PALIARE ROLAND
BARRISTERS

Richard P. Stephenson
T 416.646.4325 Asst 416.646.7419
F 416.646.4301
E richard.stephenson@paliareroland.com
www.paliareroland.com

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File 20741

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4

Dear Ms. Walli,

Re: Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures (EB-2015-0182)

The Power Workers' Union ("PWU") represents a large portion of the employees working in Ontario's electricity industry. Attached please find a list of PWU employers.

The PWU is committed to participating in regulatory consultations and proceedings to contribute to the development of regulatory direction and policy that ensures ongoing service quality, reliability and safety at a reasonable price for Ontario customers. To this end, please find the PWU's comments on the Report of the Board, *Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures*. We hope you will find them useful.

Yours very truly,
PALIARE ROLAND ROSENBERG ROTHSTEIN LLP

Richard P. Stephenson
RPS:pb

Encl.

c: John Sprackett, PWU (*via email*)
Kim McKenzie, Elenchus (*via email*)

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List of PWU Employers

Algoma Power
AMEC Nuclear Safety Solutions
Atlantic Power Corporation - Calstock Power Plant
Atlantic Power Corporation - Kapuskasing Power Plant
Atlantic Power Corporation - Nipigon Power Plant
BPC District Energy Investments Limited Partnership
Brant County Power Incorporated
Brighton Beach Power Limited
Brookfield Power Wind Operations
Brookfield Renewable Power - Mississagi Power Trust
Bruce Power Inc.
Canadian Nuclear Laboratories (AECL Chalk River)
Compass Group Corporation of the County of Brant
Covanta Durham York Renewable Energy Ltd.
Entegrus
Erie Thames Powerlines
Erth Corporation
Great Lakes Power (Generation)
Great Lakes Power Transmission
Grimsby Power Incorporated
Halton Hills Hydro Inc.
Hydro One Inc.
Independent Electricity System Operator
Inergi LP
InnPower (Innisfil Hydro Distribution Systems Limited)
Kenora Hydro Electric Corporation Ltd.
Kinectrics Inc.
Kitchener-Wilmot Hydro Inc.
Lake Superior Power Inc. (A Brookfield Company)
London Hydro Corporation
Milton Hydro Distribution Inc.
New Horizon System Solutions
Newmarket Hydro Ltd.
Norfolk Power Distribution Inc.
Nuclear Waste Management Organization
Nuvia Canada
Ontario Power Generation Inc.
Orangeville Hydro Limited
Portlands Energy Centre
PowerStream
PUC Services
Rogers Communications (Kincardine Cable TV Ltd.)
Sioux Lookout Hydro Inc.
SouthWestern Energy
The Electrical Safety Authority
TransAlta Generation Partnership O.H.S.C.
Westario Power
Whitby Hydro Energy Services Corporation

EB-2015-0182

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

Submission of the Power Workers' Union

1 INTRODUCTION

On August 25, 2015, the Ontario Energy Board (the "OEB" or "Board") issued a Report of the Board: *Electricity Distribution System Reliability Measures and Expectations* ("Report of the Board") that set out the direction the OEB is taking to establish distributors expected level of electricity reliability performance.

On December 7, 2015 the OEB issued a Report of the Board on *Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures* ("the Report"). The Report details three new initiatives related to the current and ongoing project to establish distribution system reliability performance expectations for Ontario electricity distributors that were set out in the August 25, 2015, Report of the Board. The Report will explore issues related to the following topics:

- **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 Board is inviting stakeholders to provide written comments on the Report and expects to amend the OEB's Electricity Reporting and Record Keeping Requirements as a result of this initiative.

