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BY E-MAIL AND WEB POSTING

March 20, 2013

To: All Licensed Electricity Distributors
All participants in Consultation EB-2010-0249
All Other Interested Parties

Re: Consultation on Proposed Amendments to the Electricity Reporting and Record Keeping Requirements

Phase 2 – Initiative to Develop Electricity Distribution System Reliability Standards

Board File No.: EB-2010-0249

A. Introduction

Electricity Distributors are required to report and maintain records of information relating to system reliability indices as described in section 2.1.4.2 of the Board's Electricity Reporting and Record Keeping Requirements (the "RRRs").

In a letter dated December 20, 2012, announcing previous amendments to the RRR's, the Ontario Energy Board (the "Board") indicated that implementation of the Board's renewed regulatory framework for electricity may trigger the need for further revisions to the RRR's. Today, the Board is releasing for comment proposed amendments to the system reliability reporting requirements under section 2.1.4.2 of the RRRs. These RRR amendments are part of the implementation of the performance measurement element of the renewed regulatory framework.

The proposed amendments are set out in Attachment A.

B. Background

On November 23, 2011, the Board announced that it intended to move forward with Phase 2 of its initiative to develop distribution system reliability standards. This phase would address issues relating to the quality and consistency of reliability data gathered and reported by distributors. Phase 2 would also look into issues associated with introducing new monitoring and reporting requirements relating to causes of outages and more customer specific reliability measures.

The consultation process leading up to these proposed amendments included receiving comments from stakeholders on a series of questions sent out by Board staff, consultations with a Reliability Data Working Group (the “Working Group”) established by the Board, and a request for comments from both the Working Group and other interested parties on staff proposals. The Staff Report to the Board also released today provides an overview of the results of that consultation. The report can be found at the following link on the Board’s web site. [Staff Report - System Reliability Standards](#)

On October 18, 2012, the Board issued its *Report of the Board Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Framework* which established an outcomes based approach to regulation of the electricity distribution sector. One of the outcomes that the Board established for distributors is *Operational Effectiveness* requiring continuous improvement in productivity and cost performance; and that utilities deliver on system reliability and quality objectives. Improved system reliability reporting requirements will play a role in the Board’s performance measurement framework to assess the achievement of outcomes for the benefit of existing and future customers. The measurement of performance is a key element of the framework with annual reporting through a scorecard approach.

The proposed amendments to the RRRs are expected to improve the consistency of the annual reporting of reliability data by distributors, which is essential for the successful monitoring of distributor performance by the Board.

The reporting of accurate system reliability data is also important, as the Board monitors this data to ensure that distributors are maintaining their performance in an incentive rate making regime, and that distributor’s capital and asset management plans are efficient and effective.

Based on both the objectives set out for the renewed regulatory framework and after considering the input from stakeholders, the Board is now proposing the attached amendments to the RRRs in order to implement new and revised reporting requirements related to system reliability.

A summary of the amendments is set out below. The proposed revised section 2.1.4.2 is set out in Attachment A.

Next Phase of Initiative

In keeping with the focus of the renewed regulatory framework on performance and the outcomes based approach to regulation, the Board intends to commence work on the establishment of regulated performance standards for the existing system reliability measures. Customer focus is an outcome established by the Board, and as part of this next phase of the system reliability standards initiative, the Board intends to develop and implement new customer specific reliability indicators like a measure of customers experiencing multiple interruptions.

Improving Definitions

The Board is proposing to revise the definitions of the System Average Interruption Duration Index (“SAIDI”), and System Average Interruption Frequency Index (“SAIFI”), to more closely adhere to the wording used by other institutions like the Canadian Electrical Association (“CEA”) and the Institute of Electrical and Electronic Engineers (“IEEE”) Standard 1366.

The Board is proposing to add a definition of “customer” as a metered service for which an active account is established at a specific premise. The Board is also proposing to define what constitutes the “end time” of an interruption by clarifying that the end time should be based on when service is restored to the customer connection point. As well, for the most accuracy, the end time should be tracked using a step-restoration approach.

The Board is also proposing to clarify that outages related to Loss of Supply are those interruptions due to problems associated with assets owned and/or operated by another party, and/or the bulk electricity supply system.

