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## Market Manual 7: System Operations

# Part 7.10: Ontario Electricity Emergency Plan

**Issue 6.0**

*This document describes the Ontario electricity sector's emergency management program, and how the IESO coordinates with market participant and government stakeholders.*

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## Document Change History

| Issue | Reason for Issue | Date |
|---|---|---|
| 1.0 | First release, *IESO* Board approval | June 2, 2000 |
| 2.0 | Review and revised after Exercise 2002 | November 20, 2002 |
| 3.0 | General review and revised to incorporate lessons learned from Blackout 2003 and Exercises 2003 and 2004. Market Participant Emergency Planning Criteria and Electricity Emergency Priority Policy documents incorporated into this document. Endorsed by EPTF. | May 26, 2005 |
| 4.0 | Extensive re-write to more fully describe the scope of the *Ontario Electricity Emergency Plan* and the role of *market participants*. Re-structured to more closely align with the Canadian Standards Association's new Emergency Management and Business Continuity standard CSA Z1600. Now written as Market Manual 7.10 to conform with the *IESO*'s documentation hierarchy. Endorsed at May 20, 2009 stakeholder Emergency Preparedness Task Force meeting.<br><br>Issue released for Baseline 22.0 | September 9, 2009 |
| 5.0 | Various updates throughout including:<br>• Removal of Priority 2 Customer Load and adding electrically-driven gas pipeline compressors to the list of Priority Customer Loads examples in the Critical Power System and Priority Customer Load table;<br>• A number of changes to reflect the CMST's Guiding Principles; and<br>• Updates to the CMST and EPTF rosters.<br><br>Issued for Baseline 25.1 | June 1, 2011 |
| 6.0 | Changes throughout to reflect an All Hazards Approach<br><br>Issue released for Baseline 27.0 | March 7, 2012 |

## Related Documents

| Document ID | Document Title |
|---|---|
| MDP_PRO_0040 | System Operations Manual 7.1 - System Operating Procedures Manual |
| IMO_PLAN_0001 | Market Manual Part 7.8 - *Ontario Power System Restoration Plan* |
| IMO_MAN_0001 | Emergency Drills and Exercises Guide |
| IMO_GDE_0001 | Market Participant Emergency Planning Guidelines |
| | Canadian Standards Association's Emergency Management and Business Continuity standard CSA Z1600 |
| | Canadian Standards Association's Emergency Management and Business Continuity standard CSA Z731 |
| | Emergency Management Glossary of Terms (Interim) 2011 |
| | Ontario Provincial Hazard Identification and Risk Assessment Report ("HIRA") |

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# Table of Changes

| Reference (Section and Paragraph) | Description of Change |
|---|---|
| Section 2.2 | Added further clarification to the OEEP scope |
| Section 4.1 | Added new section for "Key Definitions" |
| Section 4.2 | Revised section 4.2 Threat and Hazard Identification and added Table 4-1: List of Hazards |
| Section 4.3 | Minor modifications to text to Risk Assessment section |
| Section 4.5 | Added additional clarification to the Emergency Planning Process section and added a new figure depicting the emergency management system |
| Throughout | Consistently use the Market Rule defined term "emergency preparedness plan" when describing emergency plans. |
| Various sections | Corrected the use of Public Safety Canada's official short form of "PS" |
| Appendix A | Added Enbridge gas Distribution to the EPTF Roster |

# 1. Executive Summary

This *Ontario Electricity Emergency Plan* (OEEP) describes the coordinated actions required of the Independent Electricity System Operator (*IESO*) and *market participants* to plan for and respond to emergencies affecting the reliable supply of electricity to Ontario. It supports the principles outlined in the Ontario government's Provincial Emergency Response Plan (PERP).

The OEEP:

- Describes how we meet the emergency planning requirements of the *Electricity Act (1998)* and the *market rules.*
- Provides the framework for how we plan for and respond to threats, incidents, or emergency situations among the *IESO*, *market participants*, the Ministry of Energy (MoE), and Emergency Management Ontario (EMO) within the Ministry of Community Safety and Correctional Services.
- Describes how we collaborate to test and exercise our plans, and take corrective actions in a spirit of continuous improvement.

**– End of Section –**

# 2. About This Manual

This document is Part 7.10 – *Ontario Electricity Emergency Plan* of the *IESO* Market Manual 7 – System Operations.

## 2.1 Purpose

The OEEP describes:

- The emergency planning requirements of the *IESO* and *market participants*, and
- How the *IESO* and *market participants* work together to coordinate their emergency planning and response activities

## 2.2 Scope

Electricity is perhaps the most critical of infrastructures that support our way of life both at home and at work. This OEEP describes the overall framework for how Ontario's electricity sector coordinates its emergency planning and responds to situations, events, or incidents affecting electricity *reliability*.

The OEEP:

- Describes the coordinated actions required of the *IESO* and *market participants* to plan for and respond to emergencies affecting the reliable supply of electricity to Ontario
- Describes how to meet the emergency planning requirements of the *Electricity Act, 1998* and the *market rules*
- Supports the principles outlined in the PERP
- Establishes the framework to share information related to situation assessments and recovery strategies among *market participants*, the Independent Electricity System Operator (*IESO*), the Ministry of Energy (MoE), Emergency Management Ontario (EMO), and Public Safety Canada (PS)

The OEEP focuses on emergencies affecting a large segment of Ontario's power system with the potential for significant adverse impact on public health and safety, or economic disruption. Typically, such an event would also affect *market participants* or jurisdictions outside Ontario, and would involve senior management and government officials to return the situation to normal.

Examples include events such as the 1998 ice storm and the August 2003 blackout. In addition to providing the overall framework for responding to these types of significant events, the OEEP takes an all-hazards, all-threats approach that includes physical and cyber security, and what has become known in recent years as critical infrastructure protection.

The OEEP requires the electricity sector to be prepared to respond to all hazards affecting grid reliability, and it recommends that all *market participants* also be prepared to respond to hazards to their own operations and businesses. The OEEP adopts the EMO list of Hazards for operations in Ontario, and recommends that *market participants* consider corresponding local hazards for critical supplies, equipment, and services sourced from other jurisdictions.

The OEEP is consistent with the program elements laid out in the Canadian Standards Association's Z1600-08 Emergency Management and Business Continuity program, and addresses program management, planning, implementation, evaluation, and management review.

## 2.3 Who Should Use This Manual

The OEEP provides context for all *market participants* and government stakeholders with roles in emergency preparedness. It describes how Ontario's electricity sector coordinates actions to support a timely and coordinated response to any emergency affecting the supply and delivery of electricity to *consumers*.

## 2.4 Conventions

Conventions for this market manual:

- 'We' means the *IESO* and *market participants*
- 'Program' means the initiatives and actions the *IESO* takes in collaboration with *market participants* and government officials to help ensure our *emergency preparedness plans* and response are coordinated and effective
- 'Grid' means the *IESO-controlled grid*
- Italicized words have meanings ascribed to them in Chapter 11 of the market rules.

## 2.5 List of Acronyms

| | |
|---|---|
| AMPCO | Association of Major Power Consumers of Ontario |
| BOMA | Building Owners and Managers Association |
| CIP | Critical Infrastructure Protection |
| CMCC | Crisis Management and Communications Centre |
| CMST | Crisis Management Support Team |
| EDA | Electricity Distributors Association |
| EIC | Emergency Information Centre |
| EMO | Emergency Management Ontario |
| EPTF | Emergency Preparedness Task Force |
| *IESO* | Independent Electricity System Operator |
| MoE | Ministry of Energy |
| NERC | North American Electric Reliability Corporation |
| NPCC | Northeast Power Coordinating Council |
| OEEP | *Ontario Electricity Emergency Plan* |
| OPG | Ontario Power Generation |
| OPSRP | *Ontario Power System Restoration Plan* |
| PEOC | Provincial Emergency Operations Centre |
| PERP | Provincial Emergency Response Plan |
| PNERP | Provincial Nuclear Emergency Response Plan |
| PS | Public Safety Canada |
| THES | Toronto Hydro-Electric System |

**– End of Section –**

# 3. Program Management

This section describes how the *IESO*'s emergency management program is organized and managed, and how it is enhanced by the active contribution and cooperation of *market participants*.

