

# REPORT OF THE SYSTEM RELIABILITY & PLANNING COMMITTEE

The EBA System Reliability and Planning Committee is pleased to submit its annual report.\* This report provides a summary of the most significant decisions, orders, and rules issued by the Federal Energy Regulatory Commission (FERC or Commission) and the North American Electric Reliability Corporation (NERC) regarding electric reliability Section 215 of the Federal Power Act (FPA) and transmission planning from June 2009 through July 2011. The Committee’s previous report provided a summary of significant FERC and NERC decisions, orders, and rules from 2007 through June of 2009.<sup>1</sup> Earlier developments in this area were also covered in the EBA Electricity Committee’s previous reports.

I.	Reliability Governance, Structure, and Rules of Procedures (ROP).....	760
II.	NERC Business Plan and Budget .....	761
	A. 2008 NERC Business Plan and Budget .....	762
	B. 2009 NERC Business Plan and Budget .....	762
	C. 2010 NERC Business Plan and Budget .....	763
	D. 2011 NERC Business Plan and Budget .....	764
	E. The FERC Accepts NERC’s Proposed Amendments to ROP Eliminating Reliability Readiness Evaluation and Improvement Program.....	766
	F. D.C. Circuit Court of Appeals Denies Challenge to NERC Cost Allocation Methodology ( <i>Alcoa v. FERC</i> ) .....	766
III.	Reliability Standards .....	766
	A. BAL-003-0 Reliability Standard.....	766
	B. BAL-004-1 Reliability Standard.....	767
	C. EOP Reliability Standards .....	767
	D. INT Reliability Standards .....	768
	E. IRO Reliability Standards.....	768
	F. MOD Reliability Standards.....	769
	G. PER Reliability Standards.....	770
	H. PRC-005 Reliability Standard.....	770
	I. PRC-023-1 Reliability Standard .....	771
	J. TOP-001 Reliability Standard.....	771
	K. TOP-005 and IRO-005 Interpretations .....	771
	L. TPL-002-0 Reliability Standard.....	772
	M. Definition of Bulk Electric System.....	773
	N. Reliability Standards Development Plan .....	773
IV.	CIP Standards.....	773
	A. CIP Reliability Standards.....	773
	B. Technical Feasibility Exception (TFE) Procedures .....	775
	C. VRFs and VSLs for CIP Standards.....	776

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\* The System Reliability and Planning Committee wishes to acknowledge the support of the full Committee in producing this report, and in addition, to recognize specific Committee members who made particular contributions to this report. Those members include: Brandon N. Robinson, Holly Hawkins, Rebecca Michael, Walter R. Hall II, David Cook, Susan Court, Sonia Mendonca, Bruce Richardson, Andrew Dressel, Kevin McNamee, Drew Johnson, and Greg Butrus.

1. *Report of the System Reliability, Planning and Compliance Committee*, 30 ENERGY L.J. 831 (2009) [hereinafter *2009 Report*].

D.	CIP Interpretations .....	777
V.	Nuclear Facilities and Reliability Standards .....	778
VI.	Regional Standards Development .....	780
VII.	Violation Risk Factors (VRFs) and Violation Severity Levels (VSLs) ..	781
VIII.	Registration/Joint Registration .....	782
	A. Army Corp of Engineers .....	782
	B. Report on Generator Requirements at the Transmission Interface ..	783
IX.	NERC Alerts .....	784
	A. Cyber-Security .....	784
	B. Transmission Facilities .....	786
	C. System-Wide Reliability .....	787
X.	Reliability Compliance, Enforcement, and Notices of Penalty .....	788
XI.	Coordinated, Open and Transparent Regional Transmission Planning ..	793

#### I. RELIABILITY GOVERNANCE, STRUCTURE, AND RULES OF PROCEDURES (ROP)

On July 20, 2009, NERC submitted to the FERC its Three-Year Performance Assessment Report as required by 18 C.F.R. § 39.3(c).<sup>2</sup> In its report, NERC indicated that there was extensive stakeholder concern that NERC had not filed Notices of Penalty concerning numerous self-reported, confirmed, and alleged violations of mandatory Reliability Standards dating from 2007 and 2008.<sup>3</sup> Several entities moved to intervene and filed comments. On September 18, 2009, NERC submitted an answer to the entities' comments.<sup>4</sup> On October 26, 2009, the FERC issued a further guidance order on filing Notices of Penalty, announcing that "it [would] accept, in certain circumstances, an abbreviated format for filing Notices of Penalty that do "not pose a significant risk to . . . the Bulk-Power System."<sup>5</sup> On May 13, 2010, NERC submitted a request that the FERC issue a preliminary assessment in response to the Three-Year Performance Assessment of NERC as the Electric Reliability Organization (ERO).<sup>6</sup> The FERC issued an Order accepting NERC's performance as the ERO as well as the performance of the Regional Entities on September 16, 2010.<sup>7</sup>

On June 10, 2010, NERC requested approval to replace the Reliability Standards Development Procedure (RSDP) in Appendix 3A of its Rules of Procedure with a new Standards Process Manual (SPM).<sup>8</sup> On July 6, 2010, in Docket No. AD10-14, the FERC convened a technical conference on Reliability

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2. North Am. Elec. Reliability Corp. (NERC) Three-Year Electric Reliability Organization Performance Assessment Report Submitted in Accordance with 18 C.F.R. §39.3(c), FERC Docket No. RR09-7 (July 20, 2009).

3. *Id.* at Attachment 1, p. 65.

4. Motion of NERC to Submit Answer to Comments on Three-Year Electric Reliability Association Performance Assessment Report at 1, FERC Docket No. RR-09-7-000 (Sept. 18, 2009).

5. *Guidance on Reliability Notices of Penalty NERC*, 129 F.E.R.C. ¶ 61,069 at P 2 (2009).

6. Motion of NERC Requesting Issuance of Preliminary Assessment in Response to Three-Year Electric Reliability Organization Performance Assessment Report, FERC Docket No. RR09-7-000 (May 13, 2010).

7. *NERC Reliability Standards Development and NERC and Regional Entity Enforcement*, 132 F.E.R.C. ¶ 61,217 at P 244 (2010).

8. Petition of NERC for Approval of the Reliability Standard Processes Manual Incorporating Proposed Revisions to the Reliability Standards Development Process, FERC Docket No. RR10-12-000 (June 10, 2010).

Standards Development and NERC and Regional Entity Enforcement.<sup>9</sup> The FERC issued a notice soliciting comments on July 7, 2010,<sup>10</sup> and several entities, including NERC, filed comments on July 26, 2010.<sup>11</sup> NERC filed supplemental comments on August 20, 2010.<sup>12</sup> On September 3, 2010, the FERC issued an order conditionally approving replacement of the RSDP with the SPM but requested a compliance filing to address concerns about references to “enforceable” versus “informational.”<sup>13</sup> NERC amended its proposed Appendix 3A in compliance with the FERC’s Sept. 3 Order on December 1, 2010<sup>14</sup> and submitted clarifying supplemental information on May 17, 2011.<sup>15</sup>

On June 1, 2009, the FERC directed NERC to file a revised Compliance Monitoring and Enforcement Program (CMEP), which is Appendix 4C to the NERC Rules of Procedure, to: (1) require Regional Entities to submit approved mitigation plans to NERC by a specified date; (2) require NERC to notify Regional Entities and Registered Entities when NERC either approves or disapproves a mitigation plan; and (3) make conforming changes to a figure within the proposed CMEP, Mitigation Plan Process.<sup>16</sup> On July 30, 2009, NERC submitted a compliance filing in response to the FERC’s June 1, 2009 Order.<sup>17</sup> The FERC accepted NERC’s revised CMEP by delegated letter order on October 2, 2009.<sup>18</sup>

## II. NERC BUSINESS PLAN AND BUDGET

NERC business plan and budget proceedings for 2008-2011 are briefly discussed below. For more thorough information regarding the business plan and budget proceedings for 2008 and 2009, please also refer to the Committee’s previous report.<sup>19</sup> In 2010 and 2011, NERC “continue[d] to allocate costs to end users in the United States based on Net Energy for Load (NEL).”<sup>20</sup> NERC “calculate[s] and bill[s] the assessments to certain entities, referred to as ‘designees,’ based on NEL values that include the NEL for other load-serving entities served by the designee or for which the ‘designee’ has otherwise agreed

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9. Notice of Technical Conference, Reliability Standards Development and NERC and Regional Entity Enforcement, 75 Fed. Reg. 35,021 (June 21, 2010).

10. Notice Soliciting Comments, FERC Docket No. AD-14-000 (July 7, 2010).

11. Comments of NERC Following July 6 Technical Conference, FERC Docket No. AD10-14-000 (July 26, 2010).

12. Supplemental Comments of NERC Following July 6 Technical Conference, FERC Docket No. AD10-14-000 (Aug. 20, 2010).

13. *NERC*, 132 F.E.R.C. ¶ 61,200 at PP 1, 8 (2010).

14. Compliance Filing of NERC in Response to the FERC’s Sept. 3, 2010 Order Approving Petition and Directing Compliance Filing, FERC Docket No. RR10-12-000 (Dec. 1, 2010).

15. NERC’s Dec. 1, 2010 Compliance Filing in Response to the FERC’s Sept. 3, 2010 Order Approving Petition and Directing Compliance Filing, FERC Docket No. RR10-12-000 (May 17, 2011).

16. *North Am. Elec. Reliability Council*, 127 F.E.R.C. ¶ 61,209 at PP 16-18 (2009).

17. Compliance Filing of NERC in Response to June 1, 2009 Order, FERC Docket Nos. RR06-1-021, et al. (July 30, 2009).

18. Letter Order, Compliance Filing of NERC in Response to June 1, 2009 Order, FERC Docket Nos. RR06-1-023, et al. (Oct. 2, 2009).

19. *2009 Report*, *supra* note 1, at 839-40.

20. *NERC*, 133 F.E.R.C. ¶ 61,062 at P 8 (2010).

to accept responsibility for assessments.”<sup>21</sup> Furthermore, “the calculation and billing of assessments to ‘designees’ [has not been deemed to be] a departure from the principle that the ERO funding requirement should be recovered from load-serving entities based on NEL, but rather is a matter of administrative convenience and efficiency.”<sup>22</sup>

*A. 2008 NERC Business Plan and Budget*

On June 29, 2009, the FERC issued an order conditionally accepting NERC’s April 1, 2009 compliance filing regarding NERC’s 2008 business plan and budget.<sup>23</sup> NERC’s compliance filing included a true-up of NERC’s and the Regional Entities’ actual 2008 costs to their respective 2008 budgets.<sup>24</sup> The filing also included responses to other compliance directives in the FERC’s October 18, 2007 order on NERC’s 2008 business plan and budget.<sup>25</sup> In the June 29, 2009 order, the FERC also directed NERC “to provide additional information in its 2010 business plan and budget.”<sup>26</sup> In addition, on April 6, 2009, NERC submitted a compliance filing certifying that SPP had performed a reconciliation of its system of accounts in accordance with Section 8(e) of the NERC-SPP RE Delegation Agreement.<sup>27</sup> NERC explained that SPP’s revised mapping system enables the SPP RE to submit required budget and actual financial data to NERC in accordance with the NERC system of accounts using the NERC supplied format and templates.<sup>28</sup> The compliance filing was accepted by letter order dated June 30, 2009.<sup>29</sup>

*B. 2009 NERC Business Plan and Budget*

On July 16, 2009, the FERC issued an order accepting NERC’s compliance filing regarding NERC’s 2009 business plan and budget.<sup>30</sup> In the compliance filing, NERC provided additional information regarding staffing levels for various programs, the termination of funding for the Reliability Readiness Program, as well as information regarding audits conducted by Regional Entities.<sup>31</sup> The order also rejected a non-NEL cost allocation methodology proposed by NPCC but accepted NERC’s guidelines for cost allocations set forth in its “Expanded Policy on Allocation of Certain Compliance and Enforcement Costs.”<sup>32</sup> On October 2, 2009, the FERC accepted “a supplemental budget and

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21. *Id.*

22. *Id.*

23. *NERC*, 127 F.E.R.C. ¶ 61,307 at P 1 (2009).

24. *Id.*

25. *NERC*, 121 F.E.R.C. ¶ 61,057 at P 1 (2007).

26. 127 F.E.R.C. ¶ 61,037 at P 1.

27. Compliance Filing of NERC in Response to Feb. 19, 2009 Order Concerning SPP Regional Entity Use of NERC System of Accounts at 1, FERC Docket No. RR07-16-004 (Apr. 6, 2009).

28. *Id.* at 5-6.

29. Letter Order, Compliance Filing of NERC in Response to Feb. 19, 2009 Order Concerning SPP Regional Entity Use of NERC System Accounts, FERC Docket No. RR07-16-006 (June 30, 2009).

30. *NERC*, 128 F.E.R.C. ¶ 61,025 at P 1 (2009).

31. Compliance Filing of NERC in Response to Oct. 16, 2008 Order on 2009 Business Plans and Budgets at 13 n.19, 18, 27 (Dec. 15, 2008).

32. 128 F.E.R.C. ¶ 61,025 at PP 41-42 (2009).

funding request” submitted by NERC on August 6, 2009 “on behalf of [the] Midwest Reliability Organization.”<sup>33</sup>

*C. 2010 NERC Business Plan and Budget*

On October 15, 2009, the FERC conditionally accepted 2010 business plans and budgets for NERC, the Regional Entities, and the Western Interconnection Regional Advisory Body (WIRAB).<sup>34</sup> The FERC “authorized [NERC] to issue billing invoices to fund the fiscal year 2010 operations of the Regional Entities, WIRAB, and itself.”<sup>35</sup> The FERC also “accept[ed] NERC’s status update on the remaining unprocessed alleged violations as well as NERC’s reliability enhancement programs compliance filings.”<sup>36</sup> “The total funding requirement for 2010 for reliability activities in the [U.S.], Canada, and Mexico [was] \$138,169,468.”<sup>37</sup> “[T]he portion of the total funding for [U.S.] statutory activities of NERC, the Regional Entities and WIRAB [was] \$122,447,930.”<sup>38</sup> In the October 15, 2009 order, the FERC raised concerns that NERC’s monitoring and compliance staffing levels for 2010 were insufficient to complete investigations and ensure compliance with reliability rules.<sup>39</sup> The FERC also raised concerns over NERC’s plan to use a \$4 million line of credit instead of funding its working capital reserves and asked for additional information on any conditions or restrictions on the line of credit.<sup>40</sup>

On December 11, 2009, NERC submitted a filing clarifying issues regarding its resource adequacy and various concerns regarding the business plans and budgets for particular Regional Entities, such as the adequacy of the CIP audit levels planned by Texas RE and SERC,<sup>41</sup> the application of net energy load in allocating compliance program costs within the United States portion of the NPCC region,<sup>42</sup> and the development of the Compliance Reporting, Analysis, and Tracking System.<sup>43</sup> Additionally, NERC requested that it no longer be required to submit status reports on the development of uniform procedures for processing Technical Feasibility Exceptions (TFEs) because NERC has filed a proposed uniform procedure for processing TFEs in a separate docket for FERC approval.<sup>44</sup> The FERC accepted the compliance filing by letter order dated March 3, 2010.<sup>45</sup>

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33. Letter Order, Supplemental Budget and Funding Request Filing Concerning the 2009 Business Plan and Budget of NERC, FERC Docket No. RR08-6-003 (Oct. 2, 2009).

34. *NERC*, 129 F.E.R.C. ¶ 61,040 at P 1 (2009).

35. *Id.* at P 1.

36. *Id.* at P 2.

37. *Id.* at P 7. This “include[ed] \$37,063,569 for NERC funding; \$100,667,519 for Regional Entity funding; and \$438,381 for WIRAB funding.” *Id.*

38. *Id.*

39. *Id.* at P 33.

40. *Id.* at P 24.

41. Compliance Filing of NERC in Response to Oct. 15, 2009 Order on 2010 Business Plans and Budgets at 14, FERC Docket Nos. RR-09-9-000, et al. (Dec. 11, 2009).

42. *Id.* at 26.

43. *Id.* at 12.

44. *NERC*, 130 F.E.R.C. ¶ 61,050 at P 5 (2010).

45. Letter Order, Compliance Filing of NERC in Response to Oct. 15, 2009 Order on the 2010 Business Plans and Budgets at P 5, FERC Docket Nos. RR09-9-001, et al. (Mar. 3 2010).

