

**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 ONTARIO INDEPENDENT ELECTRICITY SYSTEM OPERATOR
ON NOTICE OF PROPOSED RULE MAKING**

The Ontario Independent Electricity System Operator (“IESO”)¹ respectfully submits these comments on the Commission’s Notice of Proposed Rulemaking on *Mandatory Reliability Standards for the Bulk-Power System* (“NOPR”).²

The NOPR represents a positive step in the evolution of mandatory and enforceable reliability standards in the United States.³ The Commission’s efforts in this process are to be commended as the United States moves to implement the Electric Reliability Organization (“ERO”) compliance regime in 2007.

¹ On January 1, 2005 the Ontario Independent Market Operator (IMO) was continued as the IESO and the IESO continues to exercise the operating authorities and responsibilities of the IMO. The IESO is the organization responsible within the Province of Ontario for directing the operation and maintaining the reliability of the integrated power system, and establishing and administering wholesale electricity markets. The IESO is the NERC Reliability Coordinator, Balancing Authority, Transmission Operator and Planning Authority in Ontario, and is a member of NPCC Inc, NPCC CBRE and NERC. The IESO's responsibilities include a broad range of integrated operations, including planning, security assessment and scheduling, administration of the wholesale electricity market and ancillary services, and real time coordination of the power system. The IESO-controlled electric power grid is interconnected with grids in two Canadian provinces and three U.S. states.

On November 29, 2006, the Independent Electricity System Operator, the North American Electric Reliability Corporation, the Northeast Power Coordinating Council, Cross-Border Regional Entity, Inc., and the Northeast Power Coordinating Council, Inc. signed a Memorandum of Understanding (“MOU”). This MOU details the day-to-day relationships between the organizations and is consistent with the MOU between the Ontario Energy Board and NERC signed on October 25, 2006.

² 71 Fed. Reg. 64,770 (Nov. 3, 2006); FERC Stats. & Regs. ¶ 32,068.

³ Ontario has operated to mandatory and enforceable standards since the opening of the wholesale market in 2002 through the Ontario market rules that place both market and system reliability obligations on the IESO and Ontario market participants.

The IESO supplies these comments to supplement our joint comments with the ISO/RTO Council and Canadian Electricity Association. The IESO also generally supports the submission of NPCC CBRE on this NOPR.

I. OVERVIEW

The IESO supports the direction of the Commission's NOPR in approving as many reliability standards as considered acceptable for implementation by the ERO in 2007. The choice not to apply the remand authority for these standards is a prudent one considering the use of NERC reliability standards in many areas are 'good utility practice' or mandatory and enforceable in other jurisdictions.

The Commission's preference to utilize the NOPR process should also be commended as it recognizing the industry's considerable involvement in the development of the ERO, and allows an open and internationally inclusive response to the Commission's proposals.

With respect to these proposals, the IESO provides the following for consideration by the Commission:

- NERC's existing definition of bulk electric system should be accepted by the Commission as an interim measure
- The reliability-impact-based assessment approach should be applied to all transmission systems, including those operating at voltages greater than 100 kV to determine applicable facilities
- The Commission should accept that regional reliability organization will maintain separate roles

- The Commission should consider providing core requirements in modification orders; detailed comments will be considered guidelines and used as input into the NERC Standard Development Process.
- The Commission should accept the Electric Reliability Organization Procedure for Coordinating Reliability Standards Approvals, Remands, and Directives
- The Commission should defer on directing local control centers to be made a Responsible Entity where this would split responsibility between entities for the same facilities, pending resolution of this matter within NERC.

II. COMMENTS CONCERNING APPLICABILITY

A. NERC's Existing Definition of Bulk Electric System Should be Accepted by the Commission as an Interim Measure

The Commission states that it “may approve a Reliability Standard that applies to the bulk electric system as defined by NERC without limiting the ability of the ERO to develop and propose standards applicable to the broader set of facilities encompassed by the statutory definition as may be necessary.”⁴ In addition, at P68, the Commission accepts NERC's definition of the bulk electric system but adds blanket applicability to all facilities greater than 100 kV. The IESO concurs that NERC's definition of bulk electric system is acceptable in the interim; however, believes the broad additional provision to expand applicability is inappropriate given the design intent and historical application of the proposed reliability standards.

