



September 17, 2010

**BY RESS AND BY COURIER**

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

Dear Ms. Walli:

**RE: Initiative to Develop Electricity Distribution System Reliability Standards  
Board File No: EB-2010-0249**

The Ontario Energy Board (the “Board”) issued a letter (the “Letter”) to all licensed Electricity Distributors and other Interested Parties, dated August 23<sup>rd</sup>, 2010, in respect of an initiative to develop system reliability standards for electricity distributors.

In such letter, the Board indicated that it intends to establish regulatory requirements that will reinforce and strengthen the responsibility of electricity distributors to provide reliable delivery of electricity to all Ontario customers. By way of the Letter, the Board requested that distributors respond to questions that were included in the Attachment A to the Letter.

Horizon Utilities Corporation (“Horizon Utilities”) is pleased to provide the following responses to the Board’s questions:

***1. In addition to SAIDI, SAIFI and CAIDI, what, if any, other system reliability measures do you use?***

- In addition to SAIDI, SAIFI, and CAIDI, Horizon Utilities also captures the following:
  - Momentary interruptions
  - SAIDI, SAIFI, and CAIDI with and without loss of supply
  - SAIDI, SAIFI, and CAIDI with loss of supply but excluding storms
  - Outages tracked by duration, less than 60 minutes, between 61 min – 120 min, and greater than 4 hours

2. ***Provide a detailed description of your methodology utilized to record SAIDI and SAIFI. Please include information such as:***
- ***The degree of use of automated event tracking from SCADA systems, as well as reliance on manual observations.***
  - ***Whether planned outages are tracked separately.***
  - ***The level of detail captured throughout a stepped restoration process to record the total customer duration impact.***
- There are no automatic recordings of outages from any technologies such as SCADA. The SCADA will report outages at the feeder level. This information is then entered manually by the control room operator in the outage database.
  - All outages are recorded in the Horizon Utilities' Outage Database. All entries are manually input by the control room operator.
  - All momentary interruptions are also recorded manually in this outage database.
  - All other outages which occur in the field due to such events as overhead or underground distribution problems are entered manually by the control room operator. The times of the outages are collected by the operators with communication from field personnel.
  - Planned outages are recorded and entered in the major cause field as "scheduled outages". These can be reported separately if required.
  - In some cases there are outages on a feeder that are restored at different times. These outages are recorded in a "Multiple Step" section of the outage database. This part of the program allows the operator to enter each phase of the feeder restoration as each section is energized. The program allows the customer count to be entered as each section is energized. Once all power to customers has been restored and the operator saves the entries, the program automatically calculates the average duration of the feeder outage.
  - A Horizon Utilities total active customer count as of the end of each month is entered into the outage database.
  - At the end of each month, a report is generated (upon request) from the outage database. This report contains the number of causes, customers affected and customer hours for each category. The data is copied into an excel spreadsheet which is set up to add all the data for SAIDI and SAIFI.
3. ***Do you use system reliability performance results in planning, investment and maintenance expenditures, as well as establishing operation and maintenance procedures? Please explain.***
- The 10 worst feeders are analyzed by major causes and momentary interruptions to determine preventative or corrective work that can be completed to improve reliability
  - Large reliability improvement projects are included in the capital budget process for the following year or provided for immediately based on risk and affordability criteria
  - Specific outages are reviewed by trends e.g. If tree contact is a significant issue, the preventative maintenance schedule for that particular grid may be modified

- Specific outage causes are reviewed and can trigger changes to maintenance practices.
- Modifications may be made to maintenance programs based on the major outage causes, i.e. protection study for lighting, animal contact will result in installation of animal guards.
- Any major outage (in excess of 4 hours, planned or unplanned) is reviewed by a committee. Unplanned outages are reviewed for response times and root cause of failure and if any preventative measure could have shortened the outage. Planned outages are reviewed to determine if additional planning or system design could have reduced the outage duration or the number of customers impacted.
- Operating procedures (new or revised) may be developed as an outcome from an outage that was prolonged due to procedural issues.
- Creation of new or revisions to existing operating procedures may be determined by outages that have been prolonged due to insufficient procedures.
- Outages may also uncover other capital investment and planning requirements due to:
  - Prolonged outages due to insufficient backup and system design
  - Trends in equipment failures may result in a capital program to replace that type failing asset.

**4. *Do you identify and track the impacts of extraordinary events?***

Horizon Utilities does track extraordinary events based on the criteria set by the Canadian Electricity Association (“CEA”). One example of such event was the major flood in the east end of Hamilton in July 2009 that impacted over 300 customers for almost 24 hours. This event was classified as a significant event because the cause was outside the control of the utility. During that event, 111 mm of rain fell over a 2 hour period causing major flooding.

**5. *What other actions do you take to manage system reliability performance?***

On a monthly basis, system reliability is reported against a pre-defined target with all Horizon Utilities’ internal stakeholders, in addition to the Horizon Utilities Executive Management Team and Board. At the end of each year, the annual Distribution System Performance Report is shared with the same stakeholder group, in which the annual results of system performance are summarized and reliability system improvements are identified.

Horizon Utilities Utility Operations group has two committees focused on reliability results. They are as follows:

- The Reliability Committee meets regularly to review reliability performance, specifically related to overall system performance, including areas such as 10 worst performing feeders, review of outages in excess of four hours, and how these particular areas of system performance impact the overall distribution system.

- The Major Outage Committee reviews all planned and unplanned major outages (in excess 4 hours) to determine root cause and any action items that can be implemented to reduce the outage duration and/or the number of customers affected. Recommendations for system improvements or maintenance program enhancements are assigned to Horizon Utilities Asset Management group for review and implementation.

Other actions also include:

- Loading analysis is performed which looks at factors such as on peak loading to proactively address issues before they become a problem.
- Horizon Utilities utilizes third party weather forecasting services to better plan for pending storms and ensure adequate resources are available after-hours.
- In order to manage 'Loss of Supply' issues, Horizon Utilities meets with Hydro One to discuss performance and mitigation at regular intervals.

Should you have further questions or concerns, please do not hesitate to contact me.  
Thank you for the opportunity to participate in this questionnaire.

Yours Truly,

*Original signed by Indy J. Butany-DeSouza*

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