On January 11, 2010, NERC submitted a partial compliance filing responding to the FERC's October 15, 2009 order and provided an evaluation of the adequacy of NERC and Regional Entity resources to implement TFE activity.<sup>46</sup> This partial compliance filing was accepted by letter order dated March 8, 2010.<sup>47</sup> On June 10, 2010, the FERC accepted NERC's May 3, 2010 report in response to paragraph 36 of the FERC's October 15, 2009 order, supplementing NERC's January 11, 2010 compliance filing and providing an evaluation of the adequacy of NERC and Regional Entity resources to implement the TFE activity.<sup>48</sup>

Finally, on September 24, 2010, NERC filed a Reconciliation Report in accordance with NERC's February 19, 2010 petition in FERC Docket No. RR10-6 seeking approval to delegate authority to the newly formed, independent Texas Reliability Entity, Inc. (TRE) as the Regional Entity for the Electric Reliability Council of Texas (ERCOT) region.<sup>49</sup> Attachment 1 of the NERC's September 24, 2010 filing included a comparison of Original Texas RE's actual expenditures for the period January 1 – June 30, 2010 to its budgeted expenditures for this six-month period per its original approved Business Plan and Budget for 2010.<sup>50</sup> Attachment 2 of NERC's filing provided a reconciliation of the Original Texas RE's closing balances and TRE's opening balances as of July 1, 2010 and included conversion entries that eliminate regulatory accounting pursuant to FAS 71.<sup>51</sup> The reconciliation statement showed the closing account balances of Original Texas RE were transferred to TRE.<sup>52</sup> The FERC accepted the reconciliation report by letter order dated November 8, 2010.<sup>53</sup>

#### *D. 2011 NERC Business Plan and Budget*

On October 21, 2010, the FERC “conditionally accept[ed] the [2011] business plans and budgets of NERC, the Regional Entities, and WIRAB” which were filed on August 24, 2010 and authorized NERC “to issue billing invoices to fund the fiscal year 2011 operations of the Regional Entities, WIRAB, and itself.”<sup>54</sup> “The total funding requirement for 2011 for reliability activities in the United States, Canada, and Mexico [was] \$147,020,191, which includes \$41,106,967 for NERC funding; \$105,593,861 for Regional Entity funding; and \$319,363 for WIRAB funding.”<sup>55</sup> “[T]he portion of the total funding for United

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46. Partial Compliance Filing of NERC in Response to Paragraph 36 of Oct. 15, 2009 Order on 2010 Business Plans and Budget, FERC Docket Nos. RR09-9-000, et al. (Jan. 11, 2010).

47. Letter Order, Partial Compliance Filing to Oct. 15, 2009 Commission Order at P 5, FERC Docket Nos. RR09-9-002, et al. (Mar. 8 2010).

48. Letter Order, NERC Response to Oct. 15, 2009 Order on 2010 Business Plans and Budgets at P 5, FERC Docket No. RR09-9-003 (June 10, 2010).

49. Reconciliation Report Submitted in Accordance with Petition for Approval of Delegation Agreement with Tex. Reliability Entity, Inc. and 2010 Business Plan and Budget of Tex. Reliability, Inc., FERC Docket No. RR10-6-000 (Sept. 24, 2010).

50. *Id.* at Attachment 1.

51. *Id.* at Attachment 2.

52. *Id.* at Attachment 2 n.1.

53. Letter Order, Reconciliation Report at P 5, FERC Docket No. RR10-6-001 (Nov. 8, 2010).

54. *NERC*, 133 F.E.R.C. ¶ 61,062 at P 1 (2010).

55. *Id.* at P 7.

States statutory activities of NERC, the Regional Entities and WIRAB [was] \$129,661,562.”<sup>56</sup> . In the same order, the FERC accepted “NERC’s status update on the remaining unprocessed alleged violations.”<sup>57</sup>

On December 17, 2010, NERC submitted a compliance filing addressing the issues raised in the FERC’s October 21, 2010 order.<sup>58</sup> In the compliance filing, NERC provided additional information regarding “changes to its organizational structure to align the strengths of NERC’s leadership team with the organization’s increased focus on risk-based approaches to improving bulk power system reliability performance while maintaining a strong compliance enforcement capability.”<sup>59</sup> NERC explained that “[t]hese organizational changes primarily involved the realignment of certain departments and cost centers under different senior leadership, while maintaining the integrity of the cost accounting and reporting of those departments consistent with the 2010 budget. All departmental activities . . . continue to support NERC’s statutory responsibilities.”<sup>60</sup> The filing also explained an increase in staffing levels for the Reliability First Corporation and replaced a table summarizing WECC’s General and Administrative budget which had been truncated in the original filing.<sup>61</sup> Finally, the filing included information on violations in process.<sup>62</sup> The NERC’s compliance filing was accepted by letter order on February 2, 2011.<sup>63</sup>

In addition, on January 24, 2011, NERC submitted a supplemental budget and funding request on behalf of TRE.<sup>64</sup> TRE amended its 2011 budget to reflect a new agreement with the Public Utility Commission of Texas (PUCT) for TRE to continue its non-statutory work as Reliability Monitor for the PUCT and the ERCOT Region through at least December 31, 2013.<sup>65</sup> Previously, TRE and the PUCT had arranged for TRE to provide “only necessary activities to support its previous work as Reliability Monitor as the PUCT and the ERCOT Region transitioned to another entity as Reliability Monitor.”<sup>66</sup> The Amended Budget does not provide for nor require any increase in assessments to load-serving entities in the ERCOT Region.<sup>67</sup> The FERC accepted this filing by letter order dated March 1, 2011.<sup>68</sup>

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56. *Id.*

57. *Id.* at P 2.

58. Compliance Filing of NERC in Response to Oct. 21, 2010 Order on 2011 Business Plans and Budgets, FERC Docket No. RR10-13-000 (Dec. 17, 2010).

59. *Id.* at 2-3.

60. *Id.* at 3.

61. *Id.* at 7.

62. *Id.* at Attachment 2.

63. Letter Order, Compliance Filing of the NERC Regarding 2011 Business Plans and Budgets at P 5, FERC Docket No. RR10-13-001 (Feb. 2, 2011).

64. Petition for Approval of Amendment to the 2011 Business Plan and Budget of TRE and Amendment to Exhibit E to Delegation Agreement with TRE, FERC Docket No. RR10-13-000 (Jan. 24, 2011).

65. *Id.* at 1.

66. *Id.*

67. *Id.* at 2.

68. Letter Order, Petition for Approval of Amendment to the 2011 Business Plan and Budget of TRE and Amendment to Exhibit E to Delegation Agreement with TRE at P 5, FERC Docket No. RR11-13-002 (Mar. 1, 2011).

*E. The FERC Accepts NERC's Proposed Amendments to ROP Eliminating Reliability Readiness Evaluation and Improvement Program*

On November 12, 2009, NERC submitted a filing seeking approval on amendments to Section 700 and other provisions of the Rules of Procedure (ROP) in response to an order<sup>69</sup> in which the FERC concluded that NERC had provided sufficient detail supporting its proposal to eliminate funding for the Reliability Readiness Program.<sup>70</sup> In response, NERC "submitted proposed amendments to Section 700 and other provisions of the ROP to reflect the termination of the Reliability Readiness Program."<sup>71</sup> The FERC accepted this filing by letter order dated January 14, 2010.<sup>72</sup>

*F. D.C. Circuit Court of Appeals Denies Challenge to NERC Cost Allocation Methodology (Alcoa v. FERC)*

On May 8, 2009, the United States Court of Appeals for the District of Columbia Circuit denied a petition for review submitted by Alcoa Inc. which sought review of the FERC decision accepting NERC's proposal to allocate ERO costs according to the NEL method of computation.<sup>73</sup> The Court found that the FERC's decision was reasonable.<sup>74</sup> Specifically, the Court held that under the applicable and highly deferential standard of review, the FERC's decision was neither arbitrary nor capricious.<sup>75</sup> The Court also concluded that the "FERC adequately explained any departure from its traditional two-part transmission rate precedent."<sup>76</sup>

### III. RELIABILITY STANDARDS

*A. BAL-003-0 Reliability Standard*

On March 18, 2010, the FERC issued an order directing NERC to submit modifications to Reliability Standard BAL-003-0 that are responsive to a directive from Order No. 693.<sup>77</sup> The FERC set a six-month deadline to complete modifications to define "the appropriate periodicity of frequency response surveys necessary to ensure that Requirement R2 and other requirements . . . [were] being met . . . , and . . . the necessary amount of frequency response needed for reliable operation."<sup>78</sup> On April 19, 2010, NERC requested clarification and rehearing of the FERC's deadline for compliance on two grounds: (1) six months is not an adequate amount of time for NERC to conduct

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69. *NERC*, 128 F.E.R.C. ¶ 61,025 (2009).

70. Petition for Approval of Amendment to the ROP of the NERC to Reflect Elimination of the Reliability Readiness Evaluation and Improvement Program, FERC Docket No. RR 10-3-000 (Nov. 12, 2009).

71. Letter Order, Petition for Approval of Amendment to the ROP of the NERC to Reflect Elimination of the Reliability Readiness Evaluation and Improvement Program at P 2, FERC Docket No. RR10-3-000 (Jan. 14, 2010).

72. *Id.* at P 5.

73. *Alcoa, Inc. v FERC*, 564 F.3d 1342 (D.C. Cir. 2009).

74. *Id.* at 1344.

75. *Id.* at 1348.

76. *Id.*

77. *Mandatory Reliability Standards for the Bulk Power System*, 130 F.E.R.C. ¶ 61,218 at P 2 (2010).

78. *Id.* at P 1.



the research and analysis necessary to respond to Order No. 693's directives;<sup>79</sup> and (2) there was a technical error in the March 18 Order regarding the frequency response of Balancing Authorities.<sup>80</sup> On May 13, 2010, the FERC issued an Order Granting Rehearing for Further Consideration and Scheduling a Technical Conference that directed NERC to file a complete timeline with deadlines for studies, analysis, and the submission of a standard fulfilling Order No. 693 directives.<sup>81</sup> The order deferred the six month deadline for compliance with the March 18 Order and directed FERC staff to convene a technical conference, which was held on September 23, 2010.<sup>82</sup>

### B. BAL-004-1 Reliability Standard

On March 18, 2010, the FERC issued a Notice of Proposed Rulemaking (NOPR) on the proposed BAL-004-1 standard, proposing to remand it, in part, because the Time Monitor selection process was deleted from Requirement R1 and therefore removed from the FERC's jurisdiction.<sup>83</sup> On April 28, 2010, NERC submitted comments in response to the NOPR on the standard, arguing that the inclusion of the Time Monitor selection process is not necessary for bulk power system reliability.<sup>84</sup> NERC requested that the FERC convene a technical conference to discuss Time Error Correction and the impacts on reliability of continuing or ending the practice of Time Error Correction.<sup>85</sup> On August 20, 2010, NERC submitted a motion requesting the FERC to defer action on the proposed BAL-004-1 standard until the need for Time Error Correction could be further studied and analyzed.<sup>86</sup> NERC submitted a status report on February 22, 2011, detailing its ongoing efforts on the issue of Time Error Correction.<sup>87</sup> NERC submitted a motion requesting the FERC to further defer action on the proposed BAL-004-1 standard on August 11, 2011, given the ongoing studies on Time Error Correction.<sup>88</sup>

### C. EOP Reliability Standards

On December 31, 2009, NERC filed a petition for approval of three revised EOP Reliability Standards (EOP-001-1, EOP-005-2, and EOP-006-2).<sup>89</sup> The FERC issued a NOPR proposing to approve the EOP Reliability Standards on

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79. Request of NERC for Clarification and Rehearing of the Order Setting Deadline for Compliance at 3, FERC Docket No. RM06-16-010 (Apr. 19, 2010).

80. *Id.* at 2.

81. *Mandatory Reliability Standards for the Bulk Power System*, 131 F.E.R.C. ¶ 61,136 at P 2 (2010).

82. *Id.* at PP 1-2.

83. Notice of Proposed Rulemaking, *Time Error Correction Reliability Standard*, F.E.R.C. STATS & REGS. ¶ 32,652, 75 Fed. Reg. 15,371 (2010) (to be codified at 18 C.F.R. pt. 40).

84. Comments of NERC in Response to Notice of Proposed Rulemaking at 9, FERC Docket No. RM09-13-000 (Apr. 28, 2010).

85. *Id.* at 1.

86. Motion to Defer Action, FERC Docket No. RM09-13-000 (Aug. 20, 2010).

87. NERC Status Report Regarding BAL-004-1 Time Error Correction Reliability Standard, FERC Docket No. RM09-13-000 (Feb. 22, 2011).

88. Motion to Further Defer Action at 1, FERC Docket No. RM09-13-000 (Aug. 11, 2011).

89. Petition of NERC for Approval of Three Emergency Preparedness and Operations Reliability Standards and One New Glossary Term and for Retirement of Five Existing Reliability Standards and One Glossary Term at 2, FERC Docket No. RM06-16-00 (Dec. 31, 2009).

November 18, 2010.<sup>90</sup> NERC filed comments in response to the FERC's NOPR on January 24, 2011.<sup>91</sup> The FERC issued Order No. 749 approving the EOP-001-1, EOP-005-2, and EOP-006-2 Reliability Standards on March 17, 2011.<sup>92</sup>

#### D. INT Reliability Standards

On June 18, 2009, the FERC issued a NOPR on the proposed Interchange Scheduling and Coordination Reliability Standards (INT-005-3, INT-006-3, and INT-008-3).<sup>93</sup> The FERC issued Order No. 730 on December 17, 2009 approving NERC's revisions to Reliability Standards INT-005-3, INT-006-3, and INT-008-3.<sup>94</sup>

#### E. IRO Reliability Standards

On December 31, 2009, NERC submitted a petition for approval of three IRO Reliability Standards for approval (IRO-008-1, IRO-009-1, and IRO-010-1a).<sup>95</sup> On November 18, 2010, the FERC issued a NOPR proposing to approve the three IRO Reliability Standards.<sup>96</sup> NERC provided comments on January 24, 2010.<sup>97</sup> The FERC issued Order No. 748 on March 17, 2011, approving the IRO-008-1, IRO-009-1, and IRO-010-1a Reliability Standards.<sup>98</sup>

On January 21, 2010, the FERC issued Order No. 713-B, denying a request for rehearing and clarification of Order No. 713-A, in which the FERC accepted revisions to the transmission load relief (TLR) requirements in Reliability Standard IRO-006-4 and directed modifications to the standard.<sup>99</sup> The FERC's Order No. 713-B asserted that the issues raised by the requesting parties were beyond the scope of the immediate rulemaking proceeding and that even if the FERC were to remand the proposed IRO-006-4 standard, the previously approved IRO-006-3 version of the standard would remain in effect and would not address the rehearing parties' concerns.<sup>100</sup>

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90. Notice of Proposed Rulemaking, *System Restoration Reliability Standards*, F.E.R.C. STATS. & REGS. ¶ 32,666, 75 Fed. Reg. 71,625 (2010) (to be codified at 18 C.F.R. pt. 40).

91. Comments of NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM10-16-000 (Jan. 24, 2011).

92. Order No. 749, *System Restoration Reliability Standards*, 134 F.E.R.C. ¶ 61,215 (2011).

93. Notice of Proposed Rulemaking, *Revised Mandatory Reliability Standards for Interchange Scheduling and Coordination*, F.E.R.C. STATS. & REGS. ¶ 32,643, 74 Fed. Reg. 30,027 (2009) (to be codified at 18 C.F.R. pt. 40).

94. Order No. 730, *Revised Mandatory Reliability Standards for Interchange Scheduling and Coordination*, 129 F.E.R.C. ¶ 61,223, 74 Fed. Reg. 61,223 (2009) (to be codified at 18 C.F.R. pt. 40).

95. Petition of NERC for Approval of Proposed New and Revised Reliability Standards for Operating Within Interconnection Operating Limits at 1, FERC Docket No. RM10-15-000 (Dec. 31, 2009).

96. Notice of Proposed Rulemaking, *Mandatory Reliability Standards for Interconnection Reliability Operating Limits*, F.E.R.C. STATS. & REGS. ¶ 32,665, 75 Fed. Reg. 71,613 (2010) (to be codified at 18 C.F.R. pt. 40).

97. Comments of NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM10-15-000 (Jan. 24, 2010).

98. Order No. 748, *Mandatory Reliability Standards for Interconnection Reliability Operating Limits*, 134 F.E.R.C. ¶ 61,213 (2011) (to be codified at 18 C.F.R. pt. 40).

99. Order No. 713-B, *Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards*, 130 F.E.R.C. ¶ 61,032 (2010).

100. *Id.* at P 12.