The PWU has been a key participant in Ontario's energy policy and government budget discussions for over 70 years. The PWU represents a large portion of the employees working in Ontario's electricity industry and our members work in all sectors of the Ontario electricity industry. Our submission stems from our energy strategy and policy statement:

> **Reliable, secure, safe, environmentally sustainable and reasonably priced electricity supply and service, supported by a financially viable energy industry and skilled labour force is essential for the continued prosperity and social welfare of the people of Ontario. In minimizing environmental impacts, due consideration must be given to economic impacts and the efficiency and sustainability of all energy sources and existing assets. A stable business environment and predictable and fair regulatory framework will promote investment in technical innovation that results in efficiency gains.**

2 PWU'S COMMENTS ON THE THREE INITIATIVES

System reliability and service quality have been issues of paramount importance to the PWU for many years. In the many OEB policy and rate hearing proceedings the PWU has championed high quality and reliable service. In fact, the PWU has supported in one form or other all of the three initiatives that are currently the focus of the Board's Report: appropriate definition for a 'Major Event', reporting requirements relating to the Major Event (i.e., linking the definition with the cause of the event) and customer specific reliability measures.

Service quality performance is an indicator of a distributor's output, a fundamental consideration in the determination of the reasonableness of a distributor's proposed input (i.e. costs). It is therefore essential that criteria used in establishing metrics intended as indicators of a distributor's service quality performance are consistent, effective, comprehensible and transparent. The PWU, therefore, believes that these initiatives will help achieve these desired objectives.

2.1 MAJOR EVENT DEFINITION

2.1.1 BACKGROUND

In the Report the OEB has proposed 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.***
>
> ***Such events disrupt normal business operation and occur so infrequently that it would be uneconomical to take them into account when designing and operating the system. Such events cause exceptional and/or extensive damage to assets, which affect a substantial number of customers, and the repairing of which takes significantly longer than usual.***
>
> ***"Beyond the control of the distributor" means events that are a result of natural forces or an action by a third party, including Loss of Supply events.***
>
> ***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)***

2.1.2 PWU GENERAL COMMENTS

The Report notes that many distributors in Ontario currently apply their own normalization methodology for internal purposes, two of the more common approaches used to establish what constitutes a Major Event being:

1. The interruption of service by an event affecting a certain percentage of the customer base (mainly 10% of customers affected)
2. The IEEE Standard 1366, which is a statistical approach to establish the minimum impact threshold for an event to be considered a Major Event.

In assessing the proper definition of a Major Event, it is important to consider the basis for the rationale by which such events are excluded from distributors' reliability statistics. The PWU submits that, logically, the rationale must be that it would be unfair to include the event in the distributor's statistics because it does not accurately reflect the state of repair of the distributor's plant and equipment, and the distributor's efforts to maintain that state of repair. Consistent with this purpose, the PWU submits that it would be unfair to include in the distributors' reliability statistics the consequences of events over which it has no control. As a corollary, it is perfectly fair to include the consequences of events over which they do have control, regardless of the size of those consequences.

To the extent that service quality performance and normalization methodologies have come up at the Board's cost of service proceedings, the PWU's experience has been limited to the first approach which is the fixed percentage approach (i.e. 10% of customers affected). As a regular participant at Hydro One Distribution's rate applications, the PWU has always expressed its concern over Hydro One's definition of 'force majeure', which Hydro One deems to have occurred when 10% or more of its customers have been interrupted by an event. Specifically, the PWU has repeatedly[1] submitted that this definition, by its very nature, focuses on the consequences of a system failure, rather than the cause. In other words, once the 10% criterion is met, there would be no assessment made as to the actual cause of the outage. There are many reasons why the PWU is concerned with a definition that focuses only on the impact of an outage and disregards the cause of the outage:

a) There is no logical reason why an outage affecting more than 10% of customers could not arise from a cause that is wholly or largely within the control of the utility, whether from equipment failures, vegetation management practices or substandard maintenance practices.

b) The definition leads to the very anomalous result, whereby the worse the impact of the system failure for the distributor's customers, the less the consequences to the distributor in terms of its reliability performance statistics. The definition

[1] See Hydro One 2006, 2008 and 2010 rate application proceedings

relates to the outcome or level of damage regardless of cause and renders the distributor harmless (from the point of view of reliability statistics) with regard to service interruptions to over 10% of its customers.

