

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

<b>North American Electric Reliability Corporation</b>	) ) ) ) )	<b>Docket No. RM16-7-000</b>
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**COMMENTS OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
IN RESPONSE TO NOTICE OF PROPOSED RULEMAKING**

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The North American Electric Reliability Corporation (“NERC”) hereby provides comments on the Federal Energy Regulatory Commission (“Commission”) Notice of Proposed Rulemaking (“NOPR”) proposing to approve Reliability Standard BAL-002-2.<sup>1</sup> As the Commission stated in the NOPR, proposed Reliability Standard BAL-002-2 is just and reasonable, as it improves upon currently effective Reliability Standard BAL-002-1 and “satisfies the Order No. 693 directive that NERC develop a continent-wide contingency reserve policy.”<sup>2</sup>

In proposing to approve Reliability Standard BAL-002-2, the Commission also proposes to direct NERC to do the following:

1. modify proposed BAL-002-2 to require entities to recover Reporting ACE within the 15-minute Contingency Event Recovery Period unless the Reliability Coordinator (“RC”) expressly authorizes an extension;
2. modify proposed BAL-002-2 to eliminate the potential for unlimited resets of the 90-minute Contingency Reserve Restoration Period and to ensure that entities restore Contingency Reserve within the Contingency Reserve Restoration Period;

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<sup>1</sup> *Notice of Proposed Rulemaking, Disturbance Control Standard—Contingency Reserve for Recovery from a Balancing Contingency Event Reliability Standard*, 155 FERC ¶ 61,180, 81 Fed. Reg. 33441 (2016) (“NOPR”).

<sup>2</sup> *Id.* at P 18.

3. develop a new or revised Reliability Standard to address events that cause a megawatt (“MW”) loss greater than the Most Severe Single Contingency (“MSSC”); and
4. revise the Violation Risk Factors (“VRF”) for Requirements R1 and R2 of proposed BAL-002-2 from “Medium” to “High.”<sup>3</sup>

In addition, the Commission seeks comment on whether the proposed NERC Glossary definition of Contingency Reserve should include the NERC-defined term “Demand-Side Management.”<sup>4</sup>

## **I. EXECUTIVE SUMMARY**

As discussed below, NERC supports the Commission’s proposal to approve proposed Reliability Standard BAL-002-2. NERC also provides the following comments to the issues raised in the NOPR:

Recovery of Reporting ACE within the Contingency Event Recovery Period – The Commission’s proposal to require the RC to authorize any extension of the 15-minute Contingency Event Recovery Period is unnecessary. First, extensions of the Contingency Event Recovery Period would not allow responsible entities to “lean on the system” to the detriment of BES reliability. Reliability Standard BAL-001-2 helps ensure that Balancing Authorities (“BAs”) do not lean on the system, as it requires BAs to ensure that their clock-minute average of Reporting ACE does not exceed its clock-minute Balancing Authority ACE Limit (“BAAL”), which is an Interconnection-wide measure of frequency, for more than 30 minutes. Second, the RC is already responsible for monitoring system conditions and has the authority to direct the actions of BAs to maintain reliability. Pursuant to EOP-011-1, BAs and RCs must coordinate to restore the system to normal operating conditions if a responsible entity experiences conditions

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<sup>3</sup> *Id.* at PP 19-20.

<sup>4</sup> *Id.* at 18.

rising to the level of an Emergency. Further, the RC must constantly monitor reliability in its area under Reliability Standards EOP-003-2, IRO-001-4, IRO-002-4, IRO-008-2, and IRO-009-2, and it is required to direct other functional entities to take action necessary to maintain reliability in its area, including actions with respect to Reporting ACE. The RC should be focused on maintaining reliability under these standards instead of approving each extension to the 15-minute Contingency Event Recovery Period.

Restoration of Contingency Reserve within the Contingency Reserve Restoration Period

The Commission's concern with the potential for unlimited resets of the 90-minute Contingency Reserve Restoration Period is misplaced. Pursuant to Requirement R3, after a Reportable Balancing Contingency Event, a responsible entity must begin recovery of Contingency Reserve to restore the Contingency Reserve to at least its MSSC before the end of the 90-minute Contingency Reserve Restoration Period. If an intervening Balancing Contingency Event occurs during the Contingency Reserve Restoration Period, however, entities are granted an extension to recover from the successive loss (i.e., the 90-minute period is "reset"). The potential for unlimited resets is negligible given resource limitations and the requirements of Reliability Standard BAL-001-2. In conjunction with BAL-001-2, Requirement R3 of BAL-002-2 appropriately incentivizes entities to recover resources after a Reportable Balancing Contingency Event until the entity fully restores Contingency Reserve to appropriate levels without the potential confusion that a "credit" system could introduce.

Events Causing MW Loss above the Most Severe Single Contingency ("MSSC")

NERC supports the Commission's attention to events that cause MW loss above an entity's MSSC. After a contingency event, it is critical for grid reliability that responsible entities restore system frequency, ensure that transmission lines are not overloaded, and manage resources

without undue impact to the interconnected Bulk Electric System (“BES”). The Commission’s concern with respect to events resulting in a MW loss greater than an entity’s MSSC is misplaced. While proposed Reliability Standard BAL-002-2 focuses on events with a loss less than or equal to the MSSC, it was designed in coordination with several Commission approved Reliability Standards that address, among other things, reliability issues stemming from an event resulting in MW loss greater than the MSSC. When contingency events cause loss greater than an entity’s MSSC, Reliability Standards BAL-001-2, BAL-003-1, EOP-002-3, EOP-011-1, IRO-001-4, TOP-001-3, IRO-008-2, and IRO-009-2 require entities to take action to maintain reliability in Real-time, and thus, no reliability gap exists.

VRFs for Requirements R1 and R2 – Requirements R1 and R2 of proposed Reliability Standard BAL-002-2 support an entity’s responsibility to balance resources with demand. As explained below, the performance obligations under Requirements R1 and R2 are consistent with a “Medium” VRF in Commission-approved VRF guidelines, as failure to meet the performance obligation set forth in these Requirements in “real time” are “unlikely to lead to BES instability, separation, or cascading failures.”<sup>5</sup>

Reference to “Demand-side Management” in the Definition of Contingency Reserve – Consistent with a Commission directive in Order No. 693,<sup>6</sup> NERC developed the proposed definition of Contingency Reserve to enable entities to use technically appropriate Demand-Side Management resources as Contingency Reserve. The NERC Glossary defines the term “Demand-side Management” broadly, however, as it refers to all programs or initiatives

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<sup>5</sup> See *Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standard BAL-002-2*, Docket No. RM16-7-000 (filed Jan. 29, 2016), Ex. G (Violation Risk Factors and Violation Severity Levels) at 113 (“Petition”).

