

[Chairman: Mr. Oldring]

[2:05 p.m.]

MR. CHAIRMAN: I now call to order the 10th meeting of this, the 10th anniversary of the Alberta Heritage Savings Trust Fund Standing Committee. I want to welcome the Hon. Neil Webber, Minister of Energy, who is appearing before us this afternoon. With the Hon. Dr. Webber is Maurice Carrigy, the acting chairman of AOSTRA. I also want to welcome the Member for Calgary Mountain View, Mr. Robert Hawkesworth, back from his holiday to his first meeting of the trust fund committee.

MR. HAWKESWORTH: Thank you, Mr. Chairman.

MR. CHAIRMAN: Mr. Minister, the practice has been to allow the visiting minister the opportunity to make a few comments before the committee, and from there we turn it open to questions. If you'd like to open with a few remarks, you'd be most welcome.

DR. WEBBER: Thanks very much, Mr. Chairman. I welcome the opportunity to be with your committee, along with Maurice Carrigy, the acting chairman of AOSTRA. With respect to the Department of Energy and the Heritage Savings Trust Fund, the areas I'm responsible for are the Alberta Energy Company — and I say that with the Alberta Energy Company being at arm's length from the government, and the government's investments are included in the Alberta investment division of the Heritage Savings Trust Fund — as well as Syncrude, with investment in the Alberta investment division, and the Alberta Oil Sands Technology and Research Authority, AOSTRA, under the capital projects division.

I would just like to indicate at this time that I would welcome any questions related to it. I assume that most of the questions this afternoon would be related to AOSTRA, although maybe I'm being presumptuous in assuming that, in that we have had a serious decline in world oil prices which has caused consternation and hardship in the oil and gas industry not only in Alberta but worldwide. We've seen the results of that with the pullback from developments in offshore regions such as Hibernia and the Beaufort and also some of the projects in our own oil sands areas being put on

hold.

With this significant drop in world oil prices, most oil companies are looking at investments in 1987 primarily in the conventional area. However, there is good news today in that Mobil Oil announced today that in 1987 they would be proceeding with construction of a pilot project in the heavy oils area, an in situ project. I think it is good psychological news to the energy industry that at a time when prices are working their way up, we have a project announced in that particular area.

I guess I would also add that we as the Alberta government believe that the search for technology to commercialize the oil sands has to continue at a steady forward pace and that research and development should not be abandoned because of the short-term perception of poor economic return on investment. One of the mandates of AOSTRA is to keep research and development going in the bad times, and that's why we continue to fund AOSTRA. One result of this, of course, will be that research will be to develop a solid base for an industry that will grow and sustain synthetic oil production for a time when our resources of conventional oil are no longer available.

In the past I've indicated publicly that Alberta oil production is on the decline and that within two to three years we as a nation could very well be net importers of oil, whereas now we are net exporters. So it's important that this country address this question of long-term security of supply. Going back to the meeting of the 10 ministers and the territorial ministers from across this country a few months ago, it was unanimously agreed that we need to address the question of security of supply for us as a nation, that the current energy problem is a national problem requiring national attention. In January we will be meeting with the federal minister to begin discussions on the question of security of supply or self-sufficiency. In our view, our oil sands should play a very key role in the future development of energy in this country and play a major contribution toward security of supply or self-sufficiency.

I believe that's about all I would say as an opening comment, Mr. Chairman. I know I've moved away from the precise topics of AOSTRA and Alberta Energy and Syncrude, but I'd be happy to try to respond to questions on any of those areas.

MR. CHAIRMAN: Thank you very much, Mr. Minister. We have nine members showing a wish to ask some questions, so we'll begin with the Member for Edmonton Kingsway, followed by the Member for Cypress-Redcliff.

MR. McEACHERN: Thank you, Mr. Chairman, and welcome, Dr. Webber, to the committee. My first question is somewhat general, as some of your comments were. We've been putting 15 percent of the nonrenewable resource revenues into the heritage trust fund in the last couple of years. We're eight months into this fiscal year, and I'm wondering if the numbers so far verify the projected \$2.7 billion in revenues for the year. Fifteen percent of that going into the heritage trust fund would be \$405 million. Are we about on target for those figures?