## 3.1 Leadership and Commitment

This OEEP assumes that senior leaders and qualified staff from the *IESO*, *market participants*, and government are actively involved in this program, and adequate resources are made available.

A successful emergency management program includes continuous improvement. Even the best plans need to be exercised regularly through simulations and real events. Exercise scenarios must be realistic, yet imaginative, to challenge responders to expect the unexpected. Implementing the lessons-learned from such exercises ensures the currency and effectiveness of our collective capability to manage electricity system emergencies.

## 3.2 Program Coordinator

Section 39 of the *Electricity Act, 1998* designates the *IESO* as the overall coordinator of Ontario's electricity emergency management program. To meet this obligation, the *IESO*'s Chief Operating Officer chairs the stakeholder-represented Emergency Preparedness Task Force (EPTF) for planning initiatives, and the Crisis Management Support Team (CMST) for response actions.

## 3.3 Advisory Committee

In 1998, the electricity industry in Ontario faced a number of challenges that prompted us to improve how we coordinate our emergency planning activities. A recent ice storm had plunged much of Eastern Ontario and Quebec into darkness. In some areas it took several weeks before power was restored. Y2K was approaching, and although the industry had expended much time and effort to ensure computer systems would support the roll-over into 2000, we needed contingency plans to support rapid response and recovery should the unexpected occur.

As well, the *Electricity Act, 1998* split Ontario Hydro into several successor organizations. The Act established the framework for a restructured Ontario electricity sector to support a competitive wholesale electricity market composed of hundreds of separate companies in their roles as transmitters, local *distribution* companies, generators, wholesale *consumers*, and traders. This new structure required close coordination at all times, especially during emergency situations. While the Act has undergone several revisions over the years, the provisions for emergency plans (section 39) have stood the test of time and real events, including the August 2003 Blackout[1].

[1] Ontario's Premier declared a Provincial Emergency in response to the August 2003 Blackout.

Therefore, the *IESO* established the stakeholder-represented EPTF to help coordinate Ontario's electricity sector emergency planning activities.

The electricity industry is diverse, and we have learned from experience there is great benefit in working together to address emergency management matters. The EPTF plays an important role by providing a forum for participants to share information and approaches to address emergency management issues, and to provide input and advice to the *IESO*. The *IESO* and all *market participants* are responsible for maintaining their own company's emergency management program that addresses their own needs, and supports this coordinated approach.

The current roster of EPTF participants is in Appendix A.

### 3.3.1 Market Participant Involvement

The EPTF benefits from broad and inclusive participation of all types of *market participants* – generators, transmitters, local distribution companies, and industrial and commercial *consumers*. It is important that stakeholder representatives on the EPTF have accountability and senior management support from their own organizations for emergency management matters.

EPTF participants provide input on behalf of their organizations in the context of our mutual goal of minimizing the impact of electricity emergencies on public health and safety and the economy. EPTF participants benefit by helping ensure our planning and exercise initiatives are effective and are of value to their own organizations. Participants are also able to keep abreast of developments within Ontario and abroad.

While all *market participants* are welcome to participate on the EPTF, those who have a greater impact on electricity *reliability* (especially *market participants* who are *restoration participants*[2]) are encouraged to participate on a regular and sustained basis. Others may participate periodically – for example, to plan and participate in workshops and exercises, or identify lessons from real events.

While we need some face-to-face meetings to build strong collaborative relationships, we also try to minimize travel time and costs by using conference calls and the web to share information and encourage stakeholder participation. The *IESO*'s public web site provides an overview of our emergency management program, and a password-secured web site to coordinate the EPTF's work program with participants.

### 3.3.2 Government Involvement

Government representatives from MoE, EMO and PS are also key stakeholders on the EPTF. The EPTF provides an important forum to ensure that the OEEP and the EPTF's activities are consistent with the PERP. The EPTF also serves as the Electricity Sector Working Group under the provincial government's Critical Infrastructure Assurance Program.

[2] The *IESO* identifies "Restoration participants" using the criteria in Section 3 of the *Ontario Power System Restoration Plan*. In general, they are *market participants* who own or operate the assets needed to restore Ontario's grid in the event of a large-scale system blackout.

## 3.4 Program Administration

The *IESO* chairs the EPTF and provides support to organize meetings, draft agendas, prepare minutes, and produce reports. An EPTF Work Plan, that addresses each of the program elements under the CSA's Z1600 standard, provides the planning framework for the EPTF's initiatives over the next two years. The EPTF meets at least quarterly, and participants take turns hosting the meetings.

Periodically, we establish subordinate working groups to take on specific EPTF initiatives. Subject matter experts from various participants provide the knowledge and experience needed, for example, to:

- Plan and coordinate workshops and exercises
- Review and revise the *Ontario Power System Restoration Plan*
- Share information related to cyber security
- Develop emergency planning guidance documents

### 3.4.1 Program Goals and Objectives

The goal of Ontario's electricity emergency management program is to coordinate the efforts of the *IESO* and *market participants* to prevent or mitigate incidents that could affect the reliable supply of electricity and threaten people, property, or the environment.

To achieve this goal, the emergency management program's objectives are to:

- Provide a forum to encourage and facilitate information-sharing among participants
- Provide subject matter expertise to identify and address hazards and threats to Ontario's *electricity system*
- Carry out work programs to improve our overall readiness to anticipate and respond
- Inform, advise, and support *market participants* and government

### 3.4.2 Program Plan and Procedures

The EPTF prepares a 2-year work plan annually that is endorsed by participants at the EPTF's first meeting of the year. Program areas include each of the elements in the CSA Z1600 standard:

- Program management
- Planning
- Implementation
- Exercises
- Evaluations and corrective actions
- Management review

We review the status of the work plan at each EPTF meeting to ensure work is on-track and to consider if we need to revise or re-prioritize plans.

The EPTF recognizes that the work plan may need to change significantly to respond to real events. For example, immediately following the August 2003 blackout, we established a restoration working

group to detail the sequence and timing of restoration efforts in Ontario, recommend areas for improvement, and reinforce what went well.

### 3.4.3 Program Budget

The *IESO* commits resources to support the maintenance and implementation of the OEEP through its business planning process. The *IESO*'s business plan is approved by the Minister of Energy and the Ontario Energy Board, and is available on the *IESO*'s public web site.

As described above, the success of Ontario's electricity emergency management program depends heavily on the contribution of *market participants*. While *market participants* contribute to the work of the EPTF at their own expense, the *IESO* strives to ensure that EPTF activities are well-organized, effective, and continue to evolve according to need.

### 3.4.4 Program Review

At each EPTF meeting, actions are tracked against expected completion dates. At the last meeting of each year, the EPTF work plan is reviewed from a strategic perspective to determine if program areas or resources need to change which are then reflected in next year's work plan. As part of its compliance monitoring and enforcement activities, *NERC* audits the *IESO*'s program against *reliability* standards.

## 3.5 Laws and Authorities

The *Electricity Act, 1998*, and the *market rules* provide the "policies" for emergency planning in Ontario's electricity sector and set out the legal requirements. The *market rules* describe the obligations of the *IESO* and all *market participants*, supported by a compliance monitoring function that reports directly to the *IESO*'s President and Chief Executive Officer.

The *Electricity Act, 1998, Section 39*, designates MoE and the *IESO* as the organizations responsible for emergency planning among *market participants* and assuring that electricity emergencies can be coordinated effectively.

