

130 FERC ¶ 61,200  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;  
Marc Spitzer, Philip D. Moeller,  
and John R. Norris.

Mandatory Reliability Standards for the Bulk Power  
System

Docket No. RM06-16-009

ORDER SETTING DEADLINE FOR COMPLIANCE

(Issued March 18, 2010)

1. In Order No. 693, issued in March 2007, the Commission, *inter alia*, approved the North American Electric Reliability Corporation's (NERC) transmission planning (TPL) Reliability Standards, including TPL-002-0, which pertains to system performance following the loss of a single bulk electric system element.<sup>1</sup> In addition, the Commission directed NERC to develop certain modifications to the Reliability Standard, pursuant to NERC's Reliability Standards Development Process, including a clarification of Table I, footnote b of the standard, regarding the "planned or controlled interruption of electric supply" where a single contingency occurs on a transmission system.
2. At this time, NERC continues to develop the directed modifications to Reliability Standard TPL-002-0. In a December 2, 2009 informational filing, NERC indicated that it anticipates submitting a modified set of TPL Reliability Standards in the second quarter of 2010.<sup>2</sup> While the Commission, in Order No. 693, did not set a deadline for submitting modifications to TPL-002-0, we note that almost three years have passed since the issuance of the directive in Order No. 693. We are particularly concerned that Table 1,

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<sup>1</sup> *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

<sup>2</sup> NERC Informational Filing of 2010 Development Plan Pursuant to Section 310 of the NERC Rules of Procedure at 8-9 (December 2, 2009 Informational Filing), Docket Nos. RM06-16-000, et al.

footnote b has yet to be clarified as directed by the Commission in Order No. 693, since we believe that certainty is needed regarding the loss of non-consequential load for a single contingency event.<sup>3</sup> Accordingly, pursuant to section 39.5(g) of the Commission's regulations,<sup>4</sup> the Commission directs NERC to submit a modification to Table I, footnote b of TPL-002-0 that is responsive to the Commission's directive in Order No. 693, by June 30, 2010. The Commission prefers that NERC submit this specific modification as one element of a more complete filing that addresses modifications to the TPL group of Reliability Standards. However, if NERC is unable to submit the modified set of TPL Reliability Standards in the second quarter of 2010 as represented in its informational filing, NERC must file a responsive modification to Table 1, footnote b as a "stand alone" modification to the currently effective TPL-002-0 Reliability Standard, no later than June 30, 2010.

## **I. Background**

### **A. Section 215 of the Federal Power Act**

3. Section 215 of the Federal Power Act (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.<sup>5</sup>

4. Pursuant to section 215 of the FPA, the Commission certified the North American Electric Reliability Corporation (NERC) as the ERO.<sup>6</sup> On April 4, 2006, NERC submitted a petition seeking approval of 107 proposed Reliability Standards, including

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<sup>3</sup> In Order No. 693, the Commission explained that the term "consequential load loss" referred to "the load that is directly served by the elements that are removed from service as a result of the contingency." Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1794, n.461.

<sup>4</sup> 18 C.F.R. § 39.5(g) (2009).

<sup>5</sup> See 16 U.S.C. § 824o(e)(3) (2006).

<sup>6</sup> *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh'g & compliance*, 117 FERC ¶ 61,126 (2006), *aff'd sub nom. Alcoa, Inc. v. FERC*, 564 F.3d 1342 (D.C. Cir. 2009).

TPL-001-0 through TPL-004-0.<sup>7</sup> On March 16, 2007, the Commission issued Order No. 693 approving 83 of these 107 Reliability Standards, and directing other actions related to 56 of the approved Reliability Standards, including modifications to Reliability Standards TPL-001-0 through TPL-004-0.