DR. WEBBER: Where we end up depends a lot on what happens to oil prices for the rest of the year. In 1985 we as a government received over \$5 billion in revenues from royalties and other sources. I would think that if prices were to hold approximately where they are, we would end up with an average price below the \$15 level for the year. However, if prices move up between now and the end of the year and average out at around \$15, then I would expect that it would be somewhere in the \$2 billion range, maybe a little higher.

MR. McEACHERN: Closer to \$2 billion than to \$2.7 billion.

DR. WEBBER: That would be my rough guesstimate, assuming that prices don't move up too much more.

MR. McEACHERN: Thank you.

MR. CHUMIR: You're saying that if prices stay at the same level as they are now, you would expect in the \$2 billion range.

DR. WEBBER: Approximately \$2 billion to \$2.5 billion. I don't know exactly. The Provincial Treasurer has a better handle on that than I do.

MR. PIQUETTE: That would be a \$3 billion drop from last year.

MR. McEACHERN: I thought this was my question, guys.

MR. CHUMIR: Sorry. I just wanted clarification on the answer.

MR. McEACHERN: That's okay. I'm only . . .

DR. WEBBER: As I said, that's a question the Provincial Treasurer would have the numbers on. I don't; I'm only going by memory.

MR. McEACHERN: You did say that last year the revenue was just over \$5 billion. According to the 1985-86 annual statement, \$685 million was transferred. Assuming that's 15 percent and sort of working backwards, you find that that would bring in about \$4.6 billion. There may have been a bit of an adjustment to make there yet, so I'm not really quarrelling with the \$5 billion.

If that was the resource revenue last year, let's take the lower figure, \$4.6 billion. If you look at the reductions of this year, even supposing we meet our target, we're looking at a reduction of some 41 percent rather than the one-third projection that was made in the budget. I'm wondering if you could comment on that.

DR. WEBBER: Only to say that when oil prices collapsed at the beginning of the year, we really didn't know what was going to happen. In fact, at one stage we ended up with prices at \$10 or \$12 a barrel, with the thought that they could go lower, maybe even as low as \$5 or \$8 a barrel. The mood certainly has changed since then to where we're looking at around \$15 U.S. a barrel with the expectation that prices are going to move up slowly. So trying to forecast just what your revenues are going to be is a very, very difficult matter. As we move toward the end of the calendar year, I think we can say with more confidence that prices are going to be around \$15 for a while but are moving slowly upwards. I think that the probability of prices collapsing again is decreasing as time goes on, as there is more confidence in the OPEC group's sticking together.

So I would just comment that any forecast made at the beginning of the year would have been very, very difficult. In fact, as the Provincial Treasurer said in the Legislature at that time, we really don't know what's going to happen, but he indicated an approximate reduction by that amount.

MR. McEACHERN: He indicated in the middle of August that he felt it would probably be on target, and I couldn't help thinking that now that we're eight months into the year, you should be able to see enough numbers. I appreciated your comments on that earlier.

The reduction of one-third actually was not taken off the \$4.6 billion, because I suppose that figure was not in at the time, although it seems to me that the government should have had a good idea of it by the time they made the projections. It was based on the \$3.7 billion figure for the 1985-86 fiscal year estimated income, and a one-third reduction would be approximately \$2.7 billion. So at the time I guess they were working with estimated figures.

Something I would like some comment on from you — and perhaps you could get back to us with more details by going to your department and looking up some numbers. On June 24, 1985, the government started a royalty reduction program that we passed Bills 45 and 46 for in August this year; that's a year and some months later. Nonetheless, if I understand right, those reductions went into effect in June; they didn't wait around. In effect, the government projected \$3.7 billion in revenues for the 1985-86 fiscal year and in fact turned up \$4.6 billion, which was a lot better and very nice, in spite of some very major royalty reductions. I'm just wondering if you could give us some kind of idea of the cost of those royalty reductions over that '85-86 fiscal year, perhaps do some projections on what's happening this year with those same reductions and the lower prices, and come back to us with some more specific numbers. One thing that bothers me is that you're always sort of guessing what's happening, and I'm sure the department keeps closer track than what we can tell from looking at your annual statements, which are a year and half out of date, and sort of guesstimates for this year in budgets. Could you comment a bit on the royalty reductions, remembering of course that you've announced more royalty reductions just recently, and the effect they may have on next year's revenues? I realize there are a couple of questions in there, but perhaps you could comment on that.