The Board understands that implementing revisions to the reliability definitions may impact the ability to compare future performance with historical performance. To address this issue, the Board is proposing the addition of a requirement for distributors to report when the introduction of new distribution system technologies, or reliability measuring and reporting practices, have impacted the reported performance data. The details of this reporting should include whether the impact is positive or negative, and the percentage change between the performance reported in the previous year and the current year as a result of the new technology or processes. The Board will require this reporting on a go-forward basis.

As an additional effort to improve common understanding of the reliability measures, the Board has requested that Board staff consult with the Working Group on the development of example outage scenarios and on the appropriate way for distributors to report on such scenarios. These examples will be added to the Board's RRR Filing Guide.

Measuring Practices

The Board understands that distributors require the flexibility to implement monitoring policies and processes best suited to their individual needs and the information they have available when calculating their reliability performance. Accordingly, the Board is not proposing any specific amendments to the RRR in regards to standardizing measurement practices.

However, an effective review of a distributor's reliability performance relies on the accuracy and completeness of the data reported. Therefore, the Board expects that distributors will continually work to develop best practices, whether these are automated or manual, which ensure the highest possible degree of data accuracy in the collection of reliability data.

Normalization and Reporting on Causes of Outages

Through the consultations, no consensus was reached among stakeholders on how to normalize or adjust reported data to remove the effects of major events. The Board agrees with the view of stakeholders that the two common approaches used by distributors are flawed because they focus on the scale of the outage, rather than the cause. The Board also believes that Board staff's proposal which involved defining what constitutes "out of the distributor's control" leaves too much room for interpretation and the possibility of inconsistent implementation.

Rather than having normalized data reported with the exclusion of major events, the Board is interested in knowing and examining all the causes of outages, along with what steps distributors are taking to reduce outages caused by those events they can control.

Currently, the RRR's include a provision (section 2.3.12) that requires distributors to keep records on the causes of outages. This list of causes is set out in the RRRs and matches those used by the CEA. The Board is now proposing that distributors be required to actually report data related to the causes of outages to the Board.

The Board has reviewed the approach taken by the CEA in their annual *Service Continuity Report*. In that document, each member utility reports the following yearly data for each cause:

- The number of interruptions that occurred as a result of the cause;
- The number of customer-interruptions that occurred as a result of the cause; and
- The number of customer-hours of interruptions that occurred as a result of the cause.

The Board is proposing through the amendments to the RRR that electricity distributors be required to report the same information to the Board.

The Board understands that there are some concerns over possible inconsistencies in the way distributors categorize outage events within the Cause Code definitions set out in the amendments. The Board expects that Board staff will continue to consult with the Working Group to develop examples and/or proper direction on how to categorize events into the appropriate Cause Codes.

Proposal to Eliminate Certain RRR Requirements

Comments received during this consultation indicated concerns over the reporting and use of the Customer Average Interruption Duration Index ("CAIDI"). These concerns related to the fact that CAIDI is not an accurate indicator of reliability performance. For example, an improvement in CAIDI does not necessarily represent an improvement in the actual frequency and duration of outages, nor does a decline in the frequency and duration of outages result in a decline in CAIDI. The Board acknowledges these concerns.

In keeping with the Board's efforts to streamline the reporting requirements while ensuring that the content of reporting continues to provide the Board with the information it needs fulfill its mandate effectively; the Board is proposing that distributors no longer be required to report their CAIDI results as part of the RRR requirements.

The Board notes that those parties who are interested in reviewing the results of CAIDI may calculate CAIDI from the SAIDI and SAIFI data that will continue to be available.

Comments received during the consultation have also suggested that the requirement to report on the Momentary Average Interruption Frequency Index ("MAIFI") should be removed, since many distributors do not have the technical ability to monitor momentary outages. Also, momentary outages are part of the normal operation of the distribution system and should not be used to judge reliability. The Board acknowledges the concerns of some stakeholders that momentary outages are not just a nuisance but result in real costs to customers. However, again in keeping with the desire to streamline the reporting requirements, the Board is proposing that distributors no longer be required to report their MAIFI results as part of the RRR requirements.

Customer Specific Measures

The Board supports the implementation of reliability indices that focus on the performance provided to individual customers. For example, the Board considers indices that report on customers experiencing multiple interruptions or long duration interruptions to be valuable measures.

