Major Events
RESPONSE REPORT

Issue: February 22nd §2.1.4.2 Major Events Response Report

Date Issued:

Prepared for: Publication and Electronic Filing with the Ontario Energy Board ("OEB")

Summary:

High winds, with a mix of snow, ice and freezing rain moved across Southern Ontario on February 22nd, with freezing rain in southwest Ontario and snowstorm conditions for Central and Eastern Ontario. Rapid snowfall accumulation transitioned over to ice pellets causing widespread power outages. This storm impacted a total of ~46,000 (~3%) customers on Feb 22nd. Due to the nature of the weather system, storm damage extended into Feb 26th impacting an additional ~53,000 (~4%) customers and extending Hydro One's restoration efforts.

The impact of the weather system on Feb 22nd was 0.39 hours, which qualifies as a Major Event Day based on IEEE 1366 methodology.

This is the first Major Event in 2023.

A. Prior to the Major Event

1. Did the distributor have any prior warning that the Major Event would occur?
   ☒ Yes ☐ No
   Additional Comments:
   The IBM Predication Software and Weather Monitoring tool indicated the potential for a significant event.

2. If the distributor did have prior warning, did the distributor arrange to have extra employees on duty or on standby prior to the Major Event beginning?
   ☒ Yes ☐ No
   Brief description of arrangements, or explain why extra employees were not arranged:
   Ahead of the February 22nd weather system, Dx System Control developed a staffing readiness plan for Control Room resources over the February

22nd to 24th period. Discussions were held with Dx Lines (Southern region) on a preparedness strategy.

Southern region held three calls in advance of the event, which included forestry, transmission lines, support staff, damage assessors and logistics representatives. The plan was to increase additional crews on call for Wednesday evening and Thursday night in Southern region to respond to any events in those projected impact areas. No internal crew movement was required.

3. If the distributor did have prior warning, did the distributor issue any media announcements to the public warning of possible outages resulting from the pending Major Event?
   ☒ Yes ☐ No
   Communications issued a press release and the outage banner on the customer outage website was activated on Tuesday.

4. Did the distributor train its staff on the response plans to prepare for this type of Major Event?
   ☒ Yes ☐ No

B. During the Major Event

1. Please identify the main contributing Cause of the Major Event as per the table in section 2.1.4.2.5 of the Electricity Reporting and Record Keeping Requirements.
   ☐ Loss of Supply
   ☐ Lightning
   ☒ Adverse Weather-Wind
   ☒ Adverse Weather-Snow
   ☒ Adverse Weather-Freezing rain/Ice storm
   ☐ Adverse Environment-Fire
   ☐ Adverse Environment-Flooding
   ☐ Other
   Please provide a brief description of the event (i.e. what happened?). If selected "Other", please explain: _____

2. Was the IEEE Standard 1366 used to derive the threshold for the Major Event?
   ☒ Yes, used IEEE Standard 1366*
   ☐ No, used IEEE Standard 1366 2-day rolling average
   ☐ No, used fixed percentage (i.e., 10% of customers affected)

*The OEB preferred option

3. When did the Major Event begin (date and time)?
The first interruption started at 3:02 AM on 2/22/2023.

4. Did the distributor issue any information about this Major Event, such as estimated times of restoration, to the public during the Major Event?
☒ Yes ☐ No
If yes, please provide a brief description of the information. If no, please explain:
During this event, restoration priority was provided to the crews. Once damage was assessed, each incident ticket was updated to include cause code and Estimated Time Restoration (ETR). For those incidents where crews were not available, Damage Assessors were used to assess the damage and provide updates. All ETR updates could be viewed by our customers on the Hydro One Outage Map and were also available on our automatic notification system via the Interactive Voice Response (IVR) system.

5. How many customers were interrupted during the Major Event?
Approximately 46,000 customers were impacted on February 22nd (which met the Major Event Day (MED) criteria), and an additional 53,000 customers were impacted through February 26th (which did not meet the MED criteria). In total approximately 99,000 customers were interrupted during the storm.

What percentage of the distributor's total customer base did the interrupted customers represent?
Approximately 7% of Hydro One's customer based was interrupted during the event (Feb 22 MED: ~3%, Feb 23-26 non-MED: ~4%).

6. How many hours did it take to restore 90% of the customers who were interrupted?
It took 86 hours to restore 90% of the 99,000 customers impacted.

7. Were there any outages associated with Loss of Supply during the Major Event?
☒ Yes ☐ No
If yes, please report on the duration and frequency of the Loss of Supply outages: _____

PRIMARY CAUSE	NUM INT	CUST INT	CUST HRS INT
Loss of Supply	6	852	375.0

8. In responding to the Major Event, did the distributor utilize assistance through a third party mutual assistance agreement with other utilities?

☒ Yes

☐ No

☐ Do not have third party mutual assistance agreements with other utilities

If yes, please provide the name of the utilities who provided the assistance?

Ainsworth	**Bluewater Power**	**EPCOR**	**ERTH Power**
EPCOR Utilities	**Hannon Electric**	**Highline**	**Holland**
Iconic	**K-Line**	**K Line – Barrie**	**K Line – Hamilton**
Lakeland Power	**London Hydro**	**Milton Hydro**	**Valard**

9. Did the distributor run out of any needed equipment or materials during the Major Event?

☐ Yes ☒ No

If yes, please describe the shortages: _____

C. After the Major Event

1. What actions, if any, will be taken to be prepared for, or mitigate, such Major Events in the future?

☐ No further action is required at this time

☒ Additional staff training

☒ Process improvements

☐ System upgrades

☐ Other

Additional Comments:

The emergency management program in collaboration with many lines of business at the company continuously work toward improving preparedness and mitigation techniques to improve response. Additional training on emergency-response roles and functions is being developed and applied by both the emergency management team, design services and distribution lines. In addition, new tools are being deployed to support storm response and restoration.