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Farm Stray Voltage Customer Response Procedure

REVISION SHEET

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1. Introduction

In June 2009, the Ontario Energy Board amended the Distribution System Code to address the issue of stray voltage with respect to livestock farm customers. In response, Hydro Ottawa Limited (“Hydro Ottawa”) modified its approach for responding to customer inquiries and complaints regarding stray voltage issues on properties that are livestock farms.

This procedure describes Hydro Ottawa’s investigation process for farm stray voltage complaints and inquiries. The procedure also outlines what actions are required by the customer.

2. References

Hydro Ottawa - ECS0012 - Conditions of Service
Hydro Ottawa - ECG0008 - Distribution System Voltage & Power Quality
Electrical Safety Authority - Ontario Electrical Safety Code
Ontario Energy Board - Distribution System Code
Ontario - Occupational Health and Safety Act and its regulations
Ontario Regulation 22/04 - Electrical Distribution Safety

3. Definitions

“**Customer**” is a person who has contracted for electrical services at the time of the initial complaint or inquiry. A Customer may also be an Owner.

“**Farm**” means any property that is engaged principally in livestock husbandry in an area zoned for agricultural use.

“**Farm Stray Voltage**” means any animal contact current or animal contact voltage occurring at a location on a farm where livestock make contact with it

“**Owner**” means the person(s) who has title to the land at the time of the initial complaint or inquiry.

4. Contacting Hydro Ottawa

To perform stray voltage investigations on a property, Hydro Ottawa requires the permission of the property Owner. If you rent a farm property, and suspect that stray voltages are interfering with your operations, you must contact the property owner to address the situation.

Customers who suspect issues with stray voltage on their property that is interfering with farm operations should ask themselves some questions prior to calling Hydro Ottawa. These questions may help you determine if you have a stray voltage problem, and may assist in resolving the issue if it does exist.

- What animal behavior is leading you to think you may have a stray voltage problem?
- Where on your property is this behavior happening?
- Is this animal behavior occurring during only certain times of day, during certain weather (i.e. rainy days, evenings only)
- Have you recently changed, upgraded or added any electrically powered equipment, wiring or controls?
- Have you recently changed location of operations on your property, for example, moved the cow milking operations from Barn 1 to Barn 2.
- Did this behavior just start or has it been getting more severe with time?

If you think you have a stray voltage issue on your property that is interfering with farm operations, call Hydro Ottawa at **613-738-6400**.

You will need to provide the following information to Hydro Ottawa:

1. Name
2. Property address of concern
3. Basis of the concern that stray voltage from Hydro Ottawa's system is affecting farm operations:
 - a. Type of animal impacted by suspected stray voltage, and
 - b. Behavior of animal or other evidence
4. Your contact information:
 - a. Phone number for daytime contact
 - b. Postal Mailing address

A Hydro Ottawa customer representative shall record this information and forward it to the related technical staff. In turn, you shall be contacted by technical staff *within five business days* to discuss your concerns. If an investigation is warranted, it shall be scheduled at that time.

5. Stray Voltage Investigation

5.1 Site Visit

During the investigation Hydro Ottawa representative(s) shall visit the property and perform electrical tests according the Distribution System Code, Appendix H, "Farm Stray Voltage Distributor Investigation Procedure". All test and recording equipment shall be provided by Hydro Ottawa.

Hydro Ottawa shall not allow its employees or contractors to perform a stray voltage investigation on a customer's property without an escort provided by the Owner. The Owner shall be required to arrange for a representative, who is 18 years of age or older and familiar with the farm operations, to escort Hydro Ottawa at all times during the investigation. The Customer's representative is responsible to Hydro Ottawa to:

1. Ensure that the working area is safe at all times by ensuring there is no hazard presented by the presence of livestock, the operation of machinery or any other hazards to personnel or equipment that may exist on the property;
2. Assist in locating the electrical equipment within the property;
3. Follow Hydro Ottawa's direction regarding electrical safety during the investigation;
4. Provide verbal permission for Hydro Ottawa to disconnect the customer's electrical equipment for the duration of the tests, and;
5. Verify that power has been successfully restored after the tests are complete.

Depending on the amount of testing required to analyze the problem, Hydro Ottawa may be required to leave monitoring equipment installed on the customer property for a minimum of 72 hours. If test equipment is left on the Customer's property, Hydro Ottawa shall ensure the equipment is weatherproof and safe. The Customer shall be responsible for ensuring appropriate physical barriers are in place to prevent contact or interference with the equipment by people, farm animals and vehicles.

5.2 Other Hydro Ottawa Works

As part of its investigation Hydro Ottawa may also inspect and test the distribution equipment supplying the property and the general area; however, Hydro Ottawa crews working in the area may not be related to the stray voltage investigation. Hydro Ottawa performs regular inspections, maintenance and operation of its distribution system.

5.3 Investigation Results

Hydro Ottawa may not present findings immediately to the Owner at the conclusion of the site visit. After the site visit Hydro Ottawa shall return to the office with the test results for analysis.

The Owner shall be informed, in writing, of Hydro Ottawa's findings.

If Hydro Ottawa's distribution system is found not to be contributing to stray voltage on the customer's property, Hydro Ottawa's involvement in the investigation shall be completed. The Owner shall be advised to investigate the source of the stray voltage on their property.

If Hydro Ottawa's distribution system is found to be contributing to stray voltage on the Owner's property, Hydro Ottawa shall develop a remediation plan. Once the plan is in place, Hydro Ottawa will need to re-test the service to ensure that the remediation plan has successfully resolved the problem. Hydro Ottawa shall coordinate the verification testing with the Owner.

6. Important Information for Customers

To perform the stray voltage tests, Hydro Ottawa may have to open customer owned electrical equipment covers and operate customer owned switches and breakers. Customers should make note of the following:

1. If Hydro Ottawa observes electrical equipment it determines to be unsafe, Hydro Ottawa is required to notify the Owner and the Electrical Safety Authority (ESA).
2. If Hydro Ottawa determines that it is unsafe to open customer owned electrical equipment, or operate customer owned electrical switches or breakers, Hydro Ottawa shall stop the investigation and inform the Owner and the Electrical Safety Authority.

If the Owner wants Hydro Ottawa to resume the investigation after a problem is corrected, the Owner must forward an ESA inspection certificate to Hydro Ottawa. Hydro Ottawa shall then contact the owner to arrange for a new test date.

3. Hydro Ottawa shall not be held responsible for customer owned equipment that fails while being operated by Hydro Ottawa representatives.
4. Hydro Ottawa shall not be held responsible for damages or lost productivity due to the investigation.
5. The Customer shall repair power quality issues identified if the results from the investigation indicate the customer's equipment is causing a material adverse effect on the quality of Hydro Ottawa's distribution services.