



Major Event Response Reporting – December 28 2017

Prior to the Major Event

1. Did the distributor have any prior warning that the Major Event would occur?

No. While Whitby was one of many areas in the province that was under an extreme cold weather alert, conditions were not expected to trigger a major 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? If so, please give a brief description of arrangements.

No prior warning. Regular on call/standby operational resources were in place prior to the major event. This included line department employees (2) on call as well as a control room system operator (1) and stations employee (1) on standby. Operations supervisor/s are contacted for assistance if required. Whitby Hydro engages the services of a third party call centre who provides 24/7 outage assistance for customers and answers customer calls after-hours.

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?

Not applicable.

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.

Whitby Hydro operations (including line, control room and stations) employees are provided job-related training and are on-call or on standby as part of their regular employment. This ensures operations staff are available 24/7 and prepared to respond quickly to address outages of varying significance. Applicable staff are trained on the outage management system, customer call handling and routine website updates. Processes for communication between Whitby Hydro and its third party call centre are in place to ensure information is made available to customers calling in, and through social media (Twitter) and a website outage map. Operations management will contact appropriate staff to communicate, provide or engage additional resources if required to address a major event.

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 - Whitby Hydro is one of nineteen electricity distributors who participate in the South Central Ontario LDC Mutual Assistance Plan. This includes neighbouring utilities who can provide additional equipment, material or staff. Whitby Hydro also has the ability to call upon contractors as necessary depending on the type of event.

This particular event did not require the engagement of additional assistance from the mutual assistance plan.



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During the Major Event

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

On December 28, the IEEE 1366 TMED threshold was exceeded. It was determined that an adverse weather related jolt of a pole occurred due to the extreme cold which caused conductor movement. There was no other plant damage found. Because of the weather-related equipment issues, Whitby Hydro's system experienced a feeder lockout. Power was restored but intermittent outages continued while crews investigated until they were able to identify the main cause and isolate the equipment for repairs. The event was unexpected, unpredictable and unavoidable.

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

Yes, IEEE Standard 1366 (preferred method) 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.

Cause Code 6 – Adverse weather.

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)?

There was a short (5 minute) outage experienced by customers at 6:28 pm on December 27, 2017 however, it was not until December 28, 2017 at 12:44am that it became apparent that restoration was only temporary and additional investigation and patrolling of the feeders was required to locate and address the underlying issue. Several intermittent outages followed and power continued to be restored quickly and safely for periods of time while crews worked to identify the cause and sectionalize line sections to locate and isolate the faulted area.

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

All on-call line and control room staff were available at the start of the event and 4 additional staff that were scheduled off were brought in to assist for a period of time. Operations and Engineering Management was also called in to assist.



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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, there were estimates released to the public during the major event through media statements, a media interview, two website updates and through our website blog/Twitter.

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

The initial tweets regarding the power outage in the early morning hours of Dec 28th did not provide an estimated restoration time as the outage was intermittent and power was restored relatively quickly (within 5-60 minutes) each time for the majority of affected customers. Whitby Hydro's outage map is updated every five minutes and customer service representatives and third party call centre staff were provided with available outage and restoration information in order to assist in handling customer calls.

The first media statement was issued at approximately 10:45am which advised that all customers affected by the outage had power restored with the exception of 60 customers that were expected to have power restored by later that day. The media statement was also included on Whitby Hydro's website blog/Twitter at 11am and a website carousel added by 1pm.

A media interview was held at approximately 1:20pm with Global News Durham where Whitby Hydro confirmed that the number of customers without power had decreased to approximately 40 customers and an end of day restoration time was provided. A second media statement was released at approximately 3pm which indicated that there were about 30 customers still without power and restoration was expected by the end of day. Whitby Hydro also spoke with Durham News Radio directly to update them with the information that was included in the afternoon media release. This information was also updated on the Whitby Hydro website carousel as well as on our website blog/Twitter.

At approximately 9:30pm, Whitby Hydro confirmed with 680 News that all power was restored in Whitby and that was also conveyed on our website blog/Twitter.

At approximately 11am on Dec 29th, Whitby Hydro was interviewed by Global News Durham to reiterate that power was restored.

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

Please see the outline of communications provided in question 8.



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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.

Whitby Hydro's website contains contact information including the 24/7 outage line. This information is provided on the website home page in the outage map section as well as various other areas of the website.

Our website blog/Twitter outage updates on Dec 28th at approximately 6:30am, 11am, 4pm, and 9:30pm all contain phone contact information. The two media statements released on Dec 28th also included phone contact information.

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?

Whitby Hydro issued two media releases and provided two media interviews. Updates were available through the Whitby Hydro outage map (updated every 5 minutes) and the website blog/Twitter was updated 6 times (approximately 2:30am, 6:30am, 7:30am, 11am, 4pm and 9:30pm). The type of communication and timing is outlined in response to question 8 and 10.

The content of the media releases and interviews was to provide an update on the general cause of the outage, the approximate number of customers without power and to confirm that power was restored or would be restored by the end of the day for any remaining customers affected as well as provide a contact phone number for customers. Outage boundaries were identified in some of the website blog/Twitter postings.

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

Whitby Hydro does not use an IVR system. All customer calls were addressed by Whitby Hydro customer service staff or through third party call centre resources.

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?

The website outage map is updated every five minutes. The website blog and Twitter are connected and were updated 6 times during the event. Whitby Hydro also placed an outage notice on our website carousel and included links to the Electrical Safety Authority for winter safety, power surges as well as Town of Whitby links for local heated facilities. This was updated twice on Dec 28th and once early on Dec 29th.



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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?

The website was fully accessible during the major event.

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

At the peak, 11,013 customers were affected by the outage which represents approximately 26% of Whitby Hydro's customer base. Further details are provided in response to question 16.

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

The event initially caused an outage at 6:28pm on December 27, 2017 where more than 90% of affected customers were restored within 5 minutes.

An additional five related outages occurred intermittently between 12:44am and 7:17am on December 28, 2017 and efforts were made to restore power to customers quickly and safely each time despite the extreme cold weather conditions and limitations from night time visibility until the issue was identified and fully addressed. While customers who experienced the outage had power periodically during that window of time, overall it took just over 5 hours to fully restore the power to more than 90% of customers affected by the outage.

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.

There were no outages associated with Loss of Supply during the Major Event.

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

No. Additional assistance was not required.

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

No shortage of equipment or materials occurred during the major event.



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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)?

The following additional steps are being taken to ensure a state of readiness for major events:

- Continue to review and update Whitby Hydro's emergency protocols including coordination with the Town of Whitby for larger scale emergencies. Continue participation in mock emergency drills with the Town of Whitby.
- Enhance stand-alone communications protocol which includes refreshing our Twitter guidelines, followed by education/training to staff.
- Subscribe to a media newswire service to ensure faster distribution of media statements.
- Continue to look for opportunities to make effective system improvements to maximize benefits to the system with a view to reduce outages.
- Arrange meeting/tour with third party call centre to gain further insight into processes and opportunities to leverage their services and experience related to major events.
- Continue to explore possible opportunities to further leverage system technology.

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

The restoration effort was well handled during difficult weather conditions and limited night time visibility. The majority of the lessons learned related to improvements to communications.

- Ensure status of outage is communicated more frequently between operations, senior management and communications consultant.
- Timely communication and regular frequent updates are important not only to customers, but also to key stakeholders who may interface with customers or media.
- Implementation of tools like a newswire service will assist in expediting information and updates to multiple media contacts.

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, Whitby Hydro did not survey its customers about this event.