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January 11, 2016

BY COURIER

Ms. Kirsten Walli
Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700,
Toronto, ON, M4P 1E4

Dear Ms. Walli:

EB-2015-0182 – OEB Report System Reliability: Major Events and Customer Specific Measures - Hydro One Networks' Response to Board Staff Questions

Hydro One Networks Inc. ("Hydro One") offers the following responses (attached in Appendix A) to the questions posed by Board staff as part of the above mentioned initiative.

Additionally, Hydro One is taking this opportunity to provide the following recommendations for measuring reliability and performance improvement programs:

- To recognize the different drivers of rural vs urban performance, Distributors' metrics should be normalized for distance (dividing reliability by circuit kms) as well as connections (dividing reliability by the number of customers).

- To ensure customer and stakeholder confidence and understanding of the measures, the measures should be empirical in nature, and be based on specific Distributors' observed historical data (rather than on broad, statistical, or theoretical analysis alone).

- Results reported by utilities should be auditable, and to the extent possible, audit findings can be shared with LDCs to promote continuous improvement.

- New measures or targets that could lead to an increase in the cost to rate payers must align with the regulatory schedule of the affected distributor, to allow for recovery of costs. Alternatively, deferral account treatment of those costs should be considered.

While there may be issues surrounding the gathering and subsequent reporting of the data, Hydro One has found that the benefits gained from improved reliability measures can greatly offset the challenges involved. Key among the benefits of participating in this initiative on defining and measuring

performance process is the opportunity to ensure that a customer perspective is present in all of the measures.

Hydro One views the development of appropriate and meaningful Distribution System Reliability Performance measures as an essential part of measuring the effectiveness of Distributors. Hydro One was very encouraged to see this initiative undertaken and looks forward to continuing to contribute to the development of reliability performance measurement and reporting requirements.

Sincerely,

ORIGINAL SIGNED BY ODED HUBERT

Oded Hubert

Appendix A

Hydro One Networks' Inc. Responses to the Board's Questions

Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures - Responses

Background

On December 7, 2015, the Ontario Energy Board (the OEB) issued a letter announcing new initiatives related to the new objectives set out in the August 25th Report.

- The first initiative will be to develop a definition of a "Major Event" that will be used to normalize reliability data that is reported to the OEB.
- The second initiative will be to develop criteria and new reporting requirements that will be used to evaluate a distributor's response to a Major Event.
- The third initiative will be to establish an approach to implementing "customer specific" system reliability measures.

The purpose of this OEB Report is to explore issues related to the above-mentioned topics and seek stakeholder comments on initial OEB proposals.

The OEB is seeking stakeholder comments on how to achieve the above three objectives and specifically on the proposals set out in this paper. It is expected the results of this initiative will be amendments to the OEB's Electricity Reporting and Record Keeping Requirements.

Stakeholders are invited to provide written comments on by January 11, 2016 in accordance with the filing instructions set out in the cover letter.

Responses

Responses to the following Discussion Paper Questions (in italics) are in bold font:

DEFINING A "MAJOR EVENT"

B.4 – OEB Proposal

The OEB agrees with the Working Group that an effective definition of a Major Event should reference the fact that the event lasts longer than a typical outage, and disrupts the day-to-day operation of the distributor. The OEB also agrees that there should be some obligation on a distributor to determine if it can make changes to its operation that would limit the impact of similar events in the future

The OEB suggests that the European model of aligning the definition of Major Events with the concept

of force majeure events would be an effective method for Ontario. This approach provides the opportunity of establishing a definition that clearly outlines the intention behind the concept of Major Events, is flexible enough of meet the different circumstances of distributors around the province, while also utilizing a commonly known legal concept.
There is also the benefit in considering the Working Group's suggestion of using the approach set out in the CEA's reference guide. The methods set out in the guide are universally accepted and familiar to distributors who likely already use one of the methods for internal purposes.
With all these factors in mind, the OEB propose the following definition:
A "Major Event" is defined as event that is beyond the control of the distributor and is characterized as:
1. unforeseeable;
2. unpredictable;
3. unpreventable; and
4. unavoidable.

