

LEGISLATIVE ASSEMBLY OF ONTARIO  
ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

Thursday 19 October 2006 Jeudi 19 octobre 2006

**PRIVATE MEMBERS'  
PUBLIC BUSINESS**

LAND RIGHTS AND  
RESPONSIBILITIES ACT, 2006 /  
LOI DE 2006 SUR LES DROITS  
ET RESPONSABILITÉS EN MATIÈRE  
DE BIENS-FONDS

GROUND CURRENT  
POLLUTION ACT, 2006 /  
LOI DE 2006  
SUR LA POLLUTION CAUSÉE  
PAR LE COURANT TELLURIQUE

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GROUND CURRENT POLLUTION ACT, 2006 /  
LOI DE 2006 SUR LA POLLUTION CAUSÉE PAR LE COURANT TELLURIQUE

Mrs. Van Bommel moved second reading of the following bill:

Bill 143, An Act respecting ground current pollution in Ontario / Projet de loi 143, Loi concernant la pollution causée par le courant tellurique en Ontario.

**The Deputy Speaker (Mr. Bruce Crozier):** Mrs. Van Bommel has moved second reading of Bill 143. Pursuant to standing order 96, you have up to 10 minutes.

**Mrs. Maria Van Bommel (Lambton-Kent-Middlesex):** Private members' time is set aside for MPPs to address issues that are of particular interest to themselves and to their constituents. My private member's bill is intended to advance the understanding of ground current pollution and to establish a time frame and process for remediation.

As a farmer, I've been long aware of this issue for probably well over 30 years, but it wasn't until I met a constituent whose life was completely changed and affected by ground current pollution that I started to really understand the impact that it has on all Ontarians. Should the Ontario Legislative Assembly pass this private member's bill, it is my hope that we will see a special focus on the state of our electrical infrastructure and the important role that it plays in the overall delivery of safe energy to our homes and to our businesses.

We are not the only jurisdiction to experience this type of pollution. The hazards resulting from ground currents have been recognized as a problem in both Canada and the United States and, as a matter of fact, right across the world. New York State spent \$100 million in one year to clean up electrical pollution.

To understand the problem, it is important to appreciate what ground current pollution is and its impact on humans and animals. Many people refer to this phenomenon as stray voltage, transient voltage or tingle voltage. Regardless of what we call it, the impact on farms, manufacturing and humans is demonstrable.

In the past, electrical equipment consisted primarily of lights, motors and tube-type electronic equipment. Our infrastructure was developed to supply usage for a relatively small use, and transients were not really a great problem at that time. With increasing use of solid-state computers and microprocessors, increasing electrification

and automation of farms and businesses, and ever-increasing demand and load on our distribution lines, the problems of ground current pollution are also increasing.

Stray voltage is man-made electromagnetic energy. The laws of electric engineering require that electrons flowing from a substation transformer must return to that transformer in order to complete the circuit. This is done by the use of neutral wire that exists on the distribution and transmission systems. With less than perfect grounding, however, this current gives rise to stray voltage. Because of increased load on these neutral wires, more and more of the current is now completing the circuit via other routes, including the earth and equipment.

Much of the increase in stray voltage over the past 30 years is due to an aging distribution system, heavy loads on existing systems and an increasing reliance on the earth as a conductor of that power. The transmission and distribution system in many areas cannot return such a high voltage impulse to the substation on a neutral wire. Unfortunately, the path of least resistance which it is prone to take is not always the straightest path. As a result, it takes a path back to the substation via the ground, in streams, on metal plumbing pipes, as well as through animals and people.

It is hard for most of us to understand something that we can't see, and for many people it has been a long battle to prove that this problem even exists. Although humans are sensitive to electric current, animals such as cows, pigs and horses are probably the best examples of how the body reacts to this current. All of us have experienced an electrical shock just by touching something that is a conductor of electricity. Imagine going through every day getting a number of shocks every time you try to accomplish something as simple as drinking and eating.

Cows are the most susceptible animals and therefore are often the first to show signs of problems with ground current pollution. Cows take quick drinks of water because the water bowl gives them a shock every time they go to drink, or they get a shock from leaning against the metal stanchions or from the milking equipment.