The FERC issued a Notice of Inquiry concurrently with Order No. 713-B, regarding the TLR procedure, that solicited input “on the interplay between Reliability Standard IRO-006-4 . . . and the curtailment priorities set forth in the [FERC’s] *pro forma* open access transmission tariff, particularly sections 13.6 and 14.7.”<sup>101</sup> NERC submitted responsive comments on March 29, 2010 in which it explained the history of the TLR procedure and highlighted NERC’s coordination with NAESB on the IRO-006-4 standard.<sup>102</sup> Through this coordination, NERC explained, the reliability aspects of the procedure were governed by NERC’s standard, while the commercial aspects were handled by NAESB.<sup>103</sup> NERC provided answers to the FERC’s remaining questions and outlined its ongoing work on monitoring the TLR procedure.<sup>104</sup> On May 24, 2010, the FERC filed a response to the NRG Appeal with the D.C. Circuit of the FERC’s TLR Standard Orders.<sup>105</sup> The D.C. Circuit granted a motion to dismiss the NRG Appeal on July 28, 2010.<sup>106</sup>

#### F. MOD Reliability Standards

On May 26, 2009, NERC submitted comments on the FERC’s ATC Reliability Standards NOPR (MOD-001-1, MOD-004-1, MOD-008-1, MOD-028-1, MOD-029-1, and MOD-030-2).<sup>107</sup> The FERC issued Order No. 729 on November 24, 2009, approving the six modeling, data, and analysis Reliability Standards.<sup>108</sup> The FERC also directed NERC “to conduct an audit of the various implementation documents developed by transmission service providers to confirm that the complete available transfer capability methodologies . . . are sufficiently transparent to allow the [FERC] and others to replicate and verify those calculations,” within the provisions of the MOD standards and within its already established periodic three-year cycle.<sup>109</sup> On December 22, 2009, NERC requested clarification of FERC Order No. 729 regarding the MOD Reliability Standards effective dates.<sup>110</sup> On May 5, 2010, the FERC issued Order No. 729-A, in which the FERC provided clarification regarding the implementation timeline for the six Modeling, Data, and Analysis (MOD) Reliability Standards concerning the calculation of available transfer capability or available flowgate

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101. Notice of Inquiry, *Transmission Loading Relief Reliability Standard and Curtailment Priorities*, F.E.R.C. STATS. & REGS. ¶ 35,564, 75 Fed. Reg. 4,375, 4,375 (2010).

102. Comments of NERC in Response to Notice of Inquiry at 8, FERC Docket No. RM10-9-000 (Mar. 29, 2010).

103. *Id.*

104. *Id.* at 18.

105. Respondent FERC’s Reply in Support of Its Motion for Dismissal, or, Alternatively, for Abeyance, *NRG Power Mktg. LLC v. FERC*, Case No. 10-1061 (D.C. Cir. 2010).

106. *NRG Power Mktg. LLC v. FERC*, Case No. 10-1061 (D.C. Cir. 2010).

107. Comments of the NERC in Response to Notice of Proposed Rulemaking at 2, FERC Docket Nos. RM08-19-000, et al. (May 26, 2009).

108. Order No. 729, *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the Bulk-Power System*, 129 F.E.R.C. ¶ 61,155, 74 Fed. Reg. 64,884 (2009) (to be codified at 18 C.F.R. pt. 40).

109. *Id.* at PP 106, 131.

110. Request of NERC for Clarification of Order No. 729, FERC Docket Nos. RM08-19-000, et al. (Dec. 22, 2009).

capability that the FERC approved in Order No. 729.<sup>111</sup> On July 15, 2010, the FERC issued Order No. 729-B regarding the implementation date for the MOD Reliability Standards.<sup>112</sup> NERC submitted proposed interpretations of MOD-001-1 (Available Transmission System Capability) and MOD-029-1 (Rated System Path Methodology) on December 2, 2009.<sup>113</sup> The FERC issued an order on September 16, 2010 approving NERC's proposed interpretations of the MOD-001-1 and MOD-029-1 Reliability Standards.<sup>114</sup>

### G. *PER Reliability Standards*

On June 17, 2010, the FERC issued a NOPR on System Personnel Training Reliability Standards PER-005-1 and PER-004-2 proposing to approve the Reliability Standards and directing modifications to PER-005-1.<sup>115</sup> NERC submitted comments in response to the NOPR on August 23, 2010.<sup>116</sup> In Order No. 742, the FERC approved PER-005-1 and PER-004-2 without directing additional modifications to the standards, citing NERC's comments in response to the NOPR as informative on this approach.<sup>117</sup> The FERC did, however, direct NERC to "consider the necessity of developing an implementation plan for entities that become subject to PER-005-1 Requirement R3.1 . . . and . . . [to] develop [standards] . . . establishing training requirements for local transmission control center operator personnel."<sup>118</sup>

### H. *PRC-005 Reliability Standard*

NERC submitted a request for interpretation of the PRC-005-1 Reliability Standard on November 17, 2009.<sup>119</sup> On December 16, 2010, the FERC issued a NOPR on the proposed interpretation of the Protection System Reliability Standard PRC-005-1.<sup>120</sup> NERC provided comments in response to the PRC-005

111. Order No. 729-A, *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the Bulk-Power System*, 131 F.E.R.C. ¶ 61,109, 75 Fed. Reg. 26,057 (2010) (to be codified at 18 C.F.R. pt. 40).

112. Order No. 729-B, *Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments; Mandatory Reliability Standards for the Bulk-Power System*, 132 F.E.R.C. ¶ 61,027, 75 Fed. Reg. 43,059 (2010) (to be codified at 18 C.F.R. pts. 38 and 40).

113. Petition of NERC for Approval of Interpretations to Reliability Standards MOD-001-1 — Available Transmission System Capability and MOD-029-1 — Rated System Path Methodology at 1, FERC Docket No. RD10-5-000 (Dec. 2, 2009).

114. *NERC*, 132 F.E.R.C. ¶ 61,239 at P 1 (2010).

115. Notice of Proposed Rulemaking, *System Personnel Training Reliability Standard*, F.E.R.C. STATS. & REGS. ¶ 32,661, 75 Fed. Reg. 35,689 (2010) (to be codified at 18 C.F.R. pt. 40).

116. Comments of NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM09-25-000 (Aug. 23, 2010).

117. Order No. 742, *System Personnel Training Reliability Standards*, 133 F.E.R.C. ¶ 61,159 at P 11, 75 Fed. Reg. 72,664 (2010) (to be codified at 18 C.F.R. pt. 40).

118. *Id.* at P 17.

119. Petition of NERC for Approval of Interpretation to Reliability Standard PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing, Requirement R1, FERC Docket No. RM06-16-000 (Nov. 17, 2009).

120. Notice of Proposed Rulemaking, *Interpretation of Protection System Reliability Standard*, F.E.R.C. STATS. & REGS. ¶ 32,619, 75 Fed. Reg. 81,152 (2010) (to be codified at 18 C.F.R. pt. 40).

Interpretation NOPR on February 25, 2011.<sup>121</sup> At the time of writing this report, the FERC had not yet issued an order in response to the proposed interpretation.

#### *I. PRC-023-1 Reliability Standard*

On May 21, 2009, the FERC issued a NOPR proposing to approve NERC's PRC-023-1 Reliability Standard, with modifications.<sup>122</sup> NERC provided comments to the FERC regarding the NOPR on August 17, 2009.<sup>123</sup> On March 18, 2010, the FERC issued Order No. 733 approving NERC's proposed standard and directing modifications.<sup>124</sup> NERC requested clarification and, alternatively, rehearing of Order No. 733,<sup>125</sup> followed by a compliance filing on July 16, 2010 that included an action plan and timetable outlining the phased approach of NERC's response to Order No. 733 directives.<sup>126</sup> On February 2, 2011, the FERC issued Order No. 733-A, denying rehearing and extending the time period for NERC to respond to directives in Order No. 733 by twenty-four months.<sup>127</sup>

#### *J. TOP-001 Reliability Standard*

On July 16, 2010, NERC submitted a request for interpretation of TOP-001-1, Requirement R8 for FERC approval, requesting clarification of the "responsibilities of Balancing Authorities and Transmission Operators during a system emergency."<sup>128</sup> After requesting additional information, the FERC issued a NOPR on April 21, 2011 approving NERC's interpretation.<sup>129</sup> NERC filed comments in support of the NOPR's interpretation on June 24, 2011.<sup>130</sup>

#### *K. TOP-005 and IRO-005 Interpretations*

On November 24, 2009, NERC submitted proposed interpretations to the IRO-005 (Reliability Coordination – Current-day Operations) and TOP-005

121. Comments of NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM10-5-000 (Feb. 25, 2011).

122. Notice of Proposed Rulemaking, *Transmission Relay Loadability Reliability Standard*, F.E.R.C. STATS. & REGS. ¶ 32,642, 74 Fed. Reg. 25,461 (2009) (to be codified at 18 C.F.R. Part 40).

123. Comments of the NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM08-13-000 (Aug. 17, 2009).

124. Order No. 733, *Transmission Relay Loadability Reliability Standard*, 130 F.E.R.C. ¶ 61,221 (2010).

125. Request of NERC for Clarification and, in the Alternative, Rehearing of Order No. 733, FERC Docket No. RM08-13-001 (Apr. 19, 2010).

126. Compliance Filing of NERC in Response to the FERC's Mar. 18, 2010 Order No. 733 Approving Transmission Relay Loadability Standards (PRC-023-1) and Requiring Compliance Filing at 4, FERC Docket No. RM08-13-000 (July 16, 2010).

127. Order No. 733-A, *Transmission Relay Loadability Reliability Standard*, 134 F.E.R.C. ¶ 61,127 at P 78 (2011).

128. Petition of NERC for Approval of Interpretation to Reliability Standard TOP-001-1 – Reliability Responsibilities and Authorities, Requirement R8 at 5, FERC Docket No. RM10-29-000 (July 16, 2010).

129. Notice of Proposed Rulemaking, *Electric Reliability Organization Interpretation of Transmission Operations Reliability Standard*, F.E.R.C. STATS. & REGS. ¶ 32,675, 76 Fed. Reg. 23,516 (2011) (to be codified at 18 C.F.R. pt. 40).

130. Comment of NERC on Notice of Proposed Rulemaking Regarding Interpretation of TOP-001-1, FERC Docket No. RM10-29-000 (June 24, 2011).

(Operational Reliability Information) Reliability Standards.<sup>131</sup> On December 16, 2010, the FERC issued a NOPR on NERC's proposed interpretations to the IRO-005 and TOP-005 Reliability Standards.<sup>132</sup> NERC filed comments in response to the FERC's NOPR on February 7, 2011.<sup>133</sup> The FERC issued Order No. 750 on April 21, 2011, approving the interpretations to the TOP-005 and IRO-005 Reliability Standards.<sup>134</sup>

#### L. TPL-002-0 Reliability Standard

On November 17, 2009, NERC requested approval of an interpretation to Transmission Planning Standard TPL-002-0.<sup>135</sup> The FERC responded on March 18, 2010 with a NOPR presenting an alternative interpretation of TPL-002-2, R1.3.10.<sup>136</sup> NERC submitted comments in response to the NOPR on May 10, 2010, urging the FERC to approve the interpretation as filed.<sup>137</sup> NERC explained that "the [FERC's] proposed interpretation [was] inconsistent with the actual text of the [standard], and [that] the [FERC's] proposed changes exceed[ed] the scope of its . . . authority with respect to [standard] development."<sup>138</sup> At the time of writing this report, the FERC had not yet issued an order addressing NERC's arguments.

On March 18, 2010, the FERC issued an order setting a deadline for NERC to respond to the FERC's directives on the TPL footnote b issue addressed in FERC Order No. 693.<sup>139</sup> The FERC issued a letter order on May 17, 2010 granting multiple requests for rehearing for further consideration of the March 18, 2010 Order setting a deadline for compliance of the TPL-002 footnote b standard.<sup>140</sup> On June 11, 2010, the FERC issued an order denying the request for rehearing and request for stay filed by NERC in response to the March 18 TPL footnote b Order.<sup>141</sup> The FERC granted partial clarification in the order and

131. Petition of NERC for Approval of Interpretations to Reliability Standard TOP-005-1.1 – Operational Reliability Information and Reliability Standard IRO-005-2 – Reliability Coordination – Current Day Operations, FERC Docket No. RM10-8-000 (Nov. 24, 2009).

132. Notice of Proposed Rulemaking, *Electric Reliability Organization Interpretations of Interconnection Reliability Operations and Coordination and Transmission Operations Reliability Standards*, F.E.R.C. STATS. & REGS. ¶ 32,670, 75 Fed. Reg. 80,391 (2010) (to be codified at 18 C.F.R. pt. 40).

133. Comments of NERC in Response to Notice of Proposed Rulemaking, FERC Docket No. RM10-8-000 (Feb. 7, 2011).

134. Final Rulemaking, *Electric Reliability Organization Interpretations of Interconnection Reliability Operations and Coordination and Transmission Operations Reliability Standards*, 135 F.E.R.C. ¶ 61,041, 76 Fed. Reg. 23,171 (2011) (to be codified at 18 C.F.R. pt. 40).

135. Petition of NERC for Approval of Interpretation to Reliability Standard TPL-002-0 – System Performance Following Loss of a Single Bulk Electric System Element (Category B) at 1, FERC Docket No. RM06-16-000 (Nov. 17, 2009).

136. Notice of Proposed Rulemaking, *Interpretation of Transmission Planning Reliability Standard*, F.E.R.C. STATS. & REGS. ¶ 32,655, 75 Fed. Reg. 14,386 (2010) (to be codified at 18 C.F.R. pt. 40).

137. Comments of NERC for Interpretation of Transmission Planning Reliability Standard, FERC Docket Nos. RM06-16-000, RM10-6-000 (May 10, 2010).

138. *Id.* at 1.

139. *Mandatory Reliability Standards for the Bulk Power System*, 130 F.E.R.C. ¶ 61,200 at P 2 (2010).

140. Order Granting Hearing for Further Consideration at 1, FERC Docket No. RM06-16-012 (May 17, 2010).

141. *Mandatory Reliability Standards for the Bulk Power System*, 131 F.E.R.C. ¶ 61,231 at P 2 (2010).

granted NERC's request for an extension of time.<sup>142</sup> NERC submitted a petition (TPL Footnote b Petition) on March 31, 2011, requesting approval of four TPL standards that incorporate footnote b:

TPL-001-1 — System Performance Under Normal (No Contingency) Conditions (Category A), TPL-002-1b — System Performance Following Loss of a Single Bulk Electric System Element (Category B), TPL-003-1a — System Performance Following Loss of Two or More Bulk Electric System Elements (Category C), and TPL-004-1 — System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D).<sup>143</sup>

The FERC issued a request for more information on the TPL Footnote b Petition to NERC on May 17, 2011.<sup>144</sup> NERC responded to the FERC's data request on June 7, 2011.<sup>145</sup>

#### *M. Definition of Bulk Electric System*

On March 18, 2010, the FERC issued a NOPR on the definition of Bulk Electric System.<sup>146</sup> NERC submitted comments in response to the NOPR on May 10, 2010.<sup>147</sup> The FERC issued a Final Rule on November 18, 2010 directing NERC to revise the definition of BES by January 25, 2011.<sup>148</sup>

#### *N. Reliability Standards Development Plan*

On December 2, 2009, NERC submitted to the FERC for informational purposes its *2010-2012 Reliability Standards Development Plan*.<sup>149</sup> NERC provided an updated *2011-2013 Reliability Standards Development Plan* to the FERC for informational purposes on April 5, 2011.<sup>150</sup>

### IV. CIP STANDARDS

#### *A. CIP Reliability Standards*

The Critical Infrastructure Protection (CIP) Reliability Standards are designed to address cyber security of the bulk power system.<sup>151</sup> The FERC

142. *Id.*

143. Petition of NERC for Approval of Four Transmission Planning System Performance Reliability Standards and Retirement of Four Existing Reliability Standards at 3, FERC Docket No. RM11-18-000 (Mar. 31, 2011).

144. Letter Order, Reliability Standards TPL-001-1, TPL-002-1b, TPL-003-1a, and TPL-004-1 at 1, FERC Docket No. RM11-18-000 (May 17, 2011).

145. Response Letter of NERC at 1, FERC Docket No. RM11-18-000 (June 7, 2011).

146. Notice of Proposed Rulemaking, *Revision to Electric Reliability Organization Definition of Bulk Electric System*, F.E.R.C. STATS. & REGS. ¶ 32,654, 75 Fed. Reg. 14, 097 (2010) (to be codified at 18 C.F.R. pt. 40).

147. Comments of NERC In Response to the Notice of Proposed Rulemaking, FERC Docket No RM09-18-000 (May 10, 2010).

148. Order No. 743, *Revision to Electric Reliability Organization Definition of Bulk Electric System*, 133 F.E.R.C. ¶ 61,150 at P 173, 75 Fed. Reg. 72,910 (2010) (to be codified at 18 C.F.R. pt. 40).

149. NERC Informational Filing of 2010 Development Plan Pursuant to Section 310 of the NERC Rules of Procedure at 1, FERC Docket Nos. RM05-17-000, et al. (Dec. 2, 2009).

150. NERC Reliability Standards Development Plan 2011-2013 Informational Filing Pursuant to Section 310 of the NERC Rules of Procedure at 1, FERC Docket Nos. RM05-17-000, et al. (Apr. 5, 2011).

