UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Mandatory Reliability Standards for the Bulk-Power System	**Docket No. RM06-16-000**

COMMENTS OF THE ISO/RTO COUNCIL ON STAFF PRELIMINARY ASSESSMENT OF NERC RELIABLITY STANDARDS

June 26, 2006

TABLE OF CONTENTS

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I. Introduction

The ISO/RTO Council ("IRC") is pleased to provide its comments in response to the Commission Staff's May 11, 2006 "Preliminary Assessment of NERC's Proposed Mandatory Reliability Standards" ("Staff Report"). The nine functioning Independent System Operators and Regional Transmission System Organizations ("ISOs" and "RTOs" respectively) in North America formed the IRC in April 2003. The IRC is comprised of the Alberta Electric System Operator ("AESO"), California Independent System Operator Corporation ("CAISO"), Electric Reliability Council of Texas ("ERCOT"), the Ontario Independent Electricity System Operator of Ontario ("IESO"), ISO New England Inc. ("ISO-NE"), Midwest Independent Transmission System Operator, Inc. ("MISO"), New York Independent System Operator, Inc. ("NYISO"), PJM Interconnection, L.L.C. ("PJM"), and the Southwest Power Pool ("SPP"). The IRC's mission is to work collaboratively to develop effective processes, tools and standard methods for improving competitive electricity markets across North America. In fulfilling this mission, it is the IRC's goal to provide a perspective that balances reliability standards with market practices so that each complements the other.

The IRC's Standards Review Committee and Regulatory and Legislative Committee have worked diligently as a group to develop consensus recommendations on Staff's Preliminary Assessment Paper ("Staff Report").[1] The IRC's efforts have been directed to meeting Staff's request for input to assist the Commission in identifying:

- **those standards that can be implemented at once;**
- **those standards which require immediate industry attention; and**
- **the development of a plan for addressing immediate and longer term improvements which are necessary. Staff Report at p. 5.**

The IRC focused on those standards which are presently the subject of NERC's 2006 Compliance and Enforcement program (the "Compliance and Enforcement Standards") in order to identify and prioritize those standards

[1] The IRC's Standards Review Committee is made up of each member's liaisons to NERC and is charged with reviewing both NERC and NAESB proposed standards.

important to bulk power system reliability which can most feasibly be enforced under the new law.[2] Many of the current NERC standards that affect interconnected grid reliability simply are not ready for ERO implementation, in a civil-enforcement context.[3] The IRC believes that the standards selected by NERC for inclusion in the 2006 Compliance and Enforcement program represent standards which can provide the ERO with a workable and enforceable initial set of reliability standards. [4] The IRC therefore submits its detailed review, of the 2006Compliance and Enforcement standards through a matrix submitted as Attachment "A" to these comments. The attached matrix identifies the IRC's view of the relative importance of each Compliance and Enforcement Standard to protecting against risks to the bulk power system, and provides the IRC's comments, in response to the FERC Staff's comments, on the proposed Standards.

The IRC is uniquely qualified to address these issues. Together, the members of the IRC operate bulk power systems over 2/3rds of the United States and in two Canadian provinces. The IRC includes RTOs and ISOs in all three North American Interconnections and includes the Alberta AESO and the Ontario IESO. Moreover, each of these entities is independent of market participants and undertakes, as one of their core functions, the maintenance of reliability within their footprint. The IRC members do not own generation or serve as load serving entities and thus are not forced to balance corporate pecuniary interests with the maintenance of reliability. As a result, the IRC represents a neutral and independent source of expertise from entities which are charged with maintaining system reliability and applying reliability standards on a day to day, minute by minute basis.

The IRC wishes to compliment the FERC Staff for its comprehensive and thoughtful assessment. *The IRC is supportive of the overwhelming majority of the recommendations of the FERC Staff and endorses Staff's proposed approach*. The IRC has undertaken its own categorization of the 2006 Compliance and Enforcement standards and has provided specific support for that categorization in these Comments and attached Matrix. The IRC comments, in many cases, support

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[2] The IRC would note that its members currently follow NERC standards, those guidelines and criteria promulgated by Regional Reliability Councils and operating procedures that are needed to reflect the specific characteristics of the bulk power system in their Control Areas. Moreover, the Ontario IESO (and market participants in Ontario) are subject to financial sanctions for failure to comply with NERC standards under the authority of the Ontario Market Rules. The IRC proposes specific recommendations to address this situation in Section II below.

[3] In joining these comments, the NY ISO does not waive its objections to the Commission's determination that penalties may be imposed upon not-for-profit ISOs and RTOs while penalties may be imposed on Regional Reliability Organizations only in extraordinary circumstances. On May 30,2006, the NYISO petitioned the District of Columbia Circuit Court of Appeals seeking, on behalf of the NYISO, judicial review of this determination. D.C. Cir. Case No. 06-1185.

[4] The IRC wishes to make clear that the remaining standards, not presently the subject of NERC's Compliance and Enforcement program, can and should continue to be implemented by the industry as voluntary standards. The IRC believes that these standards should not be the subject of the first round of enforceable standards adopted under Section 215 of the Energy Policy Act of 2005.Rather, they should undergo additional review and revision by the ERO and submitted in a second round of proposed standards for consideration by FERC and Canadian governmental authorities.

FERC Staff's own recommendations. The IRC's determinations, including those areas where it supports or differs from the FERC Staff, are noted in these comments.

These comments will address the following areas:

- **The IRC's Proposed Approach: An Overview**
- **The IRC's Proposed Approach: Categorizing Standards for Consideration**

  Category One:
  1. **Acceptable**[5]
  2. **Conditionally Acceptable**

  Category Two
  1. **Not acceptable in present form**
  2. **Not acceptable**

- **The Need for International Coordination**

- **The IRC's Proposed Standard of Review: Answering What Constitutes an Effective Reliability Standard?**

- **The IRC's Proposed Standard of Review: Detailing What Process the Commission Should Utilize to Evaluate a Reliability Standard?**

II. The IRC's Proposed Approach: An Overview

The IRC has approached this task recognizing the present state of industry compliance with NERC's voluntary standards. The electric industry has been observing the NERC reliability standards submitted in this docket (the "Version 0 standards") for many years. The Version 0 Standards, which were submitted as an attachment to the ERO Application, grew out of the old NERC Operating Policies (and its reference material) and the NERC Planning Standards. The Version 0 standards were meant as a transitional set of standards, based upon NERC's functional model, in order to further the move from voluntary control area-based standards to functional entity-based standards with measurable requirements. Certain standards that were filed by NERC are direct transformations from NERC's original Operating and Planning Guides and written in a manner never intended to be enforced with measurable requirements and in a civil-penalty

[5] The IRC uses these categories, denoting acceptability for purposes of enforcement, in the context of what action the Commission should take relative to users of the bulk power system in the United States. This designation is not intended to be determinative of acceptability of the proposed standards by Canadian governmental authorities. .

context. Because of time constraints faced by NERC, its rewrite did not update the specific requirements of the standards nor did NERC undertake to eliminate requirements that may no longer be applicable or do not rise to the level of reliability standards. Thus, many of these standards lack clarity and specificity in certain areas. Nonetheless, the electric industry has been adhering to the Version 0 standards while efforts are underway within NERC to revise those standards. In many instances, the needed level of detail and specificity is provided today through Regional Reliability Council guidelines and criteria or through specific Control Area operating practices.

The IRC agrees with FERC Staff that the scope and intent of the NERC Version 0 standards forms a good foundation for development of a complete set of mandatory enforceable reliability standards. However, consistent with the FERC staff's view, the IRC does not agree that each requirement of each standard is appropriate for implementation as standards to be adopted pursuant to new section 215 of the Federal Power Act and thus carry with it the force of law. As will be noted below in detail, some of the standards are in conflict with market-oriented solutions adopted by the Commission which have worked successfully in IRC member markets.[6] Other standards lack specificity and thus are inappropriate for use in enforcement actions absent revision. A third set of standards are purely administrative in nature or otherwise do not impact reliability and thus are not appropriate at all for consideration as standards under the Energy Policy Act of 2005. In short, the transition to 'the correct set' requires all parties agree on the definitions, ideas and tenets of the requirements. The IRC outlines a proposed approach below which builds upon FERC Staff's review of the Compliance and Enforcement Standards.

III. IRC's Proposed Approach: Categorizing of Standards for Acceptability

The IRC recommends that the Commission consider categorizing all of the NERC Compliance and Enforcement standards that were submitted with the ERO Application as well as the remaining Version 0 standards into two broad categories.[7] These categories could also be applied to the other NERC standards that are not presently the subject of the 2006 Compliance and Enforcement Program.

***Category One: Standards Acceptable or Conditionally Acceptable*: The first category would include those standards which should be considered for some form of acceptance by the Commission. Within this category and, on a standard-by-standard basis, the IRC proposes either full and final acceptance of the proposed**

[6] In Order 672, the Commission indicated its desire for RTOs/ISOs and market participants in organized markets to bring to the Commission's attention at the earliest possible time potential conflicts between market rules and standards. The Energy Policy Act sets forth procedures for the Commission to resolve such conflicts, even after adoption of the standard.

[7] Consistent with the FERC Staff's approach, the IRC limited its review to focus on the technical sufficiency of the proposed standards and does not comment, at this time, on any issues associated with the legal sufficiency of the standards under EPACT.

standard or "conditional acceptance". "Conditional acceptance" by the Commission would allow the standard to go into effect but recognize the need for additional refinement through a future submittal revising the standard.[8] In its matrix, the IRC has recommended certain of the proposed 2006 Compliance and Enforcement Standards for full and final acceptance (labeled in the attached matrix as "*Accept*"). Others have been recommended for "Conditionally Acceptance" which indicates that the proposed standard needs further refinement but is sufficiently specific and relevant to reliability to compel Commission adoption at this time (subject to further refinement through the ERO process.) These standards are labeled in the attached matrix as "*Conditionally Accept*". Those approved standards, whether fully or conditionally accepted, would then be subject to enforcement using the ERO sanctioning guidelines.