DR. WEBBER: You opened up quite a broad area in that when you look at overall revenues to the government, it's not just from royalties, as I'm sure you're aware. Land sales and leases

are included.

MR. McEACHERN: Yes, I realize that.

DR. WEBBER: In that regard, 1985 was an excellent year. I can't remember exactly, but probably \$600 million is too high. I'll get back to you. Well, you can look that up yourself in terms of what the land revenues were.

MR. McEACHERN: I was thinking about the global figure.

DR. WEBBER: On the royalty reduction program of 1985, of course prices at that time were very high, so the benefits of royalty reductions to the industry were projected to be much higher than they turned out to be, simply because prices fell.

MR. McEACHERN: But only at the end of the year.

DR. WEBBER: Because the program came into play . . . As you said, it was announced in June, but I think the first reduction occurred on August 1 on old oil and gas from 45 percent and on new oil and gas from 35 percent, down — and I've forgotten the exact numbers. As a result of the new announcement, the marginal royalty rates — and I say "royalty rates"; those are the marginal royalty rates — are now 40 percent and actually down to 27 percent for new oil and gas.

I'd have to get the information on that, but as I recall, it was guesstimated to be approximately a \$500 million package that was announced in June '85. I think that included much more than just the royalty reduction program; the royalty holidays were announced at that same time.

MR. McEACHERN: I think it was a billion in total. I was wondering if you now have figures looking back. At that time, you were looking forward and guessing what it would be.

MR. GOGO: Mr. Chairman, could I raise a point of order?

MR. CHAIRMAN: The Member for Lethbridge West.

MR. GOGO: I understood that the minister

presented his departmental estimates through the House. If the Member for Edmonton Kingsway is relating to Syncrude only, I'm prepared to accept it. I just don't want us to relive the estimates on the minister's department in the Assembly.

MR. McEACHERN: I believe these figures were not in the estimates. The energy budget was something like \$114 million. It had nothing to do with these numbers we're talking about now.

MR. CHAIRMAN: Are the numbers of the Member for Edmonton Kingsway [inaudible]?

MR. McEACHERN: Surely this committee will stop trying to narrow the focus of this debate. We are faced with a heritage trust fund that's supposedly worth some \$15 billion. It's causing us a great deal of difficulty trying to get federal help for a national problem we have with our oil industry, and the Premier and the Treasurer are both looking for advice from this committee about all aspects of the fund. If that doesn't include the money they put into the fund or don't put into the fund and the revenues of the fund and where they come from, then I'd like to know what we're doing here.

MR. CHAIRMAN: The chairman is assuming that you're pertaining to the oil prices as it pertains to Syncrude, and we'll continue from there.

MR. McEACHERN: Syncrude or any other.

MR. CHUMIR: If I could be supportive, I'd say that if the heritage trust fund gets 15 percent of resource revenues, the magnitude of the revenues and the basis of calculation of deductions and projections is axiomatically directly relevant to what the potential income of this fund will be.

MR. McEACHERN: Yes.

MR. BRADLEY: Mr. Chairman, speaking to the point of order, if I may. The terms of reference of this committee have always been widely and broadly interpreted, but the narrow terms of reference of the committee are to review past investments. I'd just put that on the table.

MR. CHAIRMAN: Mr. Minister, have you

finished answering that last question?

DR. WEBBER: Well, just that the recent announcement we made on energy assistance with a reduction in the royalty rates now together with the royalty holidays that have been announced -- five years if drilling occurs between now and November 1, 1987 -- will have some impact on revenues to the government and to the Heritage Savings Trust Fund down the road. We announced the program as an approximately \$1 billion program in total. It consisted, as I said, of royalty reductions, the royalty tax credit program, and royalty holidays. Those are the three primary components of that particular announcement.

