## Energy Supplies Emergency Act

If an emergency existed, surely all Canadians would pull together: transportation officials would do everything in their power to transport oil or other energy products across this country and there would not be any need to overcome all the legislation for which the provinces, the federal government and many citizens of this country have worked very hard. Surely that would be a bad precedent to set. I join with the hon. member for Peace River (Mr. Baldwin) in requesting that this government not allow a board of officials the right to destroy those regulations and statutes which the provinces and the federal government have enacted over the years in an attempt to make this country a better place for all. This is a dangerous precedent and one that should not be treated lightly by either side of the House.

Over the past few weeks a number of comments have been made about a national petroleum corporation. There will be a lot more talk about it-perhaps in the new session. Apparently, the objective of this corporation is to assist and participate in the research and development of non-renewable energy sources, particularly the oil sands. I wish to spend a little time on the topic of research. The government said it will commit \$40 million over the next five years in the field of research, particularly on the Athabasca tar sands. I do not feel that is nearly enough to spend on research, particularly on the tar sands, when you compare it with what is being spent by some corporations in this area. For example, in the past couple of years Syncrude has put some \$80 million into research. Texaco announced it will spend \$40 million over the next two years. Great Canadian Oil Sands has spent millions of dollars in this field over the years. When it comes to research into the oil fields, \$40 million is just not enough.

The United States government has said it will spend some \$10 billion in the field of research into all forms of energy between now and 1980. That should be a precedent for this government. We should put in at least one-tenth of that amount, not only into energy usage of the conventional type but into other types of energy where we have some expertise. For example, there are the high-powered gas lasers to which the United States Secretary of State Henry Kissinger recently referred.

The hon. member for Athabasca (Mr. Yewchuk) will have a lot to tell us later, including in committee, about the Athabasca tar sands. Very few people are aware of the great expanse of Alberta which these sands cover. They are approximately 70 miles wide and 130 miles long. Syncrude will mine eight square miles to produce 125,000 barrels a day for the next 25 years. These sands contain approximately 600 billion barrels of oil in place. About half of this oil is either currently recoverable or shows promise of being recoverable in the not too distant future. The part that seems destined for earliest large-scale development is the 110 billion barrels of bitumen sufficiently close to the surface to be economically mined. These shallow deposits will produce sufficient bitumen to create 86 billion barrels of synthetic crude oil. Beyond there deposits there are some 200 billion barrels of high-grade bitumen in deeper formations which it may some day be possible to tap with in situ production techniques.

Thus, the tar sands represent an ultimate potential of more than 300 billion barrels of bitumen. This compares [Mr. Schellenberger.]

with total proved North American reserves of 56 billion barrels of conventional crude oil. The only comparable oil energy resources in North America are the oil shale deposits in the western United States. The oil shales may contain as much as 600 billion barrels of petroleum, but no feasible method of producing this oil has yet been commercially demonstrated.

In one of Mr. Lougheeds's speeches he states that one of the key portions of Alberta's energy policy is the development of new production both from conventional and oil sand sources. The discovery of replacement barrels of oil and natural gas is going to be more difficult and more expensive, so that the cash flows and incentives to explorers of these resources must be adequate.

In a presentation made to the Standing Committee on National Resources and Public Works on May 10, 1973, the Canadian Society of Petroleum Geologists noted the following conclusions: First, Canada has a very large potential physical resource base of fossil fuel reserves in petroleum and natural gas, in heavy oil sands and in coal. Less than 1 per cent of the estimated reserves in place have been produced today. Second, Canada has on hand a proven recoverable reserves supply of conventional oil and gas capable of meeting her near-term future needs of the next 10 to 15 years. Third, development of Canada's additional energy resources will necessitate increased costs. These resources will be technologically difficult to discover and develop, and costly to transport because of their remote location. Fourth, in order to provide significant contributions of hydrocarbons from the frontier exploration areas, synthetic oil from our heavy oils and processed products from our coal measures, long lead times of ten years or more are necessary because of the complex technology, logistics and over-all magnitude of these undertakings. In addition, a lead time of up to three years is necessary to acquire the materials and technological expertise to carry out the many areas of energy research and development which are required.

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At the present time it is extremely difficult to get, not only staff with the necessary expertise but also the special machinery and equipment which are required. There is an unprecedented demand all over the world for the type of equipment needed in the development of energy, not only from oil but from uranium. Syncrude, for example, had to reach agreement with a West German firm several months ago in connection with the equipment needed for research and development this year. There are very few firms capable of providing the expertise and equipment required to develop the oil sands. If other companies, or even the government itself, were to attempt to get such equipment today they would have to wait two years before they could do so.

The standing committee heard evidence that money and incentives were required in connection with exploration. Mr. Speaker, there are people in my constituency in Alberta who, after working in the exploration field for years, are now going south to the United States to take advantage of the incentives provided in that country. In this connection I should like to quote as follows from a newspaper article which has come to my attention:

Concept Resources is one of 88 Canadian companies carrying out