

Energy Conservation

it. Four hundred square miles is all that is needed, using only one-third of the energy produced, to produce all the natural gas needed by the United States. Quite frankly, that comes out of trees. One can grow pine trees and produce natural gas. However, I have quoted this in previous speeches and I should like to go on and give a table of values. These are all worked out. I know the sources.

According to "Pipeline and Gas Journal" of October of this year, if we consider the present price of natural gas as laid down in Toronto, the present estimated price of gasification of coal at site of \$1.61 as the unit, the cost from these sources will be about half—73 cents to \$1.17. I should like to read from a very distinguished Canadian magazine called "Executive". This is actually taken from the report of the Science Council of Canada, and it reads as follows:

—energy plantations may be able to compete with fossil fuel for energy generation... In spite of our technical inability to harvest plankton efficiently, the energy from this source could presently compete with oil at \$11 a barrel or so.

It continues:

Alberta's agriculture department says the fermentation of cattle manure could provide 6 per cent of the province's needs. The Science Council reckons that all the energy needs of the country's farmers could be met with methane produced from one-third of all crop residue and one-fifth of all animal wastes.

And so on. I wish to finish my remarks by saying that the biomass technique means low capital investment, high energy return and gives a final cost which is lower by half than the price we will have to pay for existing energy sources of nuclear energy, coal gasification, and so on. I suggest to the government that we cannot rush into this. In essence, we must make the knowledge of the scientists—incidentally, Canada has led the way at the University of Manitoba and the University of Waterloo, and now the University of Toronto is taking it up—gathered at all these meetings over the last year in Canada available and understandable to the public. I think our farmers and individual Canadians should have access to this information. People want to save money. Within the space of five to ten years we could increase the total energy mix 25 per cent to 30 per cent by using these alternative sources, at a price lower than we are now paying for energy.

● (1650)

If we can get this additional supply source by utilizing waste from the growth potential of our farms—and, as the hon. member for Don Valley said, it represents half of our total consumption—we should, as the century ends, not only get rid of any tendency to worsen our international account but we could be supplying our excess energy to the world as well as lowering costs here.

This is why I can support this motion which chides the government for not doing anything effective about the problem of conservation. I say, again, that conservation is not just restrictive and trying to control consumption; conservation, in its best sense, is the best use of our resources. That means recycling and that means the lowest cost. The government does not need to provide large sums of money, but just to tell individuals in Canada, provincial governments and municipal governments of ways to save money and ways to make money. I think that would be their most useful function, and then we would not have to move motions condemning them for doing nothing about conservation.

Mr. S. Victor Railton (Parliamentary Secretary to Minister of Veterans Affairs): Mr. Speaker, I should like to congratulate the previous speaker for bringing in the question of biomass. I was almost prepared to take that lightly, but he has almost persuaded me there is something in it. If there is, then that would be quickly found out by all nations of the world. We are wasting an awful lot of money drilling for oil in such places as the far north, and if biomass is going to supply us with energy, we should be getting after it.

I intend to discuss this matter of energy conservation, as referred to in the motion of the hon. member for Don Valley (Mr. Gillies), from two viewpoints. In the first place, I think we have to review the present tight situation in the world, and in Canada in particular. A great many voices and groups in Canada have raised quite a babel. These are the nationalists, the ecologists, the oil industry, the provinces rich and poor in oil, the householders or consumers, industry at large, and the sort of dissonance in the other energy source industries such as hydro, thermal electric, the gas companies, coal mining companies and their employees, as well as nuclear energy systems. Out of all this clamour—and, I believe, in some ways the clamour has been beneficial—we must try to find out how the shortage came about and how the conservation programs can help Canada through the lean period that is coming. I want to be more specific about that lean period later on.

I should just like to give a short review of the situation. Until comparatively recently, Canada was using energy, just like every industrialized country, in a profligate manner. One reason was the misinformation we had about our own petroleum reserves. Because they were potentially present in large quantity, we thought they were in our hands to use. We were ignorant of the exact amount and the expense of bringing them to market. Another reason for the overuse of our oil was the increasing world demand for energy, and other material resources as well, which was putting up the price. The quadrupling of the price of oil by OPEC in 1973 was almost a predictable next step, although in our opinion it was pretty cruel.

The Department of Energy, Mines and Resources was about the only branch of government awakening to the implications of the increasing world shortages of oil. They were not caught napping completely; I should like to emphasize that. Three months before the OPEC ultimatum, the department had enunciated phase one of "An Energy Policy for Canada." It saw the need for rapid planning for both a short and long-term policy for the future—50 years at least. The department realized that this country was faced with the need to use our energy resources carefully and intelligently. It realized that conservation, a new word in the energy world, would have to be the permanent policy of this government with regard to the consumption of petroleum and hydrocarbons—in fact, all kinds of energy.

What the OPEC action had done was to change suddenly not only energy use concepts but also to cause a crisis economically. The world was already suffering from deep-seated inflation caused by increasing demands, even from the emerging nations. They wanted commodities and energy, and these had been distributed most inequitably throughout the world. When the price of any product