When assessing the threshold of a substantial number of customers affected and significantly longer restoration times than normal, distributors shall follow the recommendations set out in the Canadian Electricity Association's Major Event Determination Reference Guide. This approach recommends distributors use one of the following options whichever is appropriate to the distributor's circumstances. These options are:
• The IEEE approach
• The IEEE approach, using a two day rolling average
• The Fixed Percentage approach (i.e. 10% of customers affected)

B.5– Questions for Stakeholder Comment

• What are the risks/benefits associated with normalizing data in this manner?

Response

The major benefit will be the ability to assess the utility's effectiveness in managing its assets. This is analogous to the use of statistical quality control in manufacturing where outliers or items outside of management's control are separated from the statistics to allow for process improvements.

The major risk is that significant issues such as inappropriate maintenance or preparation may be missed if the Major Event data is not reviewed for cause.

• Is the OEB's proposal for a definition of a Major Event reasonable? What are the risks/benefits of *OEB's proposal?*

Response

The definition is reasonable with certain caveats. The interpretation of what is and what is not included in the following categories may be contentious:

1. unforeseeable;
2. unpredictable;
3. unpreventable; and
4. unavoidable.

Hydro One's view is that the use of the European model for evidence support will address this issue.
The benefits are that it provides a qualitative model that can be used for comparison and precedent purposes.

• Is it reasonable to have distributors themselves determine which outage events are Major Events, based on the principles set out in the proposal? Or should the OEB make a determination for each event.

Response

Using a process similar to the Ofgem model, distributors would develop a case to support the identification of a Major Event to be reported separately in their reliability reporting. The OEB would then evaluate the evidence against the definition and decide on its validity.

• Are there any other approaches to normalizing data that the OEB should consider? If so, please describe along with the risks/benefits these other options offer?

Response

It is important that, if reliability performance is to be improved, the cause, not the effect, of the major event must be the driver for determining a Major Event. Research in other jurisdictions, such as Australia and Scandinavia, may be productive since these are large complex systems. Scandinavian countries, for example, have long lines over a varying terrain with similar climate to Ontario. Australia is also a large system with long linear lines and customers dispersed over large areas. Also, both countries have exhibited innovative business practices and procedures.

• once a definition of a Major Event is adopted, would distributors be able to recalculate their reliability performance results for the past five years, and file this information with the Board?

Response

The proposed calculation of historical performance would be productive, as it would enable trends and issues to be identified. Therefore, Hydro One suggests that a pilot project be undertaken using the new definition to cover at least the Major Events that are truly significant.

C. MONITORING RESPONSE TO MAJOR EVENTS

C.5 – OEB Proposal

The OEB agrees with the Working Group's suggestions that any reporting requirements should focus on activities that take place in three time frames: prior to the event, during the event and after the event. It also agrees with the suggestion that the three key activities to review are: the publication of estimated times of restoration (ETR); communications with customers; and details on the outage(s).

Considering the results of research and feedback from the Working Group, the OEB proposes that responses to the following questions are to be reported:

Prior to the Event

1. Did the distributor have any prior warning that the event would occur?
2. If so, did the distributor arrange to have extra employees on duty or on standby prior to the event beginning? If so, please give a brief description of arrangements.
3. If so, did the distributor issue any media announcements to the public warning of possible outages resulting from the pending event? If so, through what channels?
4. If so, did the distributor contact and notify those customers who rely on electricity supply for life support and/or critical facilities (e.g. – hospitals, community shelters) about possible outages resulting from the pending event? If so, through what channels?
5. Has the distributor trained its staff on the response plans for a Major Event? If so, please give a brief description of the training process.
6. Did the distributor have 3rd party mutual assistance agreements in place prior to the event? If so, who were the 3rd parties? (e.g. – other distributors, private contractors)
7. In responding to the event, did the distributor utilize assistance through these 3rd party mutual assistance agreements?