MR. HYLAND: Mr. Chairman, my questions are on AOSTRA. Mr. Minister, I wonder what percentage of companies or individuals receiving grants from AOSTRA are Canadian and what percentage are Alberta companies.

DR. WEBBER: I'd have to call upon the acting chairman of AOSTRA. I don't know if he can respond to that question or not.

MR. CARRIGY: I don't think I can answer that question specifically, but in dealing with the companies, we haven't made too much of a distinction between whether they are Canadian or Albertan. So long as they are based in Alberta and are employing Alberta people, we try to give them the same consideration as other companies. I could get you an answer to that question specifically, but it's very difficult when it comes down to defining what is a Canadian company and what is an Alberta company. We've taken the attitude that if the people are employed in Alberta and the company is based in Alberta, then it is an Alberta company. Would that be the basis on which you would sort of like the breakdown?

MR. HYLAND: Yes, I think it would.

MR. CARRIGY: I think if you gave us a definition, we'd be able to get an answer. What we've had trouble with in the past is: how do we define the companies? In general terms, if you wanted an [answer] right off the top of my head, I think most of our money -- 90 percent or more -- would be going to companies that are based in Alberta. There are not too many

foreign companies offshore that we're giving money to. There are some, but I don't think the moneys amount to very much.

MR. HYLAND: The second question is one I've asked before in other ministries. It's related to patent rights and who holds the patent rights when research is completed and they find a new way of recovering the oil. I guess what I'm specially interested in is when it's a company involved. Do individuals who are working for that company have an involvement? If it's in one of the university research project programs, who has the patent rights?

MR. CARRIGY: In general, when we fund projects to more than 50 percent, AOSTRA has ownership of all the new patents that arise from the work we have funded. If the patents have been derived from prior expenditures, then the people who had the patents when they came to us would retain the rights. AOSTRA also retains the right to use those patents in conjunction with new ones, so they cannot be held as a block against our ownership of a technology. In general terms, we own the technology, and that ownership includes patent rights that arise from expenditures made with AOSTRA funds.

DR. WEBBER: The 10-year review, the document that was made public and put into the Legislature, makes reference to this aspect, I believe, toward the end of the document. It's information for applicants, and it's very clear on page 63 of that document what the ownership rights are.

MR. CARRIGY: I think you could summarize that by saying we try to own the technology, including patents so that we can then make them available to anybody. That was our purpose in trying to own these, and that includes companies like Shell, Esso, and so on. We had difficulty getting this, but we have succeeded in owning the actual patents.

MR. HYLAND: Lastly, a two-part question, I guess, that of sharing information. How is the information shared, especially from those pure research projects rather than those that are carried on in the field? How is that made known to the public?

The second part is: in the '85-86 estimates

there was \$50 million to AOSTRA. In '86-87 estimates it was down to \$31 million. What do you see as the projection for the following budget year? Will research drop off, or do you see it maintaining the same? I understand that companies have to put some of their money into it too, and obviously they've got cash flow problems.

MR. CARRIGY: As far as sharing information is concerned, when we sign an agreement with a company, we make that information confidential. To get access to it, you usually have to make a contribution. In other words, we're selling the information to others. It's always available to others but at a price. The reason we did this is that we had to enter into these agreements on business terms that were satisfactory to the companies. In general, the companies require that if they put in money, they want to get some benefit from it. What we've tried to do is say that information is always available to other companies who want to have access to it but that there is a price to pay. That price, as we've said, is fair market value. I think this has been accepted by the industry as a reasonable way of getting access to information, because if they participate, they want some sort of reward for participation.

In terms of information that comes from university projects, we have allowed the industry to buy into these projects by paying a nominal sum. They have first right of access to the information because they're what we call access members, and then after a period -- I think it's about a year -- that information can be published by the author.

DR. WEBBER: I would comment on the numbers you've mentioned from the trust fund. Effective this year it was decided to phase out the funding of AOSTRA projects from the capital projects division of the Alberta Heritage Savings Trust Fund and gradually replace it with funding from the General Revenue Fund. Of the approximately \$66 million that's required this year by AOSTRA to fund the projects, approximately \$35 million will come from the General Revenue Fund and the rest from the capital projects division of the Alberta Heritage Savings Trust Fund.