Such was the case for one of my constituents, Lee Montgomery of Dover Centre. Mr. Montgomery had already been awarded the distinction of being Canada's youngest master breeder in 1971 for the quality and productivity of his herd's lineage. But by the mid-1970s, Mr. Montgomery started to experience production and breeding issues in his prize dairy herd. Herd problems are often difficult to diagnose, so he proceeded with the slow process of eliminating possible causes, including checks on his feed quality and testing the water samples. He had his veterinarian visit, and of course he used very expensive medications in an attempt to remedy something that no one seemed to be able to identify. These were all part of the process that this farmer used to determine what was happening to his superior herd, because he was now experiencing lower milk production, unusually nervous behaviour, a high abortion rate in the herd and increased illnesses such as mastitis.

Today, there exists a great deal of science to support what farmers like Lee Montgomery have learned by hard experience. Now veterinarians, professors, electrical engineers and researchers all recognize the existence of ground current pollution. Specialized equipment is now available to detect the existence of ground current. In 1992, a Cornell study assessed the impact of stray voltage on milk yield and its composition. Research is also being done into this problem in Ontario by the Ministry of Agriculture, Food and Rural Affairs through its many colleges and its university. Alberta Agriculture determined that 21% of dairy herds in that province had to be monitored routinely for excess levels of stray voltage. But for Mr. Montgomery, all this comes too late. He had already been forced out of the business in 1992 because he was unable to identify the problem.

No one solution works for all stray voltage issues. The first step is to solve the problem, including having your electrician examine the system at your home or in your business. But for many, the problem comes from outside their property, from the distribution and transmission system. Therein is the frustration that has been experienced by many farmers in Ontario. There is an impact on humans as well. More and more people are recognizing a condition called electromagnetic hypersensitivity, a biological disorder that results from regular exposure to electromagnetic fields. Dr. Havas of Trent University is currently doing research into this.

Hospitals have long understood the impact of ground current and have now got equipment that has built-in filters to eliminate the problem. Manufacturing plants also contribute to the problem, and some of them have done extensive

work to reduce the impact of stray voltage on the performance and efficiencies of their equipment by again using special filters.

That is the purpose of this bill: Firstly to define objectionable current flow and to establish a timeframe for power providers to respond to complaints by consumers, including investigation and remediation of the problem. A consumer who feels they are subject to ground current pollution must make their complaint in writing. The electricity provider is required to make the initial response within 10 days. An investigation must be completed within 30 days, and they must take whatever action is necessary to remedy the problem within six months of receiving that complaint.

This bill will make it an offence to not remedy the problem in a timely manner by imposing a fine of \$1,000 per day after the first six months. Finally, the bill will also require the Ministry of Government Services to develop and implement a plan to eliminate ground current pollution in this province within 10 years.

### 1110

The problem can be solved. The rules are already in place, established by an international body that governs electrical engineers around the world. This bill brings a serious problem to light and requires that electricity providers respond quickly to fix the problem and remove current from the ground and put it back on the wire, where it belongs. The rules are there. They just simply need to be enforced.

**Mr. John Yakabuski (Renfrew-Nipissing-Pembroke):** It's a pleasure to speak to Bill 143, An Act respecting ground current pollution in Ontario.

I want to commend the member for Lambton-Kent-Middlesex, Ms. Van Bommel, for bringing this issue to the Legislature's attention. She talked about it not being that well understood and not being that well known. I think Ms. Van Bommel may have been there when we had committee hearings this year. There was a group that brought this issue to the attention of the committee with regard to our hearings with Hydro One. I'm not sure if the honourable member was there on that day, but it was something I myself certainly found intriguing.

There's no question that stray voltage exists. That much we do know. I think she has identified the problem, and that is the problem in identifying it and being able to determine its source and the ability to mitigate it.

It would appear that in Wisconsin they've enacted a bill to deal what they call "objectionable flows of electric current." It looks like that was enacted in 2004 in the Wisconsin Legislature. So it's clearly something that doesn't simply exist here; it exists everywhere that there is power being produced and distributed to those who need it.

