



# NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

Monitor and Assess Short-term Transmission Reliability – Operate Within Limits  
SAR Drafting Team Meeting  
August 7, 2002 — 0800–1600  
Chicago, IL

**Agenda:**

- 0800 – Welcome and Administrative Items
- 0815 – Review of Duties and Tasks of SAR Drafting Team Members
- 0830 – Discuss Comments Submitted on SAR & Draft Responses
- 1200 – Lunch
- 1300 – Discuss Comments Submitted on SAR & Draft Responses
- 1500 – Revise SAR
- 1330 – Summarize Meeting Action Items & Identify Next Meeting Date
- 1400 – Adjourn

**Attachments:**

- Summary Comments on “Monitor and Assess Short-term Transmission Reliability – Operate Within Limits” SAR
- Industry Response to Question – Is there a reliability-related need for a “Monitor and Assess Short-term Transmission Reliability – Operate Within Limits” Standard?

### **Expand the Scope of the proposed Standard**

#### ***Calpine***

Applicable Functions: Interchange Authority should be checked because of the definition of "Interchange Schedule" in NERC Operating Policy 3, since schedule implies the actual implemented energy flow.

The term "operating limits" is used in this SAR as in the "Determine Facility Ratings" SAR. Please see our comments concerning OSL/OSLV for that SAR and ensure that terms are consistent and defined appropriately.

There should be a companion SAR to this that requires LSEs, distribution providers, and generators to respond to requests that will have the effect of operating the system within Operating Limits. Applicability should not be limited to the Reliability Authority, Balancing Authority and Transmission Operator, but should include all operational entities (if you are operating, you have to stay within your defined limits).

Sufficient detail to provide a clear understanding of the specific functions covered by this SAR.

#### ***Southern Company***

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#### ***Progress Energy - Carolina Power & Light Company and Florida Power Corp.***

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Sufficient detail to provide a clear understanding of the specific functions covered by this SAR.

### ***Energy Services***

We agree this SAR should be a “core reliability” Organization Standard but suggest the title be revised to “Operate Within Thermal, Voltage and Stability Limits”.

The industry should:

- ? Develop the criteria for this core reliability Organization Standard,
- ? Establish measures for measuring conformance to the criteria, and
- ? Monitor for conformance to the criteria.

The Organization Standard should include the requirements that appropriate entities:

- ? Establish thermal, voltage and stability limits for all appropriate facilities and operating conditions,
- ? The system be operated to respect those limits,
- ? Measures be developed to assure conformance

The Organization Standard should not establish “how” one develops these limits, “how” one operates to meet the limits, “how” one monitors for criteria violations, or “how” one corrects limit violations, or the details of “how” to measure, data warehouse, or “how” to protect against operation outside of the limits.

### ***American Transmission Company***

Redispatch issues. Redispatch is one of the tools the transmission operator will use to make sure the system is operated within the limits. Therefore, the "generation operator" reliability function should also apply since they will need to take direction from the Transmission Operator and/or Reliability Authority.

### ***SERC Compliance Subcommittee***

sufficient detail to provide a clear understanding of the specific functions covered by this SAR.

### ***SERC OPWG***

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## **Reduce the Scope of the proposed Standard**

### ***Allegheny Energy Supply***

Today short-term transmission reliability issues are addressed by congestion management either thru TLR curtailments, LMP or other methods. FERC's proposed SMD requires congestion management in all markets using LMP. Congestion management is a market issue. Therefore, this standard should be developed in a process which takes into account market and reliability interests.

### ***California ISO***

Change title to " Monitor Transmission Reliability - Operate within Limits". SAR should be re-written to say "Establish a standard that requires adherence to operating limits. Requirements shall include items such as monitoring of system parameters against operating limits, and correcting limit violations".

### ***Cinergy***

Should concentrate on performance instead of procedures such as performing day ahead analysis. An entity could perform day ahead analysis but if no action is taken as a result of the analysis then what good is it?

### ***Electricity Consumers Resource Council (ELCON)***

The establishment of this SAR is premature. All commercial implications of the SAR should be identified and mitigated prior to the drafting.

### ***Exelon Corporation***

The procedures on how to alleviate overloads (i.e., TLRs) and other limit violation.

### ***FirstEnergy Solutions***

he responsibility of the Balancing Authority, which has no bearing on this standard/objective.

### ***Illinois Power Company***

Balancing Authority: In reviewing a Balancing Authorities responsibilities, it does not appear to Illinois Power that the BA has any responsibility to Monitor and Assess Short-term Transmission Reliability, and therefore would not be subject to this Standard. Eliminate all references to HOW this standard would be met such as real time monitoring, data, communications, particular analysis, and timing. These tend to be issues as to HOW to achieve the standard not what the standard should be.

### ***Powerex***

The item in the Description which states "Do not allow an over-subscription of transfer capability" addresses a business practice and should be eliminated.

### ***Reliant Resources***

procedures on how to curtail transactions and generation schedules to achieve the reliability objectives stated.

