Major Event Report

Date of Major Event: March 13, 2019

Prior to the Major Event

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

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? If so, please give a brief description of arrangements.
There was no prior warning.

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? If so, through what channels?
There was no prior warning.

4. Did the distributor train its staff on the response plans for a Major Event? If so, please give a brief description of the training process.
London Hydro provides annual training to all supervisory staff that is involved in major event response on their roles and responsibilities. The last training session was held on November 29, 2018. This session included training on the roles and responsibilities of each member of the team along with the execution of a mock table top exercise.

5. Did the distributor have third party mutual assistance agreements in place prior to the Major Event? If so, who were the third parties (i.e., other distributors, private contractors)?
Yes, London Hydro does have third party mutual assistance agreements with other distributors and private contractors. During this event, no additional third party mutual assistance was required.

During the Major Event

1. Please explain why this event was considered by the distributor to be a Major Event.
Based on the IEEE Standard 1366 (2.5 Beta method) this event was considered to be a Major Event Day where the daily SAIDI and SAIFI values exceeded the daily SAIDI and SAIFI threshold values. The SAIDI and SAIFI threshold values were set based on the daily SAIDI and SAIFI values for the past 5 years.

2. Was the IEEE Standard 1366 used to identify the scope of the Major Event? If not, why not?
Yes, IEEE Standard 1366 was used to identify the scope of the Major Event.

3. Please identify the Cause of Interruption for the Major Event as per the table in section 2.1.4.2.5.
2- Loss of Supply (Hydro One).

4. Were there any declarations by government authorities, regulators or the grid operator of an emergency state of operation in relation to the Major Event?
No.

5. When did the Major Event begin (date and time)?
The Major Event Day began on March 13, 2019 at 08:12 am.

6. What percentage of on-call distributor staff was available at the start of the Major Event and utilized during the Major Event?
The Major Event happened during normal working hours. London Hydro had all employees available to assist during the event.

7. Did the distributor issue any estimated times of restoration (ETR) to the public during the Major Event? If so, through what channels?
While our public outage map updated, no tweets, emails, texts or phone calls were placed to notify customers. An ETR was not defined internally as the interruption cause was due to the loss of supply.

8. If the distributor did issue ETRs, at what date and time did the distributor issue its first ETR to the public?
No ETRs were sent.

9. Did the distributor issue any updated ETRs to the public? If so, how many and at what dates and times were they issued?
No ETRs were made available.

10. Did the distributor inform customers about the options for contacting the distributor to receive more details about outage/restoration efforts? If so, please describe how this was achieved.

Customers are regularly informed about notification options through public outreach and marketing materials. Outages are also posted on the outage map which can be accessed on the landing page of the website.

11. Did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? If so, how many times did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? What was the general content of this information?

Calls from the media were received and given updated information about the outage.

12. What percentage of customer calls were dealt with by the distributor's IVR system (if available) versus a live representative?

85.29% of the calls were dealt by the IVR system. A total of 1020 calls were received and 150 were taken by live representatives.

13. Did the distributor provide information about the Major Event on its website? If so, how many times during the Major Event was the website updated?

Information was available on the website through the outage map. The map is updated every minute.

14. Was there any point in time when the website was inaccessible? If so, what percentage of the total outage time was the website inaccessible?

No.

15. How many customers were interrupted during the Major Event? What percentage of the distributor's total customer base did the interrupted customers represent?

There were 29,692 customer interruptions during the Major Event Day and represents 19% of London Hydro's total customer base.

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

It took 63 minutes to restore over 90% of the customers who were interrupted.

17. Was any distributed generation used to supply load during the Major Event?

No.

18. Were there any outages associated with Loss of Supply during the Major Event? If so, please report on the duration and frequency of Loss of Supply outages.

Yes, LOS interrupted 29,692 Customers and contributed 21,119 Customer Hours of Interruption.

19. In responding to the Major Event, did the distributor utilize assistance through a third party mutual assistance agreement?

London Hydro did not require assistance through its third party mutual assistance agreement.

20. Did the distributor run out of any needed equipment or materials during the Major Event? If so, please describe the shortages.

No equipment or material shortages were encountered by London Hydro during the Major Event.

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)?
London Hydro discussed the event with Hydro One and after determination of the root cause; Hydro One has been performing maintenance and also changed protection settings at the station to prevent future events of similar nature.

2. What lessons did the distributor learn in responding to the Major Event that will be useful in responding to the next Major Event?
London Hydro was able to perform switching operations to restore power to the customers in an efficient manner thanks to the benefits seen in the Outage Management System (OMS). System monitoring and operation of automated/remote devices significantly reduced the impact of the event. Reliable communications with field staff ensured successful operation of manual equipment.

3. Did the distributor survey its customers after the Major Event to determine the customers' opinions of how effective the distributor was in responding to the Major Event? If so, please describe the results.
Customer satisfaction surveys are held annually to poll customers on their opinions of London Hydro's effectiveness in response to major events.