151. Order No. 706, *Mandatory Reliability Standards for Critical Infrastructure Protection*, 122 F.E.R.C. ¶ 61,040 (2008) (to be codified at 18 C.F.R. pt. 40).

approved the first set of CIP Reliability Standards in Order No. 706 issued on January 18, 2008.<sup>152</sup>

On May 22, 2009, NERC submitted for FERC approval the proposed Version 2 CIP Reliability Standards, including modifications to the CIP-002-1, CIP-003-1, CIP-004-1, CIP-005-1, CIP-006-1, CIP-007-1, CIP-008-1, and CIP-009-1 standards.<sup>153</sup> The modifications addressed in NERC's May 22 filing were "in direct response to the [FERC's] directives in Order No. 706."<sup>154</sup> Some of the changes included in NERC's CIP Version 2 petition included: (1) "removal of the term 'reasonable business judgment' from the purpose section of each Reliability Standard;" (2) "where applicable, removal of the phrase 'acceptance of risk' from each Reliability Standard;" (3) a "revision to . . . CIP-003-2 [Requirement R2] to specify that a single manager with overall responsibility and authority be designated;"<sup>155</sup> and (4) a "revision to CIP-006-2 [R1] to clarify that the Responsibility Entity shall document, implement, and maintain a physical security plan approved by the senior manager or delegate(s)."<sup>156</sup> NERC requested that the CIP Version 2 standards become effective on April 1, 2010. NERC's filing also included a proposed implementation plan for the Version 2 CIP standards.<sup>157</sup>

The FERC issued an Order on September 30, 2009 approving NERC's CIP Version 2 Reliability Standards under section 215 of the FPA to become effective on April 1, 2010.<sup>158</sup> Additionally, the FERC directed "NERC to develop certain modifications to Version 2 of the CIP Reliability Standards" and to the implementation plan.<sup>159</sup>

On December 29, 2009, NERC submitted a compliance filing addressing the FERC's directives in the September 30 Order.<sup>160</sup> The December 29 compliance filing proposed for Commission approval Version 3 of the CIP Reliability Standards, an Implementation Plan for Newly Identified Critical Cyber Assets and Newly Registered Entities, and an Implementation Plan for Version 3 of the CIP-002-3 through CIP-009-3 standards.<sup>161</sup>

The FERC issued an Order on Compliance on March 31, 2010 approving NERC's proposed CIP Version 3 Reliability Standards with an effective date of October 1, 2010.<sup>162</sup> The FERC also approved NERC's proposed revised Implementation Plan for Newly Identified Critical Cyber Assets and Newly Registered Entities.<sup>163</sup> However, the FERC rejected the Version 3 CIP

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152. *Id.* at P 1.

153. Petition of NERC for Approval of Version 2 Critical Infrastructure Protection Standards at 1, FERC Docket No. RD09-7-000, et al. (May 22, 2009).

154. *Id.*

155. *Id.* at 5.

156. *Id.* at 6.

157. *Id.* at 96.

158. *NERC*, 128 F.E.R.C. ¶ 61,291 at P 2 (2009).

159. *Id.*

160. Compliance Filing of NERC in Response to the FERC's Sept. 30, 2009 Order Approving Revised Reliability Standards for Critical Infrastructure Protection and Requiring Compliance Filing, FERC Docket No. RD09-7-002 (Dec. 29, 2009).

161. *Id.* at 1.

162. *NERC*, 130 F.E.R.C. ¶ 61,271 at P 1 (2010).

163. *Id.*



Implementation Plan, finding it unnecessary because the effective dates and retirements of the Version 3 standards “occur as a result of the [FERC’s] approval of the Reliability Standards themselves.”<sup>164</sup>

On February 10, 2011, NERC submitted a petition for approval of the CIP Version 4 Reliability Standards, which includes, in the CIP-002-4 standard, proposed bright-line criteria for determining Critical Assets.<sup>165</sup> The FERC issued a data request to NERC on April 12, 2011, requesting additional information on NERC’s CIP Version 4 petition.<sup>166</sup> NERC responded to the FERC’s data request on May 27, 2011 and June 30, 2011.<sup>167</sup>

#### *B. Technical Feasibility Exception (TFE) Procedures*

TFEs provide a means by which a Responsible Entity “may request and receive an exception from Strict Compliance with the terms of a requirement of certain NERC [CIP] Standards on the grounds of technical feasibility or technical limitations.”<sup>168</sup>

On January 21, 2010, the FERC issued an Order approving two amendments to the NERC Rules of Procedure: (1) new Section 412, “Requests for Technical Feasibility Exceptions to NERC Critical Infrastructure Protection Reliability Standards;” and (2) new Appendix 4D, “Procedure for Requesting and Receiving Technical Feasibility Exceptions to NERC Critical Infrastructure Protection Standards.”<sup>169</sup> The FERC’s January 21 Order approved the TFE procedures, effective as of the date of the Order, and directed NERC to make a compliance filing aimed at providing more clarity to the TFE program.<sup>170</sup> NERC made a compliance filing on April 21, 2010 in response to the January 21 Order, proposing changes to Appendix 4D of the NERC Rules of Procedure in response to the FERC’s January 21 directives.<sup>171</sup> On October 1, 2010, the FERC approved NERC’s proposed Appendix 4D modifications in partial compliance with its January 21 Order.<sup>172</sup> The FERC’s October 1 Order directed NERC to submit an additional compliance filing within ninety days of the date of its October 1, 2010 Order, which NERC submitted on December 23, 2010.<sup>173</sup>

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164. *Id.* at P 20.

165. Petition of NERC for Approval of Critical Infrastructure Protection (CIP) Reliability Standards Version 4 at 7, FERC Docket No. RM11-11-000 (Feb. 10, 2011). NERC submitted errata to the February 10 Petition on April 12, 2011.

166. Letter Requesting NERC to Provide Its Response Within 30 Days Pertaining to NERC’s Feb. 10, 2011 Filing of a Petition at 2, FERC Docket No. RM11-11-000 (Apr. 12, 2011).

167. Response of NERC to the FERC Office of Electric Reliability’s April 12, 2011 Data Request, FERC Docket No. RM11-11-000 (May 27, 2011); Response of NERC to the FERC Office of Electric Reliability’s April 12, 2011 Data Request, Part II, FERC Docket No. RM11-11-000 (June 30, 2011).

168. NERC COMPLIANCE PUBLIC BULLETIN #2010-005: EXAMPLE TFE PART “B” REVIEW REPORT at 1 (Sept. 29, 2010), available at [http://www.nerc.com/files/TFE-PartB\\_Bulletin\\_Final\\_20100929.pdf](http://www.nerc.com/files/TFE-PartB_Bulletin_Final_20100929.pdf).

169. NERC, 130 F.E.R.C. ¶ 61,050 at P 1 (2010).

170. *Id.*

171. Compliance Filing of NERC in Response to Jan. 21, 2010 Commission Order Concerning Appendix 4D to the NERC Rules of Procedure at 1, FERC Docket No. RR10-1-001 (Apr. 21, 2010).

172. NERC, 133 F.E.R.C. ¶ 61,008 at P 1 (2010) [hereinafter October 1 Order].

173. Compliance Filing of NERC in Response to Oct. 1, 2010 Commission Order Concerning Appendix 4D to the NERC Rules of Procedure, FERC Docket No. RR10-1-001 (Dec. 23, 2011).

Additionally, NERC was directed to submit an annual informational report to the FERC, with the first report due on September 28, 2011.<sup>174</sup>

On October 29, 2010, NERC submitted a Request for Reconsideration, or in the Alternative, Rehearing, of Paragraph 26 of the FERC's October 1, 2010 Commission Order.<sup>175</sup> NERC's request focused on one directive in the October 1 Order, namely the Paragraph 26 directive, stating that

the TFE Procedure should be revised to allow a Responsible Entity that 'received differing TFE determinations on the same type of covered assets' to submit a request for reconsideration of the approval, disapproval, or rejection of a TFE Request to the Regional Entity that made the determination. NERC request[ed] that this directive be modified so that only NERC, not a Responsible Entity, would be allowed to request a Regional Entity to reconsider its determination to approve, disapprove or reject a TFE Request, based on apparent inconsistency in determinations.<sup>176</sup>

On December 10, 2010, the FERC issued an Order granting NERC's Request for Rehearing to modify the directive contained in the October 1 Order.<sup>177</sup>

On December 23, 2010, NERC submitted a compliance filing to the FERC in response to the multiple directives from the FERC – including Paragraph 26 as clarified in the FERC's December 10, 2010 grant of NERC's request for rehearing – contained in the October 1, 2010 Order regarding Appendix 4D to the Rules of Procedure.<sup>178</sup> On April 12, 2011, the FERC issued an Order on NERC's December 23, 2010 compliance filing finding that NERC's December filing satisfied each of the FERC's directives from the October 1, 2010 Order.<sup>179</sup>

### C. *VRFs and VSLs for CIP Standards*

On March 18, 2010, the FERC issued an Order approving NERC's proposed Violation Severity Levels (VSLs) for the CIP Version 1 Reliability Standards.<sup>180</sup> The FERC also established guidance for determining appropriate VSLs to apply in the specific context of cyber security Requirements:

- 1) Requirements where a single lapse in protection can compromise computer network security, *i.e.*, the "weakest link" characteristic, should apply binary rather than graduated [VSLs];
- 2) [VSLs] for cyber security Requirements containing interdependent tasks of documentation and implementation should account for their interdependence.<sup>181</sup>

As a result of applying these new guidelines to the CIP standards, the FERC directed NERC "to submit a compliance filing modifying 57 sets of [VSL] assignments within 60 days of" issuance of the March 18 Order.<sup>182</sup>

174. October 1 Order, *supra* note 172, at P 27.

175. Request of NERC for Reconsideration, or in the Alternative, Rehearing, of Paragraph 26 of October 1, 2010 Commission Order at 1, FERC Docket No. RR10-1-003 (Oct. 29, 2010).

176. *Id.* at 2.

177. *NERC*, 133 F.E.R.C. ¶ 61,209 at P 1 (2010).

178. Compliance Filing of NERC in Response to Oct. 1, 2010 Commission Order Concerning Appendix 4D to the NERC Rules of Procedure at 4, FERC Docket No. RR10-1-001 (Dec. 23, 2010).

179. *NERC*, 135 F.E.R.C. ¶ 61, 026 at P 1 (2011).

180. *Mandatory Reliability Standards for Critical Infrastructure Protection*, 130 F.E.R.C. ¶ 61,211 at P 1 (2010).

181. *Id.* at P 14.

On January 20, 2011, the FERC issued an Order approving NERC's proposed Violation Risk Factors (VRFs) and VSLs for the CIP Version 2 standards that were filed by NERC on December 18, 2009 and approving NERC's proposed VRFs and VSLs for the CIP Version 3 standards that were filed by NERC on December 29, 2009.<sup>183</sup> The FERC's January 20 Order also directed NERC to make a compliance filing addressing modifications to the VRFs and VSLs for CIP Versions 2 and 3.<sup>184</sup> NERC submitted a compliance filing on March 21, 2011, addressing the FERC's directives in the January 20, 2011 Order.<sup>185</sup> The FERC issued an order on June 29, 2011 approving NERC's revised VRFs and VSLs for the CIP Versions 2 and 3 Reliability Standards submitted on March 21, 2011.<sup>186</sup>

#### D. CIP Interpretations

On March 18, 2010, the FERC approved a proposed interpretation of CIP-007-2, Requirement R2, regarding "whether the term 'port,' as used in the phrase 'ports and services,' means a physical (hardware) or a logical (software) connection to a computer, or both."<sup>187</sup> The FERC agreed with NERC's interpretation that "the term 'ports,' used as part of the phrase 'ports and services,' refers to logical ports only, e.g., Transmission Control Protocol (TCP) ports where interface with communication services occurs."<sup>188</sup>

On July 15, 2010, the FERC issued an Order approving NERC's proposed interpretation of CIP-006-2, Requirement R1.1.<sup>189</sup> In the Order, the FERC agreed with NERC's interpretation of Reliability Standard CIP-006-2 Requirement R1.1 "that alternative measures to 'control' physical access may comprise both physical as well as logical measures" and that "the alternative measures may be physical or logical, as long as the alternative measure provides security equivalent or better to a completely enclosed ('six-wall') border."<sup>190</sup>

On April 21, 2010, NERC submitted a petition requesting FERC approval of an interpretation of Section 4.2.2 (Applicability) and Requirement R1.3 to the CIP-005-1 Reliability Standard.<sup>191</sup> NERC's proposed interpretation was "developed consistent with the reliability purpose of the standard, which stipulates that all Critical Cyber Assets be protected, drawing a distinction between assets external to the Electronic Security Perimeter referenced in the

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182. *Id.* at P 1.

183. *NERC*, 134 F.E.R.C. ¶ 61,045 at P 1 (2011).

184. *Id.*

185. Compliance Filing of NERC in Response to Jan. 20, 2011 Order on Violation Risk Factors and Violation Severity Levels for Critical Infrastructure Protection Reliability Standards at 2, FERC Docket Nos. RD10-6-000, RD09-7-002 (Mar. 21, 2011).

186. Letter Order, Violation Risk Factors and Violation Severity Levels for Version 2 and Version 3 Critical Infrastructure Protection Reliability Standards at 2, FERC Docket Nos. RD10-06-001, RD09-7-003 (June 29, 2011).

187. *NERC*, 130 F.E.R.C. ¶ 61,184 at PP 1, 6 (2010).

188. *Id.* at PP 8, 13.

189. *NERC*, 132 F.E.R.C. ¶ 61,051 at P 1 (2010).

190. *Id.* at PP 7, 11.

191. Petition of NERC for Approval of Interpretation to Reliability Standard CIP-005-2—Cyber Security—Electronic Security Perimeter(s), Applicability Section 4.2.2 and Requirement R1.3 at i, FERC Docket Nos. RM06-22-000, RD10-12-000 (Apr. 21, 2010).

Applicability Section of 4.2.2 and those with endpoints on or within the Electronic Security Perimeter.”<sup>192</sup>

On April 21, 2010, NERC also filed a request for approval of an interpretation to CIP-001-2, R2 – Sabotage Reporting, clarifying “that the responsible entity identifies the appropriate parties to whom sabotage events will be reported in its procedure addressing Requirement R2.”<sup>193</sup>

On December 22, 2009, NERC filed a petition requesting approval of two interpretations to CIP-006-2, Requirements R1.1 and R4.<sup>194</sup> NERC’s proposed interpretation of Requirement R1.1 states “that dial-up devices that do not use routable protocols are excepted from the need for a six-wall physical security perimeter.”<sup>195</sup> NERC’s proposed interpretation of Requirement R4 states “that monitoring and logging of access are required only for ingress” and that the “time of access” used in the standard “refers to the time an authorized individual enters the physical security perimeter.”<sup>196</sup>

#### V. NUCLEAR FACILITIES AND RELIABILITY STANDARDS

On March 19, 2009, the FERC issued Order No. 706-B, which clarified “that facilities within a nuclear generation plant in the United States . . . are subject to compliance” with the eight mandatory Critical Infrastructure Protection (CIP) Reliability Standards.<sup>197</sup> The FERC directed NERC “to assure that there is no ‘gap’ in the regulatory process” by determining whether the “‘balance of plant’ equipment within a nuclear power plant in the United States that is not regulated by the [Nuclear Regulatory Commission (NRC)] is subject to compliance with the CIP Reliability Standards approved in Order No. 706-B.”<sup>198</sup>

In Order No. 706-B, the FERC also noted that “a nuclear power plant licensee may seek an exception from the ERO to the extent that the licensee believes that specific equipment within the balance of plant is subject to NRC cyber security regulations.”<sup>199</sup> The FERC stated that the exception process should be implemented by NERC, providing a bright-line rule to the nuclear power plant licensees “that eliminates a potential regulatory gap and provides certainty; and a plant-specific equipment exception process to avoid dual regulation.”<sup>200</sup>

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192. *Id.* at 7-8.

193. Petition of NERC for Approval of Interpretation to Reliability Standard CIP-001-1—Cyber Security—Sabotage Reporting, Requirement R2 at 5, FERC Docket Nos. RM06-22-000, RD10-11-000 (Apr. 21, 2010).

194. Petition of NERC for Approval of Interpretations to Reliability Standard CIP-006-2—Physical Security of Critical Cyber Assets, Requirements R1.1 and R4, FERC Docket No. RM06-16-000 (Dec. 22, 2009).

195. *Id.* at 8.

196. *Id.* at 13.

197. Order No. 706-B, *Mandatory Reliability Standards for Critical Infrastructure Protection*, 126 F.E.R.C. ¶ 61,229 at P 5, 74 Fed. Reg. 12,544 (2009) (to be codified at 18 C.F.R. pt. 40).

198. *Id.* at P 1.

199. *Id.* at P 50.