Section 39 of the Act states:

1 The Minister shall require the IESO to prepare and file with the Minister such emergency plans as the Minister considers necessary

2 The Minister may require a Market Participant to prepare and file with the Minister such emergency plans as the Minister considers necessary

3 The IESO shall assist in coordinating the preparation of plans under subsections (1) and (2)

*4* The Minister may direct the IESO or a Market Participant to implement an emergency plan filed under subsection (1) or (2), with such changes as the Minister considers necessary

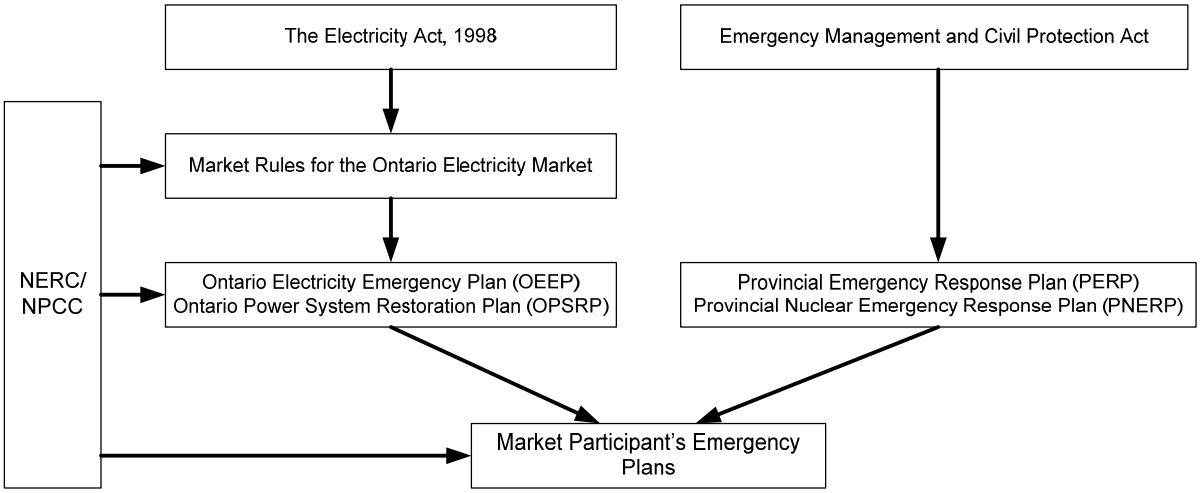
*5* Every generator that owns or operates a nuclear generation facility shall file with the Minister a copy of any emergency plans relating to the facility that are filed with the Canadian Nuclear Safety Commission.

To meet this legal requirement, Chapter 5, Section 11 of the *market rules* describes the Emergency Preparedness and System Restoration requirements of the *IESO* and *market participants*:

- All *market participants* are required to maintain *emergency preparedness plan*s, and submit them to the *IESO* for review
- In addition, *restoration participants* are required to prepare *restoration participant* attachments, and submit them to the *IESO* for review

These *market rule* requirements are consistent with *NERC* emergency operations (EOP) standards.

The Emergency Management and Civil Protection Act includes the provision that the Minister of Community Safety and Correctional Services may formulate plans respecting emergencies. This need is fulfilled by the PERP, and the PNERP. While the PERP does not specifically apply to non-government entities, the OEEP is intended to support the goals of the PERP. On the other hand, the PNERP does place requirements on owners and operators of nuclear facilities in Ontario. Therefore, to ensure optimal coordination, *market participants* who own or operate nuclear facilities need to keep the *IESO* advised of any changes to the PNERP that could be relevant to the OEEP.




## 3.5.1 Compliance

The *IESO*'s Reliability Compliance Program monitors *IESO* and market participant compliance with the market rules. The *IESO* may request that a *market participant* perform an independent audit of its own plans, and provide the results to the *IESO*. The *IESO*'s plans are subject to audit by the NPCC against *NERC* standards.

*Market participants* who breach the *market rules* may be subject to sanctions if the *IESO* considers it appropriate, given the circumstances. These sanctions could be a directive instructing the *market participant* to rectify a breach of the *market rules*, financial penalties, suspension, or termination from the market, depending on the nature of the breach or instance of non-compliance.

### 3.5.2 Non-regulatory Initiatives

While industry standards and mandatory compliance mechanisms are useful, not all aspects of a comprehensive and effective emergency management program lend themselves to “regulation”. Regulatory processes can be inflexible, overly prescriptive, slow to change, and can stifle innovative solutions. Threats and hazards that face the industry today are ever-changing. The spirit of the OEEP for the *IESO* and all *market participants* is to understand the risks we face and keep those risks at an acceptable level.

**– End of Section –**

# 4. Planning and the EPTF

This section describes our emergency planning framework, which takes a risk management approach to ensure planning requirements and EPTF initiatives are comprehensive, effective and reasonable.

## 4.1 Key Definitions

When discussing elements of an All Hazards approach with other emergency management professionals it is important to have a consistent understanding of each of the terms. For the purposes of consistency the EPTF has adopted the EMO definitions as provided in the "Emergency Management Glossary of Terms (Interim) 2011".

- **Hazard :** An event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, interruption of business, or other types of harm or loss;
- **Risk:** A chance or possibility of danger, loss, injury, or other adverse consequences. The concept of risk requires a determination of the probability of an incident occurring and the consequences of the occurrence;
- **Threat:** Any event that has the potential to disrupt or destroy critical infrastructure, or any element thereof. Threat includes accidents, natural hazards as well as deliberate attacks;
- **Vulnerability:** the degree of susceptibility and resilience of the organization and environment to hazards, the characteristics of a system in terms of its capacity to anticipate, cope with and recover from events; and
- **Incident:** An occurrence or event that requires an emergency response to protect life, property, or the environment.

## 4.2 Threat and Hazard Identification

Threats and hazards that may affect the *reliability* of Ontario's *electricity system* include natural, technological, and human-caused events. The *IESO* and *market participants* need to be aware of how these risks are changing, from both a local and global perspective. The OEEP has adopted Emergency Management Ontario's list of hazards from the Ontario Provincial Hazard Identification and Risk Assessment Report or "HIRA" as depicted in the table below.


* Note: Financial/Economic Crisis is not on the EMO list, and has been added here. The impacts of this hazard to the electricity sector are: 1) an underinvestment in infrastructure; and 2) companies going out of business.

**Table 4-1: EMO List of Hazards**

The EPTF plays a valuable role by providing a forum of experts who monitor these ever-changing threats and hazards, and share information promptly in order to understand likelihood, potential impacts, and to initiate any necessary action.

## 4.3 Risk Assessment

We need to assess threats and hazards to determine the likelihood and potential impact on electricity infrastructure, people, property and the environment.

Given the large number and great diversity of *market participants* in Ontario, individual risk assessments may vary widely, and should ensure that risks resulting from all hazards to business and operations are assessed. It is important to also perform a risk assessment from an integrated *electricity system* perspective regarding grid reliability as a whole. The *IESO* and *market participants* use these risk assessments to determine their own ability to maintain electricity *reliability* and take any necessary operational actions. The EPTF plays an important role by providing input and advice to the *IESO* in preparing these risk assessments.

While many different risk assessment methodologies are available, many are complex or best-suited to specific applications. For the purposes of the EPTF, we have found that a simple, qualitative model meets our needs. A "commonly used approach to risk management"[3] takes the following steps:

1. Identification of assets and loss impacts.
    - 1.1 Determine the critical assets that require protection.
    - 1.2 Identify possible undesirable events
    - 1.3 Prioritize the assets based on consequence of loss.

2. Identification and characterization of the threat
    - 2.1 Identify threat categories and potential adversaries.
    - 2.2 Assess intent and motivation of the adversary.
    - 2.3 Assess capability of adversary or threat.
    - 2.4 Determine frequency of threat-related incidents based on historical data.
    - 2.5 Estimate degree of threat relative to each critical asset and undesirable events.