<sup>6</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 330, *order on reh’g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

implemented to reduce demand, some of which may not be appropriate for use as Contingency Reserve (e.g., energy efficiency). As proposed, the definition of the term “Contingency Reserve” appropriately characterizes demand side resources as comparable to conventional generation while only allowing entities to include resources that are “technically capable” of providing Contingency Reserve.<sup>7</sup>

## **II. BACKGROUND**

On January 29, 2016, NERC filed a petition for approval of proposed Reliability Standard BAL-002-2, eight new or revised NERC Glossary definitions, and the associated VRFs and violation severity levels (“VSL”) and implementation plan (“Petition”).<sup>8</sup> NERC developed proposed Reliability Standard BAL-002-2 to address outstanding directives from Order No. 693 regarding the use of demand side management as a resource for contingency reserve and the development of a continent-wide contingency reserve policy. As stated in the Petition, proposed Reliability Standard BAL-002-2 improves upon currently effective Reliability Standard BAL-002-1 because it “clarifies obligations associated with achieving the objective of BAL-002 by streamlining and organizing the responsibilities required therein, enhancing the obligation to maintain reserve, and further defining events that predicate action under the standard.”<sup>9</sup> NERC also stated that the proposed standard and associated NERC Glossary terms were designed to address outstanding Commission directives to create a continent-wide Contingency Reserve standard and to allow demand side management resources to be included as contingency reserve when necessary.<sup>10</sup>

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<sup>7</sup> *See id.* at P 334.

<sup>8</sup> *Petition* at 1.

<sup>9</sup> *Id.* at 13.

<sup>10</sup> *Id.* at 14, 33.

On February 12, 2016, NERC supplemented its Petition to clarify how transmission line loading issues will be addressed after the retirement of Reliability Standard TOP-007-0.<sup>11</sup> NERC submitted additional supplemental information on March 31, 2016, to “further clarify the extent to which BAL-002-2 interacts with other Commission-approved Reliability Standards to promote Bulk Power System reliability...[and support] the overarching policy objective reflected in the stated purpose of Reliability Standard BAL-002-2.”<sup>12</sup>

On May 19, 2016, the Commission issued the NOPR, proposing to approve proposed Reliability Standard BAL-002-2 and find that it is just and reasonable, improves upon the current Commission-approved Reliability Standard BAL-002-1, and addresses outstanding Commission directives from Order No. 693.<sup>13</sup> Additionally, the Commission proposed to direct NERC to address issues regarding (1) the 15-minute ACE recovery period; (2) the 90-minute Contingency Reserve Restoration Period; (3) the applicability of BAL-002-2 to events causing MW loss above the MSSC; and (4) the VRFs for Requirements R1 and R2. The Commission also requested comments on whether the NERC Glossary definition of Contingency Reserve should reference the Commission-approved NERC Glossary term “Demand-side Management.”<sup>14</sup>

### **III. COMMENTS**

NERC supports the Commission’s proposal to approve proposed Reliability Standard BAL-002-2, eight related new and revised NERC Glossary definitions, and the associated

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<sup>11</sup> *Clarifying Supplemental Information for Petition for Approval of BAL-002-2*, Docket No. RM16-7-000 (filed Feb. 12, 2016).

<sup>12</sup> *Supplemental Information for Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standard BAL-002-2*, Docket No. RM16-7-000 (filed Mar. 31, 2016) (“Supplemental Information”) at 1, 5.

<sup>13</sup> *NOPR* at PP 16, 18.

<sup>14</sup> *Id.* at P 18.



implementation plan and VRFs and VSLs. NERC agrees with the Commission that proposed BAL-002-2 “satisfies the Order No. 693 directive that NERC develop a continent-wide contingency reserve policy,”<sup>15</sup> and that the standard “clarifies the obligations imposed on responsible entities and is therefore an improvement on currently-effective Reliability Standard BAL-002-1.”<sup>16</sup> NERC also agrees with the Commission that proposed BAL-002-2 represents an improvement upon currently-effective Reliability Standard BAL-002-1 by “consolidating the number of requirements to streamline and clarify the obligations related to achieving [the] goals” of balancing resource and demand and restoring ACE and Contingency Reserve.<sup>17</sup> With respect to the Commission’s requests for comments and proposed directives, NERC provides the following comments.

**A. 15-minute Contingency Event Recovery Period**

1. NOPR

The Commission proposes to expand Reliability Standard BAL-002-2 by removing the automatic extension of the 15-minute Contingency Event Recovery Period in Requirement R1, Part 1.3,<sup>18</sup> and by requiring BAs to obtain approval from the relevant RC for any extension of the

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

<sup>16</sup> *Id.* at P 22.

<sup>17</sup> *Id.* at P 18.

<sup>18</sup> Under Part 1.3, a responsible entity may extend the 15-minute period under two circumstances:

- (1) The responsible entity may extend the period if it (a) is a BA experiencing a RC-declared Energy Emergency Alert Level or is a Reserve Sharing Group whose member, or members, are experiencing a RC-declared Energy Emergency Alert level, (b) is utilizing its Contingency Reserve to mitigate an operating emergency in accordance with its emergency Operating Plan, and (c) has depleted its Contingency Reserve to a level below its Most Severe Single Contingency.
- (2) A responsible entity may extend the period if it experiences (1) multiple Contingencies where the combined megawatt loss exceeds its MSSC and that are defined as a single Balancing Contingency Event, or multiple Balancing Contingency Events within the sum of the time periods defined by the Contingency Event Recovery Period and Contingency Reserve Restoration Period whose combined magnitude exceeds the responsible entity’s MSSC.

Contingency Event Recovery Period. The Commission states that it is concerned with the Part 1.3 extension because there is the possibility that a BA operating “out-of-balance” for an extended period will “lean” on the system during the extension of the 15-minute period by relying on external resources to meet its obligations.<sup>19</sup> The Commission states that this “leaning” could affect other entities within an Interconnection, “particularly if another entity is reacting to a grid event while unaware that the first entity has not restored its ACE.”<sup>20</sup> Citing to the RC’s wide-area view, the Commission believes that the RC is the appropriate responsible entity to decide whether the BA should be able to extend the Contingency Event Recovery Period. Accordingly, the Commission proposes to direct NERC to “develop modifications to Reliability Standard BAL-002-2 that would require Reporting ACE recovery within the 15-minute Contingency Event Recovery Period unless the relevant reliability coordinator expressly authorizes an extension of the 15-minute ACE recovery period after the balancing authority has met the criteria described in Requirement R1, Part 1.3.1.”<sup>21</sup>

## 2. Comments

NERC agrees with the Commission that, given its wide area view of reliable operations, RC oversight of extensions of the Contingency Event Recovery Period is important for maintaining reliability. Nevertheless, the Commission’s proposed directive is unnecessary for two reasons, as set forth below. First, extension of the Contingency Event Recovery Period would not allow responsible entities to “lean on the system” to the detriment of BES reliability, because Reliability Standard BAL-001-2 requires a BA to ensure that its clock-minute average of Reporting ACE does not exceed its clock-minute BAAL for more than 30 minutes. Second, the

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<sup>19</sup> *NOPR* at P 22.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at P 24.