c) The 10% criterion does not depend upon any consideration of the intensity of the impact of a storm event on the local area hit to establish the event as a force majeure. Instead, inconsistent with the common understanding of a force majeure, the criterion applies a broad geographic statistic to define a force majeure event. The PWU acknowledges that the most common causes of outages in this category have been storms. However, the criterion should not be the basis for precluding from the service quality performance metrics events that, under normal circumstances, should be considered as being in control of the company. System condition is relevant to the extent of the impact suffered by the system as a result of severe weather events. All things being equal, a system that is older or weaker (for example, by virtue of maintenance deferrals) will suffer outages which are wider and lengthier than on a system which is more robust.

Therefore, it is important that distributors use a definition of force majeure that is consistent with the ordinary understanding of that term. In particular, if distributors are to exclude events from their reliability statistics, they may only do so on the basis that the cause of the event has been investigated and has been determined to be an event beyond their control and the minimum threshold (based on either the '10% or more customers affected' or the IEEE methodology) is met.

The PWU is therefore encouraged by the fact that the Board is proposing to align the definition of 'Major Event' with the concept of 'force majeure' events, a model used by many distributors in Europe and to define Major Event in such a way that it is linked to the cause of the event.

The PWU acknowledges that defining a Major Event using such qualitative/subjective terms as 'unforeseeable', 'unpredictable', 'unpreventable', 'unavoidable', etc. is always

subject to debate. However, the Board's proposed qualitative definitions[2] and more importantly, the proposed reporting requirements[3] can help link the outage with the cause of the outage. This will assist in determining whether the event is consistent with the ordinary understanding of 'force majeure'. As discussed in the Report, when a distributor identifies a Major Event and excludes the impact of that event from its reliability performance data, the distributor will also be required to file information related to how the distributor responded to the Major Event. The information to be filed will include, for example, an explanation as to why the event was considered a Major Event and whether other distributors in the area experienced the same event.

The PWU notes that the IEEE statistical approach also focuses on the impact, not on the cause, of service outage. As indicated above, however, the Board's proposed definition of Major Event as well as the proposed reporting requirements would enhance the understanding of the 'Major Event' and whether it is beyond the control of the distributor.

Of the two general approaches, however, the PWU prefers the IEEE methodology to the 10% approach due to the dynamism inbuilt in the former, which can incent the distributor to make its system more and more resilient to external events as opposed to one that masks inherent problems of the system and allows further deterioration of service quality. The PWU agrees with the System Reliability Working Group (the "Working Group") that encouraging distributors to take action to respond to Major Events if they occur again in the future is important and that definition should be dynamic enough to promote the building of a system in a way that will mitigate the impact of similar Major Events in the future:

> **It was suggested that the IEEE approach is dynamic because it raises the standard of what qualifies as a Major Event from year to year. If a distributor does nothing to make its system more resilient, then its' SAIDI value will increase, as will the threshold necessary to qualify for a Major Event. Since such a distributor would be unable to exclude more and more high impact events, its' reliability performance results will also decline. If a distributor does take steps to make its system more**

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[2] Such as the definition of *"Beyond the control of the distributor"* as *'events that are a result of natural forces or an action by a third party'.*

[3] If approved, these reporting requirements would cover events before, during and after the service outage,

resilient, then the Major Event threshold will remain lower and more events can be excluded from the data, resulting in increased reliability performance results.[4]

In this respect, the PWU recommends that the IEEE approach be the default methodology and only allow the 10% approach in specific circumstances where the Board, after a review of the distributor's rationale for not using the IEEE methodology, determines the 10% approach is reasonable.

2.1.3 PWU Response to Questions

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

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

In general, the proposal to allow distributors to choose from three methodologies to normalize data could be considered a benefit in that distributors have the flexibility to choose the methodology that is appropriate to their individual circumstances. On the other hand, the use of different methodologies would undermine consistency and limits the Board's ability to undertake reliability benchmarking.