3. Identification and analysis of vulnerabilities using a realistic threat
    - 3.1 Identification and analysis of vulnerabilities using a realistic threat.
    - 3.2 Identify potential vulnerabilities related to specific assets or undesirable events.
    - 3.3 Identify existing countermeasures and their level of effectiveness in reducing vulnerabilities.
    - 3.4 Estimate the degree of vulnerability relative to each asset.

4. Assessment of risk and the determination of priorities for the protection of critical assets
    - 4.1 Estimate the degree of impact relative to each critical asset.
    - 4.2 Estimate the likelihood of an attack by a potential adversary.
    - 4.3 Estimate the likelihood that a specific vulnerability will be exploited. The estimate can be based on factors such as prior history or attacks on similar assets, intelligence, and warning from law enforcement agencies, consultant advice, the company's own judgment, and additional factors.
    - 4.4 Prioritize risks based on an integrated assessment.

5. Identification of risk reduction measures, costs and trade-offs.
    - 5.1 Identify potential countermeasures to reduce the vulnerabilities.
    - 5.2 Identify potential facility changes that reduce the consequences from an event
    - 5.3 Estimate the cost of the countermeasures.
    - 5.4 Conduct a cost-benefit and trade-off analysis.

[3] Ref. "Risk Assessment Methodologies for Use in the Electric Sector", North American Electric Reliability Corporation

## 4.4 Operational Impact Assessment

The grid is designed and operated to respond to *contingency events* that may occur without notice at any time. System operators are trained to manage the impact of unanticipated equipment failures, and to respond to changes in demand while maintaining electricity *reliability*. The vast majority of these contingencies are managed without any disruption of supply to *consumers*, as part of everyday business. By building on this capability, we are well-positioned to evaluate and respond to more unusual events that could have a very significant impact on *reliability*.

Ontario's residential, commercial and industrial *consumers* are served by one of the most reliable *electricity system* in the world. Under normal conditions, they enjoy a virtually uninterrupted supply of electricity, and there is no need to prioritize delivery to one *consumer* over another. However, under emergency conditions, it becomes critically important to be able to prioritize quickly and effectively under very challenging circumstances.

The following definitions provide a framework to ensure that *market participants* make the difficult decisions regarding priorities before an emergency occurs. They also ensure that overall system needs that benefit large portions of Ontario are not compromised by local concerns to the detriment of the bigger picture. *Market participants* need to apply these definitions as part of their emergency planning.

### 4.4.1 Definitions Related to Priorities

#### Critical Power System Loads

Critical power system loads are direct enablers of restoration. Without them, we cannot restore the grid and reliably supply any *consumer* loads. Supplying critical power system loads is the highest priority.

Critical power system loads include AC and DC station service loads necessary to operate power system auxiliaries at control centres, transmission, generating, and step-down transformer stations. In some cases, these loads are also found within *distribution systems*. Examples of the types of auxiliaries supplied as critical power system loads include telecommunications, protective relaying, monitoring and control systems.

#### Priority Customer Loads

Priority customer loads are important *consumer* loads that need to be restored promptly to mitigate the impact on public health and safety, the environment, or the economy. *Market participants* who are local distribution companies and connected wholesale customers need to identify their priority customer loads.

The urgency for restoring any one *consumer* load may vary depending on circumstances, such as the duration of the interruption, time of day or season, weather conditions, geographical location, or other circumstances related to the nature of the emergency. Local distribution companies need to identify these loads as part of their planning efforts in consultation with consumers, transmitters, local government or emergency management officials. For example, local distribution companies need to design their rotational load shedding (also known as "rotating blackout") procedures with these priorities foremost in mind.

Despite the best of plans, under emergency conditions these priorities could change. *Market participants* need to be flexible and ready to revise priority strategies according to ever-changing circumstances. The following table summarizes the definitions for critical power system and priority customer loads.

**Critical Power System and Priority Customer Loads**

| | Critical Power System | Priority Customer Load[4] |
|---|---|---|
| **Possible that load may be interrupted without warning?** | Yes | Yes |
| **Load is essential for system restoration?** | Yes | No |
| **Load is subject to rotating blackouts?** | No | No |
| **Examples** | Station service at grid facilities<br>Control systems<br>Telecommunications<br>Protective relaying<br>Monitoring | Oil refineries and pipelines<br>Electrically-driven gas pipeline compressors<br>Hospitals without backup generators<br>Water treatment and sewage plants without backup generators |

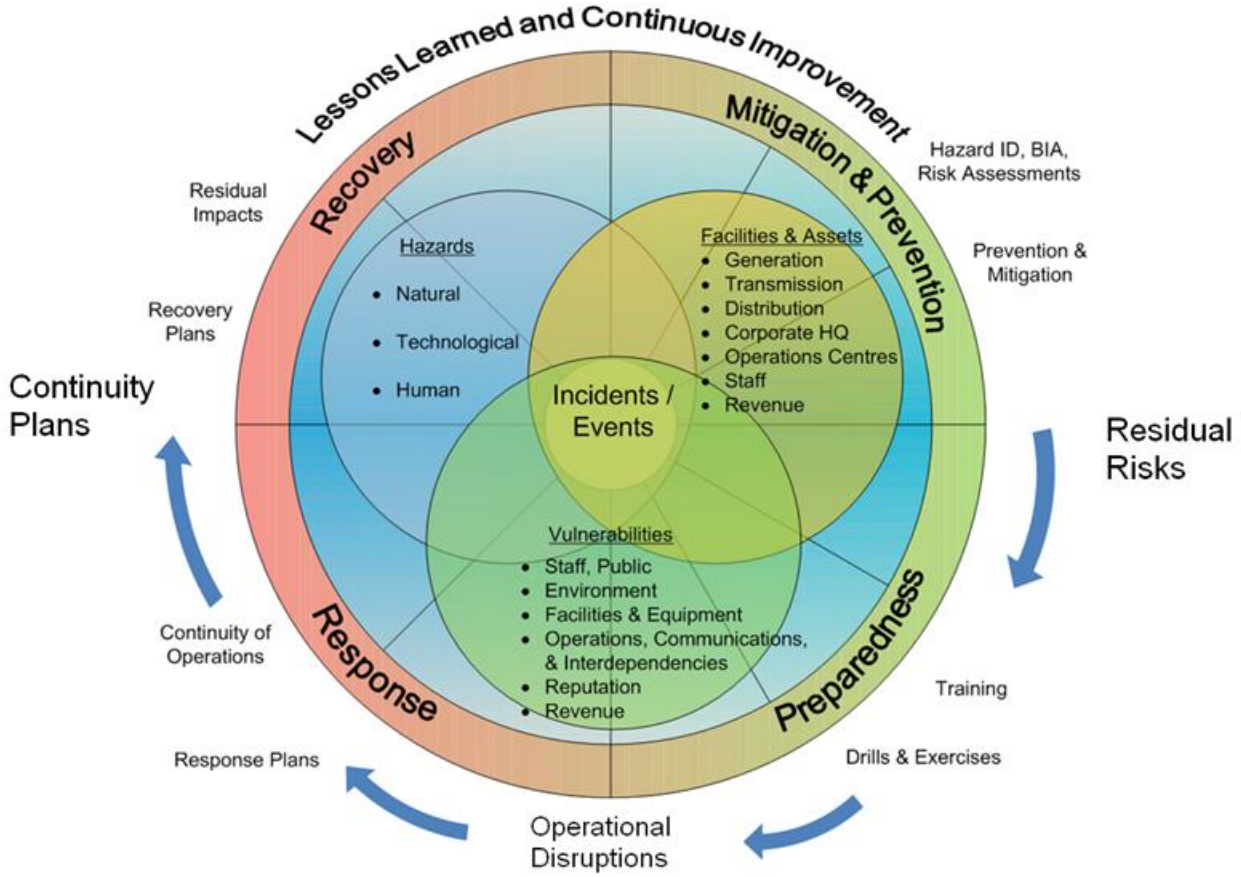
## 4.5 Emergency Planning Process

The *IESO* and all *market participants* are required to prepare *emergency preparedness plans* to ensure grid reliability. As part of the emergency planning process, the *IESO* and *market participants* should ensure that the risks associated with the hazards listed in Table 4-1 are assessed. If existing *market rules* and *NERC* or other industry standards are not adequate to prevent or mitigate, then the *IESO* through the EPTF may issue additional guidance. *Market participants* should assess the resulting residual risks based on *market rules*, *NERC* or other standards and for residual risks to grid *reliability* that are deemed unacceptable, should develop emergency preparedness, response, and recovery plans. It is recommended that *market participants* similarly address the hazards and risks to their businesses and operations.

