

Energy

the use of the higher sulphur Cape Breton coals in an environmentally acceptable way.

The new unit will also use wood chips, to take advantage of the forest resources of the island not now being worked to their full potential. Canadian process design teams are involved and equipment will be manufactured in Canada. Current expenditures for this project are in the neighbourhood of \$11 million.

The development of coal in oil combustion technology allows the use of coal in facilities originally designed to burn oil only. While this possibility has been known for many years, a number of technical problems have yet to be resolved to allow widespread use of this technique, and these are being addressed in Canada and elsewhere. The Canadian coal in oil combustion trials have been undertaken in co-operation with the New Brunswick Electric Power Commission, and combustion studies are under way in the ten megawatt facility of the commission at Chatham, New Brunswick. This particular investigation has been directed to the possible use of the limited quantities of very high sulphur coals produced in that province. A new process developed by the National Research Council known as the spherical agglomeration process has been incorporated into the preparation system. This process has the unique capability of using the oil itself as a mechanism by which sulphur-bearing impurities in the coal may be rejected. Another possibility for Canadian coal currently under investigation is its suitability for use in the tar sands heavy oil projects as the make-up fuel to supply the necessary steam.

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One matter of primary consideration, of course, is the manufacture of synthetic fuel from coal. The coal liquefaction option for Canada will be determined in part by international and domestic developments in the field of synthetic fuels production technologies. While the process has been known for some time, its economic viability is still in question. This brings me to the subject of CANMET.

I am surprised members of the House are unaware of the research work being conducted in Ottawa by the research division of my department. Early in the spring I invited every member of the House to visit the CANMET research centre. I believe only a handful showed up including, I think, just one member of the official opposition. If members had visited us at CANMET, they would have learned of the extensive work being carried out in that department, work which is essential and which has proved that we in Canada can encourage and enter into many programs which will be economically viable.

CANMET is actively pursuing a variety of research projects. We are continuing research into coal liquefaction and gasification. These research projects are being conducted here and across the country as well, particularly in Alberta. Research into clean-burning coal is very important to Canada because our coal, like all coal, has very specific characteristics and qualities that must be considered. In fact, we know definitely that coal from the east coast has a higher methane content and is therefore combustible in that area, while the metallurgical coal of the west coast is highly combustible but

offers fewer methane problems. We must develop the specific technology for our Canadian coal.

I am very proud to say this has been done in a great spirit of co-operation with the provinces, particularly with the province of Alberta. CANMET has been working with Alberta in coal research for some time through the Alberta-Canada Energy Resources Research Fund where moneys are being made available for the development of a major coal mining research centre in Edmonton. Also, moneys are provided through this fund for construction of the Energy Resources Building adjacent to the University of Calgary campus and for the Energy Resources Research Building in Devon. I am sure most of the members from that area are aware of these projects.

Under the Canadian coal conversion program the federal government shares the cost on a 50-50 basis with other funding bodies. I have referred to programs financed under this program already, but they are categorized under a multitude of headings, which I would encourage members to read and discover—economics, exploration, strata mechanics, mining methods, underground environment, equipment safety, coal preparation, carbonization, combustion, gasification, liquefaction, coal slurry transportation and environmental aspects. All this work is being conducted here in Canada.

Also, I would urge members of the House to read the book entitled: "Coal—Bridge to the Near Future". In it, coal experts from this country and indeed from my department have offered much-needed advice which has been heeded by many experts in the world. We have been declared to be one of the foremost countries in the development of coal. It is a very interesting book and I would urge all members to look into it, particularly the role Canada must play.

Canada has participated in the world coal study and was party to the conclusions which the study outlined in relation to the world coal system. Incidentally there are a number of projects under way which we would be very happy to describe. The document entitled: "The Current Coal Research and Development Projects in Canada" published recently by my department would bring members up to date on just what is happening in coal.

The conclusions of the world coal study are quite interesting. Perhaps I have time to go into seven of its recommendations. Coal is capable of supplying a high proportion of future energy needs. It now supplies more than 25 per cent of the world's energy. Economically recoverable reserves are very large—many, many times those of oil and gas—and capable of meeting increasing demands well into the future. The coal study went on to indicate that coal will have to supply between one-half and two-thirds of the additional energy needed by the world during the next 20 years, even under the moderate energy growth assumptions of the study. To achieve this goal, world coal production will have to increase 2.5 to three times and the world trade in steam coal will have to grow ten to 15 times above 1979 levels. Many individual decisions must be made along the chain from coal producer to consumer to ensure the required amounts are available when needed. Delays at any point affect the entire chain. This emphasizes