In total, the requirements are \$66 million for the fiscal year, so we don't have a big drop in

actual expenditures. It's just a matter of where the -- we've had a drop in the money coming from the Heritage Savings Trust Fund. I say "generally" because with some of these projects it's not very easy to differentiate between new and old. We're trying to have new projects funded from the General Revenue Fund and the continuation of the older commitments from the Heritage Savings Trust Fund. That's roughly what it is, but it's not so easily defined when you get into the projects.

MR. CARRIGY: I think the end of that answer you wanted is that there is less interest probably in the companies in oil sands research than there was last year, not because they're less interested but because they haven't got the funds to put into it. We're trying to make up that difference out of our own money so that we keep projects going.

MR. CHUMIR: Mr. Chairman, I'd also like to welcome the minister. My first question relates to the future potential of the fund's investment in Syncrude. We have at present an unamortized investment of \$458 million in Syncrude. The future potential of the investment is important from the point of view of revenues to the trust fund -- slightly over \$70 million in the past fiscal year -- or possibly in terms of disposition and privatization in light of the government's policy of reviewing privatization. Of course, the Syncrude investment is a prime candidate. Accordingly, it's important to assess where we're going to be going in terms of the value and return on that investment.

I'm particularly concerned about the potential for the province's investment in Syncrude that may be realized from future oil price increases. I'm concerned that we may find that although we're getting world prices now while prices are low, there is a ceiling placed on prices when they go up. Of course, we have section 9 of the Western Accord, which is still in effect and which indicates from the federal point of view that the federal government can step in if there is a sudden increase. I'm concerned that we may have negotiated ourselves into the worst of all worlds, getting low prices at the world level and not being able to realize on high prices.

My question is: has the province sought a specific, written guarantee from the federal

government that in light of the fact that we're living with world prices now while they're low, we're going to be able to maintain world prices when they're high, without a lid on them? If we haven't gotten that guarantee, why not?

DR. WEBBER: Mr. Chairman, the hon. member's great concern probably is more directly related to the concern of all of us with the lower world oil prices and the impact they've had on the oil industry in this country. The actual negotiated agreement with respect to Syncrude has turned out to be a very profitable one for this province over the years that Syncrude has been operating. When prices were high, we made significant profits and the return to the province was excellent.

When we get into the area of lower prices, I would comment that this year Syncrude has done a magnificent job with respect to having made itself more efficient in terms of reducing the cost per barrel. If my memory serves correctly, at the beginning of the year the average operating cost per barrel was close to \$20. With efficiencies that have been put in place, it's expected that this year the cost per barrel has been reduced to approximately \$16 simply because of taking significant steps to economize as the whole energy industry has had to become more efficient.

I guess the potential return we'll get on our investment in the future is directly related to what prices are going to be. Whose forecast do we believe on that? I think it's generally thought that prices are going to move gradually upward to the \$20 range, hopefully before 1990. Some don't think it will be before 1990. I don't think it's very easy to forecast that. In fact, it could very well be \$20 in 1987.

In the past we had a ceiling on the prices we got for our oil in this country. When we negotiated our agreement, it certainly was not one that was the worst of all possible worlds. As the hon. member knows, it was a negotiated agreement that got rid of significant deterrents to the industry in this country; in other words, the elimination of the national energy program.

The industry has generally indicated to us that they do not want a floor price during these lower prices and that they want to have market price when prices rise as well. We can't possibly have a guarantee of what the federal government is going to do in the future in that regard. I have every confidence that the

government we have in office now will let the marketplace determine the prices we get for our oil and gas. If we return to the former regime, we may very well have a recurrence of the original situation. I hope not, because it would be a very divisive factor in this country if the federal government down the road were to put back a ceiling on oil prices.

MR. CHUMIR: Following up on that, have you sought and received from this government -- and I know we can't ensure what future governments will do -- an assurance that if world oil prices rise, world prices will still pertain regardless of the magnitude of the increase?

