

Major Event Report: Burlington Hydro April 15, 2018

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)

Yes. Environment Canada warned of a multi-day ice storm with the potential to cause widespread power outages across Southern Ontario.

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.

Yes, Burlington Hydro arranged to have extra on call crew available and notified its third-party contractor to be on standby.

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?

Yes, Burlington Hydro issued announcements to the public through social media (Twitter). There is also a live Twitter feed on the homepage of Burlington Hydro's website. See attached Twitter activity – 5 warnings were sent out before the storm.

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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.

During the Major Event

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

Outages in Burlington Hydro's service area, mainly due to downed wires and trees began at 13:45 and were the major cause of outages. A total of 6,038 customers were affected representing approximately 9% of Burlington Hydro's customers. The event was beyond Burlington Hydro's control and exceeded Burlington Hydro's daily SAIDI threshold used to identify a Major Event.

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

Yes. Burlington Hydro used the IEEE Standard 1366 used to identify the scope of the Major Event.

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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: April 15, 2018

Time (For Example HH:MM AM): 13:45PM

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

Approximately 35% of all line staff were available at the start of and during the Major Event.

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

Yes, ETRs were repeated on social media (Twitter) and indicated on BHI's outage map.

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 April 15 at 13:45PM.

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

Multiple ETR updates were issued from the start of the event to the applicable restoration time.

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 Burlington Hydro's website via a direct Outage Portal – links to this information are included in tweets.
3. Through social media channels - Twitter.

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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?

Information to customers was communicated through Twitter, Outage map information (website) and customer service phone lines. (Burlington Hydro's Twitter activity log is attached)

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

Burlington Hydro received 774 customer calls related to outages. 48% of the outage calls were dealt with through the IVR and 52% 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 Burlington Hydro website included information on the cause / # of customers affected / ETR / and updates as required. 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 Burlington Hydro's 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?

No – Burlington Hydro's website was always accessible. However, the Outage Map on the website was not updated for approximately 8% of the outage time (from 19:00 to 21:00) in order to correct a technical issue.

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

A total of 6,038 customers were interrupted during the major event, representing approximately 9% of Burlington Hydro's customer base.

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

It took approximately 9.25 hours to restore 90% of the customers affected - they were restored by 23:00PM.

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?

Yes, Burlington Hydro used a third party contractor (K-line).

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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 is reviewing the hardware which supports its Outage Management System to mitigate technical issues in the future. 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?

Burlington Hydro is reviewing its process for responding to Major Events in light of a high incidence of extreme weather activity in 2018.

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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 were 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): Yes: Twitter activity log is attached.

April 15, 2018 Power Outage Event

Twitter Messaging



Burlington Hydro @BurlingtonHydro · Apr 16

Outage in Mainway locale between Guelph and Walkers Lines is due to weather-related pole fire. Clean up and pole replacement has taken longer than expected. Revised estimated restoration time is 8 pm.

3 4 4

You Retweeted



The Weather Network @weathernetwork · Apr 16

Thousands are still without power after prolonged freezing rain and high winds took a toll on power lines.

⚡ "Ice Storm Aftermath: Heavy rain triggers flood threat" by @weathernetwork #IceStorm2018 #ONstorm



Ice Storm Aftermath: Heavy rain triggers flood threat

The Weather Network @weathernetwork

Freezing rain and rainfall warnings still stretch across the region with the threat for treacherous travel on poorly drained roads and highways. School closures and bus cancellations are widespread...

Moments

1 27 25



Burlington Hydro @BurlingtonHydro · Apr 16

Crews dispatched to east of Guelph Ln, north of North Service to attend to area outage. Crews are still dealing with remnants of the wknd's storm. ETR is early to mid-afternoon. outagemaps.burlingtonhydro.com/OutageMap/Outa...

2 1 2

You Retweeted



ESA @homeandsafety · Apr 16

#Ice storm may have damaged your electrical system. Follow these tips to make repairs safely: bit.ly/2q8ujda #onstorm

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You Retweeted



City of Burlington @cityburlington · Apr 16

City facilities will be open today. Roads crews have worked to ensure that primary routes are cleared as are the @BurlONTransit bus stops. @BurlingtonHydro reported that the high winds did bring down some trees overnight that caused power outages. Crews still working. #BurlON

2 13 8



Burlington Hydro @BurlingtonHydro · Apr 16

Crews have worked thru the night to restore power, but some pockets in the city remain without power – Cedar Springs, Palmer and Longmoor locales. ETR for remaining customers is expected by noon.
outagemaps.burlingtonhydro.com/OutageMap/Outa...

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Burlington Hydro @BurlingtonHydro · Apr 15

A number of pockets in the city currently experiencing outages. Trees have come down on wires as a result of wind. Repairs will continue thru tonite.

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Burlington Hydro @BurlingtonHydro · Apr 15

Power outages in north and south central Burlington are weather related. Crews are working as quickly & as safely as possible to restore power. Revised estimated restoration is a 3 to 4 hr window.

22 13 15



Burlington Hydro @BurlingtonHydro · Apr 15

230 customers remain without power in north central Burlington. Crews are on-hand. ETR is approx 8:30 pm

1 3 6

You Retweeted



City of Burlington @cityburlington · Apr 15

Wind gusts are causing some issues with trees and tree limbs. Forestry crews are working with @BurlingtonHydro to clean up trees and tree limbs that have fallen down. #BurlON #IceStorm2018 #ONStorm

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Burlington Hydro @BurlingtonHydro · Apr 15

Crews investigating weather related power outage in North Burlington. More info to follow shortly.



Burlington Hydro @BurlingtonHydro · Apr 15

Crews investigating power outage at Lakeshore between Seneca and Smith. ETR is 5:15 pm. outagemaps.burlingtonhydro.com/OutageMap/Outa...

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Burlington Hydro @BurlingtonHydro · Apr 15

Tree limb removed from power lines. Power has been restored to Pinedale area.

5 3 11



Burlington Hydro @BurlingtonHydro · Apr 15

Crews dispatched to power outage in Pinedale neighborhood. ETR is approx 4 pm.

5 7 11

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ESA @homeandsafety · Apr 13

Winter is returning tomorrow. Fzn rain & strong winds can bring down powerlines. If a powerline falls on your car here's what you should know: bit.ly/2okCMWp #onstorm #FreezingRain



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City of Burlington @cityburlington · Apr 13

City staff are preparing for a mix of heavy rain, freezing rain & snow that is expected to begin early Saturday morning and continue into the evening on Sunday. burlington.ca/prepare #BurlON #onstorm



4 19 18

Show this thread



Burlington Hydro @BurlingtonHydro · Apr 13



This weekend's storm could bring down powerlines. **YOUR SAFETY IS THE FIRST PRIORITY.** If a powerline is down stay back 10 metres & call us at 1-877-310-4937. If a powerline has fallen on your vehicle or you are in imminent danger call 9-1-1. @homeandsafety burlingtonhydro.com/outageportal

**Stay back the length
of a school bus.
Call 911 and your
local utility.**



-10 metres or 33 feet-



**Electrical
Safety
Authority**



↻ 16

♥ 13



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Ontario's Energy @ONenergy · Apr 13

#FreezingRain is in the forecast this weekend which means ice can build up on powerlines, increasing the risk of outages. Stay safe and be prepared!
esasafe.com/consumers/safe... #ONstorm



ESA

2 48 37



Burlington Hydro @BurlingtonHydro · Apr 13

Threat of freezing rain thru Sat & Sun, as well as heavy rain and strong winds to 70 km/h. There is the risk for power outages. Be prepared should outages occur:
burlingtonhydro.com/outageportal



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