I did talk to a couple of people in the agriculture business. I talked to a dairy farmer in my riding, Dick Straathof. He and his wife, Debra, have a dairy operation near Arnprior. I asked him about his experience and he, quite frankly, hadn't had any problems, but he has a fairly new barn, built in some protective measures and has not had any problems. But he did give me the name of another fellow near Port Perry by the name of Michael Kersten who has had significant problems with stray voltage. I see folks in the gallery nodding, so they're probably aware of that situation. He talked to me about issues with regard to low production of cattle, cattle that died, and autopsies that were inconclusive but where the veterinarian had made comments like this cow, that had died the day before, looking like it had been dead for some time, and those kinds of things. While I don't understand, and don't pretend to understand, the effects of these kinds of things, clearly there is a significant effect there.

The science is somewhat divided on it too. I also talked to some professors who don't necessarily see the problem as being one of the utility but as being a problem of the installation itself. I'm not in a position to comment on that, but I can tell you what I can comment on. Mr. Kersten had to buy a neutral line isolator, and the utility installed it up near the transformer, and that reduced -- he was getting a little under 0.5 volts, and that was what caused those kinds of issues and problems on his farm. This neutral line isolator has reduced that to about 10% of that, one-tenth of that, which is still not where he believes he should be with regard to proper production and everything else, but it has improved it and taken it away -- for the most part.

It does raise the question: If that's what can happen with less than 0.5 volts, how can we possibly have a limit of 10 volts? I apologize if I'm repeating things that Ms. Van Bommel said, but it was explained to me that the effects of the voltage are exponential, based on the mass of the animal or human who is being subjected to them. A 50-pound child at X number of volts would be feeling one quarter of the effect of a 200-pound man. Then you've got to take that man and multiply him by eight to look at a 1,600-pound cow, and you can understand the effect and the infliction of discomfort and even pain and damage to an animal that size.

I think what we need to do here is get this bill to committee so we can get some real input from people who understand it far better than I can possibly understand it over the course of the couple of days I was given to look into this issue and speak to it today. Again, it's impossible to have a really solid handle on it. I have all kinds of paperwork and everything here, but we're not going to read that into the record because we don't have that kind of time.

I was also told something about one of the problems being that the lines themselves -- I'm going to say "can be" because I don't have the ability to make those kinds of determinations -- can be part of the problem because they are not capacitated to deal with what we are dealing with today. We have to look at our infrastructure system. If that is a problem, then perhaps the onus needs to be on us, who are delivering the electricity, to ensure that we're not creating a detrimental situation for people. If it means special equipment, I'm not suggesting for a moment that we have the capacity financially, in this province, to simply rebuild our transmission system, because that's not necessary for the purpose for which it's used. But if it is causing undue problems for farmers, maybe we do have to look at whether or not we can be putting on those mitigating devices that will reduce and/or eliminate the causes of this kind of stray voltage to farmers.

When you talk about a barn that has a huge cement floor, the conductivity of this is quite different from that of a single person walking down the street -- or a married person. I wasn't picking on the marrieds, there; could be either one.

*Interjection.*

**Mr. Yakabuski:** I just wanted to see if you were awake, Jeff.

I think it is something we do need to get to committee. I do not want to monopolize the time, because I do have other speakers here. Hopefully, with the passage of this today we can get further or deeper into this issue so we can understand it better, and then perhaps we can register a knowledgeable verdict on it at another reading. Thank you very much, Mr. Speaker

**Mr. Peter Tabuns (Toronto-Danforth):** This is quite an interesting issue, one I wasn't aware of in the past. I would like to commend the honourable member Mrs. Van Bommel for bringing this to this Legislature. If in fact we are having to deal with a problem of electrical pollution of our ground and it's having an effect on humans and livestock, it seems entirely reasonable to me that we take action on it.

I have to say, Mrs. Van Bommel, that one of the problems with your bill is that it seems eminently sensible, so the question is: Why would you spend a lot of time debating it? Nonetheless, we do get an opportunity to speak to it, and I will.

**1120**

I would say that the steps that you've laid out requiring investigation, requiring speedy assessment and then correction are entirely proper. We have an electrical system that is causing a problem for people. There are a number of ways of getting at this, obviously. You talk about the capacity of the neutral wire. One other thing that I might suggest to you is that if, in fact, in this province we had a concerted investment in energy efficiency so that electrical demand was reduced, that also would tend to push down the incidence of this problem, deal with situations where the infrastructure itself was being pushed beyond its design capacity.