The use of the IEEE approach as the default method to normalize data has the benefit of improving service reliability year to year in that it would incent distributors to make their systems more resilient.

The 10% approach, even with the enhanced definition of Force Major proposed by the Board, has the risk of perpetuating the current situation wherein the distributor is only focused on excluding Force Major impacts from its reliability measures with little or no incentive to make the system more resilient so as to mitigate the impact of future Major Events.

It is not clear from the Report why the Board needed to propose the third option, i.e., 'the IEEE approach, using a two day rolling average.' The PWU can only assume that it was perhaps the concern raised by the Working Group that the 'IEEE approach just

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[4] Report of the Board, Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures (EB-2015-0182), page 6

considers the outage length on the day the event occurred; however, an event could spread over multiple days and the actual outage time each day may not trigger the major event threshold.'[5] If the PWU's assumption is right, then it is not obvious how the proposed method could address this concern. If the actual outage time each day fails to trigger the major event threshold, so will a rolling two day average. In fact, it would appear outage time that can trigger the Major Event threshold in a particular day may fail to do so if a rolling average method is used. The PWU's understanding is that the IEEE method recognizes major events on the basis of what the impact has been in terms of outage time in any day regardless of whether the impact of the major event is spread over a number of days. In this regard, it is important that the Board clarify the rationale for and how this proposed method is applied so as to avoid confusion and unexpected outcomes.

With respect to the proposed definition of Major Event, the PWU submits that it would enhance understanding of what constitutes a major event. The qualitative nature of the definition always runs the risk of being controversial; however, this is frankly unavoidable and is always understood to be subjective requiring the Board's judgement based on a fair and consistent assessment.

C. 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.

In the PWU's view, Major Events are in general a rare occurrence and therefore it would make sense if the Board reviewed information filed by the distributors and made the determination of which outages constitute Major Events as part of its reliability performance assessment. This is appropriate at least in the short-term as distributors familiarize themselves with the newly proposed principles and to ensure consistency in the information filed by distributors.

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[5] Ibid., page 6

D. 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?

The proposed approaches are sufficient.

E. 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?

The PWU recognizes the administrative and cost burden on some distributors that could result from requiring them to recalculate their reliability performance results for the past five years and file the information with the Board. However, this should be weighed against many other factors that would justify why distributors should recalculate and file.

First, it is important to ensure the Board's and the distributor's ongoing ability to compare future and historical reliability performance (i.e. trend analysis) following the adoption of the proposed definition of Major Event. The impact of the proposed Major Event definition as well as the proposed data normalization methodologies is that they put at risk continuity of data that allows for reliability performance trend analysis, and in turn compromise the Board's ability to fairly assess the achievement of outcomes for customers. Recalculation of data for the past five years would provide the historical data against which future performance data are compared. In this respect, the PWU suggests that distributors make the ability to recalculate data for the past five years one consideration in choosing the data normalization method of their preference among the Board-proposed options.

Second, the main reason why a new, improved and more comprehensive definition of a Major Event is required is because the current definition such as 'an event impacting 10% or more customers' fails to identify the cause of the event and to conclusively determine whether the extent of the effect of the Major Event on the distribution system is totally out of the distributor's influence or not. As the Board notes, design standards, supply redundancy strategies and overall asset age and condition of assets all play a part in mitigating these external influences. Moreover the Board rightly states:

> **when reviewing outage events, the OEB also believes there is a need to distinguish between events which are not out of a distributor's control but signal deteriorating**

> **infrastructure (and the need for investment) and events which overwhelm the appropriate robustness of that infrastructure (and the ability to withstand extreme events). As a result, any approach to normalizing data, must ensure that it does not allow distributors to mask inherent problems. Nor should the approach allow the assets to deteriorate, so that more and more outages fall into the Major Event category, and as such be excluded from the performance results**[6]

The PWU submits therefore that requiring distributors to recalculate and submit data based on the adopted definition is the only way to expose the current state and inherent problems of the distribution system and to help distributors prepare to take remedial measures. It is submitted that the Board too will benefit greatly from such data in its assessment of reliability going forward.