The Board does understand that in order to cost-effectively introduce such indices, more research must be undertaken to determine the extent that distributors must utilize new technology, including the use of smart meter data, to accurately monitor and report on such indices. As stated above, the Board intends to consult on the development and implementation of customer specific reliability measures as part of the next phase of this initiative.

During the consultation, stakeholders discussed the inclusion of a requirement that distributors file information on their worst performing feeders. This measure was included in the discussion of customer focused measures of reliability. However the comments from stakeholders raised questions about the value of the reporting requirement as a measure of reliability. Distributors indicated that the information is used as planning and operational tool.

The Board believes information on the performance of a distributor's worst performing feeders is valuable when assessing the effectiveness of a distributor's asset management and capital investment planning. For that reason, it is expected that reporting data on worst performing feeders will be part of the consolidated capital plan filing requirements that are being developed as part of the Board's distribution network investing planning initiative. Understanding that information regarding a distributor's worst performing circuits will be available to the Board, and acknowledging the concerns raised during the consultation about using worst performing feeder data as a reliability indicator, the Board has decided not to introduce of a worst performing feeder reliability indicator.

C. Coming into Effect

The Board proposes that these amendments come into effect on January 1, 2014, and be applicable to the reporting period beginning on or after January 1, 2014.

D. Cost Awards

Cost awards will be available under section 30 of the Act to eligible persons in relation to the provision of comments on the proposed amendments to the RRRs as set out in Attachment A **to a maximum of 10 hours**. Costs awarded will be recovered from all licensed electricity distributors based on their respective distribution revenues.

Attachment B contains important information regarding cost awards for this notice and comment process, including in relation to eligibility requests and objections. In order to facilitate a timely decision on cost eligibility, the deadlines for filing cost eligibility requests and objections will be strictly enforced.

E. Invitation to Comment

All interested parties are invited to submit written comments on the revised proposed amendments to the RRRs as set out in Attachment A by **April 19, 2013**.

Two (2) paper copies of each filing must be provided, and should be sent to:

Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto Ontario M4P 1E4

The Board requests that interested parties make every effort to provide electronic copies of their filings in searchable/unrestricted Adobe Acrobat (PDF) format, and to submit their filings through the Board's web portal at <https://www.pes.ontarioenergyboard.ca/eservice/>. A user ID is required to submit documents through the Board's web portal. If you do not have a user ID, please visit the "e-filings services" webpage on the Board's website at www.ontarioenergyboard.ca, and fill out a user ID password request. Additionally, interested parties are requested to follow the document naming conventions and document submission standards outlined in the document entitled "RESS Document Preparation – A Quick Guide" also found on the e-filing services webpage. If the Board's web portal is not available, electronic copies of filings may be filed by e-mail at boardsec@ontarioenergyboard.ca. Those that do not have internet access should provide a CD containing their filing in PDF format.

Filings to the Board must be received by the Board Secretary by **4:45 p.m.** on the required date. They must quote file number **EB- 2010-0249** and include your name, address, telephone number and, where available, your e-mail address and fax number. If the written comment is from a private citizen (i.e., not a lawyer representing a client, not a consultant representing a client or organization, not an individual in an organization that represents the interests of consumers or other groups, and not an individual from a regulated entity), before making the written comment available for viewing at the Board's offices or placing the written comment on the Board's website, the Board will remove any personal (i.e., not business) contact information from the written comment (i.e., the address, fax number, phone number, and e-mail address of the individual). However, the name of the individual and the content of the written comment will be available for viewing at the Board's offices and will be placed on the Board's website.

This Notice, including the Proposed Amendments to the RRR are set out in Attachment A, and all written comments received by the Board in response to this Notice, will be available for public viewing on the Board's web site at www.ontarioenergyboard.ca and at the office of the Board during normal business hours.

If you have any questions regarding the Proposed Amendments to the RRR described in this Notice, please contact Paul Gasparatto at paul.gasparatto@ontarioenergyboard.ca or at 416-440-7724. The Board's toll free number is 1-888-632-6273.

DATED at Toronto, March 20, 2013

ONTARIO ENERGY BOARD

Original signed by

Kirsten Walli
Board Secretary

Attachment A: Proposed Amendments
Attachment B: Cost Awards

ATTACHMENT A

- 1) The Board is proposing to replace the entire section 2.1.4.2 as it exists in the current RRR with the following:

2.1.4.2 Reporting on System Reliability Indicators

The following definitions apply for the purposes of monitoring and reporting on each of the system reliability indicators set out below.