***Category Two: Standards Not Acceptable In Their Present Form or Not Acceptable*: The IRC recommends that the Commission establish a second category of standards which would include all of those submitted Version 0 standards which have not been recommended for acceptance, either in full or conditionally. Within this latter category there would be two subsets. One set (which the IRC will label for these comments as standards "*Not Acceptable In Their Present Form*") require significant discussion and revision. A second set of proposed Version 0 standards (which the IRC labels "*Not Acceptable*") represent proposed standards that should be eliminated either because they are in conflict with organized markets, do not enhance reliability as proposed or are otherwise inappropriate as reliability standards subject to enforcement under EPACT. All of the additional Version 0 standards (i.e. those in addition to the Compliance and Enforcement Standards) should not be approved in this first round of review but instead be carried over for further development by the ERO once it is formed.**

A transition period and process will clearly be needed to ensure correction of those standards not approved. During the time needed to allow an open stakeholder process to correct these proposed standards, they would continue to be in effect, just as today, as voluntary standards. In other words, NERC/ERO and the Regional Entities would evaluate the applicable entities against these standards but enforcement would not use the sanctioning guidelines. The IRC believes (as recognized by NERC itself as well as FERC staff) that further work on these non-Compliance and Enforcement standards compels that they be sent to the ERO for further development with a specific timeframe for resubmittal to the FERC.

The IRC recognizes that formal remand is a mechanism available to the Commission respecting standards judged unacceptable. However, the IRC recommends that the Commission not utilize the formal remand provisions of the statute at this stage but instead simply decline to approve those standards deemed "not acceptable in their present form" or "not acceptable." This approach

[8] The Staff Report correctly notes that the Commission has the inherent authority under EPACT Section 215 to conditionally accept a standard subject to further work by the ERO and its stakeholders. Staff Report at p. 8.

recognizes that at this early stage of the development of the standards, coordination between Canadian and U.S. regulators is especially important. As noted previously, the standards currently before the Commission (as opposed to new standards yet to be submitted) are unique in the sense that they *already* are mandatory and enforceable in a number of Canadian jurisdictions. This will not be the case for future new standards which NERC as ERO will propose for adoption to both U.S. and Canadian governmental authorities with the goal of timely adoption by both entities.

The IRC proposed Category classification can be summarized as follows:

Category One:

1. ***Acceptable***
2. ***Conditionally Acceptable***

Category Two

1. ***Not Acceptable In Present Form***
2. ***Not Acceptable***

"*Acceptable*" means that the IRC supports FERC adopting the Requirement as written.
"*Conditionally Acceptable*" means that the requirement needs some further refinement but can be adopted in the interim until NERC has the opportunity to make those changes.
Accept and Conditionally Accepted standards would become mandatory standards and enforceable under the proposed sanctioning guidelines of the ERO.

"*Not Acceptable In Present Form*" means that the requirement needs to be revised and the IRC recommends that the requirements still be applied on a voluntary basis.
"*Not Acceptable*" means the requirement should be eliminated.

Those standards that are not accepted would continue to be observed by the industry as voluntary standards and all entities would be expected to comply with the intent of these standards until they are either corrected using the NERC process or eliminated as standards. There would be no ERO sanction guidelines for standards not accepted by FERC and provincial regulators.

IV. The Need for International Coordination

The coordination called for in new Section 215 of the Federal Power Act among U.S. and Canadian governmental authorities is especially important at this early stage. All of the NERC Version 0 standards are already mandatory in several Canadian provinces. On a going-forward basis, it is critical that points of disagreement between the respective U.S. and Canadian governmental authorities be minimized so as to avoid the anomalous situation of differing standards being binding in Canada and the United States merely as a result of the timing of various regulatory processes. The IRC, which itself is an international organization consisting of RTOs and ISOs in both Canada and the U.S, stands ready to assist in this effort as its members will be faced with confusion if effective and timely coordination does not occur on both sides of the border.

V. IRC Recommendations on The Content of a Standard

In its comments leading up to Order 672, the IRC set forth certain guiding principles concerning the contents of a standard.

A. What Constitutes an Effective Reliability Standard?

1. Ensuring a Well-Written, Workable Standard

As a guiding principle, the most effective reliability standards are those which are truly measurable and are performance-based rather than activity-based. The IRC has developed, as a shorthand for this principle, the notion of concentrating on the "what" i.e. the reliability goal that is to be achieved rather than the "how" of reliability i.e. the details of how one meets that standard. The best standards are those which establish clear and measurable performance goals to be met and which, as a result, allow the enforcement program of the ERO (or the regional entities on a delegated basis) to measure whether that reliability performance goal has been achieved.

The "what" vs. "how" distinction is consistent with the electric properties of the grid itself. Kirchoff's laws and other laws of physics do not change based on regional differences. As a matter of electrical flows, the grid reacts and responds the same everywhere as electric properties are consistent across all grids. Thus, the "what" of reliability should be largely uniform across North America.

On the other hand, how one implements the particular standard can be different for a number of reasons. Given the diversity of industry models in North America as well as the sheer number of balancing authorities and control area operators, inevitably there are a variety of ways in which the performance goal can be met. These different means of implementation can be influenced by whether there is or is not an organized market in place with an LMP-based congestion management process, whether there are particular characteristics of generation resources, such as limitations on hydro resources, that need to be considered, the

size of the control area itself and its impact on managing bulk power reliability, and, in some cases, even the operational and historic preferences of the operator. Moreover, at least for ISOs and RTOs, these implementation details are generally embodied in tariffs already approved by this Commission or in operating procedures or manuals referenced in those tariffs.

In Order 672, the Commission noted that "in general, a Reliability Standard should address the "what" and not the "how" of reliability and that the actual implementation of a Reliability Standard should be left to entities such as control area operators and system planners." Order 672 at p. 109. The Commission noted that there may be circumstances where there would "be a good reason to leave implementation practices out of a Reliability Standard" while noting other situations where specific implementation standards should be included. In Order 672, the Commission ultimately decided to leave this issue initially to the ERO. As NERC, the ERO applicant, has now submitted Version 0 standards for adoption in this docket, the IRC believes this issue, essentially deferred in Order 672, is now ripe for consideration. The IRC recognizes and respects the Commission's desire to address this issue on a standard by standard basis and understands the "what" vs. "how" distinction may not be a perfect fit for each standard. Through the attached matrix, the IRC has attempted to point out specific standards where the Commission should consider separating the "what" from the "how" of maintaining reliability.

A prime example of the need to separate the "what" vs. "how" in a given standard can be found in NERC's Transmission Line Loading Relief ("TLR") standard. RTOs and ISOs with organized markets use redispatch procedures rather than TLRs to correct for system operating limits and interconnection reliability operating limits. Quite simply, redispatch allows for a far more targeted and thus effective tool to resolve the imminent reliability threat than does a TLR which can, in and of itself, trigger additional TLRs on neighboring systems. As a result, the applicability of any reliability standard that relies on TLRs as the specific reliability tool to be used in an ISO/RTO region could actually be detrimental to system reliability. As a result, the TLR standard (Standard No. EOP-002-0.) is one standard where, in keeping with Order 672, there is "a good reason to leave implementation practices out of a Reliability Standard." Order 672 at p. 109.

The "what" vs. "how" distinction should be an important consideration in the decision-making process, particularly as to those standards which the Commission Staff, the IRC or the ERO itself recommend as only "conditionally acceptable" or "not approved" by the Commission. Through the attached matrix, the IRC points out areas where, on a standard by standard basis, the "what" vs. "how" distinction needs to be considered for those standards included in the 2006 Compliance and Enforcement Program. As noted above, the most obvious is the reliance on TLRs as the basis for Standard Number EOP-002-0. However, this issue will continue to arise and in keeping with the directives of Order 672, the IRC reserves the right to raise the issue when applicable to the Commission's consideration of a given standard.

2. Ensuring a Broadly Applicable Standard

A truly effective standard is one which establishes a clear and measurable performance goal across the entire international footprint of the ERO -- a performance goal which works whether a control area is in the Eastern or Western Interconnection or in Canada or the U.S. A truly effective standard is one which is meaningful and can be implemented across North America without a host of regional exceptions and differences. In fact, the most effective standard might be one where there are no regional variations or differences.[9]

In the main, all regions would adhere to common North American reliability standards, accommodating their differing regional practices and concerns (particularly with respect to operation of markets) through their implementation of practices designed to satisfy such standards.[10]

B. What Process Should the Commission Use to Evaluate a Reliability Standard?

In its initial comments in Docket no. RM05-30-000, the IRC set forth eight specific criteria that the Commission should apply in determining whether a particular standard is just and reasonable. These criteria represent a decision-making "screen" to ensure that the goals of the standard are clear, that the standard is the most appropriate means to meet that goal and that uniformity can be achieved. Specifically, the Council proposed that the Commission "screen" reliability standards by asking the following questions:

- **Will compliance with the standard sufficiently enhance or protect reliability so as to make adoption of the standard appropriate?**

- **Is the particular standard the best way to define and measure the intended reliability objective? Will adoption of the standard lead to any unintended consequences and, if so, have those consequences and their impact been appropriately evaluated in the standards development process?**

- **Is the standard clear and unambiguous such that a balancing authority or other entity, applying reasonable judgment and in keeping with good utility practice, can understand and implement the standard in a manner that will accomplish its intended result?**

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[9] Regions should still have the flexibility to implement more stringent standards so long as such implementation does not adversely affect another region---a point recognized in the legislation.

[10] To the extent that the ERO standards fails to address a unique situation requiring more stringent rules, regional entities would be able to implement such rules as supplements to the national standards not as deviations from them.

- **Is the standard sufficiently clear and unambiguous such that an entity subject to the standard can reasonably understand the standard and conform its conduct to the standard?**

- **Have conflicts between the standard and approved tariffs been appropriately resolved?**

- **Is the standard designed to be neutral in its impacts on similarly situated entities and to not unduly favor or disfavor areas with organized markets or areas without such markets?**

- **Will entities to which the standard is applicable be able to implement the standard in a relatively uniform manner and without violating their tariffs on file with the Commission or their obligations under state, federal and provincial law?**

- **Is the standard capable of being implemented and enforced in other affected countries as well as the United States?**

The IRC believes that in presenting a standard to the Commission, the ERO should address these questions and that the Commission should utilize this "decision-making tree" in determining the justness and reasonableness of a given standard submittal. Notably, in Order 672 the Commission directed the parties to raise these issues for consideration in this docket. As a result, the IRC urges the Commission to consider this decision-making tree as well as ensure that it concentrate on the "what" vs. the "how" of reliability standards in order to ensure appropriate standards.