RC is already responsible for monitoring system conditions on an ongoing basis pursuant to Reliability Standards EOP-011-1, EOP-003-2, IRO-001-4, IRO-002-4, IRO-008-2, and IRO-009-2. Accordingly, as described in more detail below, requiring the RC to approve extension of the Contingency Event Recovery Period is unnecessary and is not a results-based requirement.

a) *Extension of the 15-minute Contingency Event Recovery Period will not allow responsible entities to “lean on the system” to the detriment of reliability.*

As noted, Requirement R1, Parts 1.3.1 and 1.3.2 of proposed BAL-002-2 exempt responsible entities from Reporting ACE restoration within the Contingency Event Recovery Period if the entity (i) is in a RC-declared Energy Emergency Alert Level, or (ii) experiences subsequent contingencies that exceed the MSSC, respectively. As explained in the Petition, if the responsible entity is in an RC-declared Energy Emergency Alert Level, the entity would need additional time to recover Reporting ACE due to the critical loss of resources that caused the Emergency. Similarly, if the entity experiences contingencies that cause loss above the MSSC, the entity would need an extended Contingency Event Recovery Period to recover the capacity lost beyond the MSSC. When responsible entities are in an RC-declared emergency or experience subsequent contingencies exceeding the MSSC, however, an extension of the 15-minute Contingency Event Recovery Period would not encourage entities to “lean” on the system by relying on external sources. That is because entities are required to meet resource obligations pursuant to Reliability Standard BAL-001-2. Specifically, an entity that operates out-of-balance for an extended period and that depends on the resources of its neighbors would be unable to maintain its Reporting ACE to predefined levels within 30 minutes, thus violating Commission-approved Reliability Standard BAL-001-2.

Reliability Standard BAL-001-2 requires each BA to (i) meet the Control Performance Standard 1 (“CPS1”), which is a long-term measure of frequency control performance, and (ii)

control its clock-minute average of Reporting ACE so that it does not exceed its clock-minute BAAL for more than 30 minutes. Compliance with CPS1 ensures that each BA maintains its share of responsibility for control of steady-state interconnection frequency and prevents responsible entities from devolving its responsibility for the Interconnection frequency on its neighbors. The BAAL, which is a short-term measure of frequency performance, is a unique limit on a BA's Reporting ACE based on Real-time interconnection frequency levels.

Maintenance of Reporting ACE within the BAAL ensures that BAs are collectively maintaining Interconnection frequency on a pro rata basis. Taken together, compliance with CPS1 and maintenance of Reporting ACE within the BAAL ensure that entities are not permitted to "lean" on the system such that it presents an unreasonable risk of causing a reliability event because each responsible entity must contribute its fair share of resources towards Interconnection frequency in the short and long term.

For example, a BA experiencing a Contingency Event would face a contemporaneous Reporting ACE reduction equal to the amount of resource lost in the event. This additional resource loss and associated Reporting ACE reduction would cause the BA to be further from the bounds of the BAAL, described above. The BA would have to respond within 30 minutes with additional resources or load shedding to bring its Reporting ACE back within the BAAL. In addition, since the loss of a resource would influence the Interconnection's frequency, the BAAL would adjust (or "tighten") to assure that the Interconnection frequency remains in a safe range. The BA must return its operations to within the "tightened" BAAL within 30 minutes and thus would not be able to "lean" on the Interconnection for any prolonged period.

In short, after a Reportable Balancing Contingency Event that affects Interconnection frequency, the BAAL would tighten, and all entities with a negative Reporting ACE would be

required to provide resources to account for this frequency deficit. The entity that lost the resource that caused the frequency decline would also be required to utilize resources to return the Reporting ACE to acceptable limits. If the entity fails to respond to the loss of significant resources within this 30-minute period, the entity would violate Requirement R2 of BAL-001-2. Additionally, if entities experience a significant event that causes added tightening of the BAAL, all entities are incentivized to restore conditions within the limits set by BAL-001-2 as quickly as feasible in order to be prepared for any additional loss.

- b) *RC approval of extensions to the 15-minute Contingency Event Recovery Period is unnecessary because affected RCs are already required to maintain constant oversight of conditions within their areas.*

Pursuant to Reliability Standards EOP-011-1, EOP-003-2, IRO-001-4, IRO-002-4, IRO-008-2, and IRO-009-2, the RC must maintain constant oversight of reliability within its RC area and must direct other responsible entities to take any actions necessary to maintain reliability.<sup>22</sup> As the RC should be focused on maintaining reliability under these standards, additional RC involvement through approval of an extension to the 15-minute Contingency Event Recovery Period is unnecessary.

First, if a responsible entity experiences a Balancing Contingency Event that rises to the level of an Emergency according to Reliability Standard EOP-011-1 (or if an entity experiences a Reportable Balancing Contingency Event and subsequent events which lead to an Emergency), the RC will declare an Energy Emergency Alert, monitor recovery of the Emergency, and issue Operating Instructions to responsible entities, as necessary. Under EOP-011-1, the TOP or BA

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<sup>22</sup> NERC notes the relationship among these standards and TOP-001-3. The purpose of TOP-001-3 is “[t]o prevent instability, uncontrolled separation, or Cascading outages that adversely impact the reliability of the Interconnection by ensuring prompt action to prevent or mitigate such occurrences.” While the standard does not obligate the RC to take any action in furtherance of this purpose, the standard requires other entities to take action or direct action necessary to maintain reliability that may have originated as an RC directive.

must develop an Operating Plan that sets forth processes requiring responsible entities (including the RC) to, among other things, manage resources and control transmission line loading issues. Requirement R3 of EOP-011-1 requires the RC to review the Operating Plan and notify the BA and TOP of any deficiencies, and Requirement R4 requires the TOP and BA to address these deficiencies and resubmit the Operating Plan to the RC.<sup>23</sup> Once the RC has declared an Emergency, responsible entities (including the RC) must act pursuant to an Emergency Operating Plan or Operating Instructions issued by the RC to mitigate the Emergency. Meanwhile, pursuant to Requirement R1, Part 1.3.1 of proposed BAL-002-2, if the RC has declared an Emergency, the 15-minute Contingency Event Recovery Period would reset to allow additional time necessary for recovery from the event. Thus, the RC should be focused on maintaining reliability and restoring operating conditions according to the Operating Plan after an Emergency, and not whether to formally approve an extension of the 15-minute Contingency Event Recovery Period.

