

July 11, 2008

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

Via Board's web portal and by courier

Dear Board Secretary:

**Re: Board File No. EB-2007-0709
Staff Discussion Paper on Farm Stray Voltage: Issues and Regulatory Options**

The Electricity Distributors Association (EDA) is the voice of Ontario's local distribution companies (LDCs). The EDA represents the interests of over 80 publicly and privately owned LDCs in Ontario.

The EDA's written comments on the OEB's Staff Discussion Paper issued on May 30, 2008 are attached to this letter.

Yours truly,

“original signed”

Richard Zebrowski
Vice President, Policy and Corporate Affairs

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Attach.

EDA's Comments on OEB Staff Discussion Paper

Farm Stray Voltage: Issues and Regulatory Options

The problems associated with farm stray voltage have been known and discussed since the 1970s. Since that time, Ontario's distribution companies have sought to resolve any such situations as expeditiously and effectively as possible. As noted in the reports developed for the OEB, the source of stray voltage can be difficult to identify. This difficulty has occasionally resulted in lengthy resolution times and procedures.

Consequently, even prior to the OEB's consultative process beginning, the EDA and its members had recognized the importance of the issue of stray voltage to Ontario's farmers and to Ontario's LDCs. As a result, when invited, the EDA gladly agreed to become an active member of the OEB's consultative group. The Association and its members remain committed to finding an equitable and cost-effective process to identify farm stray voltage, its sources and possible resolutions.

This submission has been divided into two sections. The first will address the questions identified for the 12 issues, and the second will provide more general comments and responses.

Commentary on Issues identified in the OEB Paper

Issue 1

Where ACC/ACV is found to be above 2 mA/1 V, what electricity service quality indicator should serve as the trigger for distributor action?

Options

- a) Distributors target primary NEV;
- b) Distributors target the contribution of the distribution system to ACC/ACV on the farm.

The EDA believes that the first trigger for action by an LDC is when a farmer raises a concern regarding potential stray voltage. The question as presented suggests that an organisation other than the LDC will be responsible for determining whether there is stray voltage present and what the stray voltage level is. There is a service provider/customer relationship between the LDC and the farmer. This relationship should be maintained throughout the stray voltage investigation process. If necessary, additional or specialised expertise can be utilised to aid in the investigation.

The question, as presented, clearly states that it is the ACC/ACV figure that determines whether the LDC will be required to take action, using as part of its rationale the fact (as reported by Hydro One) that "farm stray voltage (from all sources) is typically between 40% and 60% of primary NEV." It has been noted that the NEV is a much easier value for an LDC to determine, and it does not involve any testing to be performed on the customer's property. However, the EDA believes that targeting the LDC's contribution to ACC/ACV could result in more cost-effective solutions and thus this is the preferred option.

The EDA notes that the OEB's question effectively uses the figure of 2 mA/1 V (ACC/ACV) as the trigger for LDC action. This position raises two issues:

- (1) Will the LDC be required to perform an on-farm investigation of the level of ACC/ACV before determining whether there is action required by the LDC?
- (2) The figure of 2 mA/1 V is based on research conducted in other jurisdictions. The EDA accepts the validity of the research. However, it believes that this research should be validated in Ontario before it is made mandatory here.

Issue 2

What should the numerical threshold value be?

Options

- a) 2.0 V if distribution system NEV at the primary/secondary connection point at the farm is the action threshold;
- b) 1 mA ACC or 0.5 V ACV if the distributor's contribution to stray voltage is the action threshold.

In the response to Issue 1, the EDA stated its belief that it should be the ACC/ACV level that should be the target for the LDC. Consequently, it follows that Option a) would be the recommendation for this issue. However, as stated above, the EDA believes that more investigation is required before the level is definitively set for Ontario. This is a very small figure: the technical and economic impacts of using these figures have to be assessed before any attempt to make them mandatory. All the figures identified have been developed, validated and used in other jurisdictions. While they may be appropriate for use in Ontario, the EDA cautions that the validation of their suitability for this province has to be performed before they are implemented, as will the methods for reducing or eliminating farm stray voltage.

