

Major Events RESPONSE REPORT



Issue: April 5th – 6th, 2023 §2.1.4.2 Major Events Response Report

Date Issued:

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

Summary:

Snow, ice, high winds, and severe thunderstorms swept across Ontario on April 5th and 6th. The combination of precipitation systems and low temperatures created conditions susceptible to freezing rain, which caused significant damage in the Central, Eastern, and Northeastern Ontario. Over April 5th and 6th, the ice storm impacted a total of ~359,000 (24.5%) customers. Restoration efforts extended through to April 8th, which impacted an additional ~35,000 (2.4%) customers over these two days. The impact on April 5th and 6th qualified as Major Event Days based on the IEEE 1366 methodology.

This is the second 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:

Preparations and mobilization began ahead of the weather system on April 4th. Distribution Lines resources were allocated within the Northwest zone, and sixty resources from the south were dispatched to an area bordering the Central and Northeast zones. Damage assessors, forestry crews, and field business centre staff were briefed and readied for mobilization as the

storm unfolded. Helicopter and Fleet staff and equipment were on standby, with contractors notified of potential support requirements.

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

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 2:30 AM on 4/5/2023.

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:
Estimated Time Restoration (ETRs) were shared with customers who were registered for proactive notifications.

5. How many customers were interrupted during the Major Event?
Approximately 359,000 customers were impacted over April 5th and April 6th (which both met the Major Event Day (MED) criteria), and an additional 35,000 customers were impacted through April 8th (which did not meet the MED criteria). In total, approximately 394,000 customers were interrupted during the storm.

What percentage of the distributor's total customer base did the interrupted customers represent?

Approximately 27% of Hydro One's customer base was interrupted during the event (Apr 05-06 MED: ~24.5%, Apr 07-08 non-MED: ~2.4%).

6. How many hours did it take to restore 90% of the customers who were interrupted?
It took 70 hours and 16 minutes from the onset of the Major Event to restore 90% of the 394,000 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	5	38890	65784.8

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?

Local Distribution Company (LDC)		
Lakefront Utilities	Lakeland Power	Epcor
Kingston PUC	North Bat Hydro	Bluewater Power
Oakville Hydro	Toronto Hydro	Alectra

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:

Hydro One will continue to reinforce emergency management and response roles, processes, and procedures, to prepare our staff to fill emergency response roles across the company. Following the storm, a lessons learned exercise was held, with post incident actions identified, and relevant actions collected and assigned for action. Training will continue to fill functions required to support local, regional and provincial emergency response command centers. Further, Hydro One plans to engage customers through a Major Event Outage Survey to identify strengths and to develop areas of improvements.