PUBLIC INTEREST ADVOCACY CENTRE
LE CENTRE POUR LA DEFENSE DE L'INTERET PUBLIC
ONE Nicholas Street, Suite 1204, Ottawa, Ontario, Canada K1N 7B7
Tel: (613) 562-4002. Fax: (613) 562-0007. e-mail: piac@piac.ca. http://www.piac.ca

Michael Janigan
Counsel for VECC
(613) 562-4002 x26

August 20, 2014

VIA MAIL and E-MAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge St.
Toronto, ON
M4P 1E4

Dear Ms. Walli:

Re: Vulnerable Energy Consumers Coalition (VECC)
Comments in EB-2014-0189
Initiative to Develop Electricity Distribution System Reliability Performance Targets

Please find enclosed the comments of VECC in the above notes proceeding.

Yours truly,

Michael Janigan
Counsel for VECC
cc: Mr. Paul Gasparatto, Ontario Energy Board
e-mail: paul.gasparatto@ontarioenergyboard.ca

EB-2014-0189

ONTARIO ENERGY BOARD

Initiative to Develop Electricity Distribution System Reliability Performance Targets

INTRODUCTORY COMMENTS

1. The Vulnerable Energy Consumers Coalition (VECC) welcomes the opportunity to provide its views on the development of OEB policies with respect to performance reliability targets. VECC also wishes to thank the Board for the opportunity to be on the System Reliability Working Group (the Working Group).

2. Staff has invited comment on its Discussion Paper, Electricity Distribution System Reliability Measures and Targets (the Discussion Paper). We have tried to address the specific questions raised by Staff. However, we have done so at the end of this paper. This is because we feel it important to address two major issues generally ignored in this process. The first concerns the reason to measure reliability. The second is its role in the regulatory process and whether measurement, whatever its form or target, is a sufficient policy objective. These issues are related and we argue, germane to what should be the policy objective - reliable service at a reasonable price.

WHY MEASURE RELIABILITY?

3. Board Staff's paper and the background material cover the issue of the measurement of reliability and outage statistics. The jurisdictional survey has a detailed discussion on what is measured, what may be measurable and how such statistics should be presented and compared. Almost no

discussion is to be had on why to embark on such an exercise in the first place? Perhaps this is because the reason seems, at least on first glance, to be obvious. Customers expect uninterrupted service so we measure to find how reliable the service is. Without much more thought to the question the policy discussion then jumps to the questions of what those measures should be and how should they be compared.

4. Reliability measures can be simply that – measures of reliability. However, in the absence of any information regarding the reason for service interruptions the measures have marginal meaning. This is confirmed by the PEG Standards Report[1] which states:

> There are some precedents for using econometric methods to set reliability benchmarks, but PEG concludes that this approach is not warranted in Ontario. There is too much variability and apparent randomness in Ontario distributors' underlying SAIFI and SAIDI data for this approach to be effective. This data variability results, at least in part, from the fact that distributors have historically not normalized their reported can have a substantial impact on measured SAIFI and SAIDI. The randomness in the current reliability data makes it difficult to identify statistically significant 'drivers' of measured SAIFI and SAIDI and use econometric reliability driver models to predict average SAIFI and SAIDI values for Ontario electricity distributors[2].

5. Board Staff has noted that some Working Group members suggested that it is not important to customers as to why an outage occurs. In the most simplistic sense this is probably true but it is certainly should not be true for the utility or the regulator. The reasons for outages are paramount to pursuing the important objective of maintaining reliable service. Fundamentally, not all interruptions are alike and the difference as to why an interruption occurs is not ancillary to the issue – it is the issue. For example, if all interruptions are due to say the failure of transformers then a utility would be ill advised to embark on a major vegetation program in pursuit of improving service reliability. If the utility and the regulator do not know the root cause of interruptions then what is the basis for the (sometimes very costly) capital and

[1] Service Reliability Standards in Ontario: Analysis of Options, Pacific Economics Group Research
[2] Ibid pg.39

maintenance proposals funded in rates to address the issue? Service reliability metrics should serve the purpose of informing the utility and the regulator as to the efficacy of its capital and maintenance programs.