200. *Id.*

The timetable for determining the “bright-line” criteria regarding whether a nuclear power plant’s balance of plant equipment is subject to compliance with NERC CIP Reliability Standards or with the NRC cyber security regulations was determined based on the CIP-002 through CIP-009 Implementation Timetable for Nuclear Power Plants (Implementation Plan), which NERC submitted for FERC approval on January 19, 2010.<sup>201</sup>

[The] Implementation Plan [was] structured such that the timeline for compliance with each requirement within the CIP Reliability Standards [would be] the later of: (i) the FERC-approved effective date of the Implementation Plan plus 18 months . . . ; (ii) the date the scope of systems determination is completed plus 10 months . . . ; or (iii) if an outage is required for implementation of certain requirements, six months following the completion of the first refueling outage, at least 18 months following the FERC effective date of the Implementation Plan.<sup>202</sup>

On March 18, 2010, the FERC approved NERC’s CIP Version 1 Implementation Plan for Nuclear Power Plants and directed “NERC to make a compliance filing submitting implementation plans for the implementation of Versions 2 and 3 of the CIP standards by owners and operators of U.S. nuclear power plants on the same schedule established” in the CIP Version 1 Implementation Plan.<sup>203</sup>

On September 9, 2010, NERC submitted implementation plans for approval as requested.<sup>204</sup> On March 10, 2011, the FERC denied NERC’s September 9, 2010 compliance filing as moot due to actions taken by the NRC as outlined in a November 26, 2010 letter from the NRC to the FERC regarding regulation of cyber security at commercial nuclear plants.<sup>205</sup> The letter stated that the NRC determined that its own cyber security rule<sup>206</sup> “includes structures, systems, and components . . . in the balance of plant . . . at . . . NRC-licensed nuclear power plants that have a nexus to radiological health and safety.”<sup>207</sup> The FERC therefore concluded that, based on this determination, “the NRC . . . does not believe that there will be any structures, systems, and components in the balance of plant that will fall under NERC’s CIP standards.”<sup>208</sup> Accordingly, based on the NRC’s determination, the FERC found in its March 10 Order “that the NRC’s cyber security rule appears to cover all balance of plant equipment, and

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201. Compliance Filing of NERC in Response to the FERC’s Dec. 17, 2009 Order Addressing Compliance Filing and Requiring Further Compliance Filing at 1, 2, 10, FERC Docket No. RM06-22-011 (Jan. 19, 2010).

202. *Id.* at 3.

203. *Mandatory Reliability Standard for Critical Infrastructure Protection*, 130 F.E.R.C. ¶ 61,185 at PP 1-2 (2010).

204. Compliance Filing and Petition for Approval of NERC of Implementation Plans for Versions 2 and 3 Critical Infrastructure Protection Reliability Standards for Generator Owners and Generator Operators of U.S. Nuclear Power Plants in Accordance with Paragraph 24 of the Commission’s Mar. 18, 2010 Order at 1, FERC Docket No. RM06-22-011 (Sept. 9, 2010).

205. *Mandatory Reliability Standards for Critical Infrastructure Protection*, 134 F.E.R.C. ¶ 61,180 at P 1 (2011) [hereinafter March 10, 2011 Order]; *see also* Letter from James T. Wiggins, Director, Office of Nuclear Security and Incident Response, Nuclear Regulatory Commission, to Joseph H. McClelland, Director, Office of Electric Reliability, Federal Energy Regulatory Commission, November 26, 2010 [hereinafter November 26 NRC Letter to the FERC].

206. 10 C.F.R. § 73.54 (2011).

207. November 26 NRC Letter to the FERC, *supra* note 205, at 1.

208. March 10, 2011 Order, *supra* note 205, at P 5.

[therefore] no balance of plant at a U.S. nuclear power plant has been found to be subject to NERC's CIP standards."<sup>209</sup>

#### VI. REGIONAL STANDARDS DEVELOPMENT

Under Order No. 672,<sup>210</sup> regional Reliability Standards are approved if more stringent than the corresponding NERC Reliability Standard or where necessitated by a physical difference in the region's Bulk-Power System (BPS).<sup>211</sup> Regional Reliability Standards are effective only within the region for which they are approved.<sup>212</sup> The FERC has approved six additional regional Reliability Standards for the Western Electricity Coordinating Council (WECC), in addition to nine approved prior to August 1, 2009, including standards to address maintenance on transmission lines, to assure that flows on major transmission paths do not exceed operating limits, establishing required analyses of operating errors, and assuring the reliability of automatic voltage regulators.<sup>213</sup> As to a seventh such standard for WECC – establishing contingency reserve requirements to avoid loss of firm load following a transmission or generation contingency – the FERC remanded the standard for further examination and revision, as it was unconvinced that a proposed change in the time period required to reestablish generation reserve levels following the occurrence of a contingency would not unreasonably threaten reliability, and, thus, section 215's public interest criterion could not be met.<sup>214</sup> The FERC also approved a regional Reliability Standard developed by the Reliability First Corporation (RFC) requiring that resource adequacy for load be analyzed and documented on the basis of a "one day in 10 years" loss of load criterion.<sup>215</sup> Over twenty-five additional Regional Reliability Standards are presently under development.<sup>216</sup>

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209. *Id.* at P 7.

210. Order No. 672, *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, F.E.R.C. STATS. & REGS. ¶ 31,204, 71 Fed. Reg. 8,662 (2006) [hereinafter Order No. 672]; *order on reh'g*, Order No. 672-A, F.E.R.C. STATS. & REGS. ¶ 31,212, 71 Fed. Reg. 19,814 (2006) (to be codified at 18 C.F.R. pt. 39).

211. Order No. 672, *supra* note 210, at P 41.

212. Order No. 751, *Version One Regional Reliability Standards for Facilities Design, Connections and Maintenance; Protection and Control; and Voltage and Reactive*, 135 F.E.R.C. ¶ 61,061 at P 3, 76 Fed. Reg. 23,690 (2011) (to be codified at 18 C.F.R. pt. 40).

213. *Id.*; *see also* Order No. 752, *Version One Regional Reliability Standards for Transmission Operations*, 135 F.E.R.C. ¶ 61,062, 76 Fed. Reg. ¶ 23,470 (2011); Order No. 746, *WECC Qualified Transfer Path Unscheduled Flow Relief Regional Reliability Standard*, 134 F.E.R.C. ¶ 61,199, 76 Fed. Reg. ¶ 16,691 (2011) (to be codified at 18 C.F.R. pt. 40). *See also 2009 Report, supra* note 1, at 848.

214. Order No. 740, *Version One Regional Reliability Standard for Resource and Demand Balancing*, 133 F.E.R.C. ¶ 61,063, 75 Fed. Reg. 65,964 (2010) (to be codified at 18 C.F.R. pt. 40); 16 U.S.C. § 824o (2006).

215. Order No. 747, *Planning Resource Adequacy Assessment Reliability Standard*, 134 F.E.R.C. ¶ 61,212 at P 1 (2011).

216. *Regional Reliability Standards – Under Development*, NERC, [http://www.nerc.com/filez/regional\\_standards/regional\\_reliability\\_standards\\_under\\_development.html](http://www.nerc.com/filez/regional_standards/regional_reliability_standards_under_development.html) (last visited Oct. 8, 2011).

## VII. VIOLATION RISK FACTORS (VRFs) AND VIOLATION SEVERITY LEVELS (VSLs)

“NERC and Regional Entities use VRFs and VSLs to determine penalties for violations of [adopted] Reliability Standards.”<sup>217</sup> A VRF represents the potential risk of a Reliability Standard violation to the reliability of the bulk electric system, while VSLs measure the degree to which a Reliability Standard Requirement has been violated by a specific action.<sup>218</sup> A full discussion of the pre-2009 development by NERC and approval by the FERC of these matters and their contents is provided in the Committee’s 2009 Annual Report.<sup>219</sup> Specifics as to their use in penalty determinations are provided in the FERC’s Revised Policy Statement on Penalty Guidelines and in the NERC Sanction Guidelines.<sup>220</sup>

On May 19, 2011, the FERC approved a new approach to the assignment of VRFs and VSLs proposed by NERC in response to encouragement provided in Order 722.<sup>221</sup> The FERC also approved a comprehensive review of previous assignments made by NERC in response to its June 19, 2008 VSL Order.<sup>222</sup> The previous approach, approved in 2008, had assigned VSLs to both main Reliability Standard requirements and to all sub-requirements adopted as components of the main requirement.<sup>223</sup> NERC explained that this approach caused confusion and concerns that penalties were applied twice for essentially the same standard violation, *i.e.*, as the same incident could violate both a Reliability Standard main requirement and its component sub-requirements.<sup>224</sup> Under the new approach, VSLs would be assigned only to main Reliability Standard requirements and only those sub-requirements that do not contribute to the reliability outcome or objective of the main requirement.<sup>225</sup> The new assignment policy will be implemented over time as substantive changes are made in existing Reliability Standards.<sup>226</sup>

With respect to VSLs for CIP standards, on March 18, 2010, the FERC approved sixty-one additional sets of VSLs assigned by NERC to eight Version 1 CIP standards.<sup>227</sup> However, it required enhancement and a subsequent

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217. *NERC*, 134 F.E.R.C. ¶ 61,045 at P 2 (2011).

218. *Id.*

219. *2009 Report*, *supra* note 1, at 849-851; *see also Mandatory Reliability Standards for Critical Infrastructure Protection*, 130 F.E.R.C. ¶ 61,211 (2010). Additional details on VSL development and the development of the penalty determination guidelines to which they relate prior to December 31, 2010 is provided in the Annual Report of the EBA Compliance & Enforcement Committee. *Report of the Compliance & Enforcement Committee*, 32 ENERGY L.J. 181, 210-211 (2011).

220. *Enforcement of Statutes, Orders, Rules, and Regulations*, 132 F.E.R.C. ¶ 61,216 (2010); SANCTION GUIDELINES OF NERC (Jan. 15, 2008), available at [http://www.nerc.com/files/Appendix4B\\_Sanctions\\_Guidelines\\_Effective\\_20080115.pdf](http://www.nerc.com/files/Appendix4B_Sanctions_Guidelines_Effective_20080115.pdf).

221. *NERC*, 135 F.E.R.C. ¶ 61,166 (2011) [hereinafter May 2011 Order]; Order 722, *Version Two Facilities Design, Connections and Maintenance Reliability Standards*, 126 F.E.R.C. ¶ 61,255, at P 46 (2009).

222. *NERC*, 123 F.E.R.C. ¶ 61,284, *order on reh’g*, 125 F.E.R.C. ¶ 61,212 (2008).

223. Informational Filing of NERC Regarding the Assignment of VRFs and VSLs at 1, FERC Docket Nos. RM08-11-000, et al. (Aug. 10, 2009).

224. May 2011 Order, *supra* note 221, at P 10.

225. *Id.* at P 12.

226. *Id.* at PP 10-15, 21.

227. *Mandatory Reliability Standards for Critical Infrastructure Protection*, 130 F.E.R.C. ¶ 61,211 at P 13, *reh’g denied* 133 F.E.R.C. ¶ 61,237 (2010).

compliance filing with respect to an additional set of fifty-seven such assignments.<sup>228</sup> In approving these sixty-one assignments, the FERC adopted two additional guidelines to supplement the four adopted in Order 693 to evaluate the appropriateness of severity level assignments related to cyber security: (1) “binary rather than gradated” severity levels should apply to the “weakest link” of a computer network (when “a single lapse in protection can compromise a computer network’s security”), and (2) “[VSLs] for cyber security Requirements containing independent tasks of documentation and implementation should account for such interdependence.”<sup>229</sup>

In response to the March 18 Order, NERC submitted a compliance filing to the FERC on May 17, 2010, which included revisions to the unapproved fifty-seven sets of VSL assignments for Version 1 of the CIP standards.<sup>230</sup> The FERC issued a Letter Order on September 8, 2010 approving NERC’s May 17 Compliance filing.<sup>231</sup>

On April 19, 2010, several trade associations jointly filed a request for rehearing of the FERC’s March 18 Order, arguing “that certain of the ordered modifications to the VSL assignments are inappropriate.”<sup>232</sup> The trade associations requested that the FERC grant rehearing and “reinstate the gradation approach . . . for certain VSL assignments” and “extend the sixty-day compliance filing deadline . . . so that NERC and other industry stakeholders [could] consider the new CIP VSL Guidelines.”<sup>233</sup> On December 16, 2010, the FERC issued an Order denying rehearing.<sup>234</sup> The FERC found that “the CIP-specific guidance the [FERC] established in the March 18 Order is necessary and important . . . to ensure that any baseline strategies already employed across subject entities are not inadvertently relaxed by [VSLs] that accept compliance at lower levels than precursor practices.”<sup>235</sup>

## VIII. REGISTRATION/JOINT REGISTRATION

### A. *Army Corp of Engineers*

On October 15, 2009, the FERC issued an order<sup>236</sup> finding that federal entities such as the U.S. Army Corps of Engineers – Tulsa District (Corps) must comply with NERC’s Reliability Standards pursuant to section 215 of the

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228. 130 F.E.R.C. ¶ 61,211 at P 13.

229. *Id.* at P 14. The fifty-seven assignments not approved in the March 18 Order required modification to allay FERC ambiguity and consistency concerns. *Id.* at PP 28-33.

230. Compliance Filing of NERC in Response to the Mar. 18, 2010 Order on Violation Severity Level Assignments for Critical Infrastructure Protection Reliability Standards at 1, FERC Docket No. RM06-22-008 (May 17, 2010).

231. Letter Order, NERC’s Compliance Filing on Version 1 CIP VSLs at P 5, FERC Docket No. RM06-22-013 (Sept. 8, 2010).

232. Request for Rehearing of the American Public Power Ass’n, the Edison Electric Inst., and the National Rural Electric Cooperative Ass’n at 4, FERC Docket No. RM06-22-008 (Apr. 19, 2010).

233. *Id.* at 4-5.

234. *Mandatory Reliability Standards for Critical Infrastructure Protection*, 133 F.E.R.C. ¶ 61,237 (2010).

235. *Id.* at P 15.

236. *NERC*, 129 F.E.R.C. ¶ 61,033 at P 2 (2009) [hereinafter October 15, 2009 Order].



FPA.<sup>237</sup> In doing so, the FERC explained that section 215 granted it jurisdiction, without exception, over “all users, owners and operators of the bulk-power system” and found that the “[e]xclusion of federal entities from the reliability provision would run counter to its legislative purpose” of ensuring reliability of the bulk power system by “creat[ing] significant gaps in an otherwise comprehensive program.”<sup>238</sup> The case arose out of a June 24, 2009, Notice of Penalty (NOP) proceeding involving Corps’ non-compliance with Reliability Standard PRC-005-1.<sup>239</sup> Although the NOP, which “proposed a zero dollar penalty,” “became effective by operation of law on July 27, 2009,” the FERC issued the later decision in order to address the underlying jurisdictional issues.<sup>240</sup>

A request for rehearing of the October 15, 2009 decision was filed by the U.S. Army Corps of Engineers on November 17, 2009 and amended on November 25, 2009.<sup>241</sup> The FERC issued an order on January 5, 2010 rejecting the U.S. Army Corps of Engineers’ rehearing request, finding that the rehearing request was filed out of time.<sup>242</sup>

#### *B. Report on Generator Requirements at the Transmission Interface*

On November 16, 2009, NERC issued the Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface (Final Report).<sup>243</sup> Development of the Final Report was prompted by a January 14, 2008 NERC determination that New Harquahala Generating Company, the owner of a “26-mile 500 kV interconnection” line and other interconnection facilities, should be registered with NERC as a Transmission Owner (TO) and Transmission Operator (TOP) based on its ownership of the interconnection facilities.<sup>244</sup> The Final Report examined existing Reliability Standards and developed recommendations for addressing “gaps in reliability for interconnection facilities of the Generator Owner [GO] and expectations for the Generator Operator [GOP] in operating those facilities.”<sup>245</sup> In recommending that GO and GOPs not be registered as TOs and TOPs based solely on ownership of an interconnection facility,<sup>246</sup> the Final Report recommended a number of definitional changes to NERC’s Glossary of Terms, including adding

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237. *Id.*; see also 16 U.S.C. § 824o (2006).

238. October 15, 2009 Order, *supra* note 236, at PP 33-35, 37.

239. *Id.* at P 7.

240. *Id.* at PP 11-12, 31, 38.

241. The United States Army Corps of Engineers’ Request for Rehearing, FERC Docket No. NP09-26-000 (Nov. 17, 2009), *amended by* The United States Army Corps of Engineers’ Amended Request for Rehearing, FERC Docket No. NP09-26-000 (Nov. 25, 2009). Another U.S. Army Corps case also raises jurisdictional issues, and is currently pending rehearing. The United States Army Corps of Engineers’ Request for Rehearing, FERC Docket No. NP10-160-000 (Jan. 14, 2011); Letter Order, Order Granting Rehearing for Further Consideration, FERC Docket No. NP10-160-001 (Feb. 11, 2011).

242. NERC, 130 F.E.R.C. ¶ 61,002 at P 2 (2010).

243. NERC, FINAL REPORT FROM THE AD HOC GROUP FOR GENERATOR REQUIREMENTS AT THE TRANSMISSION INTERFACE (Nov. 16, 2009), *available at* [http://www.nerc.com/docs/standards/sar/GO-TO\\_Final\\_Report\\_2009Nov16.pdf](http://www.nerc.com/docs/standards/sar/GO-TO_Final_Report_2009Nov16.pdf).

244. *Id.* at 6.