The IESO interprets the Commission's U.S. jurisdiction as permitting the development of reliability standards if required and subsequent enforcement of those reliability standards over a broad set of transmission and generation

facilities.⁵ Thus accepting that the Commission has jurisdiction over certain U.S. facilities, it is the applicability within NERC's definition that determines what reliability standards will be applied to facilities – and by extension to those entities that own, operate or use those facilities.

While the IESO respects the Commission's broad U.S. jurisdiction provided by EAct and the statutory definition of bulk power system, the IESO believes that the Commission should, as an interim measure, accept NERC's existing application of reliability standards through its bulk electric system definition. Recognition of the present application assures the Commission that the core facilities having a potential impact to bulk system reliability will be subject to mandatory and enforceable standards under the ERO. This core will allow the industry and the ERO to focus on requirements designed to prevent cascading outages similar to the 2003 Blackout. The IESO reminds the Commission that the proposed reliability standards were developed on the basis of preventing any harm to interconnected systems which in-turn could lead to cascading blackouts.

Therefore, the IESO suggests that if the Commission has reason to believe there are facilities excluded from NERC's definition warranting some measure of consideration for reasons other than the prevention of cascading outages, the Commission could opt to submit a detailed request through the ERO Standards Development Process. In this manner, the Commission could address any specific

⁴ NOPR at P 67

⁵ The NOPR at P60 discusses the context of the bulk power system and references the document entitled "Maintaining Reliability in a Competitive U.S. Electricity Industry, Final Report of the Task Force on Electric System Reliability, Secretary of Energy Advisory Board, U.S. Department of Energy (September 1998) at 2, 6-7." The same paper at 6 also paraphrases NERC's Reliability Definition as "system will remain intact even after outages or other equipment failures occur." This excerpt points to the design intent of the NERC standards and earlier operating policies to prevent harm to interconnected areas. The concept at P66 of the NOPR of including 'critical load centers' in the Commission's

concerns such as supply reliability to critical load centres or other excluded facilities through the ERO developing appropriate reliability standards for these cases and for those excluded facilities rather than adopting broad applicability for which the reliability standards were not designed. This approach may result in; a) no change in the existing standards or their applicability, b) the simple expansion of the applicability of some, or all, existing reliability standards as the Commission proposes, or c) the cultivation of new reliability standards for those excluded facilities.

B. The Reliability-Impact-Based Assessment Approach Should be Applied to All Transmission Systems, Including Those Operating at Voltages Greater Than 100 kV to Determine Applicable

The IESO believes that an effective method to achieve the Commission's objective of "Reliable Operation of the Bulk-Power System"⁶ is to support having NERC lead the development of a sound and uniform approach to define the applicable facilities within the bulk power system and those reliability standards that will apply to the users, owners and operators of the bulk power system. As such, the Commission should direct NERC to develop a consistent reliability impact assessment approach to defining the extent of which reliability standards are to be developed and applied to the appropriate set of the bulk power system.

Under the Commission's direction provided in the preceding, the IESO believes that reliability impact must be the central consideration in applying reliability standards to the facilities of the users, owners and operators of the bulk

jurisdiction is appropriate but not consistent with the design of these reliability standards.
⁶ NOPR at P60.

power system. Reliability impact is a process of assessing facilities to determine if they represent a significant adverse impact⁷ beyond a local area⁸ due to recognized contingencies and other test criteria. The assessment will be the basis of a consistent test methodology the ERO must develop to define the facilities included within the overall Bulk-Power System to which a reliability standard would apply.