Second, even in non-emergency circumstances not addressed by EOP-011-1, the RC would be involved in recovery from Balancing Contingency Events, as the RC is required to act or direct others to act to mitigate reliability issues in Real-time pursuant to IRO-001-4 and other related standards, including EOP-003-2, IRO-002-4, IRO-008-2, or IRO-009-2.<sup>24</sup> Losses that are greater than the MSSC put the responsible entity in the difficult position of restoring resources to

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<sup>23</sup> NERC notes that even though Reliability Standard EOP-011-1 does not explicitly require the RC to approve the Operating Plan after the responsible entity implements revisions based on RC direction, the responsible entity must revise the Operating Plan according to the RC directive or the responsible entity will violate Requirement R4 of EOP-011-1.

<sup>24</sup> As explained on page 9 of the *Supplemental Information*, Reliability Standards TOP-001-3, EOP-003-2, IRO-008-2, and IRO-009-2, collectively, require the RC to coordinate with TOPs and BAs to monitor SOL and IROL in real time and direct mitigation of those exceedances. Additionally, under Reliability Standard IRO-001-4, the RC has the responsibility to issue Operating Instructions to address the reliability within its RC area, and under Reliability Standard IRO-002-4, the RC must enable relevant System Operators to perform monitoring and analysis and to take action to control reliability based on its analyses.

maintain Reporting ACE within the Contingency Event Recovery Period, often an unrealistic requirement if losses are above the MSSC. In these instances, the responsible entity would need an extension of the 15-minute Contingency Event Recovery Period under Requirement R1, Part 1.3.2 to recover losses, which have been compounded because of the second event, while still maintaining service to loads. Additional involvement by the RC beyond oversight of operations required under the abovementioned Reliability Standards is not necessary at this stage because the entity is recovering from the multiple losses but is not subject to immediate reliability complications. As noted above, the RC should be focused on its monitoring and oversight responsibilities instead of approval of an extension to the Contingency Event Recovery Period.

For the foregoing reasons, requiring the RC to approve extensions of the Contingency Event Recovery Period under Requirement R1, Parts 1.3.1 and 1.3.2 is redundant and unnecessary, and during events causing loss greater than the MSSC, the RC should be focused on more pressing reliability concerns, such as transmission loading and frequency management.

## **B. 90-minute Contingency Reserve Restoration Period**

### **1. NOPR**

Under Requirement R3 of proposed BAL-002-2, a responsible entity experiencing a Reportable Balancing Contingency Event is required to restore its Contingency Reserve within the 90-minute Contingency Reserve Restoration Period unless the entity experiences an additional Balancing Contingency Event within that timeframe. If the entity experiences an intervening Balancing Contingency Event during the Contingency Reserve Restoration Period, the period is “reset” to allow additional time for recovery from the compounded loss. While the Commission agrees that it may be difficult for entities to fully recover Contingency Reserve within the 90-minute Contingency Reserve Restoration Period if, for example, there is “a Balancing Contingency Event involving substantial megawatt loss that occurs during the

recovery period following a Reportable Balancing Contingency Event...,” the Commission is concerned that Requirement R3 would provide entities continuous resets of the Contingency Reserve Restoration Period such that Contingency Reserve are not returned to the appropriate level on a timely basis.<sup>25</sup>

Accordingly, the Commission proposes to direct NERC to “develop modifications to Reliability Standard BAL-002-2 to eliminate the potential for unlimited resets and ensure that Contingency Reserve must be restored within the 90-minute Contingency Reserve Restoration Period.”<sup>26</sup> In proposing to direct this revision, the Commission states that a possible approach is to give the responsible entity “credits” for MW loss “resulting from Balancing Contingency Events during the 90-minute Contingency Reserve Restoration Period and allow an additional 90 minutes to restore reserves associated with those megawatt losses, if necessary.”<sup>27</sup>

## 2. Comments

NERC appreciates the Commission’s attention to recovery of Contingency Reserve following a Reportable Balancing Contingency Event. Given the inherent relationship between preparedness for unplanned contingency events and frequency management, NERC agrees that entities must maintain a requisite level of Contingency Reserve as a preparatory measure for future contingency events. NERC also agrees with the Commission that a MW loss occurring “during the recovery period following a Reportable Balancing Contingency Event may make it infeasible to fully restore the contingency reserve as originally planned.”<sup>28</sup>

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<sup>25</sup> *NOPR* at P 27.

<sup>26</sup> *Id.* at P 29.

<sup>27</sup> *Id.*

<sup>28</sup> *Id.* at P 27.



The Commission, however, should not be concerned about the potential for “unlimited resets” of the 90-minute Contingency Reserve Restoration Period. As described below, if an intervening Balancing Contingency Event occurs during the Contingency Reserve Restoration Period, entities would need an extension to recover from the successive losses. Additionally, the automatic Contingency Reserve Restoration Period “reset” in Requirement R3 is just and reasonable because (i) entities would not be able to experience “unlimited resets” of the 90-minute Contingency Reserve Restoration Period given resource limitations and requirements in BAL-001-2, and (ii) Requirement R3 would eliminate confusion and ensure that entities eventually fully restore the Contingency Reserve to respond to the next loss up to the MSSC. NERC provides additional detail supporting each of the reasons described above in the proceeding discussion.

- a) *Entities need additional time to recover Contingency Reserve after intervening Balancing Contingency Events.*

Entities that have experienced a Reportable Balancing Contingency Event need additional time to recover Contingency Reserve after the occurrence of an intervening Balancing Contingency Event (i.e., another event that occurs during the Contingency Reserve Restoration Period) to recover the additional lost resources. Because recovery during the original 90 minutes would be much more difficult, if not infeasible, after an additional event, an extension of the 90 minutes would encourage entities to recover lost resources to meet the performance requirement of Requirement R3.

If a responsible entity experiences a Reportable Balancing Contingency Event and an additional Balancing Contingency Event within the Contingency Reserve Restoration Period, the entity would be subject to compounded reductions in resources beyond the original loss, which would exacerbate the Contingency Reserve MW deficit and make full recovery much more

difficult. As stated in the Petition and reiterated by the Commission, this additional loss may make recovery “infeasible” within a set period.<sup>29</sup> For example, an entity may lose resources in an initial event, and while the entity is recovering from the first event, the entity experiences a second event that affects the entity’s recovery of resources from the original loss.<sup>30</sup> After the “reset” under Requirement R3, the responsible entity would have a renewed 90-minute period to recover from both the original event and the second event. Thus, even if an intervening event is smaller in size or scope and does not rise to the level of a Reportable Balancing Contingency Event, the responsible entity’s on-hand resources would be depleted further, and the entity would need to recover both the original loss and the subsequent loss of resources.

