

### **Prior to the Major Event**

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

Orangeville Hydro was aware that rain and freezing rain were within the short term weather forecast.

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.*

The freezing rain began during the work hours of Thursday March 24<sup>th</sup>, 2016. Therefore, additional field and office staff were informed that additional assistance may be required.

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?*

Orangeville Hydro did not issue any media announcements regarding the increased chance of freezing rain in the weather forecast.

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.*

Orangeville Hydro's staff is experienced with effects of freezing rain and the responses required to freezing rain events. Freezing rain is an expected occurrence in Southern Ontario.

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, Orangeville Hydro is part of the Cornerstone Hydro Electric Concepts Association Inc. Emergency Mutual Assistance Agreement. 15 Ontario distributors are members of this Association as of February 29, 2016.

### **During the Major Event**

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

As appropriately described by the Hydro One OGCC:

"A destructive ice storm struck Southern and Central Ontario on March 24<sup>th</sup> and 25<sup>th</sup>, and its impact was significant on the distribution and transmission systems. There was as much as 30 millimeters of ice accretion which attributed to downed tree branches and power lines over much of the region."

The Ontario Energy Board has defined a Major Event as:

"Major Event" is defined as an event that is beyond the control of the distributor and is:

- a) *Unforeseeable;*
- b) *Unpredictable;*
- c) *Unpreventable;* or
- d) *Unavoidable.*

This ice storm was beyond the control of the distributor and is both unavoidable and unpreventable.

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

The IEEE Standard 1366 was used to identify the scope of this Major Event.

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

The Cause of Interruption was identified at 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?*

There was not an official declaration of an emergency state.

5. *When did the Major Event begin (date and time)?*

The freezing rain began throughout Thursday March 24<sup>th</sup>, 2016. The first time an Orangeville Hydro customer experienced a power outage was at 6:45PM EDT on Thursday March 24<sup>th</sup>, 2016.

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

100% of the *on-call distributor staff* were available at the start of the Major Event and 100% of the *on-call distributor staff* were utilized during the Major Event.

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

Orangeville Hydro did not issue any general ETR statements to the public during the Major Event.

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

N/A

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

When individual customers called in regarding isolated outages, Orangeville Hydro informed the customers of their known ETR.

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.*

When individual customers called in regarding isolated outages, Orangeville Hydro informed the customers of their known ETR

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?*

Orangeville Hydro issued:

- 7 information releases
- 17 social media notifications on Twitter

The content was related to general updates on the status of the storm, crews, safety, and ETRs when known and useful.

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

Orangeville Hydro does not have an IVR system.

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?*

Orangeville Hydro did not update its website.

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?*

Orangeville Hydro's website was not inaccessible.

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

All of Orangeville Hydro's customers experienced either a Momentary or Sustained Power Outage. Some customers experienced multiple outages. 7400 customers experienced sustained power outages which represents 62% of Orangeville Hydro's customers.

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

The longest more than 10% of the customers were interrupted was 0.88 hours (53 minutes).

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, there were outages associated with Loss of Supply.

- SAIDI of 0.89 hours
- SAIFI of 0.13
- Longest loss of supply outage was 11.7 hours for 800 customers.

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

Orangeville Hydro did not receive assistance during the Major Event.

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

Orangeville Hydro ran out of the preferred replacement small service wires and the related preferred connection materials such as wedge grips and insulinks. This did not affect Orangeville Hydro's restoration process because Orangeville Hydro was able to use similar replacement equipment.

**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)?*

Orangeville Hydro has:

- Debriefed staff to discuss lessons learned
- Created Community Contact Lists for Streamlined Press Releases (Local Media, Municipal Staff, Municipal Council, County Emergency Management)
- Increased material minimums for small service wires and related connection materials
- Removed and will continue to remove legacy primary conductor to decrease loading on poles as well as decrease the exposure to tree contacts
- Increased planned tree trimming activities in legacy rear-lot overhead areas
- Confirmed the existing maintenance and capital programs that assisted in minimizing the customers interrupted during the Major Event.

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

Rob doesn't have a response for this yet. Will return at a later date.

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.*

Orangeville Hydro has not surveyed its customer after the Major Event.