Definitions

- 1) *The “Average Number of Customers Served” by a distributor is the average number of customers served in the distributor’s licensed service area during the month, calculated by adding the total number of customers served on the first day of the month and the total number of customers served on the last day of the month and dividing by two.*

Bulk metered buildings with individual smart sub-metering installations shall be counted as a single customer, provided that any suite metering system is not operated by the distributor and that such customers are not billed by the distributor.

Unmetered load customers should not be included in the customer count.

- 2) *A “Customer” means a metered service for which an active account is established at a specific premise.*
- 3) *An “Interruption” means the loss of electrical power, being a complete loss of voltage, of a duration of more than one minute, to one or more customers, including planned interruptions scheduled by the distributor but excluding part power situations, outages scheduled by a customer, interruptions by order of emergency services, disconnections for non-payment or power quality issues such as sags, swells, impulses or harmonics.*
- 4) *In calculating the duration of an interruption the start of the interruption shall be considered to have occurred on the earlier of:*
 - a) *The time at which the distributor received a communication from a customer reporting the interruption; or*
 - b) *The time at which the distributor otherwise determined that the interruption began.*
- 5) *In calculating the duration of an interruption, the end of the interruption shall be considered to have occurred when service has been restored to the customer demarcation point. This time may be determined by either the time the restoring*

crew reports the restoration was complete or the time at which the distributor otherwise determined the restoration was complete.

The process of restoration may require restoring service in stages to small sections of the system until service has been restored to all customers. Each of these individual stages should be tracked, collecting the start time, end time and number of customers interrupted and restored for each stage. Any temporary restoration of supply which does not exceed 3 minutes shall be ignored and the interruption must be treated as continuous.

- 6) "Loss of Supply" means an interruption due to problems associated with assets owned and/or operated by another party, and/or the bulk electricity supply system.

2.1.4.2.1 System Average Interruption Duration Index (SAIDI)

SAIDI is an index of system reliability that expresses the average amount of time, per reporting period, supply to a customer is interrupted. It is determined by dividing the total monthly duration of all interruptions experienced by all customers, in hours, by the average number of customers served.

SAIDI is expressed as follows:

$$\text{SAIDI} = \frac{\text{Total Customer Hours of Interruptions}}{\text{Average Number of Customers Served}}$$

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:

- a) Total customer-hours of interruptions in each month;
- b) Average number of customers served in each month; and
- c) SAIDI, being (a)/ (b).

2.1.4.2.2 SAIDI (Loss of Supply)

This index adjusts SAIDI for the effects of interruptions caused by Loss of Supply and is calculated in the same way as described in section 2.1.4.2.1, except that the total customer-hours of interruptions caused by Loss of Supply events is deducted from the total customer-hours of interruptions.

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:

- a) Total customer-hours of interruptions in each month;
- b) Total customer-hours of interruptions in each month caused by Loss of Supply;
- c) Average number of customers served in each month; and

d) *Adjusted SAIDI, being ((a) - (b))/(c).*

2.1.4.2.3 System Average Interruption Frequency Index (SAIFI)

SAIFI is an index of system reliability that expresses the number of times per reporting period that the supply to a customer is interrupted. It is determined by dividing the total number of interruptions experienced by all customers, by the average number of customers served.

SAIFI is expressed as follows:

$$\text{SAIFI} = \frac{\text{Total Customer Interruptions}}{\text{Average Number of Customers Served}}$$

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:

- a) Total number of interruptions in the month;*
- b) Average number of customers served in each month; and*
- c) SAIFI, being (a)/ (b).*

2.1.4.2.4 SAIFI (Loss of Supply)

This index adjusts SAIFI for the effects of interruptions caused by Loss of Supply, and is calculated in the same way as described in section 2.1.4.2.3, except that the total number of interruptions caused by Loss of Supply events is deducted from the total number of interruptions.