This OEEP is aligned with the Canadian Standards Association's Z1600 Emergency Management and Business Continuity standard. As represented in the figure below, this standard is a management system, and provides a broad yet comprehensive framework for all aspects of emergency

[4] Previously referred to as "Priority 1 Customer".

management – program management, planning, implementation, evaluation, and management review. CSA's Z731 Emergency Preparedness and Response standard provides additional "how-to" detail for some elements of the Z1600 standard.



## 4.6 Plan Requirements

*Market participants* are not obliged to use any one standard to develop and maintain their emergency management program, but they do need to address the key planning requirements described in Chapter 5, Section 11 of the Market Rules referenced below. Recognizing that *market participants* have different roles in supporting reliable market and system operations, the plans need to address the questions posed below under the relevant market rules subsection.

### 4.6.1 Planning (ref. Market Rules, Chapter 5, Section 11.2.4)

- What operating agreements or service arrangements do you have with others to manage the supply or delivery of electricity to or from your facility?
- What arrangements do you have in place to respond to an electricity emergency, including coordination with government and local emergency responders such as police, fire and ambulance?
- What mutual aid arrangements are in place with others to support response to an electricity emergency?
- Do your plans identify critical and priority loads, and how do you mitigate the impact of an electricity emergency on public health and safety?

### 4.6.2 Testing (ref. Market Rules, Chapter 5, Section 11.7)

- How do you test your plans through training, drills, and exercises?

### 4.6.3 Communication (ref. Market Rules, Chapter 5, Section 11.2.4)

- What is your company's operational contact telephone number, available 24/7?
- What is the telephone number and title of your senior manager who would be contacted in the event of an electricity emergency?

### 4.6.4 Ontario Power System Restoration Plan (OPSRP)

The OPSRP describes the strategy and planning requirements for restoring the grid following a worst case scenario contingency – a partial or complete system blackout. In addition to providing their *emergency preparedness plan*, *restoration participants* need to prepare a plan describing how they support the OPSRP (ref. Market Manual 7.8 – *Ontario Power System Restoration Plan*). These plans are known as *restoration participant* attachments.

**– End of Section –**

# 5. Implementation and the CMST

This section describes how we respond to threats and emergency situations, and distinguishes between **operational** response needed to manage grid *reliability*, and **crisis** response activities coordinated through the Crisis Management Support Team (CMST).

## 5.1 Prevention and Mitigation

The grid is continuously monitored by well-trained control room operators supported by sophisticated control systems, highly reliable communications, and careful planning and design according to industry standards. Automated alarm systems help experienced operators identify problems on the system so they can take immediate action to contain incidents that would otherwise have a severe impact on the grid. *Market participants* are required to inform the *IESO* of local events or incidents that could affect grid *reliability*. In a worst case scenario, operators are ready to implement the *Ontario Power System Restoration Plan* to restore reliable operation.

A fundamental tenet of effective emergency planning and response is that emergencies are best resolved at the most local level possible. In the context of the *electricity system*, emergencies affecting a single municipality are best addressed by the local distribution company by their own planning and operational resources. If necessary, they activate mutual aid arrangements with their neighbours.

For this reason, the OEEP focuses on situations or events that extend beyond the local level and have the potential for wide-spread, multi-regional, or long-term electricity disruptions. Under these circumstances, the Crisis Management Support Team (CMST) helps coordinate crisis response activities during larger-scale events.

## 5.2 Resource Management

In addition to the resources needed to conduct normal operations, *emergency preparedness plans* need to consider what additional resources are required to respond effectively to credible scenarios. Aside from managing operational processes, this needs to include staffing and resources to support crisis communications activities.

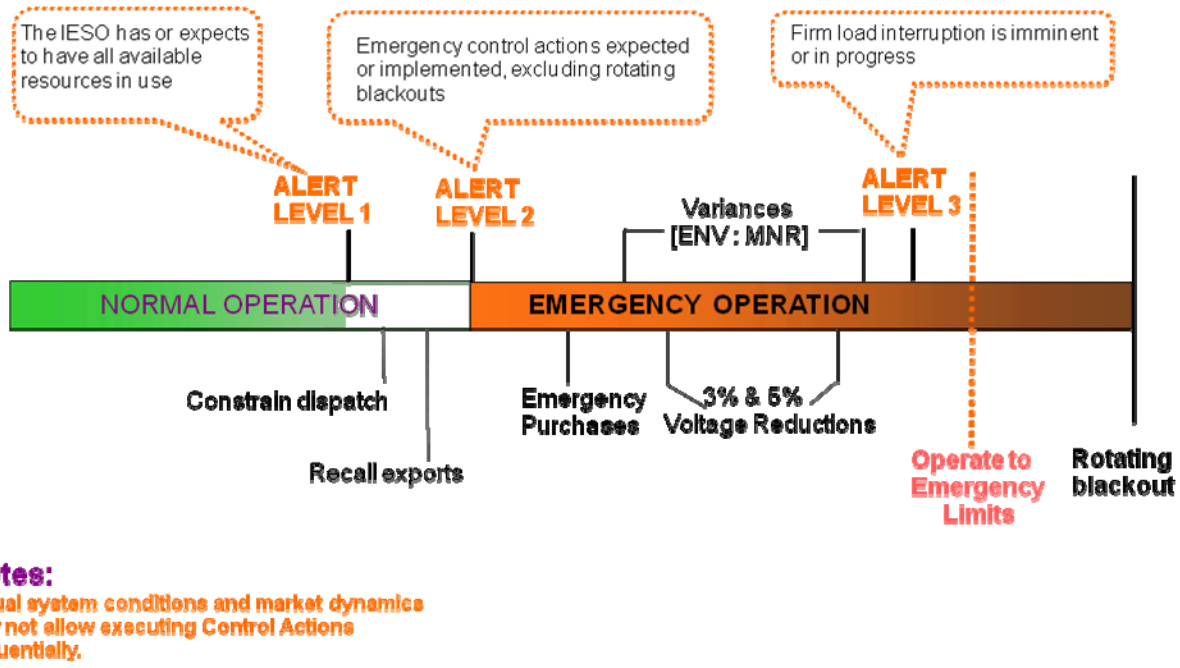
## 5.3 Mutual Aid and Assistance

It is important that *emergency preparedness plans* consider ways to increase human and material resources when needed. This may include mutual assistance arrangements with others outside the area affected by the emergency. For example, local distribution companies maintain and operate similar infrastructure, equipment and work practices and have a long history of cooperation.

## 5.4 Emergency Operational Response

As described in section 5.1, emergency response is not a separate activity from normal day-to-day grid operation. It is an integrated part of operational activities that reinforces normal operational roles, accountabilities and processes. For example, control room operators have the authority to decide on and implement emergency control actions, including immediate load shedding if needed, to balance generation supply to meet *consumer* demand. The following diagram illustrates emergency response as a continuum from normal operations.

### IESO Emergency Operations Framework




This does not mean to suggest that electricity emergencies are treated as business-as-usual. In addition to the *IESO* and *market participants*' operational efforts to respond to the emergency, we need to activate crisis management resources to maintain situation awareness, support operational response, and inform government, consumers, and other stakeholders. With an Ontario, national, and international perspective foremost in mind, the Crisis Management Support Team fulfills this role.