VI. IRC's Recommendation on Future Action

The IRC supports the FERC Staff's review--especially with respect to the concerns that it has raised concerning particular Compliance and Enforcement standards. As noted in the IRC's attached matrix, many of these standards lack clarity in purpose and applicability and/or lack measurability. The IRC does believe that through the NERC Standards Process, these deficiencies can be corrected over time. The IRC also recommends that FERC extend the six month transition period for imposing monetary sanctions to at least one year or to a practical time period that is determined initially by NERC and the industry to provide time to fix those standards not initially accepted either in full or conditionally. The IRC recommends that FERC require NERC to prioritize the list of remaining standards and expedite a process to "fix" of these high risk standards first.

In summary, the IRC proposes the following process for FERC to consider:

1. **Utilize the 40 Compliance and Enforcement Standards submitted by NERC (and identified in the attached matrix) as the initial set of reliability**

standards requiring immediate action by the Commission upon certification of the ERO;

2. **Utilize the IRC's proposed Violation Risk Factor ("VRF") ranking of the proposed standards[11];**

3. **Utilize the IRC's recommended eight criteria for screening a proposed standard as set forth above;**

4. **Based on that review, categorize the propose standards into a proposed Category One ("*Acceptable*" or "*Conditionally Acceptable*") or Category Two ("*Not Acceptable in Present Form*" or "*Not Acceptable*");**

5. **For those Category One standards which are conditionally accepted, identify the shortcomings in clarity, specificity or performance measurability taking into account whether details of how the standard is implemented need to be included in the standard itself or is best left to system operators;**

6. **For Category Two standards, direct NERC to implement a two to five year program, starting with the high risk standards, to review and revise or eliminate the standards listed in Category Two ("*Not Acceptable in Present Form*" or "*Not Acceptable*");**

7. **Coordinate its actions on the proposed Version 0 standards with Canadian governmental authorities to avoid confusion as to enforceability brought about by either the timing of regulatory action or as a result of substantive regulatory disputes.**

VII. CONCLUSION

These comments represent the IRC's preliminary comments on the Staff Report submitted in this docket. The IRC is dedicated to working further with the industry and the FERC Staff to carry through on the goal of the Energy Policy Act of 2005---implementing effective international reliability standards across North America that serve to enhance the reliability of the North American grid. We also believe that the Commission should ensure the transition from a voluntary based reliability organization to a mandatory enforced standards organization be done in a manner that does not cause confusion to the industry or jeopardize reliability and the functioning of competitive wholesale electricity markets in place today.

[11] The IRC has incorporated its Violation Risk Factor ranking into the Attachment A matrix. The Violation Risk Factor ranking was undertaken through a survey process with survey results submitted to NERC on June 4, 2006.

/s/ Craig Glazer
Craig Glazer
Vice President – Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W., Suite 600
Washington, D.C. 20005
(202-423-4743)

/s/ Matthew F. Goldberg
Matthew F. Goldberg
Senior Regulatory Counsel
ISO New England Inc.
One Sullivan Road
Holyoke, MA 01040

/s/ Kim Warren
Kim Warren
Manager, Regulatory Affairs
Independent Electricity System Operator
of Ontario
655 Bay Street, Suite 410
Toronto, Ontario, M5G-2K4 Canada

/s/ Stacey Duckett
Stacey Duckett
General Counsel & Corporate Secretary
Southwest Power Pool
415 North McKinley
#140, Plaza West
Little Rock, AR 72205-3020

/s/ Carolyn Shellman
Carolyn Shellman
Vice President and General Counsel
Electric Reliability Council of Texas
7620 Metro Center Dr.
Austin, TX 78744

/s/ Stephen G. Kozey
Stephen G. Kozey
Vice President and General Counsel
Midwest Independent Transmission System Operator, Inc.
701 City Center Drive
Carmel, Indiana 46032

/s/ Charles Robinson
Charles Robinson
Vice President and General Counsel
California Independent System Operator Corporation
151 Blue Ravine Road
Folsom, CA 95630

/s/ Robert E. Fernandez
Robert E. Fernandez
Vice President and General Counsel
Elaine Robinson
Director of Regulatory Affairs
New York Independent System Operator, Inc.
290 Washington Avenue Extension
Albany, N.Y. 12203

/s/ Larry Kram
Larry Kram
Senior Legal Counsel
Diana Pommen
Director Business Operations
Alberta Electric System Operator
Calgary Place
2500 330 – 5th Avenue SW
Calgary, AB T2P 0L4

MATRIX
ATTACHMENT A

Version 0 and Version 1 Reliability Standards
Matrix of Requirements and Responsible Entities

BA	Balancing Authority
DP	Distribution Provider
GO	Generation Owner
GOP	Generation Operator
IA	Interchange Authority
LSE	Load-Serving Entity
PA	Planning Authority
PSE	Purchasing-Selling Entities
RC	Reliability Coordinator
RP	Resource Planner
RRO	Regional Reliability Organization
RSG	Reserve Sharing Group
TO	Transmission Owner
TOP	Transmission Operator
TP	Transmission Planner
TSP	Transmission Service Provider
NERC_Net	NERC-Net User Organizations

EXPLANATORY NOTES:
The "IRC Category" reflects the IRC's assessment denoting acceptability of the standard for purposes of enforcement. (See Comments pp 3-7)

“Acceptable” ("A") means the IRC supports FERC adopting the Requirement as written.
“Conditionally Acceptable” ("C") means the requirement needs further refinement but can be adopted in the interim until NERC has the opportunity to make those changes.

Accept and Conditionally Accepted standards would become mandatory standards and enforceable under the proposed sanctioning guidelines of the ERO.

Not Acceptable In Present Form ("R") means that the requirement needs to be revised and the IRC recommends that the requirements still be applied on a voluntary basis.
Not Acceptable ("D") means the requirement should be eliminated

Although the spreadsheet is intended to list all requirements in the NERC Compliance and Enforcement Program, the "IRC Added Comments" reflects the IRC's views only with regard to the technical -- as distinct from legal - sufficiency of the Standards.

"IRC's VRF Rating" reflects the IRC's assessment of risks associated with violation of the Standard. These views have been shared with NERC.

IRC Comments on FERC Staff Assessment of NERC Standards Report
(IRC's first set of comments using NERC Compliance Enforcement Program as the starting set)

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
BAL-001-0	R1.	Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the Balancing Authority's Area Control Error (ACE) divided by 10B (B is the clock-minute average of the Balancing Authority Area's Frequency Bias) times the corresponding clock-minute averages of the Interconnection's Frequency Error is less than a specific limit. This limit is a constant derived from a targeted frequency bound (separately calculated for each Interconnection) that is reviewed and set as necessary by the NERC Operating Committee. ***See Standard for Formula.***		Low	**A**	
	R2.	Each Balancing Authority shall operate such that its average ACE for at least 90% of clock-ten-minute periods (6 non-overlapping periods per hour) during a calendar month is within a specific limit, referred to as L10. ***See Standard for Formula.***		Low	**A**	

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
BAL-002-0	R4.	A Balancing Authority or Reserve Sharing Group shall meet the Disturbance Recovery Criterion within the Disturbance Recovery Period for 100% of Reportable Disturbances. The Disturbance Recovery Criterion is:	For BAL-002, the FERC issue is that the standard does not apply loading reserves for loss of load.	High	**A**	The IRC agrees that there lacks specificity in the amount and breakdown of the contingency reserve requirements, and that there could be different approaches adopted among RROs when such details are left to the RROs to determine. Nonetheless, the requirements to recover the loss of generation and returning Area Control Error to a specified value within a specific time period as stipulated in the standard provide the needed reliability performance yardstick. The RRO's specification on treatment of various recovery components would specify the process in accordance with individual regional practices to achieve this performance. On this basis, we recommend the standard be conditionally

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						accepted anticipating that the RRO standards will soon provide the supplementary process requirements.
	R4.1.	A Balancing Authority shall return its ACE to zero if its ACE just prior to the Reportable Disturbance was positive or equal to zero. For negative initial ACE values just prior to the Disturbance, the Balancing Authority shall return ACE to its pre-Disturbance value.		High	**A**	
	R4.2.	The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance. This period may be adjusted to better suit the needs of an Interconnection based on analysis approved by the NERC Operating Committee.		Medium	**A**	
EOP-001-0	R4.	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:	(1) No requirement for RC (2) No common definition of Normal, Alert, or Emergency	High	**C**	(1) The IRC agrees with FERC Staff that the Standard should add a reference to the RC. (2) The Reliability Coordinator Working Group is conducting a

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						pilot program in Summer 2006 to define terms to be used in normal, alert and emergency conditions. The IRC would recommend that NERC adopt these terms as part of the NERC Glossary after completion of the pilot program
	R4.1.	Communications protocols to be used during emergencies.		High	**C**	See Comment on EOP-001
	R4.2.	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.		High	**C**	See Comment on EOP-001
	R4.3.	The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.		High	**C**	See Comment on EOP-001
	R4.4.	Staffing levels for the emergency.		High	**C**	See Comment on EOP-001
EOP-001-0	R5.	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-		High	**C**	See Comment on EOP-001

