



PUBLIC INTEREST ADVOCACY CENTRE
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Reliability and Power Quality Review

EB-2021-0307

Submission of the
Vulnerable Energy Consumers Coalition
(VECC)

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Vulnerable Energy Consumers Coalition

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Introduction

In late November 2021 the Ontario Energy Board announced a comprehensive review of reliability and power quality in the Ontario electricity sector or the Reliability and Power Quality Review (RPQR) EB-2021-0307.

In its letter of November 30, 2021 the Board explained that “[I]n order to understand the current level of effectiveness and accuracy of the reliability policy framework and reporting, OEB staff has completed an analysis of distributors’ reported data.” However, no data or analysis has been shared which would allow for informed debate. Nor has any information been provided which would help understand the nature of the proposed customer survey regarding reliability of electricity delivery. This makes it difficult for us to understand the nature of the exercise or the quality of the results. We make these comments not as a criticism of this exercise, which we understand to be in its early days, but of the difficulty at this stage in the process of providing informed input. We would be assisted by hearing from knowledgeable utility and Board staff who can provide meaningful information as to the challenges of meeting reliability objectives on a complex distribution grid. This might be done by continuing this process with interactive consultations or working groups.

Customer Surveys

With respect to customer desires in general, we think it fair to say, that most residential customers, and those especially those of limited means, have a strong desire for reliable uninterrupted electricity supply. It is after all 2022 and the key role electricity power plays in modern society is somewhat obvious.

The difficulty lies not in “discovering” that residential customers want reliable electricity delivery, but rather in determining the amount of resources they are willing to expend in order to achieve a given level of certainty. We note, for example, while a customer survey, might seem to show a very high level of desirability for non-interrupted power other information might indicate differently. For example, residential customers can purchase equipment to improve both the quality and reliability of power. This ranges from relatively inexpensive small battery backups and power bar conditioners (of various efficacy) to more costly temporary generators and battery backup systems all the way to costly full blown on demand generators and power conditioners. Purchase of these products is by implication a truer measure of the value consumers put on reliability of electricity supply. Simply put one might find out more of the true value of reliability by measuring the number of emergency generators than by asking the question.

We suspect (though we have no data to substantiate) that the actual desire to pay for reliability is at least somewhat correlated to household income and the uses of the power in the home. For example, a homeowner with electricity heating may be less concerned with short outages than a resident with a home office. Such a consumer may not be concerned at all about summer interruptions, but be very concerned with long outages in the winter. In other words, judging the “value” of reliability to residential consumers as a group can be difficult and requires some forethought.

Another difficulty with surveys as a means of understanding customers preferences is that they require one to answer questions on matters they are likely only vaguely familiar or for events which have taken place in the distant past. For example, we have observed that it is not uncommon in surveys for the customers’ recollection of outages to be quite different from actual occurrences.

A badly designed survey is worse than no survey at all as it leads to “false positives” results. For example, in our experience utilities often use the notion of a certain percentage or dollar (cents) increase in the distribution rates when surveying customers to judge their willingness to pay for capital upgrades. Using relatively small dollar amounts relies on obfuscating (or even confusing) survey participants as between relative and absolute changes. It is why you might find a survey showing that while Ontario’s 14.7 million residents support \$1 a day for a better health care also reject a \$5 billion annual tax for the same purpose. The lack of contextual information (for example past utility spending) or relative behaviour (the spending and rates of peer utilities) is also likely to skew results and lead to non-representative conclusions.

All of which is to say that any customer survey unless carefully designed and executed (read expensive) might, to bend an old adage, be like misused statistics - one of three kinds of lies.

Appendix A Questions

Utility Accountability

In our view there should be a closer link between reliability metric results and a utility’s remuneration. However, developing appropriate links requires a number of considerations including which metrics are most indicative of performance and how they relate to capital investments and operating and maintenance costs. Among the other factors to consider is how the regulator responds to utilities which it deems have put too little management incentive toward the balance between reliability and cost. Drawing a relationship between utility compensation and reliability (and quality of power) will not be simple exercise. If pursued it should involve consultation between utilities, customers and the regulator. In our

estimation it is also bound to be iterative process and one likely resisted by regulated companies.