DR. WEBBER: As you know, we have an agreement in place. Both the current federal government and ourselves have agreed to the deregulation process on oil and gas, which simply means that the marketplace will determine the price. That's part of the Western Accord and also the natural gas pricing agreement. I know that the section you refer to is in there, in that possible action could be taken should there be sudden significant changes in prices, but it doesn't say whether it's up or down. We're pointing to that particular section now and saying that prices having gone down, we expect the federal government is going to respond in a greater way than they have in assistance to the oil and gas industry. We're working on that.

MR. CHUMIR: Has the government sought to eliminate section 9 from the agreement regulating relations between the federal and provincial governments, in light of the fact that the federal government has obviously refused to allow that section to be invoked in light of the sudden collapse of oil prices to the disadvantage of Alberta?

DR. WEBBER: I see no reason one should want to eliminate that.

MR. GOGO: Mr. Chairman, could I raise a point of order? I'm the last one who would ever want to restrict the Member for Calgary Buffalo. We're meeting with the minister for two hours, and I want to quote from the Heritage Savings Trust Fund Act, if I may. If people want to take exception, then please take exception.

When the annual report of the Trust Fund is made public, it is deemed to be referred to the Standing Committee for review and subsequent report to the Assembly concerning the investments of the Trust Fund. The report may contain any recommendations of the Standing Committee concerning those investments or proposed alternative investments.

If what we're after is an alternative investment, fine, but I for one feel uncomfortable that two hours will be burnt up. I have many inquiries, Mr. Chairman, regarding AOSTRA and students who want to get involved in that, and I would be very upset if this committee concluded on the basis of talking about energy policy for the province of Alberta, which the minister has already laid out in the Assembly in his estimates. I'm in the hands of the committee, but I would hope that we could stay within the parameters of the Act, and if there's time left over, do whatever we want.

MR. CHUMIR: Mr. Chairman, I see that issue as impacting very significantly on the future earnings of the province's investments in Syncrude and indeed in Alberta Energy. It's very important whether we do or do not have that undertaking, because it impacts very significantly on future profits. However, I'm at the last question, the 12th hour of moving on, and I appreciate the hon. member's concern.

MR. CHAIRMAN: The chairman is trying to show as much leniency as he can as it applies to our question period. You're on your final supplementary. If the minister wishes to conclude his response on this, we may then move on to the Member for Calgary McCall.

MR. CHUMIR: I take it the minister is asking me to repeat the heart of my question.

DR. WEBBER: I'm not asking you to repeat the question at all. I thought the chairman had asked for a supplementary.

MR. CHUMIR: That was the supplementary. My final question was whether or not the provincial government has in fact attempted to have section 9 of the Western Accord eliminated.

DR. WEBBER: Absolutely not.

MR. NELSON: Mr. Chairman, a couple of questions to the minister. I guess they relate to AOSTRA and Syncrude. The cost of removing the overburden on the oil sands projects is increasing quite considerably, considering that it is getting deeper. I'm just wondering what moneys are being expended and have been expended in the past in developing enhanced recovery of tar sands, considering the greater cost being found to take the overburden off with the normal dragline situation.

DR. WEBBER: Mr. Chairman, is the member asking what the costs are related to Syncrude or what the costs are related to AOSTRA's expenditure and possible research in that area?

MR. NELSON: I'm asking what money is being invested in finding alternative methods to reduce the cost of removing the overburden to the oil sands projects, Syncrude in particular.

DR. WEBBER: I'll refer the general question with respect to AOSTRA to Mr. Carrigy. I'd have to take the question as a request to find the information and get back to the hon. member. I don't have in my mind the breakdown as it relates to Syncrude specifically.

MR. CARRIGY: I think I can reply in general terms. There's always been a concern that the cost of removing the overburden has been very significant in terms of the total cost per barrel of mining and extraction methods. AOSTRA has done some studies which indicate that we could replace the current mining method, which is draglines or bucket wheels, with some sort of dredging system that we think would considerably reduce the cost of overburden removal and make more resource available. We've been working with Syncrude on this process. In the past year we've done some experiments with dredgers at the Syncrude site and we're continuing those in the current year. If these experiments are successful, we would hope that we could go into larger experiments which would prove that you could remove the overburden at considerably lower cost and have access to much more oil sand resource. It's a very important part of the cost per barrel of the mining-type oil sands extraction method, so we are working quite diligently on this and hopefully will come up with some new and

cheaper methods for removing the overburden.