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		EOP-001-0 when developing an emergency plan.				
EOP-002-0	R2.	Each Balancing Authority shall implement its capacity and energy emergency plan, when required and as appropriate, to reduce risks to the interconnected system.		High	**C**	Before the Commission adopts the Standard, the Commission should direct NERC to improve the Standard so that the Standard assesses whether there is sufficient transmission capability so that the plan called for in the Standard is robust enough to ensure adequate resources.
EOP-002-0	R3.	A Balancing Authority that is experiencing an operating capacity or energy emergency shall communicate its current and future system conditions to its Reliability Coordinator and neighboring Balancing Authorities.		High	**C**	*See* Comment on EOP-002, R2.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
EOP-002-0	h	When a Transmission Service Provider expects to elevate the transmission service priority of an Interchange Transaction from Priority 6 (Network Integration Transmission Service from Non-designated Resources) to Priority 7 (Network Integration Transmission Service from designated Network Resources) as permitted in its transmission tariff (See Attachment 1-IRO-006-0 "Transmission Loading Relief Procedure" for explanation of Transmission Service Priorities):	TLR is not an emergency procedure	High	**R**	The IRC agrees with FERC Staff's concerns that TLRs are not appropriate for addressing actual transmission emergenices, because TLRs are not a method that can be used quickly or predictably enough in situations where an operating security limit is close to, or actually, being violated. The IRC would note, however, that there is an additional set of concerns associated with Reliability Standards that rely on TLRs. Most prominently, ISO/RTOs use re-dispatch to correct System Operating Limits (SOL) and Interconnection Reliability Operating Limits (IROL) instead of TLR procedures, because re-dispatch is superior to TLRs for purposes of ensuring system reliability. As a result, the

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						applicability of any Reliability Standard that relies on TLRs to ISO/RTO regions is not clear, and if applied, could actually be detrimental to reliability. Moreover, ISO/RTOs that use a re-dispatch to protect system reliability do not get credit for such actions when another entity declares a TLR event. ISO can link transactions so that a "net" impact of their transactions is zero on the congested facility, however, the TLR procedure does not permit "netting" of transactions, and this can result in relief assignments being made that cannot physically be performed. Furthermore, the use of TLRs may impact the ISO/RTO markets by requiring transmission priority reductions and

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						not "impact" reductions. Thus, numerous transactions will be curtailed, amounting to hundreds or thousands of MW of transactions being reduced. In short, redispatch allows for far more targeted and thus effective tool to resolve the imminent reliability threat than does a TLR, which can, in and of itself, trigger additional TLRs on neighboring systems. As a result, the applicability of any reliability standard that relies on TLRs as the specific reliability tool to be used in an ISO/RTO region could actually be detrimental to system reliability. As a result, the TLR standard is a good example, in keeping with Order No. 672, of where there is a "good reason to

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						leave implementation practices out of a Reliability Standard." *See* Order at P109.
	R10.1	The deficient Load-Serving Entity shall request its Reliability Coordinator to initiate an Energy Emergency Alert in		High	**R**	See Comment on EOP-002, R10.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		accordance with Attachment 1-EOP-002-0.				
	R10.2	The Reliability Coordinator shall submit the report to NERC for posting on the NERC Website, noting the expected total MW that may have its transmission service priority changed.		High	**R**	See Comment on EOP-002, R10.
	R10.3	The Reliability Coordinator shall use EEA 1 to forecast the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.		High	**R**	See Comment on EOP-002, R10.
	R10.4	The Reliability Coordinator shall use EEA 2 to announce the change of the priority of transmission service of an Interchange Transaction on the system from Priority 6 to Priority 7.		High	**R**	See Comment on EOP-002, R10.
EOP-005-0	R1.	Each Transmission Operator shall have a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system, including necessary operating instructions and procedures to cover emergency conditions, and the loss of vital telecommunications channels. Each Transmission Operator shall include the applicable elements listed in Attachment 1-EOP-005-0 in developing a restoration plan.	Lacks Measureability	High	**R**	The IRC agrees with FERC Staff's assessment. The addition of missing compliance elements would allow for users, owners and operators to better understand how to measure their compliance with the Standard.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
EOP-005-0	R2.	Each Transmission Operator shall review and update its restoration plan at least annually and whenever it makes changes in the power system network, and shall correct deficiencies found during the simulated restoration exercises.	Lacks Measureability	High	**R**	See Comment on EOP-005, R1
EOP-008-0	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements:	Requires a Plan but no capabilities are required	High	**C**	The IRC agrees with FERC Staff's assessment. Meeting the shortcomings identified in FERC Staff's assessment will require identification of minimum required tools and facilities and definition of the appropriate entities' responsibilities.
	R1.1.	The contingency plan shall not rely on data or voice communication from the primary control facility to be viable.		High	**C**	See Comment on EOP-008, R1.
	R1.2.	The plan shall include procedures and responsibilities for providing basic tie line control and procedures and for maintaining the status of all inter-area schedules, such that there is an hourly accounting of all schedules.		High	**C**	See Comment on EOP-008, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.3.	The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The plan shall list the critical facilities.		High	C	See Comment on EOP-008, R1.
	R1.4.	The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other areas.		High	C	See Comment on EOP-008, R1.
	R1.5.	The plan shall include procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of the plan.		High	C	See Comment on EOP-008, R1.
	R1.6.	The plan shall include procedures and responsibilities for providing annual training to ensure that operating personnel are able to implement the contingency plans.		High	C	See Comment on EOP-008, R1.
	R1.7.	The plan shall be reviewed and updated annually.		High	C	See Comment on EOP-008, R1.
	R1.8.	Interim provisions must be included if it is expected to take more than one hour to implement the contingency plan for loss of primary control facility.		High	C	See Comment on EOP-008, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
EOP-009-0	R1.	The Generator Operator of each blackstart generating unit shall test the startup and operation of each system blackstart generating unit identified in the BCP as required in the Regional BCP (Reliability Standard EOP-007-0_R1). Testing records shall include the dates of the tests, the duration of the tests, and an indication of whether the tests met Regional BCP requirements.	The Standard does not require testing	High	**C**	The IRC believes that the 3 year testing requirement is in standard EOP-007, Requirement 1.3
EOP-009-0	R2.	The Generator Owner or Generator Operator shall provide documentation of the test results of the startup and operation of each blackstart generating unit to the Regional Reliability Organizations and upon request to NERC.		Low	**C**	See Comment on EOP-009, R1
FAC-002-0	R1.	The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority. The assessment shall include:	Order No. 2003 requirements were more stringent than TPL-001.	Medium	**R**	The IRC agrees with FERC Staff's assessment. This standard also needs to be revised to include the requirements of TPL-002. The standard also needs to be reviewed to ensure that the tasks associated with the PA are now correctly assigned to the PC, or alternatively whether should they be

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						assigned to the TP
	R1.1.	Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.		Medium	**R**	*See* Comment on FAC-002, R1.
	R1.2.	Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.		High	**R**	See Comment on FAC-002, R1.
	R1.4.	Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0.		Medium	**R**	See Comment on FAC-002, R1.
	R1.5.	Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.		Medium	**R**	See Comment on FAC-002, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
FAC-002-0	R2.	The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) Regional Reliability Organization(s) and NERC on request (within 30 calendar days).		Low	**A**	

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
FAC-003-1	R1.	The Transmission owner shall prepare, and keep current, a formal transmission vegetation management (TVM). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work Specifications. 1. ANSI A300, Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, while not a requirement of this standard, is considered to be an industry best practice.	Unclear enforceability	High	**A**	The standard has gone through a recent revision and balloting using the NERC standards process. The revised standard now stipulates the use of IEEE clearance standards as a minimum requirement. The industry supported this change as the IEEE clearance standards would provide a technically sound basis as a performance requirement.
	R1.1.	The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation and any other environmental or operational factors that could impact the relationship of vegetation to the Transmission Owner's transmission lines.		High	**A**	See Comment on FAC-003, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.2.	The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, and the effects of wind velocities on conductor sway. Specifically, the Transmission Owner shall establish clearances to be achieved at the time of vegetation management work identified herein as Clearance 1, and shall also establish and maintain a set of clearances identified herein as Clearance 2 to prevent flashover between vegetation and overhead ungrounded supply conductors.		High	**A**	See Comment on FAC-003, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
FAC-003-1	R2.	The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to changing conditions, taking into consideration anticipated growth of vegetation and all other environmental factors that may have an impact on the reliability of the transmission systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or permits from landowners or regulatory authorities. Each Transmission Owner shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work was completed according to work specifications.	Unclear enforceability	High	**A**	See Comment on FAC-003, R1
INT-001-1	R2.	The Sink Balancing Authority shall ensure that Arranged Interchange is submitted to the Interchange Authority:	Lacks Measureability	High	**C**	The IRC agrees with FERC Staff's assessment. The IRC's specific comments on this Standard are pending

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						NERC's resubmission of the Standard in 2006 when the revised Standard includes Compliance measures and Non-Compliance levels.
	R2.1.	If a Purchasing-Selling Entity is not involved in the Interchange, such as delivery from a jointly owned generator.		High	**C**	See Comment on INT-001, R2
	R2.2.	For each bilateral Inadvertent Interchange payback.		High	**C**	See Comment on INT-001, R2
INT-001-0	R4.	The Balancing Authority or Purchasing-Selling Entity responsible for submitting the Tag shall include the reliability data listed in Attachment 2-INT-001-0 in the Tag.	Lacks Measureability	High	**A**	The IRC believes that the data listed in Attachment 2 to INT-001 contains all of the requirements necessary to enforce the Standard.
IRO-001-0	R3.	The Reliability Coordinator shall have clear decision-making authority to act and to direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities within its Reliability Coordinator Area to preserve the integrity and reliability of the Bulk	Unclear responsibility for RC	High	**A**	FERC Staff's concern is related to the fact that while the Standard gives the RC authority to make decisions with regard to system operation, the standard does not give the RC authority to implement all actions necessary to carry out

