



U.S. – Canada Power System Outage Taskforce

December 8th, 2003, Toronto Open Conference to receive comments regarding U.S.-Canada Power System Outage Task Force “Interim Report: Causes of the August 14th Blackout in the United States and Canada”

Submission made on behalf of the

INDEPENDENT ELECTRICITY MARKET OPERATOR (IMO)

Introduction

The IMO congratulates the Joint Task Force for the approach it has taken in this investigation, the clarity of the interim report's analysis and findings, and for the process it is following in seeking comments and in the development of recommendations.

Today's objectives are to give the public an opportunity to comment on the interim report's findings and present ideas for improving reliability of our electric infrastructure and preventing future blackouts. The IMO participated extensively in providing data and analysis to the Task Force and to the technical investigations, but we are here today primarily to listen to stakeholders' feedback, and have focussed our comments on the Electric System aspects of the Interim Report. We intend to contribute to the technical conferences to be conducted by the Electric System investigating team next week and in January. We also advised our stakeholders and market participants of this meeting, and the opportunity to provide the Task Force with their views.

We do wish to take this opportunity to describe the reliability framework in place in Ontario. It is one that makes compliance with standards and rules mandatory. In Ontario, in contrast to many other jurisdictions, statute-based powers are in place and assign to the IMO, an independent entity, the accountability for system reliability, and the authorities to oversee reliability compliance in the Province. In short, we have in place here in Ontario much of what the U.S. has been attempting over the last few years to put in place by means of Federal legislation.

We commend the Ontario model to you. The Ontario reliability framework continues to function effectively in setting and monitoring compliance with standards – and is backed up by sanctioning authority. We have attached an Appendix setting out the background of the IMO, our specific accountabilities for reliability, and the key conclusions of NERC and NPCC audits of the IMO's reliability coordination and compliance operations.

The IMO has considered the possible implications of the findings of the Task Force to date, and suggests that in formulating its recommendations the Task Force pay particular attention to five principles:

- 1. Development of reliability standards must remain the purview of an international electricity reliability organization.**
- 2. The independent administration and integration of power system and market operations should be maintained and enhanced.**
- 3. Provisions to make reliability standards mandatory and enforceable should be put in place where they do not already exist.**
- 4. The industry should continue to focus on the existing three-part strategy of prevention, containment and minimization of impact.**
- 5. The reliability framework for North America should be built on the strong international institutions and regulatory foundations already in place.**

Each of these principles is discussed further below.

- 1. Development of reliability standards must remain the purview of an international electricity reliability organization.**

Reliability standards for the interconnected North American grid should continue to be developed through international processes – NERC and the associated regional reliability council, NPCC, has been very effective in the northeast. Operating within this context, Canadian/US interconnections have yielded substantial reliability and trading benefits for all parties over the years. Continuing these benefits depends on sustained public confidence that reliability standards are consistent, and consistently applied, across interconnected jurisdictions. We need to avoid disconnects in the process; failures of coordination will lead to reliability issues. Independent and integrated direction of power system and electricity market operations, within complementary regulatory environments, will provide public assurance that reliability requirements will be maintained across a restructured

electricity industry. The challenge in enhancing the international reliability framework is to prevent ‘weak links’ from developing that adversely affect everyone, including those who comply with the rules. To avoid this the Task Force should reinforce the theme of a single, international, industry-based standards development framework that recognizes the interdependent nature of the power system while respecting sovereignty issues.

2. The independent administration and integration of power system and market operations should be maintained and enhanced.

Experience has shown that system reliability, directing system operations, and market operations are a tightly integrated set of functions that are best performed by an independent entity. This was recognized in the design of Ontario’s restructuring, and is consistent with the rationale articulated by FERC, for example in its TransLink and Alliance RTO rulings. That rationale remains equally compelling in Ontario’s evolving market environment. Ontario’s experience may be especially relevant to the Task Force in that Ontario’s reliability framework has enabled the IMO to successfully integrate reliability with system and market operations within a restructured industry. The results in Ontario demonstrate that despite the separate interests and perspectives of transmitters, generators, distributors, marketers, loads and other market participants, the move from a voluntary to a statute-based reliability framework, independently administered, can enhance already strong reliability practices.

