 125 FERC ¶ 61,212 (2008). The VSL guidelines are: (1) VSL assignments should not have the unintended consequence of lowering the current level of compliance; (2) the VSL should ensure uniformity and consistency in the determination of penalties; (3) a VSL assignment should be consistent with the corresponding requirement; and (4) a VSL assignment should be based on a single violation, not on a cumulative number of violations.}

74. The Commission has reviewed the VRF and VSL assignments for BAL-502-RFC-02 and it is our view that both the VRFs and VSLs are consistent with the above-described Commission guidance. The Commission does not agree with Midwest ISO that Requirement R1 should be assigned a “lower” VRF instead of “medium.” Midwest ISO states that the VRF for Requirement R1 should be “lower” because Requirement R1: (1) will never directly affect the electrical state or capability of the bulk electric system, and (2) only establishes administrative requirements to conduct an analysis without compelling planning coordinators to take actions based upon the analysis. The Commission finds that Requirement R1 is not administrative in nature as it requires an analysis of the state of the Bulk-Power System in the planning horizon to be able to meet demand with available resources. While this standard does not specifically require planning coordinators to take action per the results of this analysis, not performing the analysis would create a lack of awareness of the Bulk-Power System’s ability to meet demand with available resources during the planning horizon, which, if no actions were taken, could directly affect the electrical state or capability of the Bulk-Power System.
Thus, the nature of Requirement R1 is consistent with NERC’s definition of a “medium” VRF level rather than the “lower” level.\textsuperscript{58}

75. With respect to Borlick’s comment that the assignment of qualitative VSLs to various infractions is too “fluffy,” the Commission finds this to be a generic concern regarding VSLs that is outside the scope of this proceeding.

76. Accordingly, the Commission approves the VRFs and VSLs assigned to the two main Requirements in BAL-502-RFC-02. Although the Commission is approving the VRFs and VSLs, which are assigned only to the main Requirements of the Reliability Standard, the Commission is not making any determination regarding NERC’s and RFC’s decision to apply its proposed “roll-up” approach to BAL-502-RFC-02, i.e., to not assign VRFs and VSLs to any Sub-requirement. The appropriateness of the roll-up approach is pending before the Commission in Docket No. RR08-4-005.

\textbf{III. Information Collection Statement}

77. The following collections of information contained in this proposed rule have been submitted to the Office of Management and Budget (OMB) for review under section

\textsuperscript{58} The VRF Order guidance emphasizes consistency with NERC’s definition of the VRF level. NERC defines a “medium” risk requirement, which will be assigned a medium VRF, as follows: “A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly and adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor, control, or restore the bulk electric system. . . .” NERC Violation Risk Factor, available at http://www.nerc.com/files/Violation_Risk_Factors.pdf.
3507(d) of the Paperwork Reduction Act of 1995.\(^{59}\) OMB’s regulations require OMB to approve certain information collection requirements imposed by agency rule.\(^{60}\) 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 an agency 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.

78. The Commission solicited comments on the need for and the purpose of the information contained in regional Reliability Standard BAL-502-RFC-02 and the corresponding burden to implement it. The Commission received comments on specific Requirements in the regional Reliability Standard, which we address in this Final Rule. However, we did not receive any comments on our reporting burden estimates. The Commission has not directed any immediate modifications to the Requirements in the regional Reliability Standard being approved. Thus, the Final Rule does not affect the burden estimate provided in the NOPR.

**Burden Estimate:** Regional Reliability Standard BAL-502-RFC-02 requires planning coordinators within the RFC geographical footprint to analyze, assess and document resource adequacy, annually, and to document and post projected load and resource capability in each area and transmission-constrained sub-area identified in the resource adequacy assessment. BAL-502-RFC-02, which applies to four planning coordinators located in the eastern portion of the U.S., does not require the planning coordinators to

\(^{59}\) 44 U.S.C. 3507(d).