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:

- a) Total number of customer interruptions in each month;*
- b) Total number of customer interruptions in each month caused by Loss of Supply;*
- c) Average number of customers served in each month; and*
- d) Adjusted SAIFI, being ((a) - (b))/(c).*

2.1.2.4.5 Reporting Cause Codes

For each Cause of Interruption as set out below, a distributor shall, for each month, report the following data:

- a) name of the Cause of Interruption;*
- b) number of interruptions that occurred as a result of the Cause of Interruption;*
- c) number of customer interruptions that occurred as a result of the Cause of Interruption; and*

- d) number of customer-hours of interruptions that occurred as a result of the Cause of Interruption.

Code	Cause of Interruption
0	Unknown/Other <i>Customer interruptions with no apparent cause that contributed to the outage.</i>
1	Scheduled Outage <i>Customer interruptions due to the disconnection at a selected time for the purpose of construction or preventive maintenance.</i>
2	Loss of Supply <i>Customer interruptions due to problems in the bulk electricity supply system. For this purpose, the bulk electricity supply system is distinguished from the distributor's system based on ownership demarcation.</i>
3	Tree Contacts <i>Customer interruptions caused by faults resulting from tree contact with energized circuits.</i>
4	Lightning <i>Customer interruptions due to lightning striking the distribution system, resulting in an insulation breakdown and/or flash-overs.</i>
5	Defective Equipment <i>Customer interruptions resulting from distributor equipment failures due to deterioration from age, incorrect maintenance, or imminent failures detected by maintenance.</i>
6	Adverse Weather <i>Customer interruptions resulting from rain, ice storms, snow, winds, extreme temperatures, freezing rain, frost, or other extreme weather conditions (exclusive of Code 3 and Code 4 events).</i>
7	Adverse Environment <i>Customer interruptions due to distributor equipment being subject to abnormal environments, such as salt spray, industrial contamination, humidity, corrosion, vibration, fire, or flowing.</i>
8	Human Element <i>Customer interruptions due to the interface of distributor staff with the distribution system.</i>
9	Foreign Interference <i>Customer interruptions beyond the control of the distributor, such as those caused by animals, vehicles, dig-ins, vandalism, sabotage, and foreign objects.</i>

2.1.2.4.6 Measuring and Reporting Practices

A distributor shall report to the Board if it has introduced new system reliability measuring and reporting practices or any new distribution system technologies that impacted its reported performance results for the current year in comparison to previous years.

This report shall describe the new practice or technology, and the scope of the impact, including the percentage of change between the results reported in the previous year and the results reported in the current year.

- 2) The Board is proposing to delete the record keeping requirements under section 2.3.12 and replace the current wording with phrase “Intentionally Left Blank”.

ATTACHMENT B

Cost Awards

Cost Award Eligibility

The Board will determine eligibility for costs in accordance with its *Practice Direction on Cost Awards*. Any person requesting cost eligibility must file with the Board a written submission to that effect by **April 1, 2013**, identifying the nature of the person's interest in this process and the grounds on which the person believes that it is eligible for an award of costs (addressing the Board's cost eligibility criteria as set out in section 3 of the Board's *Practice Direction on Cost Awards*). An explanation of any other funding to which the person has access must also be provided, as should the name and credentials of any lawyer, analyst or consultant that the person intends to retain, if known. All requests for cost eligibility will be posted on the Board's website.

If a licensed electricity distributor has any objections to any of the requests for cost eligibility, such objections must be filed with the Board by **April 12, 2013**. Any objections will be posted on the Board's website.

Eligible Activities

Cost awards will be available in relation to the provision of comments on the proposed amendments to the RRRs as set out in Attachment A to **a maximum of 10 hours**.

Cost Awards

When determining the amount of the cost awards, the Board will apply the principles set out in section 5 of its *Practice Direction on Cost Awards*. The maximum hourly rates set out in the Board's Cost Awards Tariff will also be applied. The Board expects that groups representing the same interests or class of persons will make every effort to communicate and co-ordinate their participation in this process.

The Board will use the process set out in section 12 of its Practice Direction on Cost Awards to implement the payment of the cost awards. Therefore, the Board will act as a clearing house for all payments of cost awards in this process. For more information on this process, please see the Board's *Practice Direction on Cost Awards* and the October 27, 2005 letter regarding the rationale for the Board acting as a clearing house for the cost award payments. These documents can be found on the Board's website at www.ontarioenergyboard.ca on the "Rules, Guidelines and Forms" webpage.