In my previous life as a city councillor here in the city of Toronto in the 1990s, we were faced with an issue of replacing all of the street lighting in the city of Toronto. It was reaching the end of its design life. It was very expensive to maintain. We actually looked at lighting that used about half the power of the lights that we currently had in place and required far less maintenance. We were able to re-lamp the whole of the city of Toronto and have the savings from the cost of electricity and reduced maintenance pay for that complete re-lamping of the city over about four or five years.

So obviously in a farm or rural environment, assisting farmers to cut their electrical use by providing more efficient motors may be one way of dealing with this that has multiple benefits. It reduces the demand on the electrical system as a whole and, at the same time, allows farmers to cut their operating costs.

You talked to farmers in this province. You know they're facing difficult financial times. In the course of my experience going out for the public hearings on Bill 43, the Clean Water Act, we had farmers coming and speaking to us. The member, Mr. Leal, was there for the hearings in Peterborough. It was very clear that farmers were facing a crunch in income. Global subsidies, particularly in the European Union and the United States, which drove down the price for farm-produced goods, were creating an income crisis in rural Ontario. The depopulation of rural Ontario destabilized that society. To the extent that we can look for opportunities to actually increase economic activity in rural areas by providing work to increase efficiency, to the extent that we can cut farm operating costs, I think we should look at that opportunity. I know it's not in your bill, but it's something that the government could in regulations or in directing Hydro One or local distribution utilities say, "Yes, you can look at a variety of ways of reducing this tingle voltage." One of the ways is investing in beefed-up transmission systems. The other thing to do is invest in reducing the amount of power that's used.

I don't know how hot water is provided in an awful lot of farms. My guess is people don't have Consumers' Gas or Enbridge or Union Gas running gas lines down rural roads all over southern Ontario or northern Ontario. Probably a lot of people rely on electric hot water heaters. Solar hot water heaters are currently -- sorry for the pun. At this point, solar hot water heaters are economically viable on a commercial basis to displace electrical hot water heaters and, at the very least, can supplement those electric hot water heaters and substantially reduce the amount of current that they'll draw.

In the document that was produced by the Ministry of Agriculture, Food and Rural Affairs, it's noted that the most significant problems are most often observed between 6 and 9 in the morning, and then in the evening, when you've got heaviest draw on local power. To the extent that we're able to cut power demand, we reduce risk for livestock and for people.

Motors themselves are a significant draw of power and in this country we tend to have a very large stock of motors that are not up to highest efficiency standards. This past year, there was an international conference held in Europe on electrical motors and the potential contribution that could be made to reducing world demand for energy by upgrading all of the existing old motor stock to the newest, most highly efficient motors. If you've got a milking operation or if you have other machinery on a farm that's drawing on current, assisting those farmers to replace those motors with the highest efficiency would not only cut their operating costs but, again, would reduce the risk we have of this tingle voltage for farmers, their livestock, their operations.

I think that this bill, as written, is very useful. It makes sense to me, and I think we should proceed with it, but I'd like to suggest to the member that as she moves forward, and hopefully when there are hearings on this, that amendments to the bill might include a recommendation to the utilities that they provide an option to farmers for low-cost financing for upgrading the efficiency of their equipment or in fact, in some instances, if you're going to spend a lot of money on putting in a new neutral wire, using that money instead to reduce the electrical load on that farm and take advantage of an investment that might not otherwise be made.

One of the questions I have for the member who has proposed the bill is that I understand that in Ontario the voltage limit on tingle current is around 10 volts, whereas in Vermont and Wisconsin it's around 0.5 volts and in Alberta it's one, and I don't quite understand why we here in Ontario haven't adopted a much more stringent standard for current

flowing through the ground, flowing through water when, in fact, other jurisdictions with climates comparable to our ours, perhaps more severe than ours, have taken these steps, recognizing that they've got a problem with electrical pollution. It would be useful for me to hear from the member as to how she sees addressing that issue in the course of this bill moving forward.

It's my hope that the Ontario Federation of Agriculture, which has identified this as a problem as well, will be quite vocal on this matter. I see no reason why there wouldn't be support around the House for this bill to go forward, because why would anyone support a reduction in agricultural productivity? Why would anyone support increased risk for humans and livestock? It makes no sense.