By allowing an extension of the 90-minute Contingency Reserve Restoration Period upon a second event, Requirement R3 is a results-based Requirement because it focuses on required actions or results (continued, timely restoration of Contingency Reserves) and not necessarily the methods by which to accomplish those actions or results. Specifically, Requirement R3 requires a responsible entity to continue to restore each unit that is lost after a Reportable Balancing Contingency Event, regardless of successive losses. Future Balancing Contingency Events would not eliminate the requirement to actively restore lost reserve; rather, a Balancing Contingency Event after a Reportable Balancing Contingency Event would merely extend the Contingency Reserve Restoration Period to ensure that the responsible entity has adequate time to recover from consecutive losses. In this way, the “reset” function of the Contingency Reserve Restoration Period under Requirement R3 would provide an incentive for entities to continue active recovery of Contingency Reserve until restoration is complete instead of passively

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<sup>29</sup> *Id.* at P 27; *see also* Petition at 27.

<sup>30</sup> For example, a 300 MW unit running at 200 MWs could be supplying 100 MWs of reserve. Therefore, the loss of 200 MW of generation creates a 300 MW reserve deficit.

expecting neighboring entities to supply needed resources once a violation has occurred. In other words, absent the “reset” of the Contingency Reserve Restoration Period under Requirement R3, a responsible entity that experiences successive losses and is unable to recover Contingency Reserve in the 90-minute period due to the additional loss of resources would be in violation of Requirement R3. However, if the entity receives additional time to account for these compounded losses, the entity would be incentivized to diligently restore its Contingency Reserve to avoid a violation of Requirement R3. This fact, combined with the requirement on entities to recover Contingency Reserve to the MSSC after Reportable Balancing Contingency Events and subsequent Balancing Contingency Events to meet BAAL and CPS1 requirements under BAL-001-2, ensures that entities continue to restore Contingency Reserve to recover from future events.

- b) *Entities will not experience “unlimited resets” of the 90-minute Contingency Reserve Restoration Period.*

Because of the inherent limitation on an entity’s resources, responsible entities would not be able to experience “unlimited resets” of the 90-minute Contingency Reserve Restoration Period under Requirement R3. Responsible entities have obligations to serve load and would be unable to do so if the entity is consistently losing units within the 90-minute Contingency Reserve Restoration Period. If an entity continues to trip units before full recovery of other units, the responsible entity would eventually fail to meet obligations under other Reliability Standards (including the requirement to recover ACE within 15 minutes under proposed BAL-002-2) and may eventually enter into an Emergency situation under RC oversight (i.e., the Contingency Reserve are depleted and Reporting ACE is affected).

Specifically, if the responsible entity continues to lose units without working to restore previously lost units (thus further depleting its Contingency Reserve), the responsible entity

would eventually run out of resources and would violate, among others, the Reporting ACE recovery requirements under currently effective BAL-001-2 and proposed BAL-002-2. Entities would not be able to return their Reporting ACE to within the BAAL in 30 minutes to meet BAL-001-2 if the entity has no Contingency Reserve resources to deploy to correct its ACE. Relatedly, entities would not be able to recover Reporting ACE within 15 minutes, which is the performance requirement under proposed Reliability Standard BAL-002-2, if the entity does not actively restore Contingency Reserve to deploy when necessary. Finally, if conditions continue to degrade, the responsible entity may enter into an Emergency under RC oversight under Reliability Standard EOP-011-1.

- c) *Requirement R3 eliminates confusion and ensures that entities eventually fully restore the Contingency Reserve to the MSSC.*

Requirement R3 of proposed BAL-002-2 streamlines the process for restoration of Contingency Reserve, as it obligates responsible entities to restore Contingency Reserve to the MSSC upon the expiration of the 90-minute Contingency Reserve Restoration Period.

The Commission suggests that NERC implement a “credit” system that allows additional time for entities to engage in Contingency Reserve restoration based on the size and time of additional losses.<sup>31</sup> Under this proposed system, entities would be required to engage in a strict accounting of Contingency Reserve lost and recovered after the occurrence of a Reportable Balancing Contingency Event. Entities would be required to recover portions of its Contingency Reserve at different times, again depending on the size and time of additional losses after a Reportable Balancing Contingency Event. Implementation and enforcement of the proposed credit system would be confusing and burdensome, and it may attract attention away from full

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<sup>31</sup> *NOPR* at PP 28, 29.

and final restoration of the Contingency Reserve. An initial draft of Reliability Standard BAL-002-2 required entities to take a similar approach to account for Contingency Reserve, but industry found this approach confusing, cumbersome, and difficult to implement.<sup>32</sup>

Proposed Requirement R3, as drafted, provides a clear method to track restoration of Reserve upon the occurrence of additional Balancing Contingency Events. The “reset” function under Requirement R3 is clear and effective and encourages entities to continue to restore Contingency Reserve to the MSSC after a Reportable Balancing Contingency Event.

### **C. Losses above the MSSC**

#### **1. NOPR**

In the NOPR, the Commission expressed concern that, because BAL-002-2 does not address MW losses that exceed the MSSC, a reliability gap “may exist for megawatt exceedances of the most severe single contingency that do not cause energy emergencies or otherwise clearly implicate the other Reliability Standards cited by NERC.”<sup>33</sup> The Commission states that if the coordinated suite of standards identified by NERC in its Petition and related Supplemental Information does not cover MW losses that exceed of the MSSC, BAs may “lean on the Interconnection by relying on external resources for an indeterminate period...”<sup>34</sup> Based on this perceived gap, the Commission requests comment on whether to expand obligations on responsible entities to restore Reporting ACE and recover Contingency Reserve to situations where an entity experiences losses greater than the MSSC. Depending on the comments, the

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<sup>32</sup> *Petition* at 188, 201, 595 (reflecting industry concern with Draft #1 of the proposed definition of Contingency Reserve Restoration Period, which was “A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period, during which the amount of Contingency Reserve deployed to recover from a Balancing Contingency Event is to be restored.”).

<sup>33</sup> *NOPR* at P 33.

<sup>34</sup> *Id.*

Commission may direct NERC to develop a new or modified Reliability Standard to address events that cause MW loss greater than the MSSC.<sup>35</sup>

## 2. Comments

As stated in NERC's Supplemental Information, NERC designed proposed Reliability Standard BAL-002-2 in coordination with several Commission approved Reliability Standards to address frequency, output loss, transmission loading, and to require reactive measures to prevent degradation of the system after a contingency event or series of events. Because these coordinated standards address important reliability issues and prohibit entities from being able to "lean" on the Interconnection when contingency events cause MW loss greater than an entity's MSSC (i.e., events that are not within the scope of Reliability Standard BAL-002-2), a new or modified Reliability Standard is not necessary for reliability.

