

Major Event Report

Date of Major Event: February 11th, 2025

Prior to the Major Event

1. Did the distributor have any prior warning that the Major Event would occur? No

Additional Comments N/A

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? N/A

Brief description of arrangements, or explain why extra employees were not arranged.

N/A

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?

N/A

4. Did the distributor train its staff on the response plans to prepare for this type of Major Event?

Yes

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

Please provide a brief description of the event (i.e. what happened?). If selected "Other", please explain.

On Tuesday February 11th, 2025 at 7:16am a Hydro One Transmission Loss of Supply event occurred affecting the 230-kV W36 circuit supplying Talbot T3/T4 Station Q1&Q2 and J1&J2 Bus. Reports from Hydro One indicated that the cause of the outage was due to a downed sky wire that made contact to the transmission line. This interrupted a total of 95MW of London Hydro load that was interrupted, impacting a total of 33,532 customers.

Using London Hydro distribution ties, 45% of customers were restored within 35 minutes and the remaining customers were restored within 68 minutes after Hydro One's 230-kV supply to Talbot's T3 was restored.

Under normal circumstances, a single transmission circuit loss of supply event on a Dual Element Spot Network Transformer Station does not result in an interruption to customers. However, at the time of this incident, the Talbot T3/T4 Transformer Station which is normally supplied by W36 and W37 transmission lines, was in an abnormal configuration due to a Hydro One scheduled maintenance that had the T4 transformer (supplied by W37) out of service. The unplanned outage of the W36 transmission circuit resulted in a loss of supply to the T3 transformer that was in-service which affected customers supplied by the Talbot T3/T4 Station. The anticipated date for the completion of the maintenance is March 7, 2025, at which point it is expected that both supplies will be available at Talbot Station.

2. Was the IEEE Standard 1366* used to derive the threshold for the Major Event?

*The OEB preferred option Yes, used IEEE Standard 1366

3. When did the Major Event begin?

Date: February 11th, 2025 Time (for example HH:MM AM): 7:16 AM

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

If yes, please provide a brief description of the information. If no, please explain. London Hydro issues estimated times of restoration (ETR) for the various outage events through Twitter, IVR, Email, and Text. London Hydro also issued ETR through the outage map on our website, which gets updated every minute with the most updated information.

5. How many customers were interrupted during the Major Event? 33,532 customers

What percentage of the distributor's total customer base did the interrupted customers represent? 19.92%

6. How many hours did it take to restore 90% of the customers who were interrupted? 1 hour

Additional Comments

The major event started at 7:16am on February 11th, and over 90% of customers were restored by 8:24am.

7. Were there any outages associated with Loss of Supply during the Major Event?

Yes

If so, please report on the duration and frequency of Loss of Supply outages. The entire Major Event occurred due to the Loss of Supply outage - total customer hours of interruptions of 27,978 and total customer interruptions of 33,532.

8. In responding to the Major Event, did the distributor utilize assistance through a third-party mutual assistance agreement with other utilities? No

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

If so, please describe the shortages. $\ensuremath{\mathsf{N/A}}$

After the Major Event

1. What steps, if any, are being taken to be prepared for or mitigate such Major Events in the future (i.e., staff training, process improvements, system upgrades)?

Others

Additional Comments:

After the incident occurred, London Hydro engaged Hydro One to provide details on (1) the root cause of the outage, (2) all equipment failures that were encountered, and (3) any remediation plans that are in place. The root cause of the outage was due to a failed sky wire in the transmission system. Hydro One indicated that a thermovision inspection is completed in the transmission system every two years, and 2025 is the year where the area of the failed sky wire would have been inspected. Hydro One will inspect the area this year, and will continue to perform inspections on a two-year cycle, to identify and repair any similar deficiencies.

London Hydro had a discussion with Hydro One to better understand the event and help minimize the risk of future occurrences, and discuss contingency plans for supply loss that occurs during scheduled maintenance periods. This contingency plan includes the use of London Hydro distribution ties, and planning scheduled maintenance, preferably, during times and days when the distribution system is not at peak load.