Further, the EDA contends that the setting and validating of electrical standards falls outside the objectives and expertise of the OEB. This expertise is more appropriately found with the Electrical Safety Authority.

Issue 3

Should cow-based thresholds be applicable to all types of livestock farms?

Options

- a) Apply the numerical threshold to all livestock farms regardless of species;
- b) Apply the numerical threshold to dairy and cattle farms only and adopt an alternative threshold(s) where other species are involved.

In the absence of definitive data using other livestock species, the EDA recommends that a single threshold limit be established. If additional research and data determines that a different threshold is required for another species, this can be adopted following review and confirmation.

Issue 4

Should details of the investigation procedure be prescribed?

Options

- a) Outline the goals and objectives of the procedures (e.g. measurements relevant to thresholds) and require that distributors design procedures that meet these goals and objectives;
- b) Require that all distributors use a specific Board-approved procedure.

In response to this question and options, the EDA's response is neither. The actual solution should be a combination of the two. The OEB should not prescribe technical procedures except to indicate possible sources for reference; such items are outside their scope or expertise. Specifically, the OEB should identify several investigation procedures that can be used by an LDC or another investigation organization, with the technical community (LDCs, organizations such as CEA or IEEE, vendors) being the source of such information.

Thus, an LDC can determine the best process to identify the presence and level of stray voltage. However, the EDA does not believe that an unlimited number of processes should be permitted as there has to be a level of standardisation and reproducibility in the investigation procedures.

Issue 5

Should distributors be responsible for identifying on-farm stray voltage sources?

Options

- a) Distributors are responsible only for investigating whether stray voltage exists and if so, the distribution system contribution thereto. However, distributors may conduct testing to identify on-farm sources at the request and expense of the farm customer;
- b) Distributors are responsible for identifying sources of farm stray voltage including the distribution system and on-farm sources.

Ontario Regulation 22/04, *Electrical Distribution Safety*, states that an LDC's responsibility terminates at the owner's demarcation point (the meter in most circumstances). Beyond that point (i.e., the customer's system), it is the responsibility of the Electrical Safety Authority and the Ontario Electrical Safety Code. Consequently, the EDA believes that only Option a) can be adopted.

An LDC may offer a service to investigate and identify on-farm sources of stray voltage only if it has the expertise and staff to undertake such activities.

Issue 6

Should stray voltage investigators be specially trained?

Options

- a) Specialized training is recommended but not required; distributors may provide training opportunities for their personnel and recover prudently incurred costs through rates;
- b) Specialized training is required and costs to satisfy the training requirement can be recovered through rates.

Both of these options are predicated on the assumption that an LDC will retain specially trained stray voltage investigators on staff. This will not necessarily be the situation for every LDC.

Some will not have necessary staffing levels to justify such specialized training. It is quite possible that independent organizations will be established that will specialize in this type of work. If an LDC hires an independent contractor to investigate a report of farm stray voltage, the costs incurred should be recoverable through the LDC's rates.

Further, if the investigation procedures are sufficiently well described, it should be possible for a qualified electrician or professional engineer to undertake the work, without the need for specialised training.

Issue 7

Should minimum training standards be specified?

Options

- a) Recommend minimum training standards;
- b) Establish minimum training standards.

As stated above, if the investigative procedures are sufficiently well developed, it will be unnecessary to detail minimum training standards. However, it might be appropriate to identify the types of qualified persons who could undertake this type of work, e.g. certified electrician or professional engineer.

Issue 8

Should investigators be certified?

Options

- a) Recommend that stray voltage investigators be certified;
- b) Require certification.

The OEB paper clearly states that no other jurisdiction requires people investigating stray voltage incidents to be certified to do so. Further, the paper states that there is no organization that can be recognized as an "authority on stray voltage investigations and remediation." Consequently, this question and the options presented represent at best a hypothetical situation, and thus should be treated accordingly.

As noted above, there is no Ontario or Canadian organization currently recognized as an authority on farm stray voltage. Thus there is no organization that can either offer certification or recognise certification qualifications from other jurisdictions.

Issue 9

Should a special farm stray voltage customer response procedure be used?