6. In their rate filings many utilities file the underlying factors leading to outages. The most significant of these is the issue of "loss of supply." In our view the PEG Reliability Standards Report is seriously flawed because the data it uses includes interruptions due to supply loss. As such it measures the reliability of both the distribution service and the transmission service. The measurement problem is exacerbated for small utilities embedded within Hydro One's sub-transmission system. These utilities inherit the higher risk of Hydro One's low voltage lines which are used to distribute power to them. For example, in 2010 the northern remote Chapleau Public Utilities had a SAIFI "including supply loss" of 3.25 as compared to the "without supply loss" statistic of 0.92. The "without loss of supply" SAIDI (i.e. duration) for that year was 1.98 whereas the "with loss of supply" the statistic was a whopping 101.7![3] To use the "with loss of supply" as a measure of Chapleau's performance is, to say the very least, misleading.

7. However, simply removing the "loss of supply" attribution does not make all utilities comparable. Some utilities are provided transformation service by Hydro One whereas others provide their own transformation stations and/or local substations. Some are a mix of the two. Since interruptions can occur at the source of transformation then to compare utilities one would have to normalize this difference. Conceptually the problem is similar, if not the of the same magnitude, as measuring reliability with or without the loss of supply. As similar issue exists when a host distributors LV lines are used to deliver power to an embedded distributor. To make utilities comparable one needs to normalize for the different transformation/delivery designs of Ontario utilities.

[3] Chapleau Public Utilities Corporation EB-2011-0322, pg.97

8. Transmission transformation or delivery of power interruptions are only one of the reasons for reliability problems and probably not the most significant. In fact weather is "likely" the biggest reason. We say "likely" because nobody knows. This is, in our view, a major deficiency of this policy initiative as it does not seek to answer the question of why interruptions occur.

9. In rate applications Utilities' often file (usually in response to intervenors' interrogatories) the reasons for outages. Below is an example of this type of information from the ongoing Horizon Utilities Rate proceeding.

	2009	2010	2011	2012	2013
Unknown/Other	0.11	0.04	0.02	0.04	0.04
Scheduled Outage	0.20	0.10	0.11	0.10	0.11
Loss of Supply	0.02	0.09	0.02	0.02	0.63
Tree Contact	0.05	0.07	0.07	0.09	0.14
Lightning	0.05	0.04	0.22	0.06	0.01
Material/Equipment Breakdow	0.37	0.35	0.54	0.45	0.35
Adverse Weather	0.14	0.30	1.10	0.48	3.50
Adverse Environment	0.02	0.03	-	0.02	-
Human Element	0.01	-	-	0.01	0.02
Foreign Interference	0.20	0.22	0.17	0.18	0.18
Total	**1.18**	**1.24**	**2.25**	**1.45**	**4.97**

Reference: Horizon Utilities Corporation EB-2014-002 2-SIA-13

10. The categories used by other utilities vary somewhat but for the most part are similar. Almost all such filings reviewed by VECC in the past three years of cost of service applications have shown a category for equipment failure (here Material/Equipment Breakdown). This shows that not only can utilities distinguish between the major differences of equipment failures and weather, but that weather related interruptions (here lightning and tree contact) can be also be more finely distinguished.

11. Why is this important? Because it tells us where the utility should be investing its time and capital in order to maintain or improve its service

reliability. This, we would argue, is the important policy objective rather than metrics in and of themselves or metrics used for punitive purposes.

12. The Board's introduction of the requirement for utilities to have a distribution system plan (and asset assessment) has produced a wave of costly capital and OM&A (often in the form of advanced vegetation and pole replacement programs). Ostensibly these programs have the singular objective of maintaining or improving reliability (in practice utilities seldom commit to the latter). That is, utilities don't (or shouldn't) invest for investments sake, but rather to provide for reliable service.

