

Energy Conservation

● (2140)

development, provision of new energy forms and services—in all those matters we discussed today—is dismal. Yes, it's record is dismal.

Mr. Stanfield: I'll bet lots of lights are still burning.

Mr. Baker (Grenville-Carleton): That is why the hon. member for Don Valley proposed the motion before the House, and why we expected the minister on his return from northern Ontario to repeat in this House part of the speech he had made up there. We expected more from this minister; we expected a commitment, not lip service; action not words. We expected more than the sort of Boxing Day announcement he was considering. We expected the federal government to show leadership with respect to energy conversation—

Mr. Gillespie: Conservation! That is all this is—conversation.

Mr. Baker (Grenville-Carleton): I beg your pardon; I meant conservation. I suspect what is going through my mind is going through the mind of any member who listened to the contributions from the government side. With the exception of the hon. member for Peel-Dufferin-Simcoe (Mr. Milne), who gave an excellent speech on the long-term aspects of the problem, hon. members on the government side made a dismal contribution on conservation. The minister's performance was no better. Frankly I expected more.

Mr. Stanfield: I didn't.

Mr. Baker (Grenville-Carleton): I did not expect window dressing. I expected policy pronouncements. I shall go home tonight dejected and downhearted because I did not hear what I ought to have heard.

Mr. Dan McKenzie (Winnipeg South Centre): Mr. Speaker, before speaking on this important motion let me say that one thing puzzles me about the proposed 55 miles an hour speed limit. I can see the sense of restricting four cylinder cars to 55 miles an hour, but I wish the minister or some other automotive expert would explain to me how a 455 horsepower V-8 engine is to operate at peak efficiency if speed is to be restricted to 55 miles an hour. The engine will carbon up, operate less efficiently, and use more gasoline. If my assessment is wrong I hope someone will tell me. If we are to restrict the speed limit to 55 miles an hour, we should not allow engines of 450 and 500 horsepower to be built.

Mr. Gillespie: Buy a car with a small engine and save gasoline.

Mr. McKenzie: Mr. Speaker, the minister completely missed my point. There are thousands of huge V-8 engined cars on the road and the owners will tell you that those cars will not operate properly at low speeds. Gasoline mileage will be poor if those cars cannot be driven at 70 miles an hour at least.

I now wish to comment on an important conference held in Winnipeg in 1973. I am referring to the International Biomass Energy Conference, attended by delegates from all around the world. They presented sound alternatives and suggestions for renewing our sources of energy. I have heard little from the government or minister with regard to biomass energy, and alternative source of energy. I find, on checking the estimates, that the government granted

only \$3,400 this year for research in the field. The money is to go to the University of Manitoba.

May I now refer to a portion of the 1973 report? Scientists at the conference said that oil and gas can be made from agricultural waste. They also said that large amounts of organic solid wastes having their origin from farm animals and agricultural crops are generated annually in the United States. On a dry basis this amounts to hundreds of millions of tons each year and is becoming a more serious pollution problem each succeeding year. Really, the conference was considering the use of manure. There is lots of manure going to waste in Canada. Conference scientists held that the indiscriminate disposal of these wastes is not only seriously affecting the ecology but is overlooking a potentially significant source of energy at a time when the country needs a more abundant supply of clean energy.

The Bureau of Mines of the United States Department of the Interior is exploring three processes for converting these wastes into low-sulphur synthetic fuels, thereby contributing to the solution of two critical problems simultaneously. I am not aware of any similar program in Canada.

The first process converts organic solid wastes to oil by treatment with carbon monoxide and steam under pressure at elevated temperatures. The net yield of low-sulphur liquid fuel from this source is about 1.3 barrels per ton of dry organic waste. This oil product can be readily stored, transported, and burned cleanly to provide energy.

A second process is direct gasification of organic waste with hydrogen to produce substitute pipeline gas. About 6,000 scf of pipeline gas are produced per ton of dry organic waste. The hydrogen for the process is generated from the residual char from the hydro-gasification.

Further, with the current energy crisis reflecting the increasing scarcity of non-renewable fossil fuels, the prospect of using renewable sources of energy is becoming more attractive. There are now several examples of the use of waste materials for energy. Many pulp and paper plants heat boilers with "hog fuel"—bark, branches, and other wastes from forestry operations. The benefits are twofold; material which previously might have been pumped into streams, causing pollution, can be used to save money on energy costs.

In Hawaii plans exist to provide 80 per cent of that island's electrical generation from plants fired by sugar cane bagasse. Not only will fuel costs be reduced and the balance of payments situation improved, but the sugar cane industry can be expanded. Sugar cane wastes are a source of pollution and their disposal is strictly controlled. Their use as a fuel is an excellent means of low pollution disposal.

Scientists say that it will be necessary to harvest an renew trees in a 300 to 400 square mile area to fuel a 400 megawatt generating plant. Costs competitive with fossil fuel generation are projected.

All growing matter, including renewable plant and animal material, and plant and animal material stored in the form of non-renewable fossil fuel, is given to term biomass. How much biomass is available for energy production in the world today? The answer to this question was encouraging enough to prompt the formation of the Biomass Energy Institute in Winnipeg during 1971. The institute is a non-profit organization which co-ordinates