Some hon. Members: Agreed.

Mr. Deputy Speaker: Agreed and so ordered.

It being one o'clock, I do now leave the chair until two o'clock this afternoon.

AFTER RECESS

The House resumed at 2 p.m.

[*Translation*]

The Acting Speaker (Mr. Blaker): Order, please. When debate was interrupted at one o'clock, the hon. member for Humboldt-Lake Centre (Mr. Althouse) had the floor.

[*English*]

Mr. Althouse: Mr. Speaker, continuing on from where we were before the lunch hour, I had been talking about an energy program and allocation program that take into account various problems within countries and regions. I now want to deal with Canada and our consumption. As most people are aware, Canadians are the highest energy users on a per capita basis. This is in part due to our cold climate, but to a goodly extent it is due to some of the reasons I outlined before lunch, such as the method we use to allocate energy to those who can afford to use it. Because Canadians have been relatively wealthy as a nation, we use a great amount of energy. We have it to use, so we use it.

Each year we extract energy in approximately the following proportions: About 44 per cent is taken out of the ground in the form of petroleum, 19 per cent in the form of natural gas, 15 per cent in the form of coal, and the other 22 per cent is divided among hydroelectric power, nuclear energy, wood, and a great many other kinds of technology now becoming more popular.

The farm sector, on which I want to spend a bit of time this afternoon, uses only 3 per cent of the total energy consumed in Canada. Hon. members would not think that that would be something worth spending very much time discussing, but I do so because we are extracting 55 per cent of our energy resources from petroleum and natural gas, and it is from petroleum and natural gas sources that agriculture takes almost all of the fuel it requires under the technology we are using today.

● (1410)

Even though agriculture uses only 3 per cent of the total energy used in Canada, agriculture does use 7 per cent of the gasoline used in this country and 11 per cent of the diesel fuel. These two forms of fuel account for about two-thirds of the energy consumed in agriculture. Fertilizer consumes about another sixth of the energy used in agriculture, and a great deal of the energy input in fertilizer results because it is extracted from natural gas. The nitrogen we extract to use for fertilizers is taken mainly from natural gas. The other one-sixth, approximately, used in agriculture is the energy which is used in manufacturing the machinery farmers use in their productive process.

We are users of large amounts of energy, but when we look at the kinds of agricultural products we export, I suppose we are more or less competitive in terms of the amount of energy put into the production process and the amount of energy extracted. On wheat farms in Canada, for every unit of energy put in we extract approximately three and one-half units in an average year. We have a reasonably good conversion which compares favourably with that of England. It compares favourably with that of Australia, and quite favourably with wheat farming on an input-output basis in the United States.

We are competitive in a monetary sense and perhaps in an energy use sense, but when we throw in all the factors which should be computed in an energy input formula, we neglect in this particular input-output ratio to take into account the energy we are extracting from the soil, so to speak. I realize that is putting it a little crudely, but we have to remember that this continent is a new agricultural area. Particularly on the plains of western Canada and the western United States there was a large buildup of nitrogen in the soil. The soils out there took about 10,000 years to accumulate. There was a brief momentary surplus of nitrogen trapped in the form of humus in those soils, and we have been exploiting that trapped nitrogen at an alarming rate.

In my province of Saskatchewan we have been farming the soils for approximately 80 years. In those brief 80 years we have released approximately half of the nitrogen which was trapped in those soils. We have exported that nitrogen source along with our wheat and our other grains as we have sold them off the farm. Because of our having broken up the land and killed the original vegetation, and having gone into a cropping program whereby we leave the land lying fallow approximately half the time, the nitrogen and humus which were trapped in the upper foot or foot and a half of soil have tended to be leached down by the rain too far into the soil to be picked up by the roots of plants, so we have lost another approximately 8 per cent or 10 per cent of the nitrogen that way. However, most of it went out as part of the grain which was produced on the land.

We do not have many options in picking up that outflow of resource. It is an outflow from soil which is normally considered by many people to be a renewable resource, and yet some of the components of that soil are in fact not easily renewable. They can be replaced only with the kind of technology we have today, the result of which is chemical fertilizers, a component of which is nitrogen which is extracted from natural gas.

When natural gas prices increase, that immediately means an increase in the cost of production at the farm level. It means that because of the very difficult cost-price squeeze which always faces farmers, they will probably continue to export, in part at least, the nitrogen that is in the soil. They