\(^{60}\) 5 CFR 1320.11.
file information with the Commission. It does require planning coordinators to develop, document, publically post, and retain certain information, subject to compliance monitoring by RFC. However, the Commission does not believe that approval of BAL-502-RFC-02 will result in a substantive increase in reporting burdens because the Reliability Standard implements the current, mandatory and enforceable practices in RFC. As RFC has represented, the affected RFC-member planning coordinators have been subject to these requirements since December 2008 and would continue to be subject to them even if the Commission did not approve BAL-502-RFC-02 as a regional Reliability Standard subject to Commission, NERC and RFC enforcement under section 215 of the FPA. As stated in the RFC’s implementation plan for BAL-502-RFC-02, once this standard was approved by RFC’s Board of Trustees, which occurred on December 4, 2008, the requirements under the standard became effective with respect to RFC members and subject to the enforcement mechanism under the “Term of Membership” in RFC’s by-laws. 61 Thus, the Commission finds that the requirements to develop, document, and maintain information in the regional Reliability Standard are current and ongoing requirements for RFC members and, therefore, the Commission’s proposed action in this Final Rule would not impose any additional burden on RFC-member planning coordinators. The proposed regional Reliability Standard is a new standard and was not included in the original standards submitted for review and approval by OMB.

In addition, Commission approval of proposed regional Reliability Standard BAL-502-RFC-02 makes the standard mandatory and enforceable. Therefore, the Commission will submit this final rule to OMB for review and approval of the reporting requirements and propose a *de minimis* burden to reflect the prior implementation by RFC as part of its region’s standard practices.

79. The Commission estimates that the increased Public Reporting Burden of approving BAL-502-RFC-02 is *de minimis* as follows:

<table>
<thead>
<tr>
<th>Proposed Data Collection FERC-725-H</th>
<th>No. of Respondents</th>
<th>No. of Responses</th>
<th>Hours Per Respondent</th>
<th>Total Annual Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered planning coordinators[^62] in the RFC region</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td>40</td>
</tr>
</tbody>
</table>

| Total | | | | 40 |

Information Collection Costs:

- **Total annual costs**: $2,651.41 ((40 hours/2080 hours/year) x $137,874/year).
- **Title**: FERC-725-H, RFC Regional Reliability Standard.
- **Action**: Collection of Information.
- **OMB Control No**: To Be Determined.
- **Respondents**: Registered planning coordinators in the RFC region.
- **Frequency of Responses**: On Occasion.

[^62]: At this time, there are only four registered planning coordinators in the RFC region.
• **Necessity of the Information:** This Final Rule approves a regional Reliability Standard that requires planning coordinators to document and maintain, for the current and prior two years, their resource adequacy analyses and the projected load and resource capability subject to review by the Commission, NERC, and RFC to ensure compliance with the regional Reliability Standard.

• **Internal review:** The Commission has reviewed the regional Reliability Standard BAL-502-RFC-02 and determined that the standard’s Requirements are necessary to meet the statutory provisions of the Energy Policy Act of 2005. 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.

80. 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]. Comments on the requirements of this Final Rule may also be sent to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503 [Attention: Desk Officer for the Federal Energy Regulatory Commission]. For security reasons, comments should be sent by e-mail to OMB at oira_submission@omb.eop.gov. Please reference FERC-725H and the docket number of this final rule in your submission.
IV. **Environmental Analysis**

81. 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. The Commission has categorically excluded certain actions from this requirement as not having a significant effect on the human environment. Included in the exclusion are rules that are clarifying, corrective, or procedural or that do not substantially change the effect of the regulations being amended.

The actions taken in this Final Rule fall within this categorical exclusion as the regional Reliability Standard reflects a continuation of existing resource planning assessment requirements for these planning coordinators and is “new” only with respect to the fact that once approved by the Commission, it will be subject to enforcement by RFC, NERC or the Commission. Accordingly, neither an environmental impact statement nor environmental assessment is required.