The importance of the close relationship between market drivers and reliability, and the dividends available through that combination, were amply demonstrated in Ontario during the summer of 2002 – when the market operated effectively to address reliability issues driven by extreme weather and unanticipated delays in returning generation to service. While those circumstances were managed in the short term, there is growing recognition that reliability accountabilities also need to address a continuum that includes adequacy, security, and the planning of system facilities and resources over an extended time frame.

3. Provisions to make reliability standards mandatory and enforceable should be put in place where they do not already exist.

Compliance with internationally established standards should become mandatory in all interconnected jurisdictions capable of initiating cascading system outages. In the wake of the blackout, voluntary schemes will no longer be publicly acceptable. However, the Task Force will also be aware that both NERC itself and the standards development and compliance framework it administers have been developing and changing significantly over the past several years. The transformation has two objectives: first, to adapt to the changing structure of the industry in Canada and the U.S., and second, to prepare for an anticipated move to a mandatory compliance environment. The transformation of NERC and the regional councils is an ongoing task, and challenges all of us to continue to move forward in a coordinated way while accommodating an increasing number of interested stakeholders. But our focus needs to stay on the public interest as the primary driver for reliability standards, not just the more restricted interests of individual market participants.

Accordingly, the IMO adds its voice to those urging the Task Force to recommend that well-defined statute-based mandates be established under which a responsible electricity reliability organization would have clear standard-setting, enforcement, compliance and sanctioning authority for reliability performance. The mandate in the currently stalled U.S. energy legislation appears to be complementary with the existing IMO mandate with respect to Ontario entities – and the standards adopted by the IMO for Ontario meet or exceed relevant NERC and NPCC guidelines and policies.

4. The industry should continue to focus on the existing three-part strategy of prevention, containment and minimization of impact.

Prevention: is by far the most important objective. This is accomplished through good planning and coordinated operations, adequate investments, effective certification, and compliance audits and reviews. Mandatory enforceable standards set the requirements, but they are a necessary but not sufficient condition.

Compliance with those standards requires the right functions to be assumed by the

right entities equipped with the required attributes, authorities and capabilities. All entities should comply with approved reliability requirements that are critical to the prevention of wide area outages. Prevention hinges on ‘Being Prepared’ - all parties must be ready for the next contingency continuously. Conditions change in unanticipated ways, and all entities must have the capability of ensuring their systems remain secure immediately following any significant change in status. Clear accountabilities are essential for the day to day integrity of grid operations. The Task Force Interim Report notes this at page 6: “ The central organizing principle of reliability management is to be prepared for the unexpected”. In analyzing previous blackouts, the taskforce found that “ Operators in several of the events were unaware of the vulnerability of the system to the next contingency” (page 72)

Containment: Contingencies on a power system and even blackouts will not always be prevented. However the scope and scale of a disturbance can be contained through effective monitoring capabilities, communication protocols, and equipment and processes that are set to limit the effect of disturbances. If a local area is threatened, or is operating in an insecure state, action must be taken locally to eliminate the potential for cascading consequences. Ontario has practiced this consistently, and IMO operating staff are authorized to direct that load be cut if necessary to remain in a secure state. As emphasized above, “Being Prepared” for the next contingency is key, and the follow through is that if a local area is not secure, i.e. able to contain the impact of the next contingency within its control area, it must take action immediately to achieve that state.

Minimization of impact: August 14 demonstrated dramatically the impact that a widespread blackout has on modern society. Steps can and must be taken in anticipation of such an event to ensure coordinated action minimizes the duration and consequences of a blackout. Well developed restoration plans and exercises, adherence to testing schedules, practical training, education and communications are all critical elements of restoring reliability as quickly as possible.