At P 60-70, the Commission addresses the terms bulk power system, as used in the statute, and bulk electric system, as used by NERC. The Commission states that it interprets the term bulk electric system to apply to all transmission systems operating at a voltage equal to or greater than 100 kV, and to any underlying transmission systems operating at lower voltage that could limit or supplement the operation of the higher voltage systems. Any questions concerning applicability to underlying systems would be determined by NERC on a case-by-case basis.⁹ This approach would be used until NERC can revise its current definition of bulk electric system “to ensure that all facilities, control systems, and electric energy from generation resources that impact system reliability are included within the scope of applicability and is consistent with the statutory term Bulk-Power System”.¹⁰

The preceding is taken to be clear recognition by the Commission of the central role of impact on system reliability in determining the applicability of

⁷ Per IEEE C37.100-1981 as “with due regard for the maximum operating capability of the affected systems, one or more of the following conditions arising from faults or disturbances, shall be deemed as having significant adverse impact:

- a. system instability;
- b. unacceptable system dynamic response or equipment tripping;
- c. voltage levels in violation of applicable emergency limits;
- d. loadings on transmission facilities in violation of applicable emergency limits;
- e. unacceptable loss of load.”

⁸ Significant adverse impact includes the ‘unacceptable loss of load’ criteria. The reliability impact assessment could accommodate the Commission’s concern with critical load centers by developing a definition of ‘unacceptable’ with respect to these critical load centres.

⁹ Id., at P 68.

¹⁰ Id., at P 69.

reliability standards for lower voltage transmission facilities that is equally germane to all transmission system voltages.

In the IESO's view, the impact on reliability provides the basis for reconciling the definitions of bulk electric system and bulk power system. NERC, in fact, identified the potential solution of redefining the bulk electric system to include the definition of bulk power system, but with the additional proviso of requiring the determination to be based on reliability-impact assessment.¹¹ This redefinition of bulk electric system would thereby meet the dual objectives of being impact-based and being consistent with the statutory definition of bulk power system. Specifically, NERC's potential redefinition of the bulk electric system is:

As defined by the Regional Reliability Organization, using a reliability-impact method approved by the ERO, facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof); and the electric energy from generating facilities needed to maintain transmission system reliability. The term does not include facilities used in the local distribution of electric energy.

The IESO supports this redefinition while noting that a Regional Entity could be involved in the process rather than a Regional Reliability Organization. Most importantly, the Commission should direct the ERO to take the lead in developing the impact assessment procedure to provide a consistent and uniform methodology that can be applied by any Regional Entity. This change would be consistent with other matters involving ERO where NERC, working in concert with

¹¹ Comments of NERC on Staff Preliminary Assessment, Docket No. RM06-16-000 (June 26, 2006).

the Regional Entities, develops the core process¹² but allows a more stringent product developed by a Regional Entity to meet a specific regional requirement. The IESO expects that, while under the oversight of the ERO, a Regional Entity¹³ may add criteria and thus identify more facilities included within the bulk power system. Once the criteria is defined, as with other activities with the ERO, the Regional Entities may be delegated the facility study and implementation tasks.

A reliability impact assessment approach is consistent with EAct's definition of bulk power system¹⁴ using the terms 'necessary' and 'needed' to provide a measure how reliability standards are applied. In some cases high voltage transmission facilities will not impact reliability of the bulk power system, and will provide reliability judged acceptable by connected loads or generation¹⁵, especially when no material benefit is forthcoming by including a facility within the bulk power system. In other cases, facilities operating at greater than 100 kV may be providing a distribution function. The IESO, therefore, does not support the Commission's proposal to limit case-by-case determinations to underlying

¹² NERC has developed a common compliance and monitoring program. See NERC Non-Governance Filing of November 29, 2006 (Docket RM06-1)

¹³ REs having the role of developing and proposing tests for impacts, being a natural extension of the role their predecessor organizations, the regional reliability councils, have traditionally performed. The REs will have more detailed local knowledge of facilities than NERC. For example, the Northeast Power Coordinating Council (NPCC) has employed a functional, reliability impact approach to defining elements of the bulk power system for over 35 years. NPCC is expected to elaborate on its approach in its submission.

¹⁴ The term 'bulk-power system' means "facilities and control systems **necessary** for operating an interconnected electric energy transmission network (or any portion thereof); and [] electric energy from generation facilities **needed** to maintain transmission system reliability." (EAct §215(a)(1) emphasis added.)