You've identified a problem that, quite disturbingly, wasn't identified for a long time. You told the story about a farmer who went out of business in 1992 because of declining production for reasons that he wasn't able to identify. Why would we not take action to ensure that no one else ever faces that problem? I'm sure you know much better than me, because you represent a rural area and I represent an urban area. Why impose any greater burden on the farmers in this province? Why not act quickly?

I'm going to pass, come back to the rest of my time later in this period, and look forward to hearing the responses from the proponent of the bill.

**Mr. Jean-Marc Lalonde (Glengarry-Prescott-Russell):** I'm pleased today to speak on Bill 143, which my colleague the member for Lambton-Kent-Middlesex has brought forward. This bill addresses a very important issue to many rural Ontarians, and I strongly commend my friend Ms. Van Bommel for bringing this issue to the Legislature.

I believe this issue has a solid purpose: to prohibit situations of undesirable ground current pollution that can harm Ontario's livestock. In the event that situations of harmful current flow occur, this bill requires that the complaints be investigated and that the ground current pollution that is harmful to animals be eliminated.

According to a report that I received from the University of Guelph, Alfred campus, there were over 45 different research seminars and consultations done on stray voltage, and we have not yet received a positive solution. Looking at some of the reports that I received, there's the University of Guelph; the report I have here from Minneapolis; one from the Canada Plan Service, written by R. G. Winfield and J. A. Munroe; one from Wisconsin Public Service Corp.; and another one from Alberta Dairy Management.

### 1130

This issue of ground current pollution or stray voltage is a serious problem for many of our farmers. It is often caused by either the electrical utility commission or faulty wiring. Stray voltage can occur when livestock come in contact with metal equipment that has a different electrical potential than the surface the animal is standing on. Current may then travel through the animal to the earth in order to return to its source. Most animals have a lower electrical resistance than humans. These occurrences of ground current pollution are harmful to animals and affect the ability of farmers to remain competitive in their production.

Some of the most common symptoms resulting from ground current pollution are excessive or unusual nervousness, reluctance to enter or eagerness to leave the milking parlour, reluctance to drink water, miscarriages and lowered milk production. These symptoms all point to the fact that something must be done to prevent livestock from being subject to harmful ground current pollution. This bill is taking steps in a positive direction.

The presence of ground current pollution is a real problem for farmers in rural Ontario and has led to high financial losses. In Glengarry-Prescott-Russell, the issue of ground current pollution has affected many, many of the family farms. I have here Merton Albright, whose family in St. Eugène lost 60 cows. The Leroue family, egg producers, have lost much production. The Marjerrison family of Apple Hill have dealt with the devastating effect of stray voltage in their dairy herd. Each time the cows tried to urinate, up to 40 volts of current surge backed up through the animal. This led to major decreases in milk production and decreases in the overall health of the herds. The family

ended up spending over \$70,000 on lawyers' fees and expert witnesses to prove their farm's decline in output was the result of ground pollution. According to a report that I got here from Robert Irwin, the family were successful in claims totalling over \$766,000.

Bill 143 would allow for the investigation into these types of cases. If proven to be at fault, the onus would be put on the electricity provider to fix the ground current pollution. According to a report put out by Robert Irwin, of which I have a copy, the Marjerrison family were successful in five claims totalling over \$766,000. In many of these cases, the root cause and responsibility for the presence of ground current pollution is put on the farmers themselves.

Just late last week, I received a call from another farmer in my riding. After the 1998 ice storm, François Cayer of St. Albert started to notice symptoms in his livestock that were associated with stray voltage: nervousness and decreased milk production. His vet, medicine and artificial insemination costs rose from about \$3,000 a year to \$28,000 a year. Between 1989 and 1994, he has sent 176 cows to the slaughterhouse. Mr. Cayer's case is representative of many Ontario farmers for whom, over a decade later, the negative effects of stray voltage still have very real consequences.

This bill would require investigation into a complaint that the power quality on a farm was suspect. This bill is a step in the right direction toward protecting Ontario's livestock and supporting farmers. This issue of stray voltage has affected farmers in Ontario for many years. I would like to congratulate my esteemed colleague for bringing this bill forward.

**Ms. Laurie Scott (Haliburton-Victoria-Brock):** It's a pleasure to have a chance to speak to Bill 143, An Act respecting ground current pollution in Ontario, brought forward by the member from Lambton-Kent-Middlesex. I have to admit that I did not know much about stray voltage, transient voltage or tingle voltage before the member did the introduction of this bill.