Reliability Standards BAL-001-2, BAL-003-1, EOP-002-3, EOP-011-1, IRO-001-4, TOP-001-3, IRO-008-2, and IRO-009-2 require responsible entities to continuously maintain reliability in Real-time, as these standards require responsible entities to maintain frequency within limits, address transmission issues that may occur during recovery, recover from Emergencies, and fulfill reliability directives issued by the RC. Restoration of Contingency Reserve and recovery of Reporting ACE do not resolve imminent reliability issues that may occur when a responsible entity experiences a loss greater than the MSSC, such as transmission line loading issues or frequency deviations. To avoid unplanned outages and other major system issues, entities should consider these immediate components of reliability, addressed by the coordinated suite of standards mentioned above, as first priority after a large event causing MW loss above an MSSC. After the entity has recovered from the loss and secured reliable

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<sup>35</sup> *NOPR* at 34.

operations, the entity should focus on restoration of Contingency Reserve and recovery of Reporting ACE pursuant to BAL-002-2.

An entity's MSSC, which is the largest single unit loss of resource output, is the appropriate threshold under which entities should be required to restore Contingency Reserve to predefined levels under BAL-002-2 because it requires entities to plan for this loss as part of normal daily operations. The requirement to restore Contingency Reserve supports the central performance requirement of BAL-002-2, to maintain Reporting ACE within predefined bounds, which is one of several important gauges that entities may use to monitor system frequency using a forward-looking accounting comparison of actual net interchange and scheduled net interchange.

For events causing loss greater than the MSSC, the abovementioned coordinated Reliability Standards require entities to control individual components of operations and are more appropriate to maintain reliability in Real-time. These standards, explained in more detail below, eliminate any perceived gap in reliability, as they address reliability issues when an event occurs that is greater than the MSSC, and they prohibit responsible entities from "leaning" on the Interconnection for an extended period of time or introducing reliability issues to the Interconnection while recovering from the large event.

i) BAL-001-2

Reliability Standard BAL-001-2 requires each BA to operate such that it meets the CPS1 and controls its clock-minute average of Reporting ACE so that it does not exceed its clock-minute BAAL for more than 30 minutes. In order to comply with BAL-001-2, entities must balance resources upon an event greater than an entity's MSSC because the BAAL tightens the acceptable limits for Reporting ACE, thus reducing frequency deviation and requiring the

responsible entity to restore its Reporting ACE to acceptable levels within 30 minutes. As described below, Reliability Standard BAL-001-2 employs a dual-pronged approach by combining both a short-term and long-term measure of frequency to ensure that entities support frequency on an incremental basis while maintaining reliability without causing undue burden on the system.

More specifically, Requirement R1 of Reliability Standard BAL-001-2 requires the BA to operate such that the BA meets the CPS1, which is a long-term measure of frequency control performance that uses statistical relationships between ACE and frequency to assign each BA a share of the responsibility for control of steady-state interconnection frequency, on an on-going basis. Requirement R2 of BAL-001-2 requires BAs to operate such that an entity's BAAL is not exceeded for a period of greater than 30 consecutive minutes, providing a short-term measure of frequency. The BAAL is a limit on Reporting ACE with respect to the prevailing frequency of the Interconnection in which the entity is located and promotes frequency control for losses including those greater than the MSSC. In sum, the BAAL in Requirement R2 strengthens the control on reliability created by CPS1 in Requirement R1 (given that CPS1 is a long-term measure of total risk over a 12-month period) to ensure frequency maintenance. The 30-minute time frame to restore Reporting ACE under BAL-001-2 is more appropriate for events with MW loss greater than the MSSC as it allows entities address unit losses while still maintaining reliability. Reliability Standard BAL-001-2 prevents entities from relying on external resources with no obligation to return conditions to pre-event conditions, because under this standard, an entity is always obligated to maintain Reporting ACE within the BAAL and to operate to CPS1 to comply.



The following example provides additional context for the coordination of BAL-002-2 with BAL-001-2 to avoid “leaning.” In a hypothetical situation, an entity loses two large units within one minute, and the sum of the losses exceeds the MSSC by 500 MW. Assuming the entity was carrying an amount of reserve just equal to its MSSC, the entity will have a Reporting ACE of -500 MW at the end of the 15 minute Contingency Event Recovery Period. Because the loss exceeded the MSSC, the entity is not required to comply with BAL-002-2; however, the entity still must maintain its Reporting ACE within the BAAL within 30 minutes in order to comply with Requirement R2 of BAL-001-2. If each responsible entity operates within the BAAL, then the Interconnection will be able to restore its frequency to 60 Hz after an event. Because entities will ensure that its Reporting ACE meets BAL-001-2 to meet the requirements of the standard, and because other entities in the area may also experience large losses and further tighten the BAAL to meet the Requirements of the standard, each responsible entity continuously and expeditiously restore balance within its area or risk violating BAL-001-2.

ii) BAL-003-1

Reliability Standard BAL-003-1 requires entities to maintain Frequency Response resources to support Interconnection frequency when an event causes MW loss that may impact frequency. As BAL-003-1 obligates the responsible entity to deploy its proportional share of resources to accommodate events that would otherwise impact frequency until the frequency is restored to scheduled values, entities will control frequency without unnecessarily sacrificing reliability within its area and without “leaning” on other entities. Compliance with Reliability Standard BAL-003-1 is a more appropriate way to maintain frequency if an event with losses greater than the MSSC occurs because responsible entities are required to have Frequency

Response greater than the MSSC under the standard and can deploy these resources when these large events occur.

Entities must communicate with other entities in the Interconnection after an event that cause frequency deviations. After notifying other entities of the event and deploying its proportional share of Frequency Response resources, the responsible entity has the flexibility to focus on balancing its own resource and demand and maintain reliability within its area. Thus, BAL-003-1 ensures that responsible entities maintain proportional Frequency Response and must collectively deploy these resources, as necessary, to sustain Interconnection-wide frequency while avoiding unnecessary loss of load service. Reliability Standard BAL-003-1 requires entities to maintain more Frequency Response resources than any individual entity may maintain as Contingency Reserve under BAL-002-2. Because of this, and because BAL-003-1 will ensure that frequency remains stable during large events beyond the MSSC while entities are recovering Reporting ACE, BAL-003-1 is more appropriate to address events greater than the MSSC than Reliability Standard BAL-002-2.

In the example described above in Section C(2)(i), the entity experiencing multiple events in an Interconnection must respond to a dip in frequency caused by a large event to maintain frequency within the limits set by BAL-003-1. While BAL-001-2 requires all participants in the Interconnection to support frequency, the entity experiencing the loss must restore frequency pursuant to Reliability Standard BAL-003-1 and would thus not be able to “lean” on the Interconnection for its losses.

iii) TOP-001-3, EOP-003-2, IRO-001-4, IRO-008-2, and IRO-009-2

Taken together, Reliability Standards TOP-001-3, EOP-003-2, IRO-008-2, and IRO-009-2 require entities to address transmission issues at all times, including transmission issues that

may pose an immediate threat to reliability after an event causes loss greater than the MSSC.<sup>36</sup> Also, Reliability Standard IRO-001-4 requires the RC to take action, or direct others to take action, when there are reliability issues in the RC area.