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		Electric System. These actions shall be taken without delay, but no longer than 30 minutes.				those decisions. The IRC does not share FERC Staff's concern, because NERC's current process is to have each RC's Reliability Plan approved by the NERC Operating Committee -- a process intended to ensure that the RC's peers validate that there is an appropriate entity authorized to carry out the RC's plans.
IRO-004-0	R1.	Each Reliability Coordinator shall conduct next-day reliability analyses for its Reliability Coordinator Area to ensure that the Bulk Electric System can be operated reliably in anticipated normal and Contingency event conditions. The Reliability Coordinator shall conduct Contingency analysis studies to identify potential interface and other SOL and IROL violations, including overloaded transmission lines and transformers, voltage and stability limits, etc.	Lacks requirement for Next Day analysis	High	**A**	The IRC believes that the Standard, as drafted, contains the appropriate requirements for ensuring reliable operations, because there are different tools available to meet the needs identified with a next day analysis. These various tools are adequate for conducting next day analysis, and further prescription as to what tools are "acceptable" is unnecessary.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
IRO-004-0	R2.	Each Reliability Coordinator shall pay particular attention to parallel flows to ensure one Reliability Coordinator Area does not place an unacceptable or undue Burden on an adjacent Reliability Coordinator Area.		High	**A**	
IRO-004-0	R3.	Each Reliability Coordinator shall, in conjunction with its Transmission Operators and Balancing Authorities, develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.		High	**A**	
IRO-006-0	R1.	A Reliability Coordinator shall take appropriate actions in accordance with established policies, procedures, authority, and expectations to relieve transmission loading.	TLR is not an emergency procedure	High	**A**	Although TLR should not be considered an emergency procedure, the Requirement does **not** require use of TLRs, and permits existing policies and procedures to be implemented to correct transmission loading. In addition, Requirement 1 appropriately identifies the entity ("Reliability

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						Coordinator") responsible for actions related to transmission loading. As a result, because the requirement clearly does not specify the use of TLR, and instead explicility calls for the use of appropriate tools available to the RC, the IRC believes that the Standard allows for sufficient flexibility to entities to ensure reliability.
IRO-006-0	R3.	The Reliability Coordinator may use local transmission loading relief or congestion management procedures, provided the Transmission Operator experiencing the potential or actual SOL or IROL violation is a party to those procedures.		High	**R**	*See* Comments with regard to EOP-002 for concerns relating to "TLR" Reliability Standards.
IRO-006-0	R4.	A Reliability Coordinator may implement a local transmission loading relief or congestion management procedure simultaneously with an Interconnection-wide procedure. However, the Reliability Coordinator shall follow the curtailments as directed		High	**R**	See Comments with regard to EOP-002 for concerns relating to "TLR" Reliability Standards.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		by the Interconnection-wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall have such use approved by the NERC Operating Committee.				
IRO-006-0	R5.	When implemented, all Reliability Coordinators shall comply with the provisions of the Interconnection-wide procedure including, for example, action by Reliability Coordinators in other Interconnections to curtail an Interchange Transaction that crosses an Interconnection boundary.		High	**A**	
MOD-014-0	R1.	The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of solved (converged) Interconnection-apecific steady-state system models. The Interconnection-apecific models shall include near- and longer-term planning horizons that are representative of system conditions for projected seasonal peak, minimum, and other appropriate system demand levels.	Unclear Enforceability Needs verification requirement	Medium	**C**	The IRC agrees with FERC Staff's assessment that the Standard lacks measurability. The IRC comments on this specific Reliability Standard are pending identification of specific models for assessing compliance. As a result, the Standard can only be accepted when the specific models are available to assess compliance.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
MOD-014-0	R2.	The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop steady-state system models annually for selected study years, as determined by the Regional Reliability Organizations within its Interconnection. The Regional Reliability Organization shall provide the most recent solved (converged) Interconnection-specific steady-state models to NERC in accordance with each Interconnection's schedule for submission.	Unclear Enforceability Needs verification requirement	Medium	C	See Comment on MOD-014, R1
MOD-015-0	R1.	The Regional Reliability Organization(s) within each Interconnection shall coordinate and jointly develop and maintain a library of initialized (with no Faults or system Disturbances) Interconnection-specific dynamics system models linked to the steady-state system models, as appropriate, of Reliability Standard MOD-014-0_R 1.	Unclear Enforceability Needs verification requirement	High	C	See Comment on MOD-014, R1
	R1.1.	The Regional Reliability Organization(s) shall develop Interconnection-specific dynamics system models for at least two timeframes (present or near-term model and a future or longer-term model), and additional seasonal and demand level models, as necessary, to analyze the		High	C	See Comment on MOD-014, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		dynamic response of that Interconnection.				
MOD-015-0	R2.	The Regional Reliability Organization(s) within each Interconnection shall develop Interconnection dynamics system models for their Interconnection annually for selected study years as determined by the Regional Reliability Organization(s) within each Interconnection and shall provide the most recent initialized (approximately 25 seconds, no-fault) models to NERC in accordance with each Interconnection's schedule for submission.	Unclear Enforceability Needs verification requirement	High	**C**	See Comment on MOD-014, R1
PER-001-0	R1.	Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.		High	**A**	

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PER-002-0	R1.	Each Transmission Operator and Balancing Authority shall be staffed with adequately trained operating personnel.	This Standard does not specify minimum training programs nor does it tailor training programs according to the needs of the individual entities.	High	C	There is no definition for "adequately trained operating personnel." An appropriate way to address this shortcoming would be for the Standard to adopt performance-based metrics to ensure that whatever training occurs results in competent operating personnel.
PER-002-0	R2.	Each Transmission Operator and Balancing Authority shall have a training program for all operating personnel that are in:		High	C	In addition to the issues identified by FERC Staff, the Standard should define those positions "directly responsible for complying"
	R2.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		High	C	See Comment on PER-002, R2
	R2.2.	Positions directly responsible for complying with NERC standards.		High	C	See Comment on PER-002, R2

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PER-002-0	R3.	For personnel identified in Requirement R2, the Transmission Operator and Balancing Authority shall provide a training program meeting the following criteria:		High	C	The issue is that there should be some minimum acceptable level of criteria -- preferably performance-based -- for a Training Program
	R3.1.	A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies needed to apply those standards, procedures, and requirements to normal, emergency, and restoration conditions for the Transmission Operator and Balancing Authority operating positions.		High	C	The Standards have ill-defined terms and measures for compliance, and relies on individual entities to define objectives versus relying on the ERO to define the objectives.
	R3.2.	The training program must include a plan for the initial and continuing training of Transmission Operator and Balancing Authority operating personnel. That plan shall address knowledge and competencies required for reliable system operations.		High	C	The Standard has ill-defined terms and specifically fails to provide a metric for defining "competency".

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R3.3.	The training program must include training time for all Transmission Operator and Balancing Authority operating personnel to ensure their operating proficiency.		High	C	The Standard has ill-defined terms and measures for compliance and specifically fails to define "training time or proficiency". Again, a performance-based approach for defining the Standard should be utilized.
	R3.4.	Training staff must be identified, and the staff must be competent in both knowledge of system operations and instructional capabilities.		High	C	See Comment on PER-002, R.3.2
PER-002-0	R4.	For personnel identified in Requirement R2, each Transmission Operator and Balancing Authority shall provide its operating personnel at least five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.		Medium	C	The Standard should specify what is meant by "other training."
PER-003-0	R1.	Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:	Lack Measureability	High	A	The IRC agrees with FERC Staff that the Standards must define Minimum Certification Requirement. However, acceptance of the Standard would appear to

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						be appropriate, because the certification credentials define which entities are responsible for carrying out defined tasks. In addition, each certification exam is tailored to the requirements of the respective position. As such, the exam's questions provide the needed level of measurability.
	R1.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		High	**A**	See Comment on PER-003, R1
	R1.2.	Positions directly responsible for complying with NERC standards.		High	**A**	See Comment on PER-003, R1
PER-004-0	R1.	Each Reliability Coordinator shall be staffed with adequately trained and NERC-certified Reliability Coordinator operators, 24 hours per day, seven days per week.	Lack Measureability	High	**C**	The IRC agrees with FERC Staff's assessment. The IRC's specific comments are pending NERC's inclusion of methods for measuring

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						compliance
PER-004-0	R2.	All Reliability Coordinator operating personnel shall each complete a minimum of five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.	Lack Measureability	Medium	**C**	See Comment on PER-004, R1
PRC-003-1	R1	Each Regional Reliability Organization shall establish, document and maintain its procedures for, review, analysis, reporting and mitigation of transmission and generation Protection System Misoperations. These procedures shall include the following elements:		Low	**R**	The standard needs to better define what the procedures need to contain. Unclear about how this standard can be effectively measured.
	R1.1.	The Protection Systems to be reviewed and analyzed for Misoperations (due to their potential impact on BES reliability).		Low	**R**	See Comment on PRC-003, R1
	R1.2.	Data reporting requirements (periodicity and format) for Misoperations.		Low	**R**	See Comment on PRC-003, R1
	R1.3.	Process for review, analysis follow up, and documentation of Corrective Action Plans for Misoperations.		Low	**R**	See Comment on PRC-003, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.4.	Identification of the Regional Reliability Organization group responsible for the procedures and the process for approval of the procedures.		Low	**R**	See Comment on PRC-003, R1
PRC-003-1	R2.	Each Regional Reliability Organization shall maintain and periodically update documentation of its procedures for review, analysis, reporting, and mitigation of transmission and generation Protection System Misoperations.		Low	**R**	See Comment on PRC-003, R1
PRC-004-1	R1.	The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Reliability Organization's procedures developed for Reliability Standard PRC-003 Requirement 1.		Medium	**R**	The standard needs to better define what the procedures need to contain. Unclear about how this standard can be effectively measured.
PRC-004-1	R2.	The Generator Owner shall analyze its generator Protection System Misoperations, and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Reliability Organization's procedures		Low	**R**	See Comment on PRC-004, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		developed for PRC-003 R1.				
PRC-005-1	R1.	Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall have a Protection System maintenance and testing program for Protection Systems that affect the reliability of the BES. The program shall include:	Missing Maintenance Intervals	High	C	The IRC agrees with FERC Staff that the Standard must define missing maintenance intervals
	R1.1.	Maintenance and testing intervals and their basis.		High	C	See Comment on PRC-005, R1
	R1.2.	Summary of maintenance and testing procedures.		High	C	See Comment on PRC-005, R1
PRC-005-1	R2.	Each Transmission Owner and any Distribution Provider that owns a transmission Protection System and each Generator Owner that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the implementation of that program to its		Low	C	See Comment on PRC-005, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		Regional Reliability Organization on request (within 30 calendar days). The documentation of the program implementation shall include:				
PRC-007-0	R1.	The Transmission Owner and Distribution Provider, with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.		High	**C**	The Standard fails to define an acceptable Under Frequency Load Shedding (UFLS) Program
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLSprogram database.		Low	**C**	See Comment on PRC-007, R1
PRC-007-0	R3.	The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization		Low	**D**	This requirement is administrative in nature and should be dropped because the RRO can conduct an audit at anytime time, without