Options

- a) Require that distributors have a customer response procedure specifically for dealing with farm stray voltage requests;
- b) Prescribe a customer response procedure that must be used by distributors when dealing with farm stray voltage requests.

As stated above in the response to Issue 1, there is a service provider/customer relationship between the LDC and the farmer. Consequently, the EDA believes that the existing customer

service requirements are sufficient to provide the necessary service quality to address any concerns regarding farm stray voltage.

The EDA believes that establishing a specialized response procedure for farm stray voltage complaints (and potentially other specific customer concerns) will cause inefficiencies in LDC/customer interactions and could result in increased average customer response times.

Issue 10

What should distributors be required to do requiring farm stray voltage record-keeping and information reporting?

Options

- a) Specify the types of information distributors must keep on file regarding farm stray voltage requests, investigations, remediation efforts and outcomes so that the Board can obtain them by request;
- b) Stipulate the information and analyses (e.g. summaries, analyses or copies of the detailed records) to be maintained by distributors and submitted to the Board in annual filings.

The EDA believes that LDCs should not be burdened with record-keeping and information reporting requirements that are extraneous to the normal regulatory requirements for the organization. Obviously, an LDC has to maintain good records on farm stray voltage investigations, as with any customer interaction. However, developing overly prescriptive requirements could impact timing and administrative costs.

Issue 11

Should distributor discretion over the choice of remediation method be subject to restrictions?

Options

- a) Require that distributors determine the safest, most cost effective remedy (or remedies) to a given stray voltage case, specifying where applicable which costs are eligible for recovery in rates;
- b) Stipulate any restrictions on the use of certain remedies and the conditions under which they may be employed, specifying where applicable which costs are eligible for recovery in rates.

The choice of possible remediation method or methods will be the responsibility of the investigators. The LDC will have the responsibility of determining which method to use, if more than one method can be used. The choice should be based on the efficacy of the process, the cost of the process, and the timeliness of the resolution.

Issue 12

What are the distributors' responsibilities to farm customers in terms of providing information?

Options

- a) Require distributors with livestock farm customers to provide access to information on farm stray voltage and customer response and dispute resolution procedures;
- b) Specify the content and form and frequency of transmittal of information on farm stray voltage and related customer response and dispute resolution procedures to be made available by distributors to livestock farm customers where applicable.

As previously stated, an LDC has a continuing customer/service provider relationship with all its customers, including farm customers. Consequently, it is the EDA's belief that the current OEB direction regarding the provision of information to customers is sufficient to address the concerns regarding stray voltage incidents. Again, the EDA believes that LDCs should not be burdened with requirements that are extraneous to the normal regulatory requirements for the organization.

General Comments

The EDA recognizes the tremendous amount of excellent work that went into developing this paper. There is much of the content that the EDA and its members will be able to support, including the acknowledgement of a reasonable cost recovery being necessary.

However, there are some items that are of concern, and these will require addressing.

The paper places the responsibility of identifying and fixing stray voltage problems almost entirely on the LDC. The EDA readily acknowledges that LDCs are a primary agent in the electricity system of Ontario. However, they are not the only component. Nor is the distribution system the only "source" of farm stray voltage. LDCs are ready and willing to help farmers address and resolve issues of farm stray voltage. However, undue emphasis on the LDCs could result in the true source of the voltage being overlooked.

The threshold limits discussed in the paper have to be tested and validated in Ontario before they are "confirmed". Further, requiring certification does not appear to add value to the identification and resolution of farm stray voltage issues in Ontario. Instead it would appear to only add cost (due to the training and certification costs) to the overall process.

In providing options to some of the issues, the OEB suggests developing prescriptive approaches. This is at variance with the approach used by the OEB with other issues; for example, in the case of restoring power outages, the OEB just wants to know that the power has been restored.

Finally, the EDA acknowledges that farm stray voltage can be a significant problem. However, identifying and resolving farm stray voltage should be undertaken as a partnership between the LDC, the farmer, other possible sources of or contributors to the problem. The EDA and its members look forward to working with the OEB and the other stakeholders in this process to find an equitable and workable solution.