245. *Id.* at 7-8.

246. *Id.* at 5, 18.

definitions for “Generator Interconnection Facility” and “Generator Interconnection Operation Interface.”<sup>247</sup> The Final Report also identified thirty-two requirements that should be applied to a Generator Interconnection Facility<sup>248</sup> and one Reliability Standard (FAC-003-1), currently applicable to TOs, that should be applied to a GO that owns a Generator Interconnection Facility.<sup>249</sup> On January 15, 2010, the Ad Hoc Group filed a Standard Authorization Request (SAR) to revise existing standards in accordance with the group’s recommendations in the Final Report<sup>250</sup> and a Standard Drafting Team (SDT) was formed.<sup>251</sup> The SDT concluded that generator interconnection facilities should be considered transmission facilities, proposed adding “GO” to the applicability section of two standards (FAC-001-0 and FAC-003-2) and recommended eliminating most of the changes proposed in the Final Report.<sup>252</sup>

On June 16, 2011, the FERC issued a decision upholding NERC’s determination that two owners and operators of wind generating facilities are properly registered with NERC as TOs and TOPs based on their ownership and operation of interconnection facilities.<sup>253</sup> In its decision, the FERC highlighted the “reliability gap” that would occur if the owner and operator of the interconnection facilities were not required to follow certain TO and TOP specific standards.<sup>254</sup> In response to industry concerns that such registrations are overly burdensome, the FERC declined to address those “broader issues in the context of the two registry appeals” and “encourage[d] NERC to develop an approach [on this issue] that satisfies . . . reliability concerns and . . . allows entities to understand upfront the scope of their compliance [obligations].”<sup>255</sup>

## IX. NERC ALERTS

### A. Cyber-Security

In 2010 and the first half of 2011, NERC issued several Alerts on cyber-security issues. In almost every case, NERC has identified either: (i) vulnerabilities with respect to specific manufacturers’ systems or equipment; or (ii) social engineering, where attackers “use human interaction . . . to obtain information about an organization or its computer system,”<sup>256</sup> as either the likely

247. *Id.* at 5, 16-18.

248. *Id.* at 13.

249. *Id.* at 5, 18-19.

250. NERC, STANDARD AUTHORIZATION REQUEST FORM, available at [http://www.nerc.com/docs/standards/sar/GO\\_TO\\_Point\\_of\\_Interconnection\\_SAR\\_clean\\_final\\_fo\\_SC\\_approval.pdf](http://www.nerc.com/docs/standards/sar/GO_TO_Point_of_Interconnection_SAR_clean_final_fo_SC_approval.pdf).

251. NERC, PROJECT 2010-07: GENERATOR REQUIREMENTS AT THE TRANSMISSION INTERFACE: WHITE PAPER PROPOSAL FOR INFORMAL COMMENT 2 (Mar. 2011), available at [http://www.nerc.com/docs/standards/sar/2010-07\\_White\\_Paper\\_Proposal\\_for\\_Informal\\_Comment.pdf](http://www.nerc.com/docs/standards/sar/2010-07_White_Paper_Proposal_for_Informal_Comment.pdf).

252. *Id.* at 4-5.

253. NERC, 135 F.E.R.C. ¶ 61,241 at P 1 (2011).

254. *Id.* at PP 63-73, 77-89.

255. *Id.* at P 90.

256. *Cyber Security Tip ST04-014: Avoiding Social Engineering and Phishing Attacks*, U.S. COMPUTER EMERGENCY READINESS TEAM, <http://www.us-cert.gov/cas/tips/ST04-014.html> (last updated Oct. 22, 2009). “Phishing is a form of social engineering,” and “[p]hishing attacks use email or malicious websites to solicit personal information.” *Id.*

cause of the a cyber-attack or a likely means of further exploiting a discovered vulnerability.

The first cyber-security Alert for 2010 was issued on January 25, 2010 and involved a remote vulnerability within the ABB/Spider Network Manager application.<sup>257</sup> This vulnerability could allow a remote attacker the ability to run arbitrary code on the victim's system.<sup>258</sup> On April 6, 2010, NERC issued an Alert regarding increased direct brute-force scanning and, specifically, on several Chinese-based Internet scans targeting non-default user accounts associated with Secure Shell over the course of several weeks.<sup>259</sup> On July 22, 2010, NERC issued an Alert regarding USB Malware Targeting SCADA Systems.<sup>260</sup> This alert focused on the known attack vector of what would eventually be dubbed STUXNET.<sup>261</sup> On September 13, 2010, NERC issued a second Alert addressing malware targeting of SCADA systems.<sup>262</sup> This alert was more comprehensive in nature, covering specific vulnerabilities, mitigation strategies, and vendor updates.<sup>263</sup> It also included a list of recommendations from a specially formed "Tiger Team."<sup>264</sup> A month later, on October 13, 2010, NERC issued an Alert outlining detailed mitigation strategies to "Aurora," a vulnerability that can be exploited in some rotating electrical machines (motors and generators) and can lead to significant damage to the machine.<sup>265</sup> Significantly, the Alert indicated how entities could gain access to a technical library containing useful engineering details about the Aurora mitigations.<sup>266</sup>

In the first half of 2011, NERC issued three cyber-security related Alerts. The first, issued on February 18, 2011, warned of an increase in coordinated cyber-attacks targeting energy companies.<sup>267</sup> The attacks were dubbed "Night Dragon," and NERC noted that as many as twelve oil and gas companies were

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257. This first cyber-security Alert for 2010 falls into the category of vulnerabilities with respect to specific manufacturers' systems or equipment. Basic information on the posting of this and subsequent Alerts is available at <http://www.nerc.com/page.php?cid=5|63>. *Event Analysis: Alerts*, NERC, <http://www.nerc.com/page.php?cid=5|63> (last updated Sept. 20, 2011) [hereinafter *Alerts*]. Although the title and date of posting can be found on this website, the content of some NERC alerts are not made publicly available due to national security concerns. However, to the extent that NERC has been able to provide extra context for this publication without compromising national security concerns, it has graciously agreed to do so. E-mail from Holly Hawkins, Assistant General Counsel for Standards and Critical Infrastructure Protection, NERC, to Bruce Richardson, Partner, King & Spalding LLP (June 28, 2011, 03:42 PM EST) (Confidential) (on file with author).

258. *Id.*

259. *Id.*

260. *Id.*

261. *See generally All About Stuxnet*, STUXNET, <http://www.stuxnet.net> (last visited Oct. 6, 2011).

262. *Alerts*, *supra* note 257.

263. *Id.*

264. *Id.*

265. *Id.*; *see also* E-mail from Holly Hawkins, Assistant General Counsel for Standards and Critical Infrastructure Protection, NERC, to Bruce Richardson, Partner, King & Spalding LLP (June 30, 2011, 04:54 PM EST) (Confidential) (on file with author).

266. Press Release, NERC, NERC Issues AURORA Alert to Industry (Oct. 14, 2010), *available at* [http://www.nerc.com/fileUploads/File/PressReleases/PR\\_AURORA\\_14\\_Oct\\_10.pdf](http://www.nerc.com/fileUploads/File/PressReleases/PR_AURORA_14_Oct_10.pdf).

267. NERC, INDUSTRY ADVISORY: "NIGHT DRAGON" (Feb. 18, 2011), *available at* <http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2011-02-18-01%20Night%20Dragon%20FINAL.pdf>.

compromised by the attacks.<sup>268</sup> Night Dragon used at least six specific attack vectors including social engineering, spearphishing,<sup>269</sup> and exploitation of remote administration tools that are intended to “allow administrators to manage remote computers.”<sup>270</sup> NERC indicated that “financial data appear[ed] to be the primary target” but indicated that Industrial Control and SCADA systems could be exploited as well.<sup>271</sup> The Alert provided recommendations for “detection, prevention, and recovery phases [as part] of a strong incident response program.”<sup>272</sup>

On April 4, 2011, NERC issued an Alert encouraging Registered Entities to implement mitigation strategies following a “cyber attack on SecurID[‘s] two-factor authentication products.”<sup>273</sup> The product’s developer confirmed that “[e]nough information may have been obtained by the attacker to facilitate spearphishing or social engineering attacks.”<sup>274</sup> As with Night Dragon, NERC focused on detection, prevention, and recovery.<sup>275</sup> Shortly thereafter, in response to the many cyber-security concerns affecting the industry and, specifically, an incident in which a hacker was suspected of “issuing digital certificates to unauthorized parties,” NERC issued an Alert warning of the rise of cyber-security attacks.<sup>276</sup> This April 7, 2011 Alert noted that “[s]ocial engineering is often used as the first step to facilitate or augment cyber exploitation” and recommended increased vigilance and reporting of such attacks while also “remaining vigilant to more technical cyber exploits.”<sup>277</sup> The Alert reminded registered entities to remain vigilant with respect to both external and internal threats.<sup>278</sup>

### B. Transmission Facilities

In Autumn 2010, NERC issued two related Alerts involving transmission reliability. In September, following three instances in quick succession of outages caused by vegetation growing into transmission lines, NERC issued an Alert encouraging transmission owners to “review their transmission vegetation management practices.”<sup>279</sup> On the heels of these incidents, a registered

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268. *Id.* at 1.

269. “[A] more directed form of . . . phishing . . . [that] targets specific recipients or groups with [a] message[] that appears legitimate and . . . seems to originate from a trusted source.” *Id.* at 2.

270. *Id.* at 3.

271. *Id.* at 2.

272. *Id.*

273. NERC, INDUSTRY ADVISORY: TWO-FACTOR AUTHENTICATION COMPROMISE 1 (Apr. 4, 2011), available at <http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2011-04-02-01%20Two-Factor%20Authentication%20Compromise-FINAL.pdf>.

274. *Id.* at 2.

275. *Id.*

276. NERC, INDUSTRY ADVISORY: INCREASE VIGILANCE AND REPORTING OF SUSPICIOUS ACTIVITY 2 (Apr. 7, 2011), available at [http://www.nerc.com/fileUploads/File/Events%20Analysis/Social\\_Engineering\\_Alert.pdf](http://www.nerc.com/fileUploads/File/Events%20Analysis/Social_Engineering_Alert.pdf).

277. *Id.*

278. *Id.*

279. NERC, INDUSTRY ADVISORY: ON THE NEED FOR RIGOROUS VEGETATION MANAGEMENT 1 (Sept. 15, 2010), available at <http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2010-09-15-01%20Rigorous%20Vegetation%20Management%20FINAL.pdf>.

“Transmission Owner experienced a conductor-to-ground fault caused by a vegetation contact with a bulk power system line.”<sup>280</sup> It was found that the contact occurred because of discrepancies between the design and final construction of the transmission line.<sup>281</sup> As a result, on October 7, 2010, as revised on November 30, 2010, NERC issued the Alert requesting that registered entities verify that “transmission facility ratings [are] based on actual field conditions.”<sup>282</sup> For purposes of this Alert, “transmission facilities” included “generator tie lines, radial lines and interconnection facilities.”<sup>283</sup> Registered entities were requested to acknowledge receipt of the October 2010 Alert and provide NERC their plan for assessing the applicable high, medium, and low priority transmission lines by the January 2011 reporting date.<sup>284</sup>

### C. System-Wide Reliability

Since 2010, NERC has issued three Alerts on non-cyber-security system-wide reliability issues, the first two of which address frequency response. The first was issued on February 11, 2010, as revised on February 25, 2010,<sup>285</sup> and informed “the electricity sector of a continuing decline in interconnection frequency response,”<sup>286</sup> which is “a measure of an Interconnection’s ability to stabilize frequency immediately following the sudden loss of generation or load.”<sup>287</sup> NERC characterized the decline as a “significant” concern for bulk power system reliability going forward, noted that it would continue to keep abreast of frequency response issues, and would “develop any necessary changes to [its] Reliability Standards.”<sup>288</sup> The second, issued on September 15, 2010, included a mandatory survey for Balancing Authorities, which kicked off the Frequency Response Initiative, an initiative intended to develop an in-depth analysis of the factors influencing frequency performance.<sup>289</sup>

On May 10, 2011, NERC issued an Alert on Geo-Magnetic disturbances.<sup>290</sup> Geo-Magnetic disturbances are caused by solar storms and can induce ground

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280. NERC, RECOMMENDATION TO INDUSTRY: CONSIDERATION OF ACTUAL FIELD CONDITIONS IN DETERMINATION OF FACILITY RATINGS 5 (initial Oct. 7, 2010, rev. Nov. 30, 2010), *available at* <http://www.nerc.com/fileUploads/File/Events%20Analysis/Ratings%20Recommendation%20to%20Industry%20FINAL-REVISED.pdf>.

281. *Id.*

282. *Id.* at 2.

283. *Id.* at 1.

284. *Id.* at 4.

285. NERC, INDUSTRY ADVISORY: RELIABILITY RISK-INTERCONNECTION FREQUENCY RESPONSE 1-2 (initial Feb. 11, 2010, revised Feb. 25, 2010), *available at* [http://www.nerc.com/fileUploads/File/Events%20Analysis/PUBLIC-A-2010-02-25-01\(2\).pdf](http://www.nerc.com/fileUploads/File/Events%20Analysis/PUBLIC-A-2010-02-25-01(2).pdf) [hereinafter FREQUENCY RESPONSE].

286. *Id.*

287. *Project 2007-2012 Frequency Response*, NERC, [http://www.nerc.com/filez/standards/Frequency\\_Response.html](http://www.nerc.com/filez/standards/Frequency_Response.html) (last visited Oct. 6, 2011).

288. FREQUENCY RESPONSE, *supra* note 285, at 1-2.

289. *Alerts*, *supra* note 257.

290. NERC, INDUSTRY ADVISORY: PREPARING FOR GEO-MAGNETIC DISTURBANCES (May 10, 2011) [hereinafter GEO-MAGNETIC DISTURBANCES], *available at* [http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2011-05-10-01\\_GMD\\_FINAL.pdf](http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2011-05-10-01_GMD_FINAL.pdf).

currents that damage transformers and impair reliability.<sup>291</sup> The Alert set out a number of operational and planning actions registered entities can implement to prepare for and address a severe Geo-Magnetic disturbance on the bulk power system. The Alert noted that the most recent solar cycle began in January 2009 and is expected to peak in May 2013.<sup>292</sup>

#### X. RELIABILITY COMPLIANCE, ENFORCEMENT, AND NOTICES OF PENALTY

In October 2009, the FERC qualified its statements made in its July 3, 2008 NOP Guidance Order.<sup>293</sup> In its Further Guidance Order on Filing of Reliability Notices of Penalties, the FERC recognized the significant backlog of violations at the regional level.<sup>294</sup> The FERC also stated its willingness to consider an abbreviated format for submitting certain types of notices of penalty – those implicating less significant alleged violations – to enable NERC and the Regions to focus on more significant alleged violations.<sup>295</sup> To this end, the FERC directed NERC to work with the Regions, stakeholders, and FERC staff to develop such a proposal.<sup>296</sup>

A short time after issuing the NOP Further Guidance Order, the FERC issued two other important reliability-related enforcement orders. In October 2009, the FERC issued Order No. 728, delegating to the Director of Enforcement the authority to: (1) allow routine Notices of Penalty to become effective by operation of law; and (2) stay the effectiveness of a proposed penalty and seek more information from NERC and the Regions.<sup>297</sup>

On November 13, 2009, the FERC issued its Order on Omnibus Notice of Penalty Filing.<sup>298</sup> This order (and a companion notice):

- allowed 564 proposed penalties to become effective by operation of law;<sup>299</sup>
- pointed out that this collection of penalties “largely represent[ed] older violations . . . discovered prior to July 3, 2008;”<sup>300</sup>
- accepted NERC’s explanation that the violations at issue had “minimal to moderate impact on [BPS] reliability [and] did not pose a serious or substantial risk to [that] [s]ystem;”<sup>301</sup>
- found important that “in all cases, . . . mitigation plans associated with the violations [had] been completed and verified by the relevant Regional Entity as completed;”<sup>302</sup> and

291. ERIC ROLLISON, NERC, GMD AND SPARE EQUIPMENT DATABASE: PERSPECTIVES AND STATUS 7 (Jan. 2011), available at <http://www.ofcm.gov/swef/2011/Presentations/2-2%20Rollison%20on%20GMD.ppt>.

292. GEO-MAGNETIC DISTURBANCES, *supra* note 290, at 2.

293. *Guidance on Reliability Notices of Penalty NERC*, 129 F.E.R.C. ¶ 61,069 at P 6 (2009); *Guidance on Filing Reliability Notices of Penalty*, 124 F.E.R.C. ¶ 61,015 (2008).

294. 129 F.E.R.C. ¶ 61,069 at P 4 (2009).

295. *Id.* at PP 5, 10.

296. *Id.* at P 8.

297. Order No. 728, *Delegations for Notices of Penalty*, F.E.R.C. STATS. & REGS. ¶ 31,298, 74 Fed. Reg. 57,246 (2009) (to be codified at 18 C.F.R. pt. 375).