**B. Reliability Standard TPL-002-0**

5. Among the Reliability Standards approved in Order No. 693, the Commission approved TPL-002-0 (System Performance Following the Loss of a Single [Bulk Electric System] Element). In general, the group of transmission planning standards is intended to ensure that the transmission system is planned and designed to meet an appropriate and specific set of reliability criteria.<sup>8</sup> Reliability Standard TPL-002-0 addresses system planning related to performance under contingency conditions involving an event associated with a single element. Requirement R1 of TPL-002-0 requires that each Planning Authority and Transmission Planner “demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I.”

6. Table I (Transmission System Standards – Normal and Emergency Conditions) identifies different Categories of contingencies and allowable system impacts in the planning process. For example, Category B of Table I (“Events Resulting in the loss of a Single Element”) identifies as contingencies: Single Line Ground (SLG) or 3-Phase Fault with Normal Clearing of a: (1) Generator, (2) Transmission Circuit, and (3) Transformer, and Loss of an Element without a Fault, as well as a single pole (DC) line. In planning for such a contingency, the transmission system must remain stable and both thermal and voltage limits must remain within applicable ratings. With regard to system impacts, Table I further provides that a Category B (single) contingency must not result in cascading outages or “loss of demand or curtail firm transfers.” With regard to the clause regarding loss of demand or curtailment of firm transfers, footnote b provides the following additional information:

Planned or controlled interruption of electric supply to radial customers or some local Network customers, connected to or

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<sup>7</sup> See *Petition of the North American Electric Reliability Council and North American Electric Reliability Corporation for Approval of Reliability Standards*, April 4, 2006 at 28-29, Docket No. RM06-16-000.

<sup>8</sup> Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1683.

supplied by the Faulted element or by the affected area, may occur in certain areas without impacting the overall reliability of the interconnected transmission systems. To prepare for the next contingency, system adjustments are permitted, including curtailments of contracted Firm (non-recallable reserved) electric power Transfers.

7. In Order No. 693, the Commission concluded with regard to footnote b of Reliability Standard TPL-002-0:

The Commission stated in the NOPR that footnote (b) raises three issues that need to be addressed. Two relate to the use of planned or controlled load interruption under certain circumstances, and the third relates to the use of system adjustments including curtailment of firm transfers to prepare for the next contingency. Northern Indiana and Entergy disagree with the Commission's proposal to modify footnote (b) to state that load shedding for a single contingency is not permitted except in very special circumstances where such interruption is limited to the firm load associated with the failure (consequential load loss). The commenters argue that the impact of transmission outages can be local in nature and have no impact on the reliability of the Bulk-Power System and that removing the option to shed load in a local area for a single contingency would result in significant facility upgrade costs and therefore increased rates to customers simply to avoid a local outage. Entergy seeks clarification that the Commission does not intend to constrain the transmission operator's ability to determine the best course of action to address local reliability constraints.

The NOPR proposed a modification that would clarify footnote (b) as disallowing loss of such firm load or the curtailment of firm transactions after a first contingency of the bulk electric system. In its comments to the Staff Preliminary Assessment, NERC agreed with this interpretation, representing that a practice that permits the planned interruption of "firm transmission service" is a misapplication of the Reliability Standard. Some commenters now argue otherwise, and in some cases cite examples where, based on a balance of economic and reliability considerations, it may be preferable to plan the bulk electric system in such a manner that contemplates the interruption of some firm load customers in the event of a N-1 contingency. We view these arguments as based largely on the matter of economics, not reliability, with the underlying

premise that it is not economically feasible to invest in the bulk electric system to the point that it can continue service to all firm load customers under some specific N-1 scenarios. Therefore, they argue, the ambiguities of footnote (b) should be interpreted to allow that an entity plan for some amount of load loss to avoid costly infrastructure investments.

The Commission considers this matter to be a fundamental issue of transmission service. Indeed, the ERO's definition of "firm transmission service" specifically states that it is the "highest quality (priority) service offered to customers under a filed rate schedule that anticipates no planned interruption."