"Electrical current that returns to the transmitting substation via the earth's surface rather than the proper path, that is, the neutral wire provided by the electrical distribution and transmission system, is ground current pollution." I wanted to read that into the record because a lot of people won't know what stray voltage is and how it occurs. Like the member from Lambton-Kent-Middlesex, my riding of Haliburton-Victoria-Brock has a huge agriculture business and farm base and is huge into the livestock industry, which has been the emphasis of this bill, especially the dairy industry. So I'm certainly glad that she's brought the concerns forward.

I have been reading some of the studies that have been undertaken by various groups with respect to the stray voltage and electromagnetic fields. The Canadian Cancer Society has suggested that there very well could be a link between the electromagnetic fields and the increase in childhood leukemia. That's reason enough already to acknowledge the need for this issue to be discussed and addressed.

We live in a world that's comprised of increasing and advancing technologies. I acknowledge the importance of this, but with this increased technology, it is also even more important that its potentially harmful effects are considered.

There's intense pressure to form alternative solutions to electricity generation and transmission. We see that we've got infrastructure, transmission lines, that need updating. We see that especially in rural Ontario; we see a lot of it.

This bill is going to bring attention to this matter. I look toward to it going to committee. I look forward, like the member from Toronto-Danforth said, to the Ontario Federation of Agriculture and all other stakeholders who are involved to be able to have comment on this.

I know my colleague from Haldimand-Norfolk-Brant would like to speak to this bill so, in conclusion, we're certain that this issue is worth studying. I thank the member for bringing this forward.

**Mr. Jeff Leal (Peterborough):** Indeed, it's a pleasure for me to have an opportunity to speak on Bill 143, as presented by my colleague the member from Lambton-Kent-Middlesex. She provided me with a copy of an article that was produced by the Farm and Country News, talking about the serious problem that the Marjerrison family of

Apple Hill in eastern Ontario had with their dairy herd.

Doing a little bit of research, I know there is an interesting individual, a consulting engineer, Alex Furo, from Wallaceburg, Ontario. On numerous occasions Mr. Furo has been called upon to provide expert testimony on this particular issue. Indeed, between October 1994 and June 1995, the Department of Public Utility Control in Connecticut had hearings on the investigation into stray voltage on dairy farms during the period of time that I just identified. Perhaps I will just read into the record what Mr. Furo testified at that time.

"Mr. Furo testified that '[s]tray voltage is manmade electromagnetic energy that directly affects livestock' and that '[m]ost of it is associated with the electrical power distribution system.' He explained that much of the increase in stray voltage over the past 30 years is due to the aging distribution systems, heavy loads on existing systems, and increasing reliance on the earth as a conductor for neutral return currents. While the electrical industry admits that stray voltage can reach animals through conduction, such as through a two-point contact with a metal stanchion that is carrying the current from the earth, Mr. Furo explained that stray voltage can also reach animals through a single-point contact, such as through induction, capacitive coupling or electromagnetic energy, even when the traditional utility protocol of using a meter connected between the stanchion and a wetted spot on earth records nothing.... Thus, a barnyard animal can still receive a shock even though a utility's conventional circuit theory protocol does not record anything. Mr. Furo then briefly described a demonstration on how this shock can occur," using data on a number of dairy herds throughout several jurisdictions in North America.

#### 1140

Also, the state of Vermont has attempted to bring forward legislation to deal with this particular issue. In fact, I have a copy of a bill that was put through Vermont during the 1993-94 legislative session. I'll read into the record some of the provisions of this particular act in the state of Vermont. It is an act, of course, relating to stray voltage. It says, in the statement of purpose:

"The general assembly finds that stray electrical voltages can have serious economic impacts on the residents of the state of Vermont. Electrical users, utilities and state regulatory agencies must co-operate to resolve stray voltage issues in a way that minimizes financial and other burdens on the electrical customer."

This was seen as such a serious issue, particularly in the farm area of Vermont, that they indeed established a task force to look into it. The duties of the task force:

"The task force should develop a uniform service policy relating to the elimination of stray voltage. Issues considered by the task force shall include:

"(1) The designation of maximum allowable levels of stray voltage. Stray voltage shall be considered eliminated when reduced to or below these thresholds.