## 5.5 The Crisis Management Support Team (CMST)

The purpose of the CMST is to provide a forum for Ontario's electricity *market participants* and stakeholders to share information and co-ordinate crisis management activities leading up to and through a wide spread electricity emergency. The CMST maintains high-level situation awareness, and helps address issues that are not being addressed through operational means. It is important to emphasize that the CMST takes no operational decision-making accountabilities (e.g. directing the operation of the power system) away from participating organizations. **The CMST informs, but does not direct operations or crisis response actions.**

Although the outcomes of CMST conference calls may be considered public, the CMST often needs to share information that may be sensitive in nature and discussions are therefore conducted under non disclosure agreements (NDA). CMST representatives need to respect the source of any information they receive from other CMST representatives and share it only to the extent necessary within their own organizations. For example, CMST Situation Reports may be shared within a CMST representative's own organization but not more broadly.

The CMST is chaired by the *IESO* and composed of key representatives from *market participants*, industry associations, and the Ministry of Energy. Participation on the CMST is not intended to be exclusionary but is based on the ability of participants to contribute and their ability to influence positive outcomes. Appendix B provides a current roster of the organizations participating on the CMST.

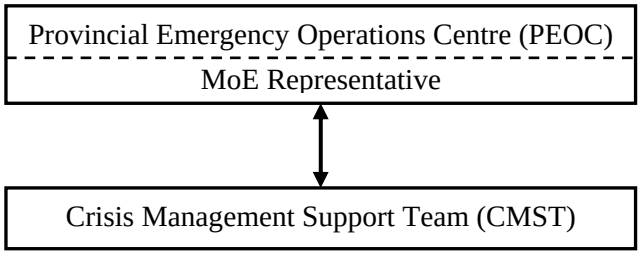
### Guiding Principles

- The CMST does not deal with localized electricity emergencies however CMST calls may be initiated for triage purposes when the impact of an event are not clear;
- CMST coordinates actions and provides input into official communications. CMST is not the communication conduit/medium itself;
- CMST representatives benefit from their participation by exchanging timely information from authoritative and credible sources;
- Industry associations provide an efficient means to engage a significant number of load customers through a single point of contact. Their participation enables them to understand the emergency and, through dialogue with their constituents, take coordinating actions to help mitigate its impact on public health and safety;
- CMST representatives are appointed by their companies, and need to have the authority to share information with the CMST, and influence decision-making on behalf of their organization;
- CMST representatives or their alternates need to sign an NDA and be accessible at any time; and
- Depending on the situation, the CMST Chair may invite organizations not normally represented on the CMST to participate, according to their ability to contribute.

**Note.** Nuclear operators are required to notify the PEOC of "Reportable" nuclear incidents under the Provincial Nuclear Emergency Response Plan (PNERP). Although this reporting

process is outside the CMST process, we expect that CMST representatives of nuclear operators would provide the CMST with information related to any nuclear-specific emergency.

**Crisis Management Support Team**




## 5.5.1 Role of the CMST

### Gather and share information

- Gather information related to the incident or event;
- Analyze the information to understand potential impacts on public health and safety, the environment, and the economy;
- Maintain overall situation awareness and estimate recovery times;
- Develop situation reports;
- Develop key messages to support consistent official messaging and local communications;
- Distribute information to *market participants* and the Provincial Emergency Operations Centre (PEOC) via the MoE representative, as appropriate.

### Identify issues

- Identify unresolved issues, ensure responsible entities are aware, and escalate as necessary.

### Develop solutions

- Consider options and alternatives to mitigate the impact on public health and safety, the environment and the economy; and
- Provide analysis, information and advice to the Ministry of Energy.

## 5.6 Communications and Warning

As described above, the *IESO* continuously monitors the *reliability* of the grid, and receives information from *market participants* regarding events at a local level that could disrupt their operation. While local incidents are managed by the affected participants within the scope of their accountability, the *IESO* directs any actions required of *market participants* to manage overall grid *reliability*.

In parallel with these operational activities, the *IESO* uses its management call chain to quickly identify issues that appear to be significant, and decide what actions need to be taken. As well, early warning of an incident or event may come from any number of other sources – other critical infrastructures (e.g., telecommunications, oil, natural gas), the media, law enforcement or other government agencies.

Regardless of the source of information, the CMST Chair, the *IESO*'s Chief Operating Officer, will consider the circumstances, the guiding principles, consult with CMST representatives, and decide whether to notify or activate the CMST.

## 5.7 Public Communications

The development of key messages is an important output of the CMST, and CMST representative provide valuable input from their own unique perspectives.

As usual, it is the responsibility of each *market participant* to communicate with their own stakeholders and customers, and CMST representatives are encouraged to use these key messages as part of their own outreach. This will help ensure that the public receives consistent and accurate information from the appropriate entities.

## 5.8 CMST Activation

CMST members stand ready to notify the *IESO*, or be notified by the *IESO*, of incidents or events that may be of interest to the CMST. The extent of CMST activation depends on the situation, and the following table provides some historical examples.

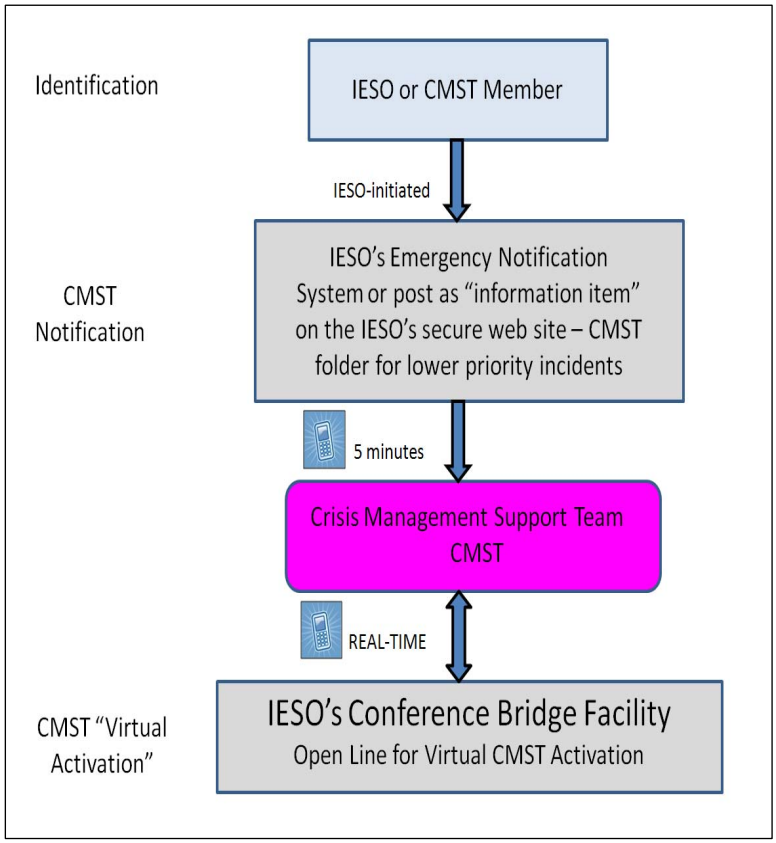
| Incident or Event | Extent of CMST Activation |
|---|---|
| G20 Summit, Toronto (June 21-28, 2010) | CMST calls were initiated daily starting the week prior to and through the G20 event for the purpose of situational updates. |
| H1N1 influenza outbreak (April 27 – May 12, 2009) | CMST representatives notified as outbreak evolved. Included a CMST conference call on April 27, at least daily updates through May 12, and periodically thereafter. |
| Preparation for Earth Hour activities (March 28, 2008) | CMST representatives notified day ahead via CMST web posting. |
| *IESO* anticipates a period of unprecedented hot and humid weather, and tight electricity supply conditions (August 1-2, 2006) | CMST representative's notified day ahead, six postings to CMST website as the situation evolved. |
| Prolonged period of hot, humid weather and very tight electricity supply conditions (Summer 2005) | CMST representatives notified periodically throughout the summer, many postings of CMST Situation Reports to CMST website as the circumstances evolved. |
| August 2003 Blackout (August 14-22, 2003) | CMST representatives fully activated. Conference bridge opened within 30 minutes, first conference call within an hour of the blackout. CMST operated 24x7 for first two days. Seven conference call meetings on August 14, six on August 15, two or three each day following. |

### 5.8.1 CMST Notification

The *IESO* uses an emergency notification system to alert CMST representatives of incidents or events.