**Other Comments:**

The SAR indicates that this standard would apply to Generators and Distribution Providers. Today NERC Policy and Standards do not apply to these Functions. For example, NERC has no authority to require its standards to be applied to determine connection requirements for distribution facilities. And the application of NERC standards to Independent Generators are carried out by transmission owners through interconnection agreements. Is NERC proposing that this will change and they will begin to impose standards directly on distribution providers and generators? There is inadequate detail in the SAR to determine if the scope of the SAR is appropriate and adequate. The scope should not include and requirements on HOW to deal with the prevention or correction of limit violations.

***Ameren Services -Energy Delivery Technical Services***

The scope is too general. Would this standard cover operation beyond first-contingency?

***American Electric Power***

To the extent that this SAR is transitioning an existing standard from the old world to the new world (Functional Model), then the standard should not go beyond the original scope. Consistent with our general comments, once the clarity is achieved on Standard Market Design and RTO formations, then this standard should be revisited and reevaluated.

Additionally, the "Purpose/Industry Need" statement should be rewritten to be more specific as follows: "To establish a standard that requires the bulk electric transmission system be monitored and operated within established thermal, voltage and stability limits".

***American Transmission Company***

Would it be appropriate to include comments about operating guides in this standard instead of my comments in the proposed standard to "Determine Facility Ratings, Operating Limits, and Transfer Capabilities?" The transmission operator and Reliability Authority should have some discretion in operating within established limits. I.E. if a line is at it's OSL but the OSL limit was based on summer ratings and it is cool outside, the transmission operator shouldn't be forced into some remedial action.

***Baltimore Gas & Electric***

The promulgation for comment of these SARs is premature. The industry "standard making process" is in a transition phase and it is overly burdensome to devote resources at this time. Once legislation or FERC firmly determines which entity(ies) is responsible for standards it will make sense to move forward with said entity.

Even if NERC wants to cover reliability standards, almost all standards have a reliability and commercial impact; thereby, necessitating developing a single process that incorporates both commercial and reliability aspects of standards development. The current NERC process risks being changed soon, discounts commercial aspects, and is not part of a finalized overall industry process.

Waiting a short while to move forward on a new standards setting process is acceptable and prudent given that NERC standards are currently in place and the industry can continue to use these standards until the new process and standards setting organization(s) are firmly set.

**BPA**

Will the standards used here to determine if the system is operated within limits be the same standards that will be used to plan the system?

**Bonneville Power Administration - Power Business Line**

Change to: prevent and correct limit violations. Add Generator and LSE to the list of Functions to which this standard would apply. Load dropping can be used as a tool to prevent and correct violations. Generation is critical in the areas of Reactive, Voltage, Frequency, and Reserves. Generators are used extensively in preventing and correcting limit violations.

**Cinergy**

Process and procedures for performing analysis should be part of the certification process and not a standard that has measurement requirements.

**Dairyland Power Cooperative**

The use of the term "etc." in the SAR description leaves the scope of this SAR open-ended. The scope of the SAR should be stated and complete.

**Dynegy, Inc.**

The purpose/industry need section should start with: The purpose of this standard is to ensure that a consistent, uniformly applied standard is developed for ...

**Entergy Services**

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**ERCOT**

This SAR and the other posted SARs provide an appropriate framework for transitioning existing NERC Operating Policies and Planning Standards into new, NERC Organization Standards. Multiple compliance measures may be defined and developed for each of the eleven proposed Organization Standards. The Organization Standards and related compliance measures should focus on what functions must be performed for reliability, on who is responsible for each compliance measure for each required function and not, on how the compliance measure is achieved. The compliance measure must be measurable or demonstrable to ensure compliance. Adherence to transmission system operating limits is a core reliability requirement and should be addressed by a Standard. Requirements for monitoring real time loading against operating limits and compliance measures for determining those limits are certainly appropriate.

Compliance measures for correcting limit violations must make allowance for the various mechanisms in place and being developed to provide market solutions to remedy transmission congestion. These mechanisms are very different from the old “command and control” procedures that are the basis of existing NERC policies. All standards must be crafted to allow market solutions to work while still maintaining system reliability.

### ***FirstEnergy Corp***

One of the major problems confronting the industry today is in the identification of real-time system limits and operating conditions. Viable communications protocol need to be developed and implemented that will correctly monitor and assess the electric system in a real-time mode.

Establishment of a dynamic and valid real-time data system that will accurately depict system conditions will further enable our industry to maximize its potential. We must be able to define short term system requirements and operational limits in such a manner as to promote the efficient and reliable use of the transmission grid. Partial path reservations and also real-time modifications of transmission scheduling need to be addressed in a more accurate manner. The accuracy and timely assessment of current operating limits need to be reviewed, studied, and validated in a sequence that will not inhibit the real-time operations of the system. The development of established limits, and the assessment and comparison of those limits in a real-time environment, will insure that transmission operations will be able to react to the current use that is imposed on the system in a reliable and safe manner.