298. *NERC*, 129 F.E.R.C. ¶ 61,119 (2009).

299. *Id.* at P 1.

300. *Id.* at P 5.

301. *Id.* at P 6.

302. *Id.* at PP 13-37.

- described in some detail the cases where a monetary penalty was proposed, including specification of which standards were violated and how those standards were violated.

As of June 30, 2011, the FERC had allowed all but sixteen proposed penalties (out of 624 notices of penalty) to become effective by operation of law.<sup>303</sup> Together, these NOPs involved over 2,500 violations of the mandatory Reliability Standards and resulted in penalties ranging from \$500 to \$450,000, for a total in excess of \$13 million.<sup>304</sup>

In *Turlock Irrigation District*, Docket No. NP10-18, the FERC sought comments, specifically with respect to a proposed \$80,000 penalty, which appeared to the FERC to be too low compared to similar violations of vegetation-caused outages, especially as the outage led to a loss of firm load.<sup>305</sup> On March 17, 2011, the FERC allowed the proposed penalty to become effective in large part because the violations at issue occurred shortly after the standards became mandatory during a period dubbed the “initial period” (June 18, 2007 – December 31, 2007).<sup>306</sup> As a practical matter, the “initial period” was a grace period during which the Regional Entities were allowed to focus on serious violations.<sup>307</sup> Notwithstanding the decision to allow the proposed penalty to become effective, the FERC took the opportunity to provide more guidance to NERC and the Regional Entities in the exercise of their compliance responsibilities. First, the FERC reiterated that it expects complete and accurate records to be submitted with NOPs.<sup>308</sup> Next, the FERC listed several factors that could affect future reviews of penalty amounts, including the impact of load shedding when not required by a standard or the circumstances, the amount of harm from lost load, a registered entity’s efforts after an alleged violation, and the size and nature of a registered entity.<sup>309</sup> The FERC also pointed out that a registered entity’s meeting a standard that requires reporting of a violation is not the same as a self report that would merit consideration in lowering a penalty amount and that human error is not a reasonable defense to allegations of violations of the standards.<sup>310</sup>

In August 2010, the FERC tolled the time to act pending receipt of additional information on the NOP submitted by NERC in Docket No. NP10-140.<sup>311</sup> The NOP submitted in the Docket No. NP10-140 included a general description of the Registered Entity’s violation of CIP-004 but did not reveal the identity of the entity or provide any specifics with respect to the violations (*i.e.*, an Unidentified Registered Entity or URE).<sup>312</sup> The FERC ordered NERC and the

303. See generally *Enforcement Actions*, NERC, <http://www.nerc.com/filez/enforcement/index.html> (last updated Sept. 30, 2011) (NERC’s webpage posting notice of penalty and associated FERC orders).

304. *Id.*

305. NERC, 130 F.E.R.C. ¶ 61,151 at PP 18, 20 (2010).

306. NERC, 134 F.E.R.C. ¶ 61,209 at P 34 (2011) (*reh’g pending*).

307. *Id.*

308. *Id.* at P 37.

309. *Id.* at PP 38-45.

310. *Id.* at PP 46-47, 49-50.

311. Letter Order, NERC Motion for Extension of Time, FERC Docket Nos. NP10-140-000, NP10-141-000 (Aug. 19, 2010).

312. NERC Notice of Penalty, FERC Docket No. 10-140-000 (June 6, 2010).

Regional Entity to provide information in addition to what had already been requested, namely to respond to staff's concerns by detailing the steps the Registered Entity is taking currently and what it is committed to do in the future, to comply with all forty-three requirements of the CIP standards, not just the ones at issue in the underlying case.<sup>313</sup> The questions posed by the FERC to NERC and the Regional Entity were also under seal. Ultimately, additional information was provided by NERC, the Regional Entity, and the registered entity, and the FERC issued an order stating it would not engage in further review of the case.<sup>314</sup>

Along with the notice allowing the NOPs filed in early August 2010 to become effective by operation of law, the FERC provided further guidance with respect to the implications for repeat violations of the same standards by a registered entity or its affiliate.<sup>315</sup> In the case at issue, *Commonwealth Edison*, Docket No. NP10-157, Commonwealth Edison (ComEd) self reported a violation of PRC-005-1 R2, namely that preventive maintenance tasks were performed outside the defined intervals for certain station batteries and microwave batteries.<sup>316</sup> ComEd agreed to pay a penalty of \$23,000.<sup>317</sup> This was the utility's second violation of this particular standard, although the prior violation was not exactly the same.<sup>318</sup> Also, an affiliate of ComEd had previously violated the same standard.<sup>319</sup> The FERC stated that both ComEd's and its affiliate's previous violations should have been taken into account by the Regional Entity and NERC in determining an appropriate remedy.<sup>320</sup> The FERC viewed ComEd's two violations as "repetitive infractions" that should have been considered, as well as the activities of the corporation as a whole.<sup>321</sup> It made no difference, in the FERC's view, that the affiliate had been registered and overseen by a different regional entity.<sup>322</sup>

After NERC submitted an NOP in Docket No. NP11-59, the URE filed an appeal of the proposed penalty and, then, a few days later withdrew that appeal.<sup>323</sup> In the meantime, the FERC suspended action on the filing until February 18, 2011.<sup>324</sup> The FERC allowed the penalty to become effective without any further discussion on February 17, 2011.<sup>325</sup> The URE filed a request

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313. *NERC*, 132 F.E.R.C. ¶ 62,097 at P 1 (2010).

314. *NERC*, 133 F.E.R.C. ¶ 62,037 at P 2 (2010).

315. *NERC*, 132 F.E.R.C. ¶ 61,182 at PP 1-2 (2010).

316. NERC Abbreviated Notice of Penalty, Commonwealth Edison Company (ComEd) at 2, FERC Docket No. NP10-157-000 (July 30, 2010).

317. *Id.*

318. *Id.* at 2 n.4.

319. *NERC*, 132 F.E.R.C. ¶ 61,182 at P 7 (2010).

320. *Id.* at PP 6-8.

321. *Id.*

322. *Id.*

323. Motion of the Unidentified Registered Entity to Intervene and Request for Review and Temporary Stay of the Notice of Penalty Filed by NERC, FERC Docket No. NP11-59-000 (Jan. 19, 2011); Notice of Withdrawal of Motion to Intervene and Request for Review and Temporary Stay of the Notice of Penalty Filed by NERC, and Motion for Waiver, FERC Docket No. NP11-59-000 (Jan. 21, 2011).

324. *NERC*, 134 F.E.R.C. ¶ 61,052 (2011).

325. *NERC*, 134 F.E.R.C. ¶ 61,131 (2011).



on January 28, 2011, in Docket No. ER11-2798, to recover the \$7,000 penalty from its Tariff Customers.<sup>326</sup>

On February 1, 2011, NERC filed an NOP in Docket No. NP11-104 pertaining to forty-one violations by nineteen registered entities.<sup>327</sup> “The [NOP] was submitted in an abbreviated format, which NERC refers to as an ‘Administrative Citation.’”<sup>328</sup> In the following months, NERC submitted similar Administrative Citations in Docket Nos. NP11-133, NP11-162, NP11-181, NP11-199, NP11-228, and NP11-253.<sup>329</sup> Cumulatively, the first seven Administrative Citations filings covered 234 violations by 100 registered entities.<sup>330</sup> One-third involved zero penalties while the rest carried fines ranging from \$500 to \$25,000, for a total of \$319,000.<sup>331</sup> The first seven Administrative Citations NOPs also represented close to 30% of all of the violations reported in the same period.<sup>332</sup>

As of the end of July 2011, the FERC had allowed all of the Administrative Citations to become effective by operation of law. The FERC did, however, take the opportunity to comment on the first submission in the notice issued in Docket No. NP11-104 on March 3, 2011.<sup>333</sup> The FERC pointed out that NERC had characterized the violations as having “a minimal impact on the reliability of the [BPS].”<sup>334</sup> In addition, “in each instance, a violation addressed in [the] Notice [had] been mitigated, certified by the respective registered entity as mitigated and verified by the Regional Entity as having been mitigated.”<sup>335</sup> “The [FERC] recognize[d] that NERC and the Regional Entities expend substantial efforts and resources monitoring compliance with the . . . [s]tandards and building adequate records to support findings of violations” and that “the [FERC] [has] encouraged NERC and the Regional Entities to develop flexible approaches and more streamlined processes to [be] more [efficient] . . . , especially with [respect] to more minor violations.”<sup>336</sup> The FERC then opined,

[b]ased upon this filing, we believe that NERC’s Administrative Citation Notice format will be a successful tool in improving efficiency of NERC’s enforcement

326. Request for Recovery of Charges in Accordance with Schedule Tariff and Expedited Treatment, FERC Docket No. ER11-2798-000 (Jan. 31, 2011) (dated Jan. 28, 2011).

327. NERC Administrative Citation of Penalty, FERC Docket No. NP11-104-000 (Feb. 1, 2011) (dated Jan. 31, 2011).

328. *NERC*, 134 F.E.R.C. ¶ 61,157 at P 1 (2011).

329. *See, e.g.*, NERC Administrative Citation of Penalty, FERC Docket No. NP11-133-000 (Feb. 28, 2011).

330. NERC, SEARCHABLE NOTICE OF PENALTY (NOP) SPREADSHEET (Aug. 31, 2011), available at [http://www.nerc.com/filez/enforcement/Searchable\\_Enforcement\\_Page\\_08312011.xlsx](http://www.nerc.com/filez/enforcement/Searchable_Enforcement_Page_08312011.xlsx).

331. *Id.*

332. *Id.*

333. 134 F.E.R.C. ¶ 61,157.

334. *Id.* at P 3.

335. *Id.*

336. *Id.* at P 7. The Commission referenced two instances in particular where it had encouraged NERC to develop a more streamlined process – its *Guidance on Reliability Notices of Penalty NERC*, 129 F.E.R.C. ¶ 61,069 (2009) (*Further Guidance Order on Filing of Reliability Notices of Penalty*) and *NERC Reliability Standards Development and NERC and Regional Entity Enforcement*, 132 F.E.R.C. ¶ 61,217 (2010) (Three-year Assessment Order). The Commission also pointed out that NERC’s CEO had “announced this process at the November 18, 2010 Technical Conference on Reliability Monitoring, Enforcement, and Compliance Issues,” held in Docket No. AD11-1-000. *Id.* at P 7 n.9.

process, thereby reducing the time and resources expended by the Regional Entities, NERC, and Commission staff while still achieving transparency and consistency in penalty determinations for violations that are appropriate for this format.<sup>337</sup>

As of the end of July 2011, the FERC had concluded two Part 1b investigations of violations of the mandatory Reliability Standards. The first one involved the outage that occurred in February 2008 in Florida after an incident at a substation owned and operated by Florida Power & Light Company (FPL).<sup>338</sup> In October 2009, in Docket No. IN08-5, the FERC approved a \$25 million civil penalty as part of a settlement for violations of certain categories of standards.<sup>339</sup> Specifically, the settlement required FPL to pay \$10 million to NERC (to offset budget charges it assesses industry members), \$10 million to the United States Treasury (where all FERC penalties go), and to expend \$5 million for extra reliability enhancements for its system beyond the minimum requirements to comply with the settlement.<sup>340</sup> The settlement also provided that FPL would enhance its training procedures and management processes, perform upgrades, add new protections to its system, and improve its compliance program and transmission operations.<sup>341</sup>

In March 2010, the FERC approved another settlement arising out of the FPL incident involving the Florida Reliability Coordinating Council, Inc. (FRCC), in its capacity as Reliability Coordinator within the FRCC area.<sup>342</sup> “FRCC . . . agreed to pay a civil penalty of \$350,000 to be divided equally between the United States Treasury and NERC.”<sup>343</sup> “Also in the Agreement, FRCC . . . committed to undertake numerous specific reliability enhancement measures including: meeting its staffing commitments regarding the Reliability Coordinator (RC) position; utilizing dynamic load modeling for system stability analysis across Florida; and enhancing its planning assessment process.”<sup>344</sup> Unlike the FPL settlement order, the FRCC order detailed the standards that allegedly were violated.<sup>345</sup>

On July 7, 2011, in Docket No. IN11-1, the FERC approved a stipulation and consent agreement between its enforcement staff, NERC staff, and the Western Electricity Coordinating Council (WECC) (acting in its role as Reliability Coordinator) in regard to a February 14, 2008 electrical disturbance that occurred in PacifiCorp’s Eastern Balancing Authority Area.<sup>346</sup> FERC Enforcement staff and NERC determined that WECC “violated nine requirements of five Reliability Standards.”<sup>347</sup> While WECC neither admitted

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337. 134 F.E.R.C. ¶ 61,157 at P 7.

338. *Florida Blackout*, 129 F.E.R.C. ¶ 61,016 (2009).

339. *Id.* at PP 17, 18 (noting alleged violations in the BAL, COM, EOP, PER, PRC, TOP, and TPL areas). In concurring statements, Commissioners Spitzer and Moeller noted the lack of information in the FERC order and called for future orders to specify which standards were alleged to have been violated. *Id.* at p. 61,074.

340. *Id.* at P 2.

341. *Id.*

342. *Florida Blackout*, 130 F.E.R.C. ¶ 61,163 (2010).

343. *Id.* at P 2.

344. *Id.*

345. *See, e.g., id.* at PP 5, 15.

346. *Western Elec. Coordinating Council*, 136 F.E.R.C. ¶ 61,020 at P 1 (2011).

347. *Id.* at PP 11-16.

nor denied the alleged violations, it agreed “to pay a \$350,000 civil penalty” and committed to a compliance plan to undertake specific reliability enhancement measures.<sup>348</sup> On July 28, 2011, PacifiCorp and others sought rehearing of the order approving the stipulation and consent agreement.<sup>349</sup>

#### XI. COORDINATED, OPEN AND TRANSPARENT REGIONAL TRANSMISSION PLANNING

In Order No. 890,<sup>350</sup> the FERC defined nine transmission planning principles whose application it found was necessary to ensure the provision of non-discriminatory open access transmission as previously mandated under Order No. 888.<sup>351</sup> That Order had required transmission providers to “plan and upgrade their transmission systems to provide comparable open access transmission service for their transmission customers” but no specific processes to achieve that objective were mandated for implementation.<sup>352</sup> Order No. 890 supplied the needed processes to achieve the FERC’s objective of “an open, transparent and coordinated transmission planning process” in which customers would participate in the development of future system plans and where necessary planning information would be transparent and available to all stakeholders.<sup>353</sup> The nine mandated principles are: coordination, openness, transparency, information exchange, comparability, dispute resolution, regional participation, economic planning studies, and cost allocation of new projects.<sup>354</sup>

In September 2009, FERC Staff conducted three Technical Conferences to review transmission provider progress in establishing the desired transmission planning processes and benefits realized and also to obtain industry comment upon whether those processes require further supplementation.<sup>355</sup> It noted that emerging challenges, such as the need for development of regional transmission facilities both for reliability and economic reasons and to integrate “large amounts of location-constrained” renewable generation, suggested the need for

348. *Id.* at P 17.

349. Motion to Intervene and Request of Rehearing of PacifiCorp at 1, FERC Docket No. IN11-1-000 (July 28, 2010).

350. Order No. 890, *Preventing Undue Discrimination and Preference in Transmission Service*, F.E.R.C. STATS. & REGS. ¶ 31,241, 72 Fed. Reg. 12,266 (2007) [hereinafter, Order No. 890], *reh’g*, Order No. 890-A, F.E.R.C. STATS. & REGS. ¶ 31,261 (2007), 73 Fed. Reg. 2,984 (2008), *reh’g & clarif’n*, Order 890-B, 123 F.E.R.C. ¶ 61,299, 73 Fed. Reg. 39,092 (2008) (to be codified at 18 C.F.R. pts. 35, 37).

351. Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities*, F.E.R.C. STATS. & REGS. ¶ 31,036, 61 Fed. Reg. 21,540 (1996), *reh’g*, Order No. 888-A, F.E.R.C. STATS. & REGS. ¶ 31,048, 62 Fed. Reg. 12,274 (1997), *reh’g*, Order No. 888-B, 81 F.E.R.C. ¶ 61,248, 62 Fed. Reg. 64,688 (1997) (to be codified at 18 C.F.R. pts. 35, 37).

352. Order No. 890, *supra* note 350, at P 418.

353. *Id.* at PP 3, 39-40 & 418-20; Notice of Proposed Rulemaking, *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, F.E.R.C. STATS. & REGS. ¶ 32,660 at PP 6-12, 75 Fed. Reg. 62,023 (2010) (to be codified at 18 C.F.R. pt. 35) [hereinafter 2010 Transmission Planning NOPR].

354. A full description of these principles, the process of their adoption in Order No. 890, further refinement in RTO/ISO and utility compliance filings and in FERC orders modifying and approving those filings in 2008 and early 2009 is contained in the Committee’s 2009 Annual Report. *2009 Report*, *supra* note 1, at 861-868.