"(2) The creation of a uniform procedure for investigating the source or sources of stray voltage.

"(3) Requiring utilities to eliminate stray voltage or relieve its effects when the source of that voltage is found to be in that utility's distribution system or related to that utility's distribution system.

"(4) Providing technical information to customers to assist them in eliminating stray voltage or relieve its effects when the source is found to be in the customer's wiring or equipment.

"(5) The creation of a system for resolving disputes between electrical utilities and customers related to the elimination of stray voltage."

I think that provides a good overview of what other jurisdictions are looking at. I encourage everyone today to support Bill 143.



**Mr. Toby Barrett (Haldimand-Norfolk-Brant):** Bill 143, An Act respecting ground current pollution in Ontario, represents one of the few times that Liberal members opposite have come forward with legislation dealing with a farming issue, and I'm heartened to see that. I guess I'm heartened to see that maybe it takes an election year for those opposite to admit that rural Ontario is on the provincial map. A challenge has been offered. I'm looking forward to the committee hearings on this, and I hope hearings are held in rural Ontario. So we'll see what happens with that.

This term "ground current pollution" is a new term for me. I know it as stray voltage or tingle voltage. I've certainly read about it over the years in the farm media. It's obviously an ongoing issue in Ontario and, as we've heard today, in states across this continent. Different approaches have been taken to address the issue.

According to the OFA, tingle voltage is a low electrical current between grounded equipment and the earth. This current, which usually travels along neutral wires provided by the usual electrical distribution and transmission systems, is forced to use the earth's surface when those wires aren't there or are inadequate, hence the stray voltage or the tingle through farm buildings and, regrettably, through large animals -- cattle, obviously, horses and hogs.

This morning, Toronto radio seemed to be dominated by discussions of squirrels being electrocuted. Squirrels nest in transformers; maybe it's the warmth up there. They indicated about 50 a month get wiped out. I don't think that people are necessarily worried about the death of squirrels; it's the interruption of the electrical supply in the city of Toronto. Again, I use that example just to reiterate how difficult it is to get rural issues on the radar screen at times, and we now will have to educate people on just what ground current pollution stands for. As far as the squirrels, there are too many in Toronto. We either need more coyotes or more squirrel hunters in this city.

Regrettably, though, we know that dairy cattle are susceptible to tingle voltage, reportedly, I've read, 50 times more sensitive than we are. Some US states have adopted a maximum allowable standard of 0.5 volts, Alberta has one volt as the acceptable limit, and Ontario has a less formal standard of 10 volts. Again, farmers are susceptible to electricity pricing. We're looking at some skyrocketing electricity bills, and smart meters don't necessarily work in the dairy industry. You really can't bring them in at 3 in the morning to get a lower rate.

We do know on this issue, as has been indicated, that it is believed to be responsible for hormonal changes, behavioural changes, resulting in decreased milk production and reports of death. But again, there's no official industry standard for stray voltage. Ontario Hydro considers 10 volts a maximum safe level. The OFA board lobbied the provincial government to establish a maximum allowable level of 0.5 volts, and that's where my concern lies. We have to know what this standard will be. We need a benchmark if we're to go forward with this, and because much of this is so vague, it makes it very difficult to know where the government will go with this.

**Mr. Dave Levac (Brant):** I had a different opening, but I just have to change it because the member for Haldimand-Norfolk-Brant brought to this place -- everyone in this place knows how sincere I am about private members' time. This is private members' time. This is to fill the holes that exist in all governments and all legislation. Unfortunately, he takes an absolutely silly whack at the government, saying, "Where are you now?" because it's election time. What an unfortunate opportunity.

I'm going to get right straight to the point here. All of the information has been given to us. We know what the problem is. We now know that we've got an opportunity to fix it, so let's just fix it. In the gallery today are people from Loyola Catholic school in Mississauga. I know that they know -- I really want to sincerely say this -- that milk doesn't come from a plastic bag. They know that we have rural Ontario and they know that our farmers need their support. So I'm going to encourage them to take this information that they've learned and go back.

The story the member for Glengarry-Prescott-Russell gave us was an interesting one. Let's take the cow out of the urination problem that was described and put a human being in it. Watch how fast Hydro would change that.