### ***Independent Electricity Market Operator (IMO)***

The word “Reliability” is missing from the title of the proposed standard.

The title and brief description of the proposed standard refer to “Transmission Reliability”. This may be misleading and may imply that the new standard would apply to the transmission function only. The standard should address the reliability of the bulk electric system.

Various terms for bulk electric system have been used, e.g. “bulk electric transmission system” (Purpose/Industry Need), “bulk transmission system” (Reliability Function) and the “interconnected bulk electric systems” or “bulk electric systems” (Reliability and Market Interface Principles). The terminology should be standardized and consistent.

Considering the idea of the NERC White Paper that the description for each proposed standard should identify WHAT performance must be achieved, rather than detailing HOW to achieve that performance, the title of this SAR could be simplified to focus on the “Operating Within Limits”.

### ***MAAC***

The primary comment here is that there is a need to agree on terms and definitions. A clear distinction must be made between the violation of a limit that has no impact on the operation of the interconnected system, and the violation of a limit that threatens the security of the interconnected system.

### ***Manitoba Hydro***

The Industry Need has not been defined for this SAR.

### ***MAPP Reliability Council***

The use of the term "etc." in the SAR description leaves the scope of this SAR open-ended. The scope of the SAR should be stated and complete.

***Nova Scotia Power Inc.***

The scope is too broad as stated in the description section of the SAR. More detail is required. Specifying "real time monitoring" and "next-day analysis" crosses into the "how to do it" arena. The standard should simply state the desired results.

***Public Service Electric & Gas***

It is premature to continue development of this SAR until FERC has specified the organization to be responsible for the development of wholesale electric standards.

***Reliant Energy HL&P***

HL&P is uncertain whether a meaningful standard can be developed in this area. There are likely to be different requirements for different types of transmission systems. For a larger, more complicated system, more extensive short-term assessments are likely to be more justified than for smaller systems.

***Reliant Resources***

The existing NERC standard Policy 9, includes a procedure known as "TLR" that must be compliant with FERC tariff obligations to curtail transactions. A core reliability standard should only define the limits and conditions required to achieve a reliable and secure transmission system and allow for market-driven procedures to provide tools for the operators to employ to achieve the core reliability requirements. Further, FERC's upcoming Standard Market Design NOPR will entail new congestion management rules for TPs to adhere to. Procedures for transaction curtailment should be developed with the NAESB process and filed at FERC for approval.

***SERC Compliance Subcommittee***

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***SERC OPWG***

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***Southeastern Power Administration***

Planning Authority should be included.



***Southern Company***

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Industry Response to Question - Is There a Reliability-related Need for a Monitor and Assess Short-term Transmission Reliability - Operate Within Limits Standard?

Company	Yes	No	Notes
Allegheny Energy Supply	1		
Allegheny Power	1		
Ameren Services -Energy Delivery Technical Services	1		
American Electric Power	1		
American Transmission Company	1		
Arizona Public Service	1		
Baltimore Gas & Electric	1		
Bonneville Power Administration - Power Business Line	1		
BPA	1		
Bulk Power Operations Southern Company	1		
California ISO	1		
Calpine	1		
Cinergy	1		
Consumers Energy		1	no trust
Dairyland Power Cooperative	1		
Dayton Power & Light	1		
Dominion Virginia Power	1		
Dominion Virginia Power	1		
Duke Power	1		
Duquesne		1	merge with coord ops
Dynergy	1		
East Kentucky Power	1		
ECAR	1		
Elcon	1		
Entergy Services	1		
ERCOT	1		
Exelon Corporation	1		
FirstEnergy Corp	1		
FirstEnergy Solutions	1		
Hoosier Energy REC, Inc.	1		
Hydro One Networks Inc.	1		
Illinois Power Company	1		
Independent Electricity Market Operator (IMO)	1		
Indianapolis Power & Light		1	Ferc
Interconnected Operations Services Subcommittee, NERC	1		
ISO New England	1		
LG&E	1		
MAAC	1		
Manitoba Hydro	1		
MAPP Reliability Council	1		
Michigan Electric Coordinated Systems (MECS)	1		
Mirant	1		
National Grid	1		
NIPS (Northern Indiana Public Service Co.)	1		
NorthWestern Energy	1		
Nova Scotia Power Inc.	1		
Ohio Valley Electric Corporation	1		
Pacific Gas and Electric Company	1		
Powerex	1		
Progress Energy - Carolina Power & Light Company and Florida Power Corp.	1		
Public Service Electric & Gas		1	Mkt issue
Reliant Energy HL&P	1		
Reliant Resources	1		
Salt River Project	1		
SERC (Contact = Nancy Fallon)	1		
Southeastern Power Administration	1		
Southern Company	1		
Southern Company	1		
Tenaska	1		
TXU Energy	1		
Vectren	1		
WECC Remedial Action Scheme Reliability Task Force	1		
WECC Technical Studies Subcommittee	1		
Westar Energy	1		
	60	4	