

OEB Filing 2.1.4.2.10
Major Event Response
Report for Waterloo North Hydro Inc.



Prepared By: Waterloo North Hydro

August 19, 2016

Major Event Days....August 19, 2016 – Lightning Storm

Prior to the Event

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

- The Weather Network, Environment Canada and like authorities predicted lightning prior to the Major Event.

2. If the distributor did have prior warning, did the distributor arrange to have extra employees on duty or standby prior to the Major Event beginning? If so, please give a brief description of the arrangements.

- No. This type of weather forecast, for lightning, even if severe, does not trigger the need for additional on call staff.

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?

- No. This type of weather forecast for lightning did not require the prediction for a major event pertaining to power interruptions.

4. Did the distributor train its staff on the response plans for Major Events? If so, please give a brief description of the training process.

- WNH Operations employees are on call or on stand by as part of their employment. Expectations to respond and work long days if required is known.
- Non Operations staff also on stand by were utilized for Call Intake and Damage Assessment and providing nourishment to crews and material delivery. Training was provided for Call Handling and Outage Case management through the implementation of WNH Outage Management System.

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. WNH has a third party Mutual Aid Agreement in place (including 18 local distributors)
- Additionally, WNH has ongoing relationship with a private contractor who does capital construction work for WNH. This private contractor is also readily available for response to Major Events.

During the Event

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

- August 19, 2016 is a major event as it exceeded the IEEE 1366 2.5β threshold. The event was unavoidable. However, the restoration effort did not take WNH out of its normal mode of operation as this was not a multiple day restoration.

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

- Yes

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

- The primary contributing cause code of this Major Event was 4.0 – Lightning

4. Were there any declarations by government authorities, regulators or the grid operator of an emergency in relation to the Major Event?

- WNH is not aware of any local emergency declarations during the time period of this Major Event.

5. When did the Major Event begin?

- Date: August 19, 2016
- Time: 23:25 PM

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

- Line staff, Station Staff, Control Room staff – 100% at start of and throughout the entire Major Event
- Additional Line Staff and System Operators were called in.
- The Customer Service team was not called in to answer phones as it is late night/early morning time frame and auto voice greetings along with WNH website seemed to keep customer call volumes at an acceptable level.

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

- Yes, through WNH web site, Customer Public Outage Map.

8. If the distributor did issue ETR's, at what time did the distributor issue the first ETR to the public?

- The outage started on August 19, 2016 at 23:25 pm with all outages restored by 04:04 am on August 20, 2016.

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

- Yes. Once location of lightning damage was verified and the large sections were isolated and restored, then ETR's were populated at about the 3 hour mark for the smaller outage areas.

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.

- WNH steers its customers to WNH corporate web site and public outage map for areas affected and ETR's and safety tips. WNH communicates via Twitter. Local media use WNH web site or Twitter for their information. WNH voice system refers customers to the website at appropriate menu options.

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?

- No press releases or conferences. Media refer to WNH website and Twitter traffic to update public. WNH Communications Team pushed out Tweets and references to www.WNHhydro.com

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

- Not applicable. This was not a multiple day Major Event and occurred in the overnight hours therefore WNH Customer Service Representatives were not called in to personally answer phones during this Major Event. WNH does not use 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?

- Outage areas are shown on a map and updated live with unique shading for 'active outage' area or 'restored area'.

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 distributors total customer base did the interrupted customers represent?

- 3,966 of the 55,648 WNH customers were interrupted or 7%

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

- It took 1.5 hours to restore 90% of the affected customers.

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 the duration and frequency of the Loss of Supply outages.

- No. See 2.1.4.2.8 of OEB Filing

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

- No.

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 or mitigate such Major Events in the future (ie. Staff training, process improvements, system upgrades)?

- Continued awareness and continue advanced preparation of additional On Call resources. WNH continues to invest in Distribution Automation. This almost always extends a saving in interruption SAIDI.

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

- WNH has learned and continues to advance plan (perhaps over react) in advance of forecasted weather/system risk. Many times the event does not unfold but at least WNH is prepared in advance.

3. Did the distributor survey its customers after the Major Event to determine the customers' opinion of how effective the distributor was in responding to the Major Event? If so, please describe the results