

Major Event Day: Burlington Hydro, March 8, 2017

RRR 2.1.4.2.10 Major Event Response Reporting

When a distributor determines an outage was caused by a Major Event, it shall file a report with the OEB that outlines the distributor's response to the Major Event, including answers to all of the questions set out below. Distributor responses are identified in the text boxes below.

A distributor shall file this report with the OEB within 60 days of the end of the Major Event unless there are exceptional circumstances, in which case the report can be filed within 90 days of the end of the Major Event.

Prior to the Major Event

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

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.

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? If so, through what channels?

n/a

Major Event Day: Burlington Hydro, March 8, 2017

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.

Yes. Burlington Hydro works safely to restore power to the largest areas first and then works its way down to single outages. Fire, police and wires down take priority.

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, Burlington Hydro has mutual aid agreements with 12 other LDCs as part of the Grid Smart City Cooperative, agreements with Hydro One and an alliance agreement with a third-party contractor. However, Burlington Hydro did not need to use mutual aid for this Major Event.

During the Major Event

1. Please explain why this event was considered by the distributor to be a Major Event.

Strong winds affecting Burlington Hydro's service area began at 10am and were the major cause of outages. 7,861 customers were affected representing approximately 12% of Burlington Hydro's customers.

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

No. Burlington Hydro uses a fixed percentage approach to identify the scope of Major Events (>10% of customers affected).

Major Event Day: Burlington Hydro, March 8, 2017

3. Please identify the Cause of Interruption for the Major Event as per the table in section 2.1.4.2.5.

3. Tree Contacts - Customer interruptions caused by faults resulting from tree contact with energized circuits.

6. Adverse Weather - Customer interruptions resulting from rain, ice storms, snow, winds, extreme temperatures, freezing rain, frost, or other extreme weather conditions

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: March 8, 2017

Time (For Example HH:MM AM): 10:16 AM

6. What percentage of on-call distributor staff was available at the start of the Major Event and utilized during the Major Event?

Approximately 70% of all the line crew was available at the start of and during the Major Event.

Major Event Day: Burlington Hydro, March 8, 2017

7. Did the distributor issue any estimated times of restoration (ETR) to the public during the Major Event? If so, through what channels?

Yes.

1. ETRs were published on Burlington Hydro's Outage Map available on its website.
2. ETRs were also communicated via Twitter.

8. If the distributor did issue ETRs, at what date and time did the distributor issue its first ETR to the public?

Yes. The first ETR was issued on March 8 at 10:16am.

9. Did the distributor issue any updated ETRs to the public? If so, how many and at what dates and times were they issued?

Yes, updates were issued via Twitter. No updated ETRs were issued via the outage map after the first ETR as the server which operates Burlington Hydro's Outage Management System experienced technical issues.

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.

Yes.

1. 24-hour telephone service was available. Direct calls to customer service at (905) 332-1851 during business hours / re-directed outside of business hours to trained answering centre.
2. Numbers to call and outage protocols are located on BHI's website via a direct Outage Portal – links to this info are included in tweets.
3. Through social media channels - Twitter.

Major Event Day: Burlington Hydro, March 8, 2017

11. Did the distributor issue press releases, hold press conferences or send information to customers through social media notification? If so, how many times and what was the general content?

1. 12 tweets over the duration of the outage
2. Direct email communications with local media and a follow-up article in Burlington Post on March 9
3. General content of the information was: areas affected, ETRs, safety information, updates as neighbourhoods had power restored. Also, information was provided on tree removal from lines due to the high incidence of tree contact during the wind storm.

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

Burlington Hydro received 834 customer calls related to outages. 47% of the outage calls were dealt with through the IVR and 53% of the calls were transferred to a live representative.

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?

1. The Outage Map on the BHI website included information on the cause / # of customers affected / ETR / and updates as required while the server was available. Burlington Hydro did not track the number of times the website was updated.
2. Customers can also access a live twitter feed from the homepage of the website's outage portal.
3. Similar information was conveyed directly via Twitter.

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?

Yes. At the height of the outage, the website was down for approximately an hour due to the dramatic increase in traffic. Twitter supplemented outage information to customers during that down time. This represented approximately 15% of the total outage time.



Major Event Day: Burlington Hydro, March 8, 2017

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

7,861 customers were interrupted during the major event, representing approximately 12% Burlington Hydro's customer base.

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

90% of the customers were restored by 16:32. Restoration took approximately 5 hours.

17. Was any distributed generation used to supply load during the Major Event? (Yes/No)

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.

No.

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

No.

Major Event Day: Burlington Hydro, March 8, 2017

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

No.

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)?

Burlington Hydro plans to add additional capacity on its server for its Outage Management System to prevent a failure during a major event. This will ensure the public is notified in a timely manner on outages and ETRs.

2. What lessons did the distributor learn in responding to the Major Event that will be useful in responding to the next Major Event?

In addition to #1 above, timely, accurate communication between the Control room and the line crew is critical to restoring power in a timely manner during a major event.

Major Event Day: Burlington Hydro, March 8, 2017

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.

No. Incoming questions/accolades/complaints during the outage on social media or via customer service would have been handled at the time.

Additional Information

In addition to responding the questions above, distributors may provide supplemental information to the OEB in an attachment.

Attachment provided (Yes/No): No attachment provided