First, Reliability Standard TOP-001-3 requires TOPs and BAs to operate within SOLs and IROLs and to mitigate, among other things, transmission line loading issues whether during Emergencies or normal operations. Second, Reliability Standard EOP-003-2 addresses Emergency transmission issues, such as voltage levels, uncontrolled failures or cascading outages, on an Interconnection basis by requiring BAs and TOPs to take action to respond to real-time emergencies rather than risk larger system failures. Finally, Reliability Standards IRO-001-4, IRO-008-2, and IRO-009-2 require the RC to monitor the reliability of the BES in its area (including transmission issues) and to direct relevant BAs or TOPs to take necessary measures to address issues in the RC area.

Given its wide-area perspective, the RC serves a critical role in the management of reliability across a wide area under Reliability Standards TOP-001-3, EOP-003-2, IRO-001-4, IRO-008-2, and IRO-009-2. These standards are important to maintaining real-time reliability upon the occurrence of a Balancing Contingency Event(s), as these standards address transmission issues while entities are restoring conditions and preparing resources to address successive losses. If a responsible entity experiences a Balancing Contingency Event that jeopardizes system conditions, the RC will be continuously overseeing conditions and must react under these standards to maintain reliability as necessary. By focusing on events across its entire area, the RC controls transmission issues that may arise while entities are returning Real-time

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<sup>36</sup> For example, entities may experience transmission line loading issues (too many resources on transmission lines) when entities engage responsive resources to recover from a major event. When entities overload transmission lines, they may exceed the Interconnection Reliability Operating Limits (“IROL”) and System Operating Limits (“SOL”).

frequency, Reporting ACE, and Contingency Reserve to acceptable levels to comply with related Reliability Standards after recovery.

In the example described above in Section C(2)(i), the TOPs and the RCs would be continuously monitoring transmission line loading in the Interconnection where the loss occurred. If any transmission lines have flows above their rating, the TOPs and the appropriate RC would address the overloads. If no overloads occur, then the RC would not need to direct any corrective actions.

iv) EOP-011-1

Reliability Standard EOP-011-1 requires the RC, along with the responsible entity(ies) experiencing a major event or a serious of events that give rise to an RC-declared Emergency situation, to take proactive remedial measures to mitigate the Emergency. This standard addresses the most extreme of the events that cause loss greater than the MSSC, as it requires responsible entities to fully restore operating conditions after an Emergency event or after non-Emergency conditions have degraded into Emergency.

If the RC determines that an event or series of events that causes losses greater than an entity's MSSC is an Emergency, the responsible entity would act under its Emergency Operating Plan developed for compliance with Reliability Standard EOP-011-1.<sup>37</sup> The Operating Plan sets forth actions that entities must take to stabilize the system to alleviate the Emergency conditions. In an Emergency situation, the RC is in a unique position to determine whether imbalance is causing immediate reliability problems. If the RC has determined that the entity is in an

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<sup>37</sup> As Commission-approved Reliability Standard EOP-011-1, which will go into effect on April 1, 2017, will cover obligations related to energy and capacity emergencies under Reliability Standard EOP-002-3, NERC's comments are specific to the relationship between Reliability Standard EOP-011-1 and proposed Reliability Standard BAL-002-2. See *Supplemental Information* at 11.

emergency, the entity may not be able to restore operating conditions without direction and assistance. The processes required under the EOP standards will prepare the responsible entity to ensure Reliable Operations in the event of a large contingency causing an Emergency situation. After the responsible entity has restored normal operations and the RC declares that the Emergency has ended, the entity will once again be required to comply with each of the above-mentioned standards.

In the context of the example described above in Section C(2)(i), if an event or series of events occurs, frequency remains at or near 60 Hz, and transmission lines are not overloaded, then there are no immediate identified reliability risks to the Interconnection. If, however, the RC has declared an Emergency under EOP-011-1, the RC would work with the affected entity[ies] to mitigate reliability issues and return the system to normal operating conditions. Given this layer of RC involvement, responsible entities would not need to request additional RC permission to extend the recovery period.

#### **D. Violation Risk Factors for Requirements R1 and R2**

##### **1. NOPR**

The Commission proposes to increase the VRF associated with Requirements R1 and R2 by directing NERC to “assign a high violation risk factor to proposed Reliability Standard BAL-002-2, Requirements R1 and R2.”<sup>38</sup> In doing so, the Commission expressed concern that NERC did not provide adequate justification for lowering the VRFs for Requirements R1 and R2 of proposed BAL-002-2, which are analogous to Requirements R3 and R3.1 of currently effective BAL-002-1, from “High” to “Medium.”<sup>39</sup> The Commission also noted that when determining

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<sup>38</sup> *NOPR* at P 38.

<sup>39</sup> *Id.* at P 37.

the VRF for a particular requirement, NERC should consider “the risk resulting from a failure to meet the performance set forth in the requirement in real time” regardless of the fact that the determination of degree of noncompliance is completed after occurrence of the event.<sup>40</sup> The Commission seeks comment on its proposal to direct NERC to revise the VRFs for Requirements R1 to R2 from “Medium” to “High.”

## 2. Comments

The VRFs for Requirements R1 and R2 of proposed BAL-002-2 should not be changed from “Medium” to “High” because failure to perform these Requirements in real time would produce results consistent with the Commission approved guidelines for a “Medium” VRF.<sup>41</sup>

According to Commission-approved criteria for establishing NERC Reliability Standard VRFs, a VRF of “High” should be assigned to a Requirement that, if violated, could “directly cause or contribute to the Bulk Electric System instability, separation, or a cascading sequence of failures, or could place the Bulk Electric System at an unacceptable risk of instability, separation, or cascading failures[.]”<sup>42</sup> A VRF of “Medium” should be assigned to 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[.]” but that “is unlikely to lead to Bulk Electric System instability, separation, or cascading failures[.]”<sup>43</sup> Further, as mentioned above, the Commission stated in the NOPR that NERC must assign the VRFs based on “the risk resulting from a failure to meet the performance set forth in the requirement in real

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<sup>40</sup> *Id.*

<sup>41</sup> *See Petition* at 113; *see also NOPR* at P 37 (explaining that NERC must assign VRFs based on “the risk resulting from a failure to meet the performance set forth in the requirement in real time.”).

<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

time.”<sup>44</sup> Requirements R1 and R2 of proposed Reliability Standard BAL-002-2 do not meet the criteria for a VRF of “High.”