With the support of the EPTF, the *IESO* maintains the CMST roster, and tests the notification system quarterly. The system is web-based and can be activated immediately from any location with web access. Within about five minutes, the system simultaneously calls business, home, and cell numbers, sends an email with a recorded message describing the incident, and tells the CMST representative what to do.

If the incident or event is informational and does not require immediate action from CMST representatives, the *IESO* posts this information to the CMST password-secured web site. A notification email is automatically sent to CMST representatives to advise them of the new posting.




### 5.8.2 CMST Activation

The CMST conducts its business by conference call. CMST representatives can participate from any location, which allows them to maintain close contact with their own organizations. If the CMST Chair decides to activate the CMST, the *IESO* uses their emergency notification system to inform CMST representatives of the situation, and the time of the conference call. The *IESO* provides a dedicated conference bridge facility for the CMST, ready for immediate use. Typically, the first conference call is arranged within an hour of initial notification.

Conference calls begin with an introduction from the Chair and an update from the *IESO*. CMST representatives provide additional information from their own sources, and have the opportunity to ask questions and discuss issues. The CMST focuses on issues at a strategic level and does not get into operational details. The *IESO* prepares a situation report to record the results of the conference call and posts it on the CMST web site.

## 5.9 Facilities

The *IESO* provides the emergency notification system, a password-secured web site, and a high-availability conference bridge.

CMST representatives provide their own means to participate on conference calls and connect to the web.

## 5.10 Training

CMST representatives have a number of training opportunities to become familiar with their roles. The *IESO* provides an orientation for newly-appointed representatives that includes an overview of the OEEP, how to access the secure web site, and references to procedures. Periodically, a CMST workshop is held to provide CMST representatives with an opportunity to meet each other face-to-face, review CMST procedures, and walk-through how the CMST responds to an emergency scenario. The CMST exercises its role as part of the large-scale integrated exercises that involve the *IESO*, *market participants*, and government stakeholders.

## 5.11 Operational Continuity

While the CMST does not have an operational role, their actions support operational continuity by addressing crisis communications and consequence management needs.

**– End of Section –**

# 6. Exercises, Evaluations and Corrective Actions

While the *IESO* and *market participants* are responsible for training their own staff, all agree there is great value in learning together how we coordinate to respond to real events. Every year, the *IESO* and *market participants* plan and execute training sessions, workshops, and exercises. The *IESO*'s Emergency Drills and Exercises Guide provides advice on how to plan and conduct drills and exercises. It also provides a framework for evaluating lessons-learned, and deciding corrective actions.

## 6.1 Exercises

The *IESO* and *market participants* need to train staff and exercise their plans and procedures. Exercises are a prominent part of the EPTF Work Plan. Since 2001, large-scale integrated exercises have helped the *IESO* and *market participants* test their own internal plans and ensure they are well-coordinated with others. As well, workshops are held periodically across Ontario to reinforce reliable operations and simulate response to a local scenario in detail.

## 6.2 Evaluations

The *IESO* and *market participants* review the results of training and exercises to assess their effectiveness, take corrective action, and plan to improve them in future. Feedback from individuals helps determine if the overall objectives were achieved, and if the presentation format could be improved. Every year, the *IESO* summarizes this feedback and determines with the EPTF ways to continuously improve the value and effectiveness of these workshops and exercises.

For large-scale exercises, the *IESO* asks participants to identify their findings and lessons-learned. In consultation with the EPTF, these findings are documented in an exercise evaluation report.

## 6.3 Corrective Actions

Workshops and exercises are of little value if they do not identify specific and actionable areas for improvement. While it is important not to gloss over errors or deficiencies that occur during an exercise, care should be taken to acknowledge them openly in the spirit of continuous improvement. It is also important to rank them so that resources are applied to the right priorities. To evaluate the results of large-scale exercises, the *IESO* uses the following ranking criteria.

| Rank | Description |
|---|---|
| Observation | Finding has little direct impact on emergency response or restoration, but should be considered as an improvement to emergency response processes. |
| Gap | Finding has some measurable impact on timeliness of restoration or effectiveness of emergency response. |
| Significant Gap | Finding has a significant impact on timeliness of restoration or effectiveness of emergency response, with a significant impact on public health and safety. |

As part of its work planning activities, the EPTF periodically reviews the status of actions needed to address exercise findings, and ensures that sufficient progress has been made to support success at future exercises.

**– End of Section –**

# 7. Management Review

## 7.1 OEEP Maintenance

The *IESO* is responsible for maintaining the OEEP, filing any revisions with the *Minister*, and making the OEEP publicly available on the *IESO* web site.

## 7.2 Annual Review

The *IESO* reviews the OEEP annually, and consults with the EPTF regarding any changes.

*Market participants* are encouraged to conduct internal reviews, peer reviews, self-audits or external audits to assess their own plans and state of readiness. These independent assessments benefit *market participants* and the industry.

## 7.3 Independent Audit

If directed by the *Minister*, the *IESO* will arrange for an audit of the OEEP by the *IESO*'s internal auditors or a peer review team composed of diverse industry or emergency preparedness experts.

**- End of Section -**

# Appendix A: EPTF Roster

| Emergency Preparedness Task Force (EPTF) Roster | |
|---|---|
| EPTF Chair | Independent Electricity System Operator (*IESO*) |
| Generators | Bruce Power<br>Ontario Power Generation<br>Brookfield Renewable Power |
| Transmitters | Hydro One<br>Great Lakes Power Transmission |
| Local distribution companies | Toronto Hydro<br>Hydro One<br>Hydro Ottawa<br>PowerStream |
| Industry associations | Association of Major Power Consumers of Ontario (AMPCO)<br>Electricity Distributors Association (EDA)<br>Association of Power Producers of Ontario (APPrO) |
| Government | Ministry of Energy (MoE)<br>Emergency Management Ontario (EMO)<br>Public Safety Canada (PS) |
| Other Industries | Enbridge Gas Distribution |

**- End of Section -**

# Appendix B: CMST Roster and Responsibilities

| CMST Roster | |
|---|---|
| CMST Chair | Independent Electricity System Operator (*IESO*) |
| Generators | Bruce Power<br>Ontario Power Generation<br>Brookfield Renewable Power |
| Transmitters | Hydro One<br>Great Lakes Power Transmission |
| Local distributing companies | Toronto Hydro<br>Hydro One<br>Hydro Ottawa |
| Industry Associations | Association of Major Power Consumers of Ontario<br>Electricity Distributors Association<br>Association of Power Producers of Ontario<br>Building Owners and Managers Association |
| Government | Ministry of Energy |

## CMST Representative Responsibilities

Each CMST representative has specific responsibilities and assigned tasks when the CMST is activated.