I'm going to challenge each and every one of us. This bill is the right thing to do. It's been studied for 30 years. Why did it take 30 years for us to correct it? I saw in my articles -- and there's a tonne of them here. I've got about 18 from the United States and Canada that are telling us the information. Why do we have to sit back and start poking

political holes in this? Let's fill in the information with the science that's already there -- 30 years' worth. Why are we not correcting this? I challenge each and every one of us to understand this.

I read a story where a farm went from 15% higher production in their milk than the provincial average, and with this problem of tingle voltage, transient voltage, stray voltage, tension parasites, stress voltage, objectionable current flow and ground current pollution -- whatever you want to call it -- they went down to 15% below the average, the same farm. They went from 15% above the average down to 15% below the average. You know what that is? That's our economic engine grinding to a halt. The second-highest producer in our economy is the farmer. Let's get real here.

This is a private member's point that has been brought and I thank the member. Let's get on with this. Let's get this to committee. Put the little tweaks and twacks you want to put in the bill, but get it passed so that from now on we stop this problem.

**1150**

**The Deputy Speaker:** Further debate? Mrs. Van Bommel. You have two minutes to respond.

**Mrs. Van Bommel:** First of all, I want to thank all my colleagues who spoke in support of my private member's bill: the members for Renfrew-Nipissing-Pembroke, Toronto-Danforth, Glengarry-Prescott-Russell, Haliburton-Victoria-Brock, Peterborough, Haldimand-Norfolk-Brant, and the member for Brant.

I also want to thank the people who helped to develop this bill. They include Christopher Wernham, who is the legislative counsel; Barry Fraser, who is a professional agrologist; Dr. Magda Havas at Trent University; Lee Montgomery, the farmer I spoke about; Ted Cowan, who is a researcher at the Ontario Federation of Agriculture; Lynn Girty, who is a farmer; Dr. Jim Morris, who is a professional agrologist and a retired instructor at Ridgetown College; and Dave Stetzer, of Wisconsin. Most of all I want to thank my staff person, Maureen Brown, who has been instrumental in getting things organized for me here.

There were a number of issues brought up. One of them was the quantity of the voltage, and certainly I would entertain an amendment to deal with that. One of the reasons I didn't specify a quantity in my definitions was because of issues such as weight and body type and that sort of thing. I'm going to leave that more to the science than to try to set that out. So I want to leave it that way.

The member for Toronto-Danforth talked about equipment and reducing the use of electricity on our farms, and we certainly are doing that. Our modernization is allowing us to do that, but there is also the cost of doing that. When you are in difficult times with finances, it's hard to do that particular thing.

I want to also clarify the issue of Mr. Montgomery. Mr. Montgomery knew what was going on on his farm; he just couldn't get acknowledgement from the utility to deal with it, and that was very important. The recognition that this may be associated with cancer is very much out there too.

I want to encourage everyone to come to room 228, because we have a demonstration of how this works, and I want everyone to be able to see how this happens.

**The Deputy Speaker:** Thank you, Mrs. Van Bommel.

The time provided for private members' public business has not yet expired; therefore, we will suspend proceedings until 12 of the clock, at which time we will have the votes.

Just by way of explanation, this doesn't happen very often, but private members' public business is just that, where individual members speak and vote and bring issues, and it's expected by most members that votes won't be taken until noon. Therefore, we will suspend the proceedings until that time.

*The House suspended proceedings from 1153 to 1200.*

*///snip///*

GROUND CURRENT POLLUTION ACT, 2006 /  
LOI DE 2006 SUR LA POLLUTION CAUSÉE PAR LE COURANT TELLURIQUE

**The Deputy Speaker (Mr. Bruce Crozier):** We shall now deal with ballot item number 54, standing in the name of Mrs. Van Bommel. Is it the pleasure of the House that the motion carry?

All those in favour, say "aye."

All those opposed, say "nay."

In my opinion, the ayes have it. It's carried.

**Mrs. Maria Van Bommel (Lambton-Kent-Middlesex):** I would like to refer this bill to the standing committee on justice policy.

**The Deputy Speaker:** Mrs. Van Bommel has asked that the bill be referred to the standing committee on justice policy. Agreed? Agreed.

Call in the members. It will be a five-minute bell.

*The division bells rang from 1201 to 1206.*