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		on request (30 calendar days).				notice. This requirement to supply data in 30 days is contrary to the audit rules.
PRC-008-0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall include UFLS equipment identification, the schedule for UFLS equipment testing, and the schedule for UFLS equipment maintenance.	Missing Maintenance Intervals	High	**C**	See concern associated with PRC-007, R.1 & R.2
PRC-008-0	R2.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).		Medium	**C**	See concern associated with PRC-007, R.1 & R.2

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-009-0	R1.	The Transmission Owner, Transmission Operator, Load-Serving Entity and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and program effectiveness following system events resulting in system frequency excursions below the initializing set points of the UFLS program. The analysis shall include, but not be limited to:		Low	C	The Standard inappropriately relies on an undefined RRO program. NERC must review and approve the RRO's UFLS programs before this standard can go into effect.
	R1.1.	A description of the event including initiating conditions.		Low	C	See Comment on PRC-009, R1
	R1.2.	A review of the UFLS set points and tripping times.		Low	C	See Comment on PRC-009, R1
	R1.3.	A simulation of the event.		Low	C	See Comment on PRC-009, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.4.	A summary of the findings.		Low	C	See Comment on PRC-009, R1
PRC-009-0	R2.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.		Low	C	See Comment on PRC-009, R1
PRC-011-0	R1.	The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:	Missing Maintenance Intervals	High	C	The IRC agrees with FERC Staff's assessment. The Standard fails to define an acceptable Under Voltage Load Shedding (UVLS) Maintenance Program
	R1.1.	The UVLS system identification which shall include but is not limited to:		High	C	See Comment on PRC-011, R1
	R1.1.1.	Relays.		High	C	See Comment on PRC-011, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.1.2.	Instrument transformers.		High	C	See Comment on PRC-011, R1
	R1.1.3.	Communications systems, where appropriate.		High	C	See Comment on PRC-011, R1
	R1.1.4.	Batteries.		High	C	See Comment on PRC-011, R1
	R1.2.	Documentation of maintenance and testing intervals and their basis.		High	C	See Comment on PRC-011, R1
	R1.3.	Summary of testing procedure.		High	C	See Comment on PRC-011, R1
	R1.4.	Schedule for system testing.		High	C	See Comment on PRC-011, R1
	R1.5.	Schedule for system maintenance.		High	C	See Comment on PRC-011, R1
	R1.6.	Date last tested/maintained.		High	C	See Comment on PRC-011, R1
PRC-011-0	R2.	The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliability Organization and NERC on request (within 30 calendar days).		Low	C	See Comment on PRC-011, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-012-0	R1.	Each Regional Reliability Organization with a Transmission Owner, Generator Owner, or Distribution Providers that uses or is planning to use an SPS shall have a documented Regional Reliability Organization SPS review procedure to ensure that SPSs comply with Regional criteria and NERC Reliability Standards. The Regional SPS review procedure shall include:	A Fill-in-the-blanks standard	High	C	As a "fill-in-the-blanks" standard, NERC must review or approve the RRO procedure, before this standard can go into effect.
	R1.1.	Description of the process for submitting a proposed SPS for Regional Reliability Organization review.		High	C	See Comment on PRC-012, R1
	R1.2.	Requirements to provide data that describes design, operation, and modeling of an SPS.		High	C	See Comment on PRC-012, R1
	R1.3.	Requirements to demonstrate that the SPS shall be designed so that a single SPS component failure, when the SPS was intended to operate, does not prevent the interconnected transmission system from meeting the performance requirements defined in Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.		High	C	See Comment on PRC-012, R1
	R1.4.	Requirements to demonstrate that the inadvertent operation of an SPS shall meet the same performance requirement		High	C	See Comment on PRC-012, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		(TPL-001-0, TPL-002-0, and TPL-003-0) as that required of the contingency for which it was designed, and not exceed TPL-003-0.				
	R1.5.	Requirements to demonstrate the proposed SPS will coordinate with other protection and control systems and applicable Regional Reliability Organization Emergency procedures.		High	C	See Comment on PRC-012, R1
	R1.6.	Regional Reliability Organization definition of misoperation.		High	C	See Comment on PRC-012, R1
	R1.7.	Requirements for analysis and documentation of corrective action plans for all SPS misoperations.		High	C	See Comment on PRC-012, R1
	R1.8.	Identification of the Regional Reliability Organization group responsible for the Regional Reliability Organization's review procedure and the process for Regional Reliability Organization approval of the procedure.		High	C	See Comment on PRC-012, R1
	R1.9.	Determination, as appropriate, of maintenance and testing requirements.		High	C	See Comment on PRC-012, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-012-0	R2.	The Regional Reliability Organization shall provide affected Regional Reliability Organizations and NERC with documentation of its SPS review procedure on request (within 30 calendar days).	A Fill-in-the-blanks standard	Low	**D**	The exchange of review procedures is an administrative requirement and not a reliability standard. The standard does not require the RRO to exchange SPS data or analysis, just to exchange a review process.
PRC-013-0	R1.	The Regional Reliability Organization that has a Transmission Owner, Generator Owner, or Distribution Provider with an SPS installed shall maintain an SPS database. The database shall include the following types of information:	A Fill-in-the-blanks standard	Low	**C**	The Standard only specifies the categories of data that would be required. It fails, however, to identify the detail of data that would be useful for ensuring that a meaningful SPS database is maintained.
	R1.1.	Design Objectives — Contingencies and system conditions for which the SPS was designed,		Low	**C**	See Comment on PRC-013, R1
	R1.2.	Operation — The actions taken by the SPS in response to Disturbance conditions, and		Low	**C**	See Comment on PRC-013, R1
	R1.3.	Modeling — Information on detection logic or relay settings that control operation of the SPS.		Low	**C**	See Comment on PRC-013, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-013-0	R2.	The Regional Reliability Organization shall provide to affected Regional Reliability Organization(s) and NERC documentation of its database or the information therein on request (within 30 calendar days).		Low	**C**	See Comment on PRC-013, R1
PRC-015-0	R1.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall maintain a list of and provide data for existing and proposed SPSs as specified in Reliability Standard PRC-013-0_R 1.		Medium	**R**	The IRC disagrees with FERC Staff's assessment that no substantive issues arise with this Standard. This Standard lacks needed clarity in defining the relevant time period for assessing a Transmission Owner, Generator Owner or Distribution Provider's compliance with the Standard.
PRC-015-0	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have evidence it reviewed new or functionally modified SPSs in accordance with the Regional Reliability Organization's procedures as defined in Reliability Standard PRC-012-0_R1 prior to being placed in service.		Medium	**R**	See Comment on PRC-015, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-015-0	R3.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of SPS data and the results of Studies that show compliance of new or functionally modified SPSs with NERC Reliability Standards and Regional Reliability Organization criteria to affected Regional Reliability Organizations and NERC on request (within 30 calendar days).		Low	**R**	See Comment on PRC-015, R1
PRC-016-0	R1.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall analyze its SPS operations and maintain a record of all misoperations in accordance with the Regional SPS review procedure specified in Reliability Standard PRC-012-0_R 1.		Medium	**C**	The IRC disagrees with FERC Staff's assessment that there is no substantive issue with this Standard. The Standard fails to describe what type of "analysis" would be sufficient when reviewing SPS operations
PRC-016-0	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall take corrective actions to avoid future misoperations.		High	**C**	The IRC disagrees with FERC Staff's assessment that there is no substantive issue with this Standard. The Standard fails to define or classify the type of "corrective actions" that must be taken "to avoid future

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						misoperations."
PRC-016-0	R3.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the misoperation analyses and the corrective action plans to its Regional Reliability Organization and NERC on request (within 90 calendar days).		Low	**C**	The IRC disagrees with FERC Staff's assessment that there is no substantive issue with this Standard. Reports on SPS misoperation should be routinely provided to the RRO and NERC (as opposed to available on request) so that lessons are "proactively" learned about such equipment operation.
PRC-017-0	R1.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall have a system maintenance and testing program(s) in place. The program(s) shall include:	Missing Maintenance Intervals	High	**C**	NERC needs to establish minimum expectations for the plan.
	R1.1.	SPS identification shall include but is not limited to:		High	**C**	*See* Comment on PRC-017, R1
	R1.1.1.	Relays.		High	**C**	See Comment on PRC-017, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.1.2.	Instrument transformers.		High	C	See Comment on PRC-017, R1
	R1.1.3.	Communications systems, where appropriate.		High	C	See Comment on PRC-017, R1
	R1.1.4.	Batteries.		High	C	See Comment on PRC-017, R1
	R1.2.	Documentation of maintenance and testing intervals and their basis.		High	C	See Comment on PRC-017, R1
	R1.3.	Summary of testing procedure.		High	C	See Comment on PRC-017, R1
	R1.4.	Schedule for system testing.		High	C	See Comment on PRC-017, R1
	R1.5.	Schedule for system maintenance.		High	C	See Comment on PRC-017, R1
	R1.6.	Date last tested/maintained.		High	C	See Comment on PRC-017, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
PRC-017-0	R2.	The Transmission Owner, Generator Owner, and Distribution Provider that owns an SPS shall provide documentation of the program and its implementation to the appropriate Regional Reliability Organizations and NERC on request (within 30 calendar days).	Missing Maintenance Intervals	Low	C	No technical specification / obligation for what is a good maintenance program.
TOP-003-0	R1.	Generator Operators and Transmission Operators shall provide planned outage information.	No justification of threshold levels	High	C	NERC needs to justify any MW limit or voltage limit for which this Standard applies. The establishment of a limit (if required) should be based on impact to the reliability of the Bulk Electric System
	R1.1.	Each Generator Operator shall provide outage information daily to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). The Transmission Operator shall establish the outage reporting requirements.		High	C	NERC needs to justify any MW limit or voltage limit for which this Standard applies. The establishment of a limit (if required) should be based on impact to the reliability of the Bulk Electric System