V. **Regulatory Flexibility Act Certification**

82. The Regulatory Flexibility Act of 1980 (RFA) generally requires a description and analysis of final rules that will have significant economic impact on a substantial number of small entities. The RFA mandates consideration of regulatory alternatives that accomplish the stated objectives of a proposed rule and that minimize any significant

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64 18 CFR 380.4(a)(2)(ii).

economic impact on a substantial number of small entities. The Small Business Administration’s (SBA) Office of Size Standards develops the numerical definition of a small business. The SBA has established a size standard for electric utilities, stating that a firm is small if, including its affiliates, it is primarily engaged in the transmission, generation and/or distribution of electric energy for sale and its total electric output for the preceding twelve months did not exceed four million megawatt hours. The entities to which the requirements of this Rule would apply, i.e., planning coordinators within the RFC region, do not fall within the definition of small entities. Moreover, the regional Reliability Standard reflects a continuation of existing resource planning assessment requirements for these planning coordinators and is “new” only with respect to the fact that once approved by the Commission, it will be subject to enforcement by RFC, NERC or the Commission. Based on the foregoing, the Commission certifies that this Rule will not have a significant impact on a substantial number of small entities. Accordingly, no regulatory flexibility analysis is required.

VI. Document Availability

83. 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

66 13 CFR 121.101.

67 13 CFR 121.201, Sector 22, Utilities & n. 1.
hours (8:30 a.m. to 5:00 p.m. Eastern time) at 888 First Street, NE, Room 2A, Washington, DC 20426.

84. 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.

85. 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 e-mail at 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.

VII. Effective Date and Congressional Notification

86. These regulations, including regional Reliability Standard BAL-502-RFC-02, are effective [insert date that is 60 days from publication in the FEDERAL REGISTER]. The Commission has determined, with the concurrence of the Administrator of the Office of Information and Regulatory Affairs of OMB, that this Rule is not a “major rule” as defined in section 351 of the Small Business Regulatory Enforcement Fairness Act of 1996.

By the Commission.

( SEAL )

Nathaniel J. Davis, Sr.,
Deputy Secretary.
Appendix A: Entities that filed comments, motions to intervene or notices of intervention

COMMENTERS:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Commenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominion</td>
<td>Dominion Resources Services, Inc.</td>
</tr>
<tr>
<td>Carden</td>
<td>Kevin Carden, Johannes Pfeifenberger, and Nick Wintermantel</td>
</tr>
<tr>
<td>ICC</td>
<td>Illinois Commerce Commission</td>
</tr>
<tr>
<td>MRO</td>
<td>Midwest Reliability Organization</td>
</tr>
<tr>
<td>NARUC</td>
<td>National Association of Regulatory Utility Commissioners</td>
</tr>
<tr>
<td>NERC</td>
<td>North American Electric Reliability Corporation+</td>
</tr>
<tr>
<td>OCC</td>
<td>Office of the Ohio Consumers’ Counsel</td>
</tr>
<tr>
<td>OMS</td>
<td>Organization of MISO States</td>
</tr>
<tr>
<td>Ohio PUC</td>
<td>Public Utilities Commission of Ohio</td>
</tr>
<tr>
<td>PJM Power Providers</td>
<td>PJM Power Providers Group</td>
</tr>
<tr>
<td>RFC</td>
<td>ReliabilityFirst Corporation+</td>
</tr>
<tr>
<td>Borlick</td>
<td>Robert L. Borlick</td>
</tr>
<tr>
<td>Wilson</td>
<td>James F. Wilson</td>
</tr>
</tbody>
</table>

INTERVENORS:

Constellation Energy Commodities Group, Inc.
Dayton Power and Light Company
Designated FirstEnergy Affiliates*
Exelon Corp.
New York State Public Service Commission
Pennsylvania Public Utility Commission
PSEG Companies
Public Utilities Commission of the State of California

+ NERC and RFC filed both comments and reply comments