¹⁵ As an example, a fault on a radial transmission line to a pocket of load and generation may not impact the stability and power flows in the remaining network. While the fault is being cleared, and once cleared, there is minimal notice of the event on remaining system's power flows, frequency, and voltages.

transmission systems operating at less than 100 kV.¹⁶ The IESO advocates that reliability impact assessments be the sole basis for inclusion in the bulk power system; specification by voltage level is both unnecessary and undesirable.

C. The Commission Should Accept that Regional Reliability Organization Will Maintain Separate Roles

At P56, the Commission questions if regional reliability organizations “should play a role separate from a Regional Entity.” The IESO understands that under EAct and FERC’s 672 Order, only Regional Entities may play a part in the development of reliability standards adopted by the ERO. Regional Entities also have various other functions delegated to them through a Regional Delegation Agreement or a provincial memorandum of understanding. As such, the IESO concurs that regional reliability organization should not play a role under the ERO once the transition is completed.

However, the Commission should accept that the regional reliability organizations will continue to play a crucial role in other non-ERO areas including the development of regional reliability plans as contemplated under NERC’s draft Reliability Functional Model V3 (“Version 3”). Under this draft, Regional reliability organizations will also be responsible for adequacy requirements that are outside the jurisdiction of the ERO due to limitations in EAct.¹⁷ In addition, these organizations will perform reliability functions desired by its members outside of the ERO framework. Finally, should the Commission determine in future proceedings that any functions performed by the ERO today are non-statutory; the

¹⁶ Id., at P 68.

¹⁷ EAct § 215(i)(2)

regional reliability organizations would be well suited to take on these non-statutory activities.

D. The Commission Should Consider Providing Core Requirements in Modification Orders; Detailed Comments Will be Considered Guidelines and Used as Input Into the NERC Standard Development Process.

The Commission has rightly noted the possible improvements to the standards. Through this NOPR and the earlier Staff Preliminary Assessment, a number of changes to the standards have been suggested to the industry and NERC. Those suggestions have been seen as a positive light that will improve reliability standards and the resulting reliability of the bulk system.

While these standards represent a unique circumstance where many of the proposed reliability standards were developed before the ERO (and Commission oversight) and the Commission deserves the industry's appreciation for the level of detailed comments provided in this NOPR, the IESO has some cause for concern at the level detail that may be debated in this NOPR process. Our concern arises from the limited flexibility the Commission may allow the industry and the ERO in improving reliability standards. The IESO also notes that including detailed orders may cause difficulties as these directives, while not remands, reflect an engagement by the Commission in the standard-setting process taken without coordination with other ERO governmental authorities, and that therefore have the potential, at least in principle, to interfere with the ERO's ability to effectively function as an international body.

In future, it is the IESO's hope that the Commission and other regulators will be involved in NERC's standards development process and appropriately voice

any issues early in this process. The IESO also urges the Commission, when ordering any modifications to reliability standards, to provide core requirements (i.e., to correct ambiguity) with clear recommendations that can be taken by the ERO and the industry as a suggestion or guideline to improving the reliability standard. The approach would give the industry clear guidance while allowing flexibility and open views in developing solutions to any concerns of the Commission or other regulators.

In this manner, the Commission should direct NERC to accept the final order modifications (both core requirements and recommendations) and any detailed input received on the proposed standards as input to the ERO Standards Development Process. NERC's Standards Development Process would be the most apt venue to handle any detailed reliability standards comments.

E. The Commission Should Accept the Electric Reliability Organization Procedure for Coordinating Reliability Standards Approvals, Remands, and Directives

At P94 and 95, the Commission discussed the issue of international coordination of remands. The Commission "believes that NERC's development of a coordination process, together with the existing means of communications and coordination such as the U.S. – Canada Bilateral Electric Oversight Group will provide the necessary mechanisms for international coordination." The IESO concurs with this statement and additionally supports the coordination process proposed by NERC in its filing of October 18, 2006 to the Commission.¹⁸

¹⁸ Compliance Filing of the North American Electric Reliability Council and the North American Electric Reliability Corporation Addressing Non-Governance Issues. (Docket No. RR06-1-000 dated

F. The Commission Should Defer on Directing Local Control Centers to be Made a Responsible Entity Where This Would Split Responsibility Between Entities For the Same Facilities, Pending Resolution of This Matter Within NERC.