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.2.	Each Transmission Operator shall provide outage information daily to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. The Reliability Coordinator shall establish the outage reporting requirements.		High	C	NERC needs to justify any MW limit or voltage limit for which this Standard applies. The establishment of a limit (if required) should be based on impact to the reliability of the Bulk Electric System
	R1.3.	Such information shall be available by 1200 Central Standard Time for the Eastern Interconnection and 1200 Pacific Standard Time for the Western Interconnection.		High	C	NERC needs to justify any MW limit or voltage limit for which this Standard applies. The establishment of a limit (if required) should be based on impact to the reliability of the Bulk Electric System
TOP-005-0	R1.	Each Transmission Operator and Balancing Authority shall provide its Reliability Coordinator with the operating data that the Reliability Coordinator requires to perform	Missing inclusion of SPS data	High	C	The IRC agrees with FERC Staff's comment about the need for SPS Status to be attached

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.				
	R1.1.	Each Reliability Coordinator shall identify the data requirements from the list in Attachment 1-TOP-005-0 "Electric System Reliability Data" and any additional operating information requirements relating to operation of the bulk power system within the Reliability Coordinator Area.		High	**C**	See Comment on TOP-005, R1
TOP-005-0	R2.	As a condition of receiving data from the Interregional Security Network (ISN), each ISN data recipient shall sign the NERC Confidentiality Agreement for "Electric System Reliability Data."		Low	**D**	Requirement to sign a Confidentiality Agreement is an administrative matter, and not a reliability issue.
TOP-007-0	R1.	A Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.	Open for interpretation	High	**A**	The FERC Staff is correct in observing that the Standard is open for interpretation. The IRC believes however that the Standard sets the appropriate baseline for a nationwide Reliability Standard, and

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
						appropriately leaves to operator discretion real-time system operation decisions. Attempting to establish a more prescriptive standard for real-time system operations would unduly restrict real-time decision-making. This distinction illustrates how Reliability Standards should focus on the "what" --i.e., the reliability goal that is to be achieved, rather than the "how" of reliability -- i.e., the details of how a standard is met.
TOP-007-0	R2.	Following a Contingency or other event that results in an IROL violation, the Transmission Operator shall return its transmission system to within IROL as soon as possible, but not longer than 30 minutes.		High	**A**	

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
TOP-007-0	R4.	The Reliability Coordinator shall evaluate actions taken to address an IROL or SOL violation and, if the actions taken are not appropriate or sufficient, direct actions required to return the system to within limits.		High	**A**	
TPL-001-0	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that, with all transmission facilities in service and with normal (pre-contingency) operating procedures in effect, the Network can be operated to supply projected customer demands and projected Firm (non- recallable reserved) Transmission Services at all Demand levels over the range of forecast system demands, under the conditions defined in Category A of Table I. To be considered valid, the Planning Authority and Transmission Planner assessments shall:	Clarify Categories	High	**C**	The IRC agrees with FERC Staff's assessment that the terms and obligations of the NERC Standards not only require clarity but also require a clearer definition of which entity may classify as "Planning Authority".
	R1.1.	Be made annually.		High	**C**	See Comment on TPL-001, R1
	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.		High	**C**	See Comment on TPL-001, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category A of Table 1 (no contingencies). The specific elements selected (from each of the following categories) shall be acceptable to the associated Regional Reliability Organization(s).		High	C	See Comment on TPL-001, R1
	R1.3.1.	Cover critical system conditions and study years as deemed appropriate by the entity performing the study.		High	C	See Comment on TPL-001, R1
	R1.3.2.	Be conducted annually unless changes to system conditions do not warrant such analyses.		High	C	See Comment on TPL-001, R1
	R1.3.3.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.		High	C	See Comment on TPL-001, R1
	R1.3.4.	Have established normal (pre-contingency) operating procedures in place.		High	C	See Comment on TPL-001, R1
	R1.3.5.	Have all projected firm transfers modeled.		High	C	See Comment on TPL-001, R1
	R1.3.6.	Be performed for selected demand levels over the range of forecast system demands.		High	C	See Comment on TPL-001, R1
	R1.3.7.	Demonstrate that system performance		High	C	See Comment on TPL-

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		meets Table 1 for Category A (no contingencies).				001, R1
	R1.3.8.	Include existing and planned facilities.		High	C	See Comment on TPL-001, R1
	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.		High	C	See Comment on TPL-001, R1
	R1.4.	Address any planned upgrades needed to meet the performance requirements of Category A.		Medium	C	See Comment on TPL-001, R1
TPL-001-0	R2.	When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-001-0_R1, the Planning Authority and Transmission Planner shall each:		Low	C	The Standard terms need clarification as does the definition of what it means to "consider" lead times necessary to implement plans when it appears the system in not able to respond as prescribed in TPL-001. Because a Planning Authority only has the authority to plan for expansion of the system, a better "verb" would be to "Estimate" lead times necessary to implement plans.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon.		Low	C	*See* Comment on TPL-001, R2
	R2.1.1.	Including a schedule for implementation.		Low	C	See Comment on TPL-001, R2
	R2.1.2.	Including a discussion of expected required in-service dates of facilities.		Low	C	See Comment on TPL-001, R2
	R2.1.3.	Consider lead times necessary to implement plans.		Low	C	See Comment on TPL-001, R2
	R2.2.	Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.		Low	C	See Comment on TPL-001, R2
TPL-001-0	R3.	The Planning Authority and Transmission Planner shall each document the results of these reliability assessments and corrective plans and shall annually provide these to its respective NERC Regional Reliability Organization(s), as required by the Regional Reliability Organization.		Low	C	See Comment on TPL-001, R2

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
TPL-002-0	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:	Issue with not implementing TIS Report	High	C	The IRC's comments are pending our review of the NERC Transmission Issues Subcommittee ("TIS") Report. However, the IRC believes that: (a) "Local area networks" need to be specifically defined, and (b) the processes for determining load levels should be standardized. Process for determining load levels need to be standardized. Local area networks need to be specifically defined. System Adjustments need to be specifically defined.
	R1.1.	Be made annually.		High	C	*See* Comments on TPL-002, R1
	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.		High	C	*See* Comment on TPL-001, R1
	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories,, showing system performance		High	C	*See* Comment on TPL-001, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).				
	R1.3.1.	Be performed and evaluated only for those Category B contingencies that would produce the more severe System results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.		High	**C**	See Comment on TPL-001, R1
	R1.3.10.	Include the effects of existing and planned protection systems, including any backup or redundant systems.		High	**C**	See Comment on TPL-001, R1
	R1.3.11.	Include the effects of existing and planned control devices.		High	**C**	See Comment on TPL-001, R1
	R1.3.12.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.		High	**C**	See Comment on TPL-001, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.		High	C	See Comment on TPL-001, R1
	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.		High	C	See Comment on TPL-001, R1
	R1.3.4.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.		High	C	See Comment on TPL-001, R1
	R1.3.5.	Have all projected firm transfers modeled.		High	C	See Comment on TPL-001, R1
	R1.3.6.	Be performed and evaluated for selected demand levels over the range of forecast system Demands.		High	C	See Comment on TPL-001, R1
	R1.3.7.	Demonstrate that system performance meets Category B contingencies.		High	C	See Comment on TPL-001, R1
	R1.3.8.	Include existing and planned facilities.		High	C	See Comment on TPL-001, R1
	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.		High	C	See Comment on TPL-001, R1
	R1.4.	Address any planned upgrades needed to meet the performance requirements of Category B of Table I.		High	C	See Comment on TPL-001, R1
	R1.5.	Consider all contingencies applicable to Category B.		High	C	See Comment on TPL-001, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
TPL-002-0	R2.	When System simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-002-0_R1, the Planning Authority and Transmission Planner shall each:		Low	C	The IRC's comments are pending our review of the TIS Report, and pending resolution of how to address missing measures for assessing compliance. If NERC completes the TIS Report in the near future, the IRC may be able to supplement its response at the NOPR phase.
	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:		Low	C	See Comment on TPL-002, R2
	R2.1.1.	Including a schedule for implementation.		Low	C	See Comment on TPL-002, R2
	R2.1.2.	Including a discussion of expected required in-service dates of facilities.		Low	C	See Comment on TPL-002, R2
	R2.1.2.	Including a discussion of expected required in-service dates of facilities.		Low	C	See Comment on TPL-002, R2
	R2.1.3.	Consider lead times necessary to implement plans.		Low	C	See Comment on TPL-002, R2
	R2.1.3.	Consider lead times necessary to implement plans.		Low	C	See Comment on TPL-002, R2
	R2.2.	Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified		High	C	See Comment on TPL-002, R2

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		system facilities. Detailed implementation plans are not needed.				
TPL-002-0	R3.	The Planning Authority and Transmission Planner shall each document the results of its Reliability Assessments and corrective plans and shall annually provide the results to its respective Regional Reliability Organization(s), as required by the Regional Reliability Organization.		Low	C	The Standard fails to define how the Planning Authority and Transmission Planner shall coordinate their activities (if these two entities are, in fact, different entities). Because the Standard fails to discuss coordination of these activities, the responsibilities held by each entity is not clear, and therefore there can be inadvertent duplication of work or inadvertent penalties assessed