Finally, distributors have been either filing data based on customer impact (e.g. based on the 10% definition) or using IEEE data for internal purposes. Thus the effort required should not be substantial.

2.2 Monitoring Response to Major Events

2.2.1 Background

The Report proposes that distributors must file a report within 60 days of the end of the event that includes (1) answering a series of specific questions that focus on activities that take place in three time frames: prior to the event, during the event and after the event and (2) the review of three key activities: the publication of estimated times of restoration ("ETR"); communications with customers; and details on the outage(s).

2.2.2 PWU General Comments

The PWU agrees that monitoring and evaluating distributors' response to Major Events is an essential component of service reliability performance and a means to ensure that distributors are adequately prepared to respond to the events and minimize the impact of the events. Moreover, the PWU submits that monitoring and evaluating distributors' response to Major Events is an effective way for the Board to ensure that the distribution

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[6] Ibid., page 10

industry is adequately prepared to prevent or mitigate the impact of Major Events on public and employee safety. Therefore, the information reported in this respect should be vigorous and capable of identifying best practices that can help achieve more effective response and restoration efforts in the future and enure public safety is not compromised.

The PWU also submits that some of the information to be filed covering three time frames: before, during and after the event (for example, a description of the event and why it qualifies as a Major Event), together with the methodology used to determine the Major Event threshold, would facilitate the understanding and determination of whether a Major Event has occurred.

2.2.3 PWU Responses to Questions

F. What are the risks/benefits of introducing these new reporting requirements?

The proposed reporting requirements, which include responses to a series of specific questions, would increase consistency of information filed by distributors, which in turn is useful in comparing distributor responses to Major Events. In this regard, the PWU shares the Working Group's view that the Board create a standardized template to be used by distributors for reporting.

G. Are the questions and reporting requirements proposed reasonable?

The PWU considers the proposed questions and reporting requirements reasonable and comparable to reporting requirements in other jurisdictions such as New York.

H. Are there any questions in the proposal that do not seem relevant?

None

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

None

J. Should the report include questions relating to calls answered by a live representative?

The PWU considers it inefficient to include in the report the details of questions and answers that transpire during calls made to live representatives beyond those proposed under Questions #11 and #12 listed in the Report.

K. Should the OEB make these reports available through its' own web site?

Yes: both the Board and distributors should make the reports available to the public on their web sites.

2.3 Customer Specific Reliability Measures

2.3.1 Background

The Report proposes that the implementation date for customer specific reliability measures be set in 2018. The OEB also proposes to begin working with willing distributors to review what systems and processes are readily available, or need to be available, to monitor individual customer outages and then begin a pilot project to test the actual monitoring of outages at the individual customer level and reporting of such outages. Lessons learned from this pilot project would be shared with all of the distributors to enable them to begin implementation of similar processes.

2.3.2 PWU General Comments

The PWU applauds the Board's commitment to moving forward with the introduction of customer specific reliability measures. Average system reliability measures are not sufficient as they don't provide information on the extent to which specific customers may be underserved. The PWU has submitted on many occasions that customer-specific reliability measures should be part of a distributor's service reliability performance assessment. The major stumbling block to introducing customer-specific reliability performance measures has been the issue of whether distributors have the capacity to measure reliability at a customer-specific level. The PWU believes this issue will be resolved with more experience and use of better technologies including smart meters. In this regard, the Board's proposal for what appears to be a cautious move forward is appropriate.

2.3.3 PWU Responses to Questions

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

The PWU does not see any reason for not initiating a pilot project; however, the results of the project should not be used to negatively portray the public image of the distributors participating in the pilot project.

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

In the PWU's view, a target timeline to measure customer specific reliability would encourage distributors to put in place the required systems and technology and to train staff in a timely fashion. Moreover, the 2018 target is reasonable.

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

None

All of which is respectfully submitted.

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