Based on the record before us, we believe that the transmission planning Reliability Standard should not allow an entity to plan for the loss of non-consequential load in the event of a single contingency. The Commission directs the ERO to clarify the Reliability Standard. Regarding the comments of Entergy and Northern Indiana that the Reliability Standard should allow entities to plan for the loss of firm service for a single contingency, the Commission finds that their comments may be considered through the Reliability Standards development process. However, we strongly discourage an approach that reflects the lowest common denominator. ...<sup>9</sup>

## II. Discussion

8. Pursuant to section 39.5(g) of the Commission's regulations, the Commission directs the ERO to submit, by June 30, 2010, a modification to Table I, footnote b of TPL-002-0 that complies with the Commission's directive as set forth in Order No. 693 regarding the loss of non-consequential load in the event of a single contingency. Non-consequential load loss includes the removal, by any means, of any firm load that is not directly served by the elements that are removed from service as a result of the contingency.<sup>10</sup> The Commission continues to expect that NERC will fulfill the other

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<sup>9</sup> Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1791-1794 (footnotes omitted) (emphasis added).

<sup>10</sup> Reduction in the amount of power that the firm load might require due to voltage or frequency transients should not be considered as non-consequential load loss assuming that all of the load is planned and capable of being served after the transients have diminished and the system is returned to steady state operations.

directives set forth in the TPL-002-0 section of Order No. 693 when it files the revised TPL Reliability Standard.

9. As mentioned above, the ERO currently has a project to revise the group of transmission planning (TPL) standards,<sup>11</sup> and has yet to submit the modifications directed in Order No. 693. In an initial Work Plan to address modifications to the Reliability Standards approved in Order No. 693, the ERO projected completing revisions to TPL standards in the third quarter of 2008.<sup>12</sup> In its most recent Reliability Standards Development Plan submission, the ERO stated that the effort to complete the initial four drafts of the standard took longer than expected due to the significant volume of industry comments received during the postings and the additional time required for internal ERO staff review of the draft.<sup>13</sup> As previously noted, the ERO states that it anticipates completion of project 2006-02 during the second quarter of 2010.

10. We recognize the substantial efforts to date, through the ERO's Reliability Standards Development Process, in the revision of TPL standards. However, as previously noted, the Commission considers the use of planned or controlled load interruption to be a fundamental reliability issue.<sup>14</sup> We find that clarification of the issue of the loss of non-consequential load in the event of a single contingency should not be further delayed by the development process related to other revisions related to the TPL standards. Accordingly, pursuant to section 39.5(g) of the Commission's regulations, we direct the ERO to submit a modification to Table I, footnote b of TPL-002-0 that complies with the Commission's directive in Order No. 693, by June 30, 2010. The Commission prefers that the ERO submit this specific modification as one element of a more complete filing that addresses all of the modifications to the TPL group of Reliability Standards. However, if the ERO is unable to submit the modified set of TPL Reliability Standards that address all of the modifications in the second quarter of 2010 as represented in its December 2, 2009 Informational Filing, the ERO must file a compliant

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<sup>11</sup> NERC has identified this project as 2006-02. Modifications to Table I, footnote b are currently included in this project.

<sup>12</sup> NERC Work Plan at 14 (October 5, 2007), Docket No. RM06-16-000, et al.

<sup>13</sup> NERC December 2, 2009 Informational Filing at 8.

<sup>14</sup> In Order No. 693, the Commission also noted NERC's comments that "NERC standards, including footnote (b), are not intended to endorse or approve planning the interconnection using radial configurations as a preferred method for reliably serving load, nor do NERC Standards consider load shedding acceptable for a single contingency." Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 1792, n.460 *citing* NERC comments to the Staff Preliminary Assessment at 57-58.

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modification to Table 1, footnote b as a “stand alone” modification to the currently effective TPL-002-0 Reliability Standard, no later than June 30, 2010.

The Commission orders:

The ERO is hereby directed to submit a modification to Table I, footnote b of Reliability Standard TPL-002-0 that complies with the Commission’s directive in Order No. 693, by June 30, 2010.

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.

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