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
TPL-003-0	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission systems is planned such that the network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand Levels over the range of forecast system demands, under the contingency conditions as defined in Category C of Table I (attached). The controlled interruption of customer Demand, the planned removal of generators, or the Curtailment of firm (non-recallable reserved) power transfers may be necessary to meet this standard. To be valid, the Planning Authority and Transmission Planner assessments shall:		High	C	See Comment on TPL-002, R1.
	R1.1.	Be made annually.		High	C	See Comment on TPL-002, R1.
	R1.2.	Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.		High	C	See Comment on TPL-002, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category C of Table 1 (multiple contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).		High	C	See Comment on TPL-002, R1.
	R1.3.1.	Be performed and evaluated only for those Category C contingencies that would produce the more severe system results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.		High	C	See Comment on TPL-002, R1.
	R1.3.10.	Include the effects of existing and planned protection systems, including any backup or redundant systems.		High	C	See Comment on TPL-002, R1.
	R1.3.11.	Include the effects of existing and planned control devices.		High	C	See Comment on TPL-002, R1.
	R1.3.12.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems		High	C	See Comment on TPL-002, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		or their components) at those Demand levels for which planned (including maintenance) outages are performed.				
	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.		High	C	See Comment on TPL-002, R1.
	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.		High	C	See Comment on TPL-002, R1.
	R1.3.4.	Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.		High	C	See Comment on TPL-002, R1.
	R1.3.5.	Have all projected firm transfers modeled.		High	C	See Comment on TPL-002, R1.
	R1.3.6.	Be performed and evaluated for selected demand levels over the range of forecast system demands.		High	C	See Comment on TPL-002, R1.
	R1.3.7.	Demonstrate that System performance meets Table 1 for Category C contingencies.		High	C	See Comment on TPL-002, R1.
	R1.3.8.	Include existing and planned facilities.		High	C	See Comment on TPL-002, R1.
	R1.3.9.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet System performance.		High	C	See Comment on TPL-002, R1.
	R1.4.	Address any planned upgrades needed to meet the performance requirements of		High	C	See Comment on TPL-002, R1.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		Category C.				
	R1.5.	Consider all contingencies applicable to Category C.		High	C	See Comment on TPL-002, R1.
TPL-003-0	R2.	When system simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-003-0_R1, the Planning Authority and Transmission Planner shall each:		High	C	Simulation is not clearly defined; inability to respond is also undefined.
	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:		High	C	See Comment on TPL-002, R1
	R2.1.1.	Including a schedule for implementation.		High	C	See Comment on TPL-002, R1
	R2.1.2.	Including a discussion of expected required in-service dates of facilities.		High	C	See Comment on TPL-002, R1
	R2.1.3.	Consider lead times necessary to implement plans.		High	C	See Comment on TPL-002, R1
	R2.2.	Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.		High	C	See Comment on TPL-002, R1
TPL-003-0	R3.	The Planning Authority and Transmission Planner shall each document the results of these Reliability Assessments and corrective plans and shall annually provide these to its respective NERC Regional Reliability		Low	C	See Comment on TPL-002, R3

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		Organization(s), as required by the Regional Reliability Organization.				
TPL-004-0	R1.	The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is evaluated for the risks and consequences of a number of each of the extreme contingencies that are listed under Category D of Table I. To be valid, the Planning Authority's and Transmission Planner's assessment shall:		High	**C**	The IRC's comments are pending our review of the NERC Transmission Issues Subcommittee ("TIS") Report. However, the IRC believes that the standard needs to be revised to provide definitions of terms and obligations, as well as needs to be reviewed as to whether it is too prescriptive in specifying responses to extreme contingencies
	R1.1.	Be made annually.		High	**C**	*See* Comment on TPL-002, R1
	R1.2.	Be conducted for near-term (years one through five).		High	**C**	See Comment on TPL-002, R1
	R1.3.	Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category D contingencies of		High	**C**	See Comment on TPL-002, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		Table I. The specific elements selected (from within each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).				
	R1.3.1.	Be performed and evaluated only for those Category D contingencies that would produce the more severe system results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.		High	C	See Comment on TPL-002, R1
	R1.3.2.	Cover critical system conditions and study years as deemed appropriate by the responsible entity.		High	C	See Comment on TPL-002, R1
	R1.3.3.	Be conducted annually unless changes to system conditions do not warrant such analyses.		High	C	See Comment on TPL-002, R1
	R1.3.4.	Have all projected firm transfers modeled.		High	C	See Comment on TPL-002, R1
	R1.3.5.	Include existing and planned facilities.		High	C	See Comment on TPL-002, R1
	R1.3.6.	Include Reactive Power resources to ensure that adequate reactive resources are available to meet system		High	C	See Comment on TPL-002, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		performance.				
	R1.3.7.	Include the effects of existing and planned protection systems, including any backup or redundant systems.		High	C	See Comment on TPL-002, R1
	R1.3.8.	Include the effects of existing and planned control devices.		High	C	See Comment on TPL-002, R1
	R1.3.9.	Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.		High	C	See Comment on TPL-002, R1
	R1.4.	Consider all contingencies applicable to Category D.		High	C	See Comment on TPL-002, R1
TPL-004-0	R2.	The Planning Authority and Transmission Planner shall each document the results of its reliability assessments and shall annually provide the results to its entities' respective NERC Regional Reliability Organization(s), as required by the Regional Reliability Organization.		Low	C	This standard should be revised to require regional seasonal assessments to be provided to the RROs before the standard can be enforced.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
TPL-005-0	R1.	Each Regional Reliability Organization shall annually conduct reliability assessments of its respective existing and planned Regional Bulk Electric System (generation and transmission facilities) for:		Medium	C	The term and extent of the assessment is not appropriately defined as well as the study years. Also Process for determining load levels need to be standardized. Local area networks need to be specifically defined. System Adjustments need to be specifically defined.
	R1.1.	Current year:		Medium	C	See Comment on TPL-005, R1
	R1.1.1.	Winter.		Medium	C	See Comment on TPL-005, R1
	R1.1.2.	Summer.		Medium	C	See Comment on TPL-005, R1
	R1.1.3.	Other system conditions as deemed appropriate by the Regional Reliability Organization.		Medium	C	See Comment on TPL-005, R1
	R1.2.	Near-term planning horizons (years one through five). Detailed assessments shall be conducted.		Medium	C	See Comment on TPL-005, R1
	R1.3.	Longer-term planning horizons (years six through ten). Assessment shall focus on the analysis of trends in resources and transmission Adequacy, other industry trends and developments, and reliability		Medium	C	See Comment on TPL-005, R1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		concerns.				
	R1.4.	Inter-Regional reliability assessments to demonstrate that the performance of these systems is in compliance with NERC Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0, TPL-004-0 and respective Regional transmission and generation criteria. These assessments shall also identify key reliability issues and the risks and uncertainties affecting Adequacy and Security.		Medium	**C**	See Comment on TPL-005, R1
TPL-005-0	R2.	The Regional Reliability Organization shall provide its Regional and Inter-Regional seasonal, near-term, and longer-term reliability assessments to NERC on an annual basis.		Low	**C**	See Comment on TPL-004, R2
TPL-005-0	R3.	The Regional Reliability Organization shall perform special reliability assessments as requested by NERC or the NERC Board of Trustees under their specific directions and criteria. Such assessments may include, but are not limited to:		Medium	**C**	See Comment on TPL-004, R2
	R3.1.	Security assessments.		Medium	**C**	See Comment on TPL-004, R2

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R3.2.	Operational assessments.		Medium	**C**	See Comment on TPL-004, R2
	R3.3.	Evaluations of emergency response preparedness.		Medium	**C**	See Comment on TPL-004, R2
	R3.4.	Adequacy of fuel supply and hydro conditions.		Medium	**C**	See Comment on TPL-004, R2
	R3.5.	Reliability impacts of new or proposed environmental rules and regulations.		Medium	**C**	See Comment on TPL-004, R2
	R3.6.	Reliability impacts of new or proposed legislation that affects, has affected, or has the potential to affect the Adequacy of the interconnected Bulk Electric Systems in North America.		Medium	**C**	See Comment on TPL-004, R2
TPL-006-0	R1.	Each Regional Reliability Organization shall provide, as requested (seasonally, annually, or as otherwise specified) by NERC, system data, including past, existing, and future facility and Bulk Electric System data, reports, and system performance information, necessary to assess reliability and compliance with the NERC Reliability Standards and the respective Regional planning criteria. The facility and Bulk Electric System data, reports, and system performance information shall include, but not be limited to, one or more of the following types of information as outlined below:		Medium	**R**	As currently drafted, the request for facility and bulk electric system data and reports is undefined and therefore unbounded. Given the purpose of the standard, which is to ensure that planning exists to assess overall reliability, it is practical for the ERO to define the criteria (in terms of data and reports) that it would review to ensure adequate planning is being conducted.

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
	R1.1.	Electric Demand and Net Energy for Load (actual and projected demands and Net Energy for Load, forecast methodologies, forecast assumptions and uncertainties, and treatment of Demand-Side Management.)		Medium	**R**	Given the use of common planning terms to identify needed data and reports, the terms should be defined.
	R1.2.	Resource Adequacy and supporting information (Regional assessment reports, existing and planned resource data, resource availability and characteristics, and fuel types and requirements.)		Medium	**R**	See Comment on TPL-006, R1.1
	R1.3.	Demand-Side resources and their characteristics (program ratings, effects on annual system loads and load shapes, contractual arrangements, and program durations.)		Medium	**R**	See Comment on TPL-006, R1.1
	R1.4.	Supply-side resources and their characteristics (existing and planned generator units, Ratings, performance characteristics, fuel types and availability, and real and reactive capabilities.)		Medium	**R**	See Comment on TPL-006, R1.1
	R1.5.	Transmission system and supporting information (thermal, voltage, and Stability Limits, contingency analyses, system restoration, system modeling and		Medium	**R**	See Comment on TPL-006, R1.1

Standard Number	Requirement Number	Text of Requirement	Short Summary of FERC Staff Assessment	IRC's VRF Ratings	IRC Category	IRC Added Comment
		data requirements, and protection systems.)				
	R1.6.	System operations and supporting information (extreme weather impacts, Interchange Transactions, and Congestion impacts on the reliability of the interconnected Bulk Electric Systems.)		Medium	**R**	See Comment on TPL-006, R1.1
	R1.7.	Environmental and regulatory issues and impacts (air and water quality issues, and impacts of existing, new, and proposed regulations and legislation.)		Medium	**R**	See Comment on TPL-006, R1.1

Acceptance for Filing

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The FERC Office of the Secretary has accepted the following electronic submission for filing (Acceptance for filing does not constitute approval of any application or self-certifying notice):

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-Docket(s) No.: RM06-16-000

-Filed By:

PJM Interconnection, L.L.C., et al .,

-Signed By:

Craig Glazer

-Filing Type: Rulemaking Comment

-Filing Desc: Comments of the ISO/RTO Council of Staff Preliminary Assessment of NERC Reliability Standards, under RM06-16.

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