utilization in reaching this happy state of affairs, and tell us the part that is expected to be played by the so-called oil sands projects?

Senator Olson: Honourable senators, I could give a detailed description as to how we expect to reach that self-sufficiency point, but this has been outlined a number of times by others. It includes such things as substitution of natural gas for oil, this being achieved through deeper penetration of natural gas into existing markets, and by an extension of a line to make natural gas available to all parts of Canada east of Montreal that are not serviced by gas at the present time.

I can provide the figures in relation to substitution. In addition, there is the possibility of some further exploration in the conventional sense. A high figure is not placed on that because it is not known. A very large portion in meeting the deficit is potentially attributable to the heavy oils and tar sands deposits in Saskatchewan and Alberta. We believe that we have the technology now to bring on several hundreds of thousands of barrels from that source between now and 1990.

● (1415)

We sadly regret that an agreement between the producing provinces and Canada has not been reached, an agreement which would allow the industry and both levels of government to move as rapidly as is physically and financially possible into putting the processing and enhanced recovery schemes into place.

Senator Smith: I notice that the minister attributed a potential of "several hundred thousand barrels"—I think those were his words—to the tar sands or the heavy oil sands. Is that per day?

Senator Olson: It is per day.

Senator Smith: Then might I ask the minister what figure he has in mind when he uses the word "several"?

Senator Olson: Some of these figures are known. We know, for example, that the Cold Lake project is expected to produce about 140,000 barrels per day within four or five years after construction is under way. Alsands is another plant that is of about the same magnitude in terms of output that could be on stream before 1990. We know there is a potential to increase by, perhaps, 70,000 to 100,000 barrels per day the output of the Lloydminster heavy oil sands on both the Alberta and Saskatchewan sides of that border. There is a pilot project near Peace River in which about $80 million has already been invested. I cannot say off the top of my head the exact amount projected as being on stream there by 1990, but certainly it is a very significant amount.

In addition to that there is another project following in behind the Alsands project for the Fort McMurray area that could be on stream by 1990, if all the necessary permits were issued allowing it to go forward. So if you add all those figures up, it is safe to say that it does come to several hundred thousand barrels per day.

[Senator Smith.]

COLD LAKE, ALBERTA—HEAVY OIL PROJECT—PRICE NEGOTIATIONS WITH IMPERIAL OIL LIMITED

Hon. Duff Roblin (Deputy Leader of the Opposition): Honourable senators, I should like to ask a few questions on the same general theme of my honourable friend, the Minister of State for Economic Development. I suppose he has noticed the statement made recently by the President of Imperial Oil about the price set for crude oil coming from the Cold Lake project. I think the minister told us the other day that it was set at $38 a barrel plus an escalation for inflation. I observe that the company seems to think that this is inadequate. They say that even if they had no problems with the licence from the Province of Alberta, the project does not look attractive to them.

Can the minister tell us if any negotiations have been entered into or any discussions started with Imperial Oil Company as to the price to be granted for oil developed from the Cold Lake project.

Hon. H. A. Olson (Minister of State for Economic Development): Honourable senators, when the price of $38 per barrel was announced, and when it was announced that we were prepared to accept that price in 1980 dollars, this amount was, according to the best information available to us, adequate to attract the investment necessary to do it.

There is some concern about the escalating formula, and I think the one that comes automatically out of that is the CPI. Imperial Oil and others who are contemplating these megaprojects are concerned that the actual cost of construction will escalate more rapidly than the consumer price index. At the present time that escalating factor is under negotiation and discussion.

● (1420)

Senator Roblin: I think the minister has described the position fairly, that the escalation in costs is considerably greater than provided for in the formula. I take it that he is telling the house that the government is giving consideration to increasing, in effect, the gross payment for oil that will be provided by the development of these facilities. Unless he nods his head to the contrary, I will take that to be a fact and proceed with another question.

Senator Olson: I want to be sure that the honourable senator does not reach the wrong conclusions—that it is automatically more. The industry would be more comfortable and, I think, more confident in its investment if the escalating formula was related to the actual costs of construction rather than to the CPI. That may or may not turn out to be more, but it would be more directly related to the kind of investment that the industry would have to make.

Senator Roblin: I congratulate the minister on his optimism. I think he is just as optimistic about the trend of building costs as he is about the possibility of Canada's becoming self-sufficient in oil by 1990. I wish him well. I wish him no bad luck in his forecast; but I think he is just bandying words with us if he tells us that the price will probably be lower—