During the Event

1. Please explain why this event was considered by the distributor to be a Major Event.
2. Did other distributors in the area experience the same event?
3. What percent of distributor staff was available at the start of the event and utilized during the event?
4. Did the distributor issue any estimated times of restoration (ETR) to the public? If so, through what channels?
5. Starting from time of the first outage, at what time did the distributor issue its first ETR to the public?
6. Did the distributor issue any updated ETRs to the public? If so, how many and at what points in time

were they issued?
7. What channels of communication did the distributor use to delivery ETRs to the public?
8. 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.
9. How many times did the distributor send information to customers through the media? (press releases, press conferences, social media notifications) What was the general context of this information?
10. How many customers called into the distributor's phone lines during the duration of the event?
11. What percentage of these customer calls were satisfied by the distributor's IVR system?
12. What percentage of these customer calls were answered by a live representative?
13. Of the calls answered by a live representative, what percentage of the calls were the calls answered within 90 seconds.
14. Was there any point in time when the phone lines were inaccessible? If so, what percentage of the total outage time were the phone lines inaccessible?
15. Did the distributor provide information about the event on its web site? If so, how many times during the event was the web site updated?
16. Was there any point in time when the web site was inaccessible? If so, what percentage of the total outage time was the web site inaccessible?
17. How many customers were interrupted during the event? What percentage of the distributor's total customer base, did the interrupted customers represent?
18. How many hours did it take to restore 90% of the customers who were interrupted?
19. Please explain the processes the distributor followed to undertake damage assessment.

After the Event
1. Did the distributor run out of any needed equipment or materials during the event? If so, please describe the shortages.
2. What steps, if any, are being taken to be prepared for such events in the future? (i.e. – staff training, process improvements, system upgrades.)
3. What lessons did the distributor learn in responding to the event that will be useful in responding to the next Major Event?

C.5 – Questions for Stakeholder Comment

• *What are the risks/benefits of introducing these new reporting requirements?*

Response

The major benefit is the recognition of the need to communicate with customers over the total duration of the event. While the most important task is restoration, it is important that the customer have the information to make plans to address the impact and duration of the event.

The risk is that the communication may be seen as an add-on and not an integral part of the restoration process. It is important that the sources for the information be well-informed and has access to the appropriate data sources.

• *Are the questions and reporting requirements proposed reasonable?*

Response

The questions are reasonable in scope. However, it may be useful to run a pilot, perhaps in a non-Major Event, to test their validity and interpretation. A practical test such as this may identify superfluous and/or essential data from a customer perspective.

• *Are there any questions in the proposal that do not seem relevant?*

Response

As noted above what is relevant from a customer perspective may not appear so to the distributer. Therefore, a trial run is suggested.

• *Are there other questions that should be included in a report evaluating a distributor's response to a Major Event?*

Response

The key is to focus on the Pareto 80/20 rule and get the key points in place, and then pursue continuous improvement.

• *Should the report include questions relating to calls answered by a live representative?*

Response

Any contact with a customer regarding the Major Event should be part of the communications element of the restoration process.

• *Should the OEB make these reports available through its' own web site?*

Response

As part of continuous improvement process, any data that leads to better customer communication in the course of outage management results should be noted on the website.

D. CUSTOMER SPECIFIC RELIABILITY MEASURES

Due to the importance of implementing customer specific reliability measures, the OEB does not agree with the suggestion of introducing voluntary reporting. The OEB is also concerned that allowing distributors to report different information will not be effective for comparison purposes.

Rather the OEB agrees with the suggestion of setting a target date for the required implementation of customer specific reliability measures, in order to focus distributors on achieving the goal. The OEB proposes that the implementation date for customer specific reliability measures be set in 2018.

The OEB does agree with the WG that in order to facilitate the introduction of these measures, it would useful to undertake a pilot project with a number of willing distributors to work towards the goal of implementing the monitoring of outages at the individual customer level.

D.4 – Questions for Stakeholder Comment

• *Is there any reason for not initiating a pilot project to review the implementation requirements for reporting customer level reliability data?*

Response

Customer level reliability data is an essential part of the reliability commitment. The best way to test this would be the pilot project

• *What are the risks/benefits of establishing a specific implementation date of 2018 for monitoring and reporting on individual customer outages?*

Response

Setting a specific date before the completion of the pilot project may lead to inappropriate actions. The pilot may show that an earlier starting date is possible whereas a delay may negate the pilot efforts.
Similarly, unforeseen issues may arise in the pilot leading to concerns on the validity of the results. Therefore, Hydro One suggests that the date of 2018 be a target, dependent upon the pilot project outcomes.

• *Are there other options the OEB should consider to reach the goal of having customer specific reliability measures?*

Response

Research in other regulated jurisdictions such as Ofgem "Worst Served Customers" would be useful.