5. The industry should build on the strong international institutions and regulatory foundations already in place.

It is our view that the future prevention of similar incidents is best achieved by building on the current international reliability framework. Regulatory authorities on both sides of the border have spent significant time and effort allocating accountabilities as the industry restructures in various jurisdictions. The system collapse last August was, as Secretary Abraham pointed out, entirely preventable – and appears to have been a function more of operating rather than institutional failure. The strong tradition of international cooperation in achieving power system reliability has served North America well. The institutions, agreements, and organizations already in place, updated and supplemented by well-defined obligations and authorities, are fully sufficient, in our view, to take the industry forward.

At the same time, appropriate recognition of regional differences needs to be accommodated within the international standard setting processes. The focus for regional differences should be to address the need for strengthened standards to meet more stringent local requirements. Regional differences cannot become an instrument for “averaging down” the achievement of reliability objectives.

Similarly, the IMO would not favour a move to less comprehensive or higher level standards – this approach would not impose the level of consistency needed for an international multi-entity network.

The IMO appreciates the opportunity to table these comments, and looks forward to participating further as the Task Force moves toward its Final Report.

Appendix

Background on the Independent Market Operator in Ontario (IMO)

The IMO was created in 1999 as part of Ontario's restructuring of its electricity sector, and is the functional equivalent of a U.S. based ISO or RTO such as NYISO, PJM, or ISO-NE. The objectives of the IMO are established by Ontario's *Electricity Act, 1998*. Our objectives are to:

- (a) exercise and perform the powers and duties assigned to the IMO under this Act, the market rules and its licence;
- (b) enter into agreements with transmitters giving the IMO authority to direct the operations of their transmission systems;
- (c) direct the operations and maintain the reliability of the IMO-controlled grid;
- (d) establish and operate the IMO-administered markets;
- (e) collect, and provide to the public, information relating to the current and future electricity needs of Ontario and the capacity of the integrated power system to meet those needs;
- (f) participate in the development by any standards authority of standards and criteria relating to the reliability of transmissions systems; and
- (g) work with responsible authorities outside Ontario to coordinate the IMO's activities with their activities.

Participation in and operation of the IMO-administered markets is governed by a comprehensive set of Market Rules. A Board of Directors, made up of independents as well as stakeholders, governs the IMO and approves the Market Rules. The IMO-administered markets have been in operation since May 1, 2002.

Specific IMO Accountabilities Regarding Reliability

The IMO's objects assigned to it by Provincial legislation include participating in the development of standards and criteria relating to the reliability of transmissions systems, as well as directing the operation and maintaining the reliability of the IMO-controlled grid.

The IMO's licence, granted by the Ontario Energy Board (OEB), obligates the IMO to enter into agreements with Transmitters for purposes of directing the operation of the grid.

An extensive set of Market Rules goes into considerable detail related to reliability obligations, authorities, monitoring and enforcement. A copy of the Market Rules is available on the IMO website (www.theimo.com).

The IMO has full statute-based authority for establishing, monitoring and enforcing reliability standards. In this regard, the IMO has been an active participant in NERC and NPCC and has adopted the standards developed through those organizations as the basis for reliability standards in Ontario.

The IMO is Ontario's Control Area operator, and is party to the Northeast Power Coordinating Council (NPCC) agreement.

The IMO is also the reliability coordinator for Ontario and was subject of a NERC reliability coordination audit in October, 2002. The audit report concluded as follows: "The Audit team congratulates the IMO on an excellent audit report, and

concludes that the IMO meets the intent of Policy 9 and Appendices for a Reliability Coordinator. The Audit Team was favorably impressed with the IMO operation.”

A 2002 reliability compliance audit by the NPCC concluded that the IMO’s procedures and practices are exemplary in discharging its reliability authority functions. The audit concluded that “the Ontario Area compliance program is unique in that it is directly tied to the established market rules and licensing requirements. This structure makes compliance a binding obligation and facilitates in the administration and enforcement of compliance. NPCC’s Compliance Monitoring and Assessment Subcommittee (CMAS) encourages other Areas to consider such a compliance program model”.