While we accept the concept of “Major Event Days” as category of measurement our experience is that a large number of utilities apply the concept in the reverse of its intent. That is a “major event day” is, for a number of utilities, a day where the number of customers affected or period of the interruption is “major”. That is, a catastrophic event that disrupts power to a large number of customers is by that definition a major event day and irrespective of its cause. This means that “acts of god” and “acts of the utility” (or lack thereof) are of equal evaluative weight.

The primary difficulty in measuring reliability are weather related events and extracting a meaningful measure as to what is reasonably within the control of the utility. In the current circumstances two Ontario utilities with adjoining service territories and faced with identical weather might easily produce different reliability metric results. One might call a weather event a major event day, while the other might not simply based on the resulting damage to their distribution plant. Yet the difference might be because one utility invested more in “hardening” its system to withstand weather events or because they are better at reducing outage time. As it stands today it is not possible to understand these differences between utilities. The goal should be to identify better performing utilities (both in terms of rates and reliability) and reward high performers.

Monitor Utility Performance

Comparing utility reliability can and should be done. One of the OEB’s great regulatory advantages is that Ontario has are the large number of utilities to observe. In our view more objective criteria should be put into measurement of adverse weather or tree contacts measurements. For example, it is not clear to us why measured wind speed, which is widely available on an hourly basis, is not utilized to analyze weather related events. If one utility’s system can withstand 60km winds without trees falling on lines then why cannot a different utility do the same? While the question is certainly an oversimplification of the problem, we believe some thought should go into how to create objective measures of weather related outages. Introducing more objective reliability measurement criteria and applying equal rules to utilities will make data more reliable in a benchmarking exercise.

The difficulty with weather related measurement is one reason VECC is a strong supporter of the relying more heavily on reliability statistics by cause code and by type of equipment. Such data can more directly be linked to responsibilities within the control of the utility and are more measurable and meaningful as part of a Distribution System Plans (DSP).

Customer Specific Reliability

Our observation is customer specific reliability is very much an afterthought in the regulation of Ontario Utilities. Worst performing feeder information is sporadic and sometimes not addressed specifically even in a DSP. Customer surveys seldom distinguish between customers with multiple outages even though these customers might be more likely to participate in a utility survey. In our experience little distinction is applied to the frequency of outages as opposed to its duration even though it is possible customers might have different tolerances to either. Nor is much attention paid to how frequency and duration of outages are addressed differently in capital, maintenance and operations programs.

An important issue to VECC is how the costs for specific customer reliability initiatives are recovered in rates. It is not unreasonable to expect that residential customers would have different reliability expectations than commercial or industrial customers. Power quality for residential customers is generally a different issue than it might be for customer with a manufacturing process. Power quality for residential consumers might be difficult to distinguish from inherent reliability issues of their electrical appliances whereas for certain commercial or industrial customers with large motors or other specialized equipment power quality can be critical. Distribution system upgrades to meet the needs of subsets of ratepayers (even subsets of residential customers) should be considered in the question of “who pays” for reliability outcomes.

Utility Planning

As it stands today, we see little effort made to drawing a causal relationship between reliability outcome and capital or operating cost planning. Utilities often argue that reliability metrics are “lagging indicators” or that the DSP has as an objective to simply “make sure things don’t get worse”. In any case, we are told, reliability metrics are simply too imprecise to allow for linking spending in any direct fashion to reliability outcomes.

We do not accept those arguments. Ultimately residential customers want only two things from their distributor – reasonable rates and reliable safe service. Given the precision demanded in the former it seems to us reasonable to achieve at least a modicum of precision in the latter.

Conclusion

We conclude by thanking the Board for the opportunity to comment on this important issue and to Board Staff who prepared the questions to consider.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

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