At P237, The Commission proposes that all local control centers (“LCCs”) and organizations that are necessary for the actual implementation of the operational decisions made by the ISO or RTO be part of the transmission or generation operator function in the NERC Reliability Functional Model (“Functional Model”). Furthermore, the Commission proposes that all requirements for Reliability Standards that address such activities as telecommunication, training, operator certification, transmission operations, and cyber and physical security would also apply to LCCs.

The IESO notes that this proposal is incompatible with the current and proposed versions of the Functional Model, versions 2 and 3, and the NERC Rules of Procedure. The Functional Model, which plays a key role in the NERC Reliability Standards framework, defines reliability functions (such as operating reliability) and the associated responsibility entity (such as a reliability coordinator) that is responsible to NERC for all of the tasks of the function, for given facilities. Requirements in standards are written against the responsibility entity. Thus, when an organization registers with and is accepted by NERC to be a reliability coordinator for given bulk power system facilities, that organization is solely responsible to NERC for meeting all requirements respecting the specified facilities.

The Commission’s proposal would change NERC’s compliance framework by splitting the responsible entity tasks and standards requirements between

different organizations for the same facilities (such as between an ISO and a LCC).

The Functional Model recognizes that it is not always the case that one organization performs all of the tasks associated with a given responsible entity, but avoids potential complication by distinguishing between responsibility and performance. One organization is responsible to NERC for all tasks and for meeting all standards requirements, but that organization may delegate the performance of some tasks to another organization, where there will typically be an agreement between the two organizations to clarify the relationship. NERC is thus able to focus on the organization having the responsibility, even if that organization does not perform all of the reliability tasks.

An organization considered to be a local control center (“LCC”) will typically perform some, but not all, of the Responsible Entity¹⁹ tasks, and in particular will not have the means or authority to perform the majority of tasks. Such an LCC will typically have an agreement with the organization having the responsibility for local area reliability, i.e., with the reliability coordinator or transmission operator, as described above.

NERC has recognized that organizations that are not responsible entities, such as LCCs, may play an important role in reliability, and have made such organizations subject to compliance audits and/or requiring their staff to be NERC certified, where judged appropriate through case-by-case determination. In addition, it is intended that the Regional Reliability Plans will document the relationships between organizations. The current process therefore has a

¹⁹ Responsible Entity is defined in the Functional Model as “is accountable for all Tasks within the Function. While the organization may agree to split or delegate Tasks of the Function, NERC will require that one, and only one, organization is the Responsible Entity, ensuring all of the Tasks of the

mechanism for accommodating reliability considerations for organizations such as LCCs.

The IESO supports the need to resolve responsibilities by the ERO in proactive manner to ensure a clear understanding of responsibilities and accountabilities between organizations. Any duplication or omissions in accountabilities could impede the reliability improvements of future standards.

Beyond the Regional Reliability Plan, a key tool in this process is NERC's Registration and Certification Process. In particular, the formal certification of entities²⁰ provides a clear process to determine and evaluate any delegation relationships that may occur such as the case with LCCs. However, given the on-going nature of this issue, it is therefore appropriate for the Commission to defer ruling on this issue pending a report from NERC.²¹

Function are performed.”

²⁰ NERC currently is developing plans to certify organization as reliability coordinators, balancing authority and transmission operators

²¹ The appropriateness of the current practice of restricting responsibility for all standards requirements to a single organization was questioned at the Dec 6-7, 2006 meeting of the NERC Operating Committee, which established a process to review this question in early 2007.

III. CONCLUSION

WHEREFORE, for the foregoing reasons, the IESO respectfully requests that the Commission adopt the IESO's recommendations provided above.

Respectfully submitted,

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