355. Notice of Technical Conferences, FERC Docket No. AD09-8-000 (June 30, 2009); Supplemental Notice of Technical Conferences at 1, FERC Docket No. AD09-8-000 (Aug. 3, 2009).

such supplementation.<sup>356</sup> In October 2009, the FERC issued a Notice of Request for Comments asking transmission providers, customers, and other stakeholders to address various questions with respect to possible enhancements to Order No. 890's established planning processes.<sup>357</sup> Upon the basis of the information thus collected, the FERC issued a NOPR in June 2010, requesting comment upon five specific revisions to Order No. 890 mandated transmission planning and cost allocation.<sup>358</sup>

Noting that "[t]his Proposed Rule builds on Order No. 890"<sup>359</sup> and despite its recognition that substantial improvements in planning processes had been only recently implemented as the result of Order No. 890, the FERC stated that "significant changes in the nation's electric power industry . . . require the Commission to consider additional reforms to transmission planning and cost allocation to reflect" the challenges noted above.<sup>360</sup> It identified specific deficiencies that did or might require correction, including the lack of an explicit requirement that regional transmission plans be developed, the need that coordination between such plans be expanded, that transmission needs driven by public policy requirements (particularly renewable portfolio standards) be addressed in the planning process, that transparent cost allocation principles necessary to assure actual project construction be adopted and that possible obstacles to non-incumbent transmission project developers participation in the planning processes should be addressed.<sup>361</sup>

On July 21, 2011, after reviewing more than 200 submissions from commenters, the FERC issued its Final Rule adopting the substance of the proposed Rule with limited modifications.<sup>362</sup> The first reform, an expansion of Order No. 890's "Regional Participation Principle", is "to require that each public utility transmission provider participate in a regional transmission planning process that produces a regional transmission plan" and complies with Order No. 890's principles.<sup>363</sup> The FERC emphasized that this regional process must permit meaningful participation by transmission service customers and other stakeholders, as well as consider competing generation, transmission, demand response, and other solutions to anticipated service needs.<sup>364</sup> The second reform, which builds upon Order No. 890's principle requiring interregional coordination, requires that neighboring transmission planning regions must coordinate their planning processes by annually sharing information, identifying and evaluating interregional solutions that may more

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356. Supplemental Notice of Technical Conferences at 1, FERC Docket No. AD09-8-000 (Aug. 3, 2009).

357. Notice of Request for Comments at 1, FERC Docket No. AD09-8-000 (Oct. 8, 2009).

358. 2010 Transmission Planning NOPR, *supra* note 353, at PP 14, 32-34.

359. *Id.* at P 2.

360. *Id.* at P 33.

361. *Id.* at PP 32-43. This same need for reform and stated deficiencies in Order 890 processes is discussed in the Commission's Final Rule described further below. *See* Order 1000, *infra* note 366, at PP 1-4, 30-31, 42-62, 78-80.

362. Order No. 1000, *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, F.E.R.C. STATS. & REGS. ¶ 31,323, 76 Fed. Reg. 49,842 (2011) (to be codified at 18 C.F.R. pt. 35) [hereinafter Order 1000].

363. *Id.* at PP 78-80; 2010 Transmission Planning NOPR, *supra* note 353, at P 50 (further explained in PP 45-54).

364. Order 1000, *supra* note 362, at P 152.

cost-effectively solve their service needs, and adopting such solutions into their respective regional plans if more desirable than local or regional solutions of those needs.<sup>365</sup> Third, the FERC proposes that public utility transmission providers should have an “explicit obligation” to evaluate transmission or other projects for inclusion in the regional transmission plan based in part on their “potential to facilitate achievement of public policy requirements established by state or federal laws or regulations.”<sup>366</sup> The FERC did not define what public policy requirements need be considered (though it noted state renewable performance standards as an example of what it has in mind) and further stated that failure to comply with such a requirement is not to become a tariff violation subject to its enforcement.<sup>367</sup> These reforms expand what had primarily, under Order 890, been a local planning exercise with informal coordination at higher geographic levels to include more formal, required regional and interregional coordination and planning efforts.<sup>368</sup>

Perhaps the most controversial reform is the mandated equal treatment to avoid undue discrimination between incumbent and non-incumbent transmission providers where permitted by state law. In RTO/ISO regions, where competitive generation markets have been established and traditional, integrated service providers have been restructured, RTO/ISO founding agreements and tariffs often require that the former integrated service provider (*i.e.* the incumbent) both have an obligation if no other entity will do so and, moreover, be permitted the “right of first refusal” to construct needed new transmission plants.<sup>369</sup> This, the FERC stated, may create a disincentive to non-incumbent developers participating in transmission planning processes and may increase cost to the ultimate consumer as more cost-effective projects which such developers might pursue fail to be developed.<sup>370</sup>

The FERC proposed to implement the proposal by requiring that public utility transmission providers (*i.e.* an RTO/ISO or other FERC-regulated transmission utility) state in their OATTs and obtain its approval of “qualification criteria for determining an entity’s eligibility to propose a project in the regional transmission planning process” and, thus, to construct, own and operate the plant if selected for inclusion in the Regional Transmission Plan.<sup>371</sup>

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365. *Id.* at PP 368-404, 435-475; 2010 Transmission Planning NOPR, *supra* note 353, at PP 114-118. The NOPR’s proposal that such processes be included in interregional “agreements” is not mandated and is preplaced by a requirement that interregional coordination processes be described in identical language in the tariffs of transmission providers in the two regions, though stating such processes in interregional agreements remains available on a voluntary basis. Whether existing interregional cost allocation agreements comply with Order 1000 principles will be determined after transmission provider compliance filings are made.

366. Order 1000, *supra* note 362, at PP 82, 109-112, 203-224; 2010 Transmission Planning NOPR, *supra* note 353, at PP 58, 63 (further explained in PP 55-69).

367. Order 1000, *supra* note 362, at PP 213-214.

368. *Id.* at PP 225, 228.

369. 2010 Transmission Planning NOPR, *supra* note 353, at P 20.

370. Order 1000, *supra* note 362, at PP 225-227, 253-269, 284-292, 313-344; 2010 Transmission Planning NOPR, *supra* note 353, at PP 87-89 (further explained in PP 71-100).

371. Order 1000, *supra* note 362, at PP 293, 315; 2010 Transmission Planning NOPR, *supra* note 353, at PP 90-95, 99-100. The FERC also required adoption and inclusion in the OATT of a “form” through which non-incumbent transmission providers could propose projects for inclusion in the Plan and that non-incumbent providers be required to participate in regional transmission planning processes if they wished their project to

Also, non-incumbent project developers were proposed to be given the same opportunity to recover project costs through established regional cost allocation methods as are incumbent developers.<sup>372</sup> Finally, the FERC noted that it was not altering the requirement imposed in such documents or state law that incumbent transmission providers be required to build needed, unsponsored transmission projects identified as necessary in a regional plan, nor was it preempting any other requirements of state or local laws.<sup>373</sup> In Order 1000's adoption of this reform, the FERC made several significant revisions from the NOPR, eliminating a multi-year mandated priority for non-incumbent developers to develop a project which they had first proposed (viewed as unworkable by many commenters) and explicitly permitting priority (*i.e.*, right of first refusal) for incumbent developers to upgrade their existing networks (*i.e.*, reconductor, tower change-outs, etc.), to develop their existing rights-of-ways, and to add transmission limited to areas solely within their existing footprint.<sup>374</sup> The FERC also explicitly limited its rejection of ROFR to transmission projects adopted into regional plans for "cost allocation purposes," those projects adopted into the plans as more cost-effective solutions to service needs.<sup>375</sup> The FERC also added a requirement that non-incumbent projects accepted into the regional transmission plan and needed for reliability or to provide service are to be reevaluated, and the incumbent is required to develop any needed alternative project to preserve service reliability should the non-incumbent's project be delayed or abandoned.<sup>376</sup>

A second controversial reform mandates the adoption of cost allocation rules to establish the identity of those stakeholders who will pay for new transmission investment accepted into the required regional plan. In Order No. 1000, the FERC noted the importance of transparent cost allocation rules to achieving new transmission project development in that new projects would not be approved for construction until stakeholders understood that their benefits to specific stakeholders would approximate the costs imposed from their construction.<sup>377</sup> Also for this reason, Order No. 890 included "cost allocation" as one of its nine principles, but a requirement for the adoption of specific methods to govern how such allocation would occur was not adopted.<sup>378</sup> Citing the absence of functioning inter-regional and non-RTO/ISO region cost allocation mechanisms, and the contentiousness of such decisions even within RTO/ISO

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benefit from FERC mandated cost allocation rules but need not participate where they proposed to proceed entirely on a merchant basis.

372. Order 1000, *supra* note 362, at PP 284-292, 313-332, 338-340; 2010 Transmission Planning NOPR, *supra* note 353, at PP 93-96.

373. The FERC has previously decided two cases in which it held that non-incumbent transmission providers could be designated by PJM to develop, own and operate a major transmission plant accepted into its regional transmission plan employing cost-of-service based rates and receiving FERC granted ROE/CWIP incentives. *Primary Power, LLC*, 131 F.E.R.C. ¶ 61,015 (2010); *Central Transmission, LLC v. PJM, L.C.C.*, 131 F.E.R.C. ¶ 61,243 (2010). In neither case, however, did the FERC definitively decide the "right-of-first-refusal" issue, and it declined to require PJM to designate either Company to develop the transmission plant involved, merely holding that its OATT permitted PJM to do so.

374. Order 1000, *supra* note 362, at PP 342-344.

375. *Id.* at PP 5, 63-64.

376. *Id.* at P 329.

377. 2010 Transmission Planning NOPR, *supra* note 353, at PP 121-124.

378. *Id.* at P 123.

regions, as well as the changing uses of the transmission system, Order 1000 required that each public utility transmission provider define and state in its tariff one or more methods for allocating the costs of new transmission plant both within and between regions, such methods to be consistent with six cost allocation principles stated in the Order.<sup>379</sup> Principal amongst the latter is that costs must be allocated “at least roughly commensurate with estimated benefits” and that those who presently or in the likely future will receive no benefits from the plant should not be allocated any of the costs.<sup>380</sup> The FERC also determined that allocation rules must be transparent and supported by adequate documentation, and rules that rely solely on participant funding or other voluntary assumption of costs without identifying all project beneficiaries and allocating costs involuntarily where required to avoid “free riders” will be rejected.<sup>381</sup> The FERC noted that adopted methods could also differ between and within regions and from methods adopted by the same regions for interregional cost allocation. The FERC stated that, if stakeholders in a region or between regions are unable to agree upon cost allocation methods, the FERC will determine an allocation method during proceedings on the compliance filing it requires in response to Order 1000.<sup>382</sup>

Commenters opposing major elements of the NOPR had argued, amongst other positions, that: (1) the FERC lacks jurisdiction to mandate regional and interregional transmission planning, coordination and cost allocation methods under the FPA (including the consideration of public policy requirements), as Congress provided explicitly in the statute only for voluntary industry actions; (2) that no discrimination between incumbent and non-incumbent transmission providers exist from the “right of first refusal” due to incumbents duty to serve or to build where no other entity comes forward, and because of the need for integration of new plant into the existing, incumbent operated system (especially as to plant developed to achieve reliability benefits), factors which render incumbents and non-incumbents in different circumstances and thus appropriate to be treated differently; and (3) that the FERC’s mandated regional and interregional transmission planning processes conflict with and improperly preempt state Integrated Resource Planning processes and thus, at least in substantial part, cannot be made effective if state law and actions are to be preserved.<sup>383</sup> Proposals to retain, but limit the “right of first refusal” were also

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379. *Id.* at PP 159-162.

380. *Id.* at PP 164-165, 172-175. The FERC noted that its stated “beneficiary pays” principle is supported both by its past decisions and numerous appellate decisions, *id.* at PP 140-145, including particularly the recent 7<sup>th</sup> Circuit Opinion in *Illinois Commerce Commission v. FERC*. 576 F.3d 470 (7th Cir. 2009). Also, if a benefit to cost threshold is employed to identify desired new projects for inclusion in the Regional Transmission Plan, the FERC directed that it not be so high (*i.e.* not more than 1.25 to 1) that facilities with significant net benefits would be excluded.

381. 2010 Transmission Planning NOPR, *supra* note 353, at PP 164-168, 174. Also, transmission project costs can only be allocated to regions in which the project is at least in part located.

382. Order 1000, *supra* note 362, at PP 482-483.

383. See, *e.g., id.* at PP 84-108, 253-269, 273-292; the separate comments of the Edison Electric Institute, PJM Interconnection, LLC, Southern Company Services, Inc., ISO-New England Inc., the California Independent System Operator, Indicated PJM Transmission Owners, the National Association of Regulatory Utility Commissioners, and the Large Public Power Council, all filed in Docket No. RM10-23 on September 29, 2010. These and other comments (including many supporting the NOPR’s proposals) can be found at <http://www.ferc.gov/docs-filing/elibrary.asp>.

proposed (*i.e.* to be exercised in a limited time period or only as to a plant whose benefits are primarily reliability improvement). Order 1000 becomes effective sixty days following its publication in the Federal Register (*i.e.*, by approximately mid-October 2011), and compliance filings applicable to regional planning mandates are required twelve months and, for inter-regional requirements, eighteen months after such publication.<sup>384</sup> Order 1000 stated, as to its mandates and their governing principles, that these are “minimum requirements” and that transmission providers and stakeholders are encouraged both to expand upon them and to design the specific processes to be adopted in compliance with them.<sup>385</sup> Numerous commenter-proposed specifics are also reserved for judgment in the review of the compliance filings.<sup>386</sup>

The FERC also issued, in 2009-2010, a number of Orders approving modifications in RTO/ISO transmission planning and cost allocation processes. For example, it approved a three-phase process for annual transmission plan development requested by the California Independent System Operator (CAISO).<sup>387</sup> This new planning process creates a new category of policy-driven network transmission facilities (*i.e.* projects developed to satisfy state and federal renewable energy or climate change mandates).<sup>388</sup>

The FERC also approved modifications proposed by Midwest Independent Transmission System Operator, Inc. (MISO) and Southwest Power Pool, Inc. (SPP) to their transmission planning and cost allocation procedures and initiated a paper hearing in the remand from the Seventh Circuit reversing its approval of a similar proposal made by PJM Interconnection LLC (PJM). The MISO and SPP proposals identify and allocate the cost of large capacity transmission projects (*i.e.* greater than 300 KV) fully on a region-wide basis to reflect their predominant region-wide benefits. MISO termed such projects “Multi-Value Projects” and stated that such projects are designed in response to public policy requirements to achieve multiple reliability and/or cost reduction objectives affecting multiple transmission zones.<sup>389</sup> In addition to its “Highway/Byway” cost allocation proposal, SPP also obtained conditional FERC acceptance of a new transmission planning proposal, the Integrated Transmission Plan, under which twenty-year assessments would be prepared to plan future high voltage transmission expansion (*i.e.* 300 KV and above), with ten-year assessments for lower voltage plant expansion (*i.e.* 100 KV to 300 KV) and with separate near term assessments to focus on transmission needs for compliance with NERC Reliability Standards.<sup>390</sup> PJM’s proposal, now remanded to the FERC, had

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384. Order 1000, *supra* note 362, at PP 1-5, 792. The FERC bases its authority to adopt most of its reforms on its authority to enforce just and reasonable rates and to prevent discrimination under Federal Power Act section 206.

385. *Id.* at P 13.

386. *Id.* at PP 323-332, 603-609.

387. CAISO, 133 F.E.R.C. ¶ 61,223 at P 1 (2010); CAISO, 133 F.E.R.C. ¶ 61,224 at P 62 (2010).

388. *Id.*

389. MISO, 133 F.E.R.C. ¶ 61,221 at PP 1, 166 (2010).

390. SPP, 131 F.E.R.C. ¶ 61,252 (2010); SPP, 132 F.E.R.C. ¶ 61,042 (2010). Lower voltage transmission projects (*i.e.* 100 KV to 300 KV) are allocated 33% to SPP regional load and 67% to local sub-regions where the facility is located, with still lower voltage projects allocated 100% to such sub-regional load. Transmission planning is to be conducted upon a three year cycle, *i.e.* with the twenty and ten year assessments performed every three years and the near-term assessments performed annually.



provided for the full regional allocation of new large capacity transmission lines (i.e. 500 KV and above) and their cost recovery through a postage stamp rate applied to all regional load. The Seventh Circuit, however, concluded that the FERC's approval of this proposal was arbitrary as PJM had failed to demonstrate that this allocation method allocated costs in reasonable proportion to the transmission's benefits.<sup>391</sup>

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391. Illinois Com. Comm'n v. FERC, 576 F.3d 470 (7th Cir. 2009); *PJM*, 130 F.E.R.C. ¶ 61,052 (2010). The FERC has permitted, subject to refund, PJM cost allocation assignments for its 2010 Regional Transmission Expansion Plan based upon the Court remanded region-wide cost allocation principles. *PJM*, 131 F.E.R.C. ¶ 61,235 (2010).

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