## Independent Electricity System Operator (IESO)

The *IESO*'s Chief Operating Officer chairs the CMST, decides when to activate and stand-down, and provides the resources needed to activate and support the operation of the CMST. As well, the *IESO* is a primary source of information such as:

- The status of Ontario's *electricity system* and market operation
- Affected areas
- Estimates of time to restore
- Status of interconnected operation with jurisdictions outside of Ontario
- Restoration priorities

- Prognosis for future operation
- Forecasts of weather, *consumer* demand and system adequacy

## Ministry of Energy (MoE)

The MoE representative ensures that the CMST, PEOC and MoE communicate effectively during an emergency. The Ministry of Energy representative:

- Ensures that MoE is kept informed of the status of the emergency, including actions being taken by the *IESO* and *market participants* to ensure that power is restored as quickly as possible
- Ensures that issues related to public policy are referred to the MoE
- Ensures the PEOC's information needs regarding the electricity sector are met
- Identifies *IESO* or *market participants*' needs for provincial or federal government support
- Requests additional support from CMST, when necessary, to support the MoE representative at the PEOC
- Ensures the CMST's key public messages are shared with the PEOC Information Group so that CMST and government public messages are consistent

The PEOC is active 7/24 so that it can respond immediately to emergencies. The PEOC is a multi-agency facility, and includes an MoE representative. It is designated by the province to coordinate provincial emergency operations and to provide support to affected communities. Representatives of ministries, federal agencies and other organizations provide status reports and coordinate response activities.

## Emergency Information Centre (EIC)

The EIC presents coordinated emergency information from all involved levels of government to the media and the general public.

In a provincial emergency, local, provincial and, in some cases, federal emergency information resources may be combined to create an Emergency Information Centre (EIC). Depending on the nature of the emergency event, this could be located at or near the PEOC, or could be deployed close to the area affected by the emergency. For nuclear, the Provincial Nuclear Plan defines these areas.

## Ontario Power Generation (OPG)

The OPG representative is responsible for:

- Reporting to the CMST
- Notifying the OPG Director Emergency Operations – CMCC at the OPG Crisis Management and Communications Centre (CMCC) of CMST activation
- Requesting activation of the OPG Crisis Management and Communications Centre, if necessary
- Establishing and maintaining contact with the OPG Director Emergency Operations – CMCC

- Providing status reports on OPG resources to the CMST
- Providing feedback to the OPG Director Emergency Operations – CMCC on the status of the emergency situation and CMST planned actions

## Bruce Power

The Bruce Power representative is responsible for:

- Reporting to the CMST
- Notifying Bruce Power's internal emergency response organization of CMST activation
- Requesting activation of the internal emergency response organization, if necessary
- Establishing and maintaining contact with the Bruce Power response efforts
- Providing status report on Bruce Power resources to the CMST
- Providing feedback to the Bruce Power emergency response organization on the status of the emergency situation and planned CMST actions

## Electricity Distributors Association (EDA)

The primary responsibility of the EDA representative is to provide a link between the CMST and Electricity Distributors Association (EDA) member electric utilities in the affected area. The *market rules* require all *market participants* to prepare and implement their own *emergency preparedness plans* independently or with support through their own mutual aid arrangements. It is expected that EDA member utilities will coordinate directly with local community emergency response personnel. Similarly, it is expected that community emergency response personnel will coordinate directly with the PEOC to mitigate impacts on public health and safety.

The Electricity Distributor representative, through liaison with EDA members, either directly or via district field representatives:

- Arranges for surveys of municipal utilities and provides an estimate of damage and geographical identification of the affected areas
- Assists in identifying high priority areas in need of assistance and provides details regarding the nature of assistance required
- Identifies assistance that is available from municipal electric utilities to assist other *market participants* in an emergency
- Informs the EDA regarding the status of the emergency and CMST actions

## Hydro One

The Hydro One representative at the CMST helps other *market participants* to coordinate emergency response and recovery actions across the province, and to formulate recovery strategies for the bulk *electricity system*. In this capacity, the Hydro One representative reports on the status of the grid, load and generator connections, and the estimated time required to restore service to affected areas. The Hydro One representative also:

- Conveys Hydro One requests to the CMST for additional resources in support of Hydro One restoration activities

- Reports on the status of restoration activities on their distribution and retail operations
- Reports on the availability of Hydro One resources for deployment in support of other *market participants*

## Great Lakes Power Transmission

The Great Lakes Power Transmission representative at the CMST helps other *market participants* to coordinate emergency response and recovery actions across the province, and to formulate recovery strategies for the bulk *electricity system*. In this capacity, the Great Lakes Power Transmission representative reports on the status of the grid, load and generator connections, and the estimated time required to restore service to affected areas. The Great Lakes Power Transmission representative also:

- Conveys Great Lakes Power Transmission requests to the CMST for additional resources in support of Great Lakes Power Transmission restoration activities
- Reports on the status of restoration activities on their *distribution* and retail operations
- Reports on the availability of Great Lakes Power Transmission resources for deployment in support of other *market participants*

## Brookfield Renewable Power

- Reporting to the CMST
- Providing status report on Brookfield Renewable Power resources to the CMST
- Providing feedback to the Brookfield Renewable Power emergency response organization on the status of the emergency situation and planned CMST actions

## Toronto Hydro-Electric System (THES)

The THES representative at the CMST:

- Provides information and cooperation to the CMST to assist in developing a long-term electricity sector recovery strategy and helps with other CMST responsibilities
- Ensures that THES resources, facilities, infrastructure and personnel are adequate to comply with emergency response and system restoration requirements
- Provides reports to the THES Emergency Operations Center Coordinator and provides the THES Restoration Planning Coordinator with reports regarding the status of the system and CMST actions
- Requests a declaration of emergency for the THES service area, if necessary
- Informs the CMST of the availability of THES resources to assist other *market participants* in restoring services in the affected areas

## Hydro Ottawa

The Hydro Ottawa representative at the CMST:

- Provides information and cooperation to the CMST to assist in developing a long-term electricity sector recovery strategy and help with other CMST responsibilities
- Ensures that Hydro Ottawa resources, facilities, infrastructure and personnel are adequate to comply with emergency response and system restoration requirements
- Provides reports to the Hydro Ottawa Emergency Operations Center Coordinator and provides the Hydro Ottawa Restoration Planning Coordinator with reports regarding the status of the system and CMST actions
- Requests a declaration of emergency for the Hydro Ottawa service area, if necessary
- Informs the CMST of the availability of Hydro Ottawa resources to assist other *market participants* in restoring services in the affected areas

## Association of Major Power Consumers of Ontario (AMPCO)

The primary responsibility of the AMPCO representative is to provide a communications link between the CMST and AMPCO member companies in the affected area. We recognize that an electricity emergency would have a significant impact on industrial *consumers*, and AMPCO participation on the CMST provides a valuable two-way flow of information regarding the scope and extent of any electricity disruption as well as any mitigating measures being implemented.

As required by the *market rules*, all AMPCO members who are *market participants* are required to prepare and implement their own *emergency preparedness plans*, including coordination with local community emergency response personnel. It is recognized through this arrangement that AMPCO does not have operational control or authority over its member companies. The AMPCO representative, through liaison with AMPCO members:

- Participates in CMST discussions and provides input to the CMST from the perspective of industrial consumers
- Informs AMPCO members regarding the status of the emergency and CMST actions and decisions
- Respects the confidentiality of information shared at the CMST by limiting information shared with AMPCO members on a need-to-know basis
- Identifies issues of critical interest to industrial consumers and proposes suitable solutions (e.g., sustained conservation or curtailment options)
- Assists in developing key public messages

## Building Owners and Managers Association (BOMA)

The primary responsibility of the BOMA representative is to provide a communications link between the CMST and BOMA member companies in the affected area.

The BOMA representative at the CMST:

- Participates in CMST discussions and provides input to the CMST from the perspective of BOMA consumers
- Informs BOMA members regarding the status of the emergency and CMST actions and decisions
- Respects the confidentiality of information shared at the CMST by limiting information shared with BOMA members on a need-to-know basis
- Identifies issues of critical interest to commercial *consumers* and proposes suitable solutions (e.g., sustained conservation or curtailment options)
- Assists in developing key public messages

**– End of Document –**