13. Clearly it is within the capacity of utilities to measure the reasons for interruptions. If they cannot do this then in at least one important aspect they cannot knowledgeably invest in their distribution system. The Board should understand if and when this is the case. In our view meaningful metrics can be, and should be developed so as to show the reasons for outages. Many utilities already use such metrics as evidence in support of distribution system plans. We recommend the Board continue this policy process so as to move in this direction.

BOARD STAFF'S QUESTIONS

Board staff invites stakeholders' views on the proposal that distributor reliability targets be based on historical performance. Stakeholder views are also requested on the option of distributors seeking specific performance targets on the basis of information relating to their system and what a reasonable performance level would be. Views are also invited as to whether the performance targets should be set for five years or be determined based on a rolling five year average of performance

14. We have already addressed a number of the points raised this question. We would add that there would seem to be little benefit in comparing reliability statistics among utilities. The comparison of such statistics which include

supply loss are, in our view, misleading. The aggregation of the cause of interruptions into one undistinguishable lump cause of the statistics whether used as inter or intra comparator, to be largely meaningless.

15. The statistics are only meaningful when the underlying reason is examined. In rate proceedings VECC routinely reviews reliability indicators and asks for the cause of interruptions. Most significant service reliability metric variance is due to weather. Some weather related interruptions are due to the severity of the occurrence ("acts of god"). Other less severe weather interruptions cause one to question the adequacy of the utility's asset maintenance program. Only a detailed examination can tell the difference. As such we see limited value in pre-defined amalgamated SAIDI/SAIFI metrics on a 5 year, or any other number of years, rolling average.

Board staff invites input from stakeholders on the issue of whether or not the Board should implement reliability performance targets that are based on a target range rather than a specific target. Stakeholder views are also invited on the issue of the variability of year to year performance and how this may be addressed on the Scorecard.

16. For reasons similar to those related to their deficiency as comparators, the current "with supply loss" reliability indicators would make poor targets. For the purpose of the Scorecard utilities should report on outages based on four categories: (1) planned outages; (2) equipment failure; (3) weather related – including tree contacts); and (4) other. These categories are sufficiently refined as to make intra year comparisons meaningful.

Board staff invites stakeholders' views on the proposal to initiate a pilot program with willing distributors to begin exploring the implementation of customer-specific reliability measures. Board staff also invites comment on whether and on what basis the Board should set a deadline for mandatory reporting of CEMI and CELDI.

17. From the PEG Customer-Specific Report[4] one can draw two inferences. First CEMI and CELDI statistics are widely used by utilities outside Ontario. There is no reason Ontario should not join this group. The second is that the major impediment to implementing these new requirements relate to the sophistication of the distribution monitoring systems. The authors of the Report note the similarities between Ontario and Sweden in the number of utilities, weather and geography and smart meter implementation. We note that the Swedish regulatory (Ei) has indicated that smart meter infrastructure lends itself to this form of monitoring. We agree with the authors that this model should be examined more closely. We also believe the Board should be scrutinizing closely the smart meter IT infrastructure and SCADA investments being proposed to be recovered in rates to understand how these investments work toward implementing CEMI and CELDI statistics.

Board staff invites stakeholders' views on the proposal to require distributors to develop and implement written practices and procedures for responding to customer complaints about momentary outages.

18. For most residential consumers momentary outages are more of a nuisance than a material event. We understand that the consequences for large users can be much more severe. However, these customers generally are more sophisticated in their backup or power quality arrangements. We do not think the additional costs of such activity should be borne by residential consumers.

19. We trust these comments are helpful.

DATED AT TORONTO, AUGUST 19, 2014

[4] Customer-Specific Reliability Metrics: A Jurisdictional Survey