

the House about what we do know about high voltage lines and their effects on animal health.

World-wide research is under way. As the hon. member for Athabasca noted, studies are being undertaken in Canada, United States, Sweden and in several other countries. To date, these studies have not yielded any conclusive evidence. There is still much to be learned about the specific effects of electro-magnetic fields on animal health, on growth, and on reproduction. I enter this debate not to diminish the concern but to put the matter into realistic perspective and in so doing perhaps relieve some of the unwarranted anxiety that unsubstantiated speculation may have aroused. It is my purpose to shine a light on this issue, to consider and encourage scientific examination.

Work in the United States and Sweden has so far suggested that there has been no ill effects on milk production or fertility as a result of long-term exposure of animals to high voltage power lines. A U.S. study on pigs has also indicated that there are no negative effects on fertility, growth or behaviour as a consequence of exposure to high voltage power lines and their electro-magnetic fields. Similar research with poultry has turned up no evidence of adverse effects in these areas.

Experiments have also been conducted under laboratory conditions. Scientists have looked specifically at growth, development, metabolism and the immune system of animals exposed to electro and magnetic fields. For the most part, there has been no effect on these areas or on over-all health of animals.

I would like to assure this House that the government will continue to follow this issue closely. It is the federal government's responsibility to set and enforce standards to safeguard human and animal health. It is a responsibility that we take seriously.

I would like to thank the hon. member for Davenport for raising this important issue and thereby allowing this opportunity to provide the House with information that has been substantiated to date. As more information becomes available, we will take what further action is required.

I think that the debate today has shed an appropriate light on this issue. It is a growing concern to Canadians and one that the government is actively looking at. The hon. member for Davenport has raised an important

issue and the debate today has given this House and Canadians valuable information.

• (1805)

Mr. Girve Fretz (Erie): Mr. Speaker, the proposal before us today is to consider the advisability of studying the effects of the electro-magnetic fields produced by high voltage power lines on human and animal health and report the findings to the House.

Public concern about high voltage power lines developed in the late 1960s as extra high voltage lines comprising large towers were built. The initial concern was about the aesthetic and the ecological impacts and the various nuisance effects. The nuisance effects are audible noise, radio interference and shocks and sparks when people touched underground metal objects such as trucks or farm vehicles close to power lines. By the late 1970s and indeed, in the early 1980s, some scientific evidence emerged that the problem is more complex and of more concern.

Mr. Speaker, as you know, generation, transmission and use of electricity are associated with human exposure to electric and magnetic fields, not only under high voltage power lines but also in homes and offices. On a daily basis, most Canadians are exposed to electric and magnetic fields produced by household wiring and lighting. There are electric and magnetic fields wherever there is electric power. When we consider what effects these fields may have on our health, we must concern ourselves not just with power lines but with all other sources of these fields. Power lines are highly visible but our daily exposure has come mostly from use of electricity in our homes and in our offices. Even in houses close to power lines, people may be exposed to weaker fields than people in houses far away from power lines. Many factors determine the actual exposure. Recognizing that we are all practically continuously exposed to electro-magnetic fields, it certainly is important and indeed prudent to consider whether these fields may detrimentally affect our health.

Health effects of electric and magnetic fields have been studied in the United States and Europe for over two decades, with intensified efforts during the last five years. Until recently conventional wisdom was held that these fields posed no threat to human health. Two reasons are behind this thinking. First, the fields are of low energy and, unlike X-rays and other ionizing radiation, they do not break chemical bonds. Unlike microwaves they do not cause heating. Second, all cells in the