

RECEIVED

8/10/08

JUL 10 2008

July 07, 2008

ONTARIO ENERGY BOARD

To the Members of the Ontario Energy Board:

Re: EB-2007-0709

In Ontario, there is no regulatory board governing distributors of electricity re; farm stray voltage. Idaho, Wisconsin, Michigan and Connecticut all have regulatory boards that oversee power distribution. These boards allow a maximum of 0.5 volts (neutral to earth).

Distribution in Ontario allow 10 volts neutral to earth. A dairy or beef cow can be affected by stray voltage at 0.5 volts. The allowable amount of stray voltage in Ontario needs to be reduced to 0.5 volts.

In Ontario, we do not have the sophisticated equipment or training to conduct accurate analysis. We would have to send personnel to the United States for such training. We also need to acquire the necessary equipment to carry out the testing and analysis ourselves.

The neutral wire of the distributor's service should be  $2.15 \times$  the diameter of the live wire. In other words, there is not enough size in the neutral wire to adequately complete the

circuit back to the generating station.

Since the distributor's neutral wire is bonded to the farm electrical service, the farm grounding is required to supplement the capacity of the distributor's neutral wire.

To mitigate the lack of neutral return to the generator, the distributor is relying on ground rods (grounding) to carry the excess return electricity to the source. This results in stray voltage.

On the farm, grounding hydro service and equipment is done to protect man and beast in the event of shorting of equipment.

Not only are farm animals subject to stray voltage, but people also suffer adverse effects. We have neighbours who have stray voltage running through their farm. All five of the family has health problems because of their exposure to this problem. Their daughter's dog would snarl and lunge from the full extent of its chain. When the daughter moved away from home taking the dog with her, the dog became very friendly and would let people approach it.

(over)