Requirement R1 requires responsible entities to recover Reporting ACE by deploying Contingency Reserve upon the occurrence of a Reportable Balancing Contingency Event. An entity’s Reporting ACE is a measure of the “instantaneous difference between a balancing authority’s Net Actual and Scheduled Interchange...” and represents an entity’s obligation to support frequency. As such, the Reporting ACE is representative of an entity’s elemental responsibility to balance resources with demand and stabilize frequency. While Reporting ACE is a valuable indicator of potential system conditions and may identify imbalance leading to unexpected power flows or frequency concerns, it is not indicative of an immediate vulnerability. In other words, a violation of Requirement R1, which establishes the requirement to return Reporting ACE to defined levels, is not an immediate measure of reliability, and the risk resulting from a failure to meet Requirement R1 in Real-time is “unlikely to lead to Bulk Electric System instability, separation, or cascading failures.”<sup>45</sup>

The actions under proposed Requirement R2 support Requirement R1 by requiring responsible entities to develop, review, and maintain a process to determine the MSSC and to maintain, for deployment under Requirement R1, at least enough Contingency Reserve to cover the MSSC. As Requirement R2 ensures that a responsible entity calculates its unique Contingency Reserve threshold for restoration of Contingency Reserve, the requirement is critical to the implementation of proposed Reliability Standard BAL-002-2. Nevertheless, the risk from “failure to meet the performance set forth in the requirement in real time,”<sup>46</sup> does not

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<sup>44</sup> *NOPR* at P 37.

<sup>45</sup> *See Petition* at 113.

<sup>46</sup> *NOPR* at P 37.

rise to the level of risk inherent in a requirement with a “High” VRF because the performance obligation under Requirement R2 does not directly contribute to reliability. Particularly, the requirement to develop, review, and maintain a process to calculate the MSSC is an accounting calculation used to determine how much Contingency Reserve is required. A violation of this Requirement in Real-time, outside of other factors, is “unlikely to lead to Bulk Electric System instability, separation, or cascading failures,” and thus, a VRF of “Medium” is appropriate.

**E. Revision to Definition of Contingency Reserve to Reference Demand-Side Management**

1. NOPR

In its NOPR, the Commission notes that, while NERC proposed the revised NERC Glossary definition of Contingency Reserve to satisfy the Commission directive in Order No. 693 to include demand side management resources in Contingency Reserve calculations, the proposed definition does not include the term “Demand-side Management.”<sup>47</sup> The Commission seeks comment on whether NERC should revise the proposed definition of Contingency Reserve to include the NERC Glossary term “Demand-side Management.”

2. Comments

In developing the revised definition of Contingency Reserve, NERC intentionally omitted the NERC Glossary term “Demand-side Management” because the defined term is too broad to capture those resources that are appropriate for Contingency Reserve preparedness. The proposed definition balances the need for flexibility to include a variety of demand side resources in measurements of Contingency Reserve with the need to define the types of demand side resources that are “technically capable” to serve as contingency reserve.<sup>48</sup>

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<sup>47</sup> *Id.* at P 18.

<sup>48</sup> *See Order No. 693* at P 334.



The Commission-approved definition of Demand-Side Management is “[a]ll activities or programs undertaken by any applicable entity to achieve a reduction in Demand.” NERC did not develop the term “Demand-Side Management” in the context of capacity that may be deployed as Contingency Reserve. Rather, the NERC Glossary definition for Demand-Side Management, which goes into effect on July 1, 2016, refers to all initiatives, programs, or activities that allow an entity to reduce Demand, regardless of the availability of these resources to respond at will. Under this definition, Demand-Side Management resources may include, for example, various programs to encourage consumers to employ technology that reduces demand on a long-term basis, such as energy efficiency. This definition of Demand-Side Management is not limited to time-sensitive, responsive supplies of energy that are technically capable of being deployed on an as needed basis as intended by NERC’s proposed revision to the definition of Contingency Reserve.

In the Commission’s Order No. 693, the Commission directed NERC to “explicitly allow[s] DSM as a resource for contingency reserves”<sup>49</sup> and clarified that demand side management resources “should be treated on a comparable basis and must meet similar technical requirements as other resources providing this service.”<sup>50</sup> NERC developed the proposed definition of Contingency Reserve to fulfill this directive by allowing responsible entities to include demand side resources to respond to a Reportable Balancing Contingency Event. The proposed definition of Contingency Reserve is as follows:

**Contingency Reserve:** The provision of capacity that *may be deployed* by the Balancing Authority to respond to a *Balancing Contingency Event* and other contingency requirements (such as Energy Emergency Alerts as specified in the associated EOP

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<sup>49</sup> *Order No. 693* at P 330.

<sup>50</sup> *Id.* at P 335.

standard). A Balancing Authority may include in its restoration of Contingency Reserve readiness to reduce Firm Demand and include it if, and only if, the Balancing Authority:

- is experiencing a Reliability Coordinator declared Energy Emergency Alert level, and
- is utilizing its Contingency Reserve to mitigate an operating emergency in accordance with its emergency Operating Plan. [emphasis added]

The proposed definition tailors the type of demand resources that may be used as Contingency Reserve to those that are “technically capable of providing Contingency Reserves,”<sup>51</sup> as it allows BAs to include “readiness to reduce Firm Demand” in its calculation of Contingency Reserve. In addition, the proposed definition provides responsible entities with the flexibility to use either conventional generation or demand side management as a resource for Contingency Reserve.<sup>52</sup>

NERC believes that the proposed definition represents an improvement to the currently effective definition of Contingency Reserve by providing adequate granularity regarding the type of resources that are technically appropriate to serve as Contingency Reserve while still maintaining the flexibility to employ new technology in the future. As explained above, the proposed definition fulfills the Commission directive from Order No. 693 to allow the use of demand side resources as Contingency Reserve while explicitly identifying resources that are appropriate for use as Contingency Reserve. With these revisions, proposed Reliability Standard BAL-002-2 is “clearer, provides users, owners and operators of the Bulk-Power System a set of

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<sup>51</sup> *Id.* at P 334.

<sup>52</sup> The proposed definition of Contingency Reserve allows responsible entities to include “readiness to reduce Firm Demand” in its calculation of Contingency Reserve but only if certain limits are met. Allowing entities to use “readiness to reduce Firm Demand” if certain limits are met is significantly different from using interruptible loads, interruptible Demand-Side Management programs, or Direct Control Load Management to meet normal Contingency Reserve needs.

options to meet contingency reserves, and treats DSM on a comparable basis with other resources.”<sup>53</sup>

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<sup>53</sup> *Order No. 693* at P 331.

#### IV. CONCLUSION

NERC supports the Commission's NOPR proposal to approve Reliability Standard BAL-002-2 and associated NERC Glossary definitions. For the reasons explained above, NERC requests that the Commission approve proposed Reliability Standard BAL-002-2 as submitted in the Petition as just, reasonable, and in the public interest.

Respectfully submitted,

*/s/ Andrew C. Wills*

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Date: July 25, 2016

**CERTIFICATE OF SERVICE**

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service lists compiled by the Secretary in Docket No. RM16-7-000.

Dated at Washington, D.C. this 25<sup>th</sup> day of July, 2016.

*/s/ Andrew C. Wills*

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