

*Energy Conservation*

there is an average wind speed of ten miles an hour, a person can supply his own fuel in the form of electricity.

But, of course, you come to the fact that with these modern windmills you have storage to consider. Once again, the technical knowledge is there and batteries are not necessary any longer. You simply get permission from the hydro company in the province to hook up a windmill to your meter, and whenever you are producing more power than you can use for heat and light in your home, the meter runs backward and you get a credit. This is not something that is ahead of our time; it is going on today. Ontario Hydro has said publicly that it is technically possible. Also, it is actually happening in Wisconsin. There is no trouble with the phasing and voltage in Wisconsin; you can buy a particular type of box to make sure the phasing and voltage are correct. The only trouble that has arisen between the people who are using that system and the Wisconsin power company is disagreement over whether a person should be paid, for producing surplus power, at wholesale or at retail prices. I would think the solution of this problem would not create great difficulty and that we could consider adopting such a system in Canada. At the federal level, with all the research already done, we could suggest to private individuals that we have the knowledge available on how to produce wind power. It is really available only to those in the suburbs and farm areas, but it would add tremendously to the input of power into the very large storage system called the transmission system.

• (1640)

**Mr. Deputy Speaker:** Order, please. I regret to interrupt the hon. member, but the time allotted to him has expired.

**Some hon. Members:** Carry on.

**Mr. Deputy Speaker:** The only way the hon. member can be allowed to continue would be by unanimous consent. Is there unanimous consent?

**Some hon. Members:** Agreed.

**Mr. Hamilton (Qu'Appelle-Moose Mountain):** Thank you, Mr. Speaker. I will not abuse it. I have probably been speaking too slowly. I mentioned something about wind power. There would be no cost to the federal government. I have spoken about heat pumps several times in the House. Full page ads have been used by Westinghouse and by Canadian General Electric, but what is the federal government doing to tell individuals in southern Canada—that means all of us south of Timmins—about how to use a heat pump and what it costs? It works the same as a fridge—heating homes and cooling them in the summer. Four hundred employees of Ontario Hydro are putting this system in the Nanticoke work area down in Norfolk county; they have been directed by their management to use this type of heat.

With a heat pump, the heat comes from the air for nothing; all that is needed is the power to run the fans, as is the case with a fridge. All this is technical knowledge which has been available to the commercial market for the last 50 years; but instead, we get all these booklets which have won awards all over the world for being slick pamphlets but which do not say anything except that we

should save energy by pulling the blinds at night. Most people pull the blinds already. We are told to save energy by sleeping two in a bed. I keep coming back to that.

**Some hon. Members:** Hear, hear!

**Mr. Hamilton (Qu'Appelle-Moose Mountain):** Or bundling, as my colleague, the hon. member for Peace River (Mr. Baldwin), calls it. I say that we should tell people the facts about heat pumps—who produces them, what they cost, how much can be saved, and where they can be obtained. The same applies to solar heating. I know the federal government this spring gave a grant of \$54,000 to an engineer at Gananoque who had spent \$2,000 on his home in taking some solar plates, to bring the heat down to his basement and storing it in columns of wax in a box six feet long, four feet wide and four feet in depth. He was told that that heat box could conserve enough of the solar heat hitting his roof to provide 70 per cent of his heat requirements. Last year, because the sun shone so much, he obtained 100 per cent of his heat requirements from the sun, having made a capital expenditure of \$2,000 on his roof. Hon. members can examine it and tell the people across Canada about it. I could go out and talk about solar furnaces.

**An hon. Member:** Did you say \$2,000?

**Mr. Hamilton (Qu'Appelle-Moose Mountain):** Yes, \$2,000 was the capital cost of the solar plates. Today, in the city of Ottawa, we are trying to produce a device for providing plates for \$20 or \$30 instead of the \$200 or \$300 which is being spent now.

I do not want to bore the House with all the details, with the excuse of speaking over my time, but I want to conclude with a fervent appeal to the government to read what is being published, not in "far out" magazines but in the most responsible magazines one can find. One example is "Pipeline and Gas Journal". I will just read a statement or two from it. Hon. members may recall that back in 1972 I asked the then minister of energy, mines and resources whether his department would look into its files to find all the requests for help and funding for research into biomass. There was not a soul in the House or in the gallery who knew what biomass was. Now they all know. That is a new way of saying, "That's a bunch of biomass". But biomass is not a joking matter. I refer to the October issue of "Pipeline and Gas Journal," the most prestigious journal for the industry in North America. This is not new, but it should be read:

For example, at a yield of 50 tons/acre-year of dry biomass with a heating value of 6500 Btu/duy lb., about 169,000 square miles (a square that is 411 miles on each side) is required at an over-all thermal efficiency of conversion to SNG of 35 per cent to satisfy the U.S. natural gas demand.

Translated into language we can understand, this information was made available two years ago in the NASA report, but now it has hit the table of big business. A square 400 miles by 400 miles, the size of Alabama and Georgia, using a 35 per cent conversion factor, based on the research of the bureau of mines and others, could supply all the natural gas needed by the United States. In our area, a much smaller amount would be needed. I am simply saying, in plain and simple terms, that if we cannot get natural gas out of wells in the ground, the farmer can grow

[Mr. Hamilton (Qu'Appelle-Moose Mountain).]