MR. NELSON: Mr. Chairman, the second question. It's my understanding that even with the removal of overburden the cost of developing the tar sands, especially those that are relatively deep, is very expensive. I'm wondering what investments are being made to enhance the recovery of those deep sands that may not be able to be recovered by the normal method being used at the present time.

MR. CARRIGY: The whole object of AOSTRA was to develop technology which would be particularly applicable to what we call the in situ area, which is below the level at which you can mine economically. In fact, all our expenditures are working toward that particular goal. I think we've found that we've certainly been successful at Peace River in having some of the resources there being accessible from in situ methods, particularly with Shell Canada Limited. They have moved into a semicommercial operation there, and BP at Peace River has moved into a semicommercial operation using in situ methods.

MR. NELSON: Mr. Chairman, this is to the minister. As we know, the government as part owner has a tremendous investment in Syncrude, either directly or through Alberta Energy, which they are a participant in. Of course, the federal government seems to be bailing out Quebec considerably still, and there's not much change from the Liberal administration of the past, with the CF-18. Of course, they're now talking about bailing out General Motors and saving a few jobs in Montreal. I'm just wondering what the province is doing along with the feds insofar as assisting Syncrude with loans or whatever. I might add that they're not seeking a bailout such as the outfits in Quebec. They wish to borrow the money at an interest rate negotiated on, which they're prepared to repay. That would keep many Canadians, specifically Albertans, in work. Of course, General Motors isn't going to keep Albertans in work, whereas Syncrude would keep Albertans in work. Are there any additional thoughts of using Heritage Savings Trust Fund moneys, the General Revenue Fund, or borrowing moneys to assist Syncrude to conclude the expansion project they're presently dealing with, along with the feds?

DR. WEBBER: The Alberta government made some moves last spring -- in April, I believe -- when we committed \$85 million as a loan to Syncrude for engineering work related to the expansion which had been planned to follow up from the so-called cap project, the capital additions project, which is really a debottlenecking kind of program. So there was an \$85 million loan there. Then, of course, on the royalties side there was a reduction of royalties to Syncrude in order to assist them through a time when prices had fallen significantly and were low. The company has approached the provincial government and the federal government for financial assistance to carry on the so-called cap program. The company had been funding that project out of their cash flow and have currently expended more than \$400 million towards the total cost of that project, which, if I recall, was anticipated to be somewhere between \$700 million and \$750 million. So there has been a considerable investment to date in that project, with the time line for completion expected to be the end of 1988.

However, with the lower prices, the Syncrude group is not able to continue funding that particular program out of their cash flow and therefore has approached both levels of government, provincial and federal, for assistance and has asked for a loan. As you know, Syncrude has partners that are having some financial difficulties, Dome being the one with most difficulties financially, so loan guarantees are not possible under the present situation of that company and possibly one other. So they're asking for a direct loan. The parent companies are looking to invest primarily in the conventional oil area as they feel they can get a greater rate of return from that kind of investment. However, we've had some discussions with Syncrude and are looking at some possibilities. We have not made any commitments to date. Obviously, if we are going to proceed, we would like to see federal government assistance in this regard. We have a relatively short time line in which to make a decision, within the next couple of weeks. At the present time we are looking at options to a loan situation, other alternatives, and are exploring those. Hopefully we'll be able to make a decision within two weeks' time.

MR. NELSON: Thank you.

MR. PIQUETTE: Dr. Webber, in your preamble you indicated that the provincial and nonrenewable reserves are declining and that national security and self-sufficiency of supply were at stake. You also indicated that tar sand development can play a major role in obtaining this self-sufficiency and security of supply. In view of that, for a long-term investment in tar sand, which we've just been discussing in the last few minutes, we find that companies are not going to be investing unless they're guaranteed at least a cost of production pricing formula. For example, right now without any such pricing formula, Syncrude, as you've indicated, is looking at obtaining provincial and federal loans to complete the project.

Yesterday the American petroleum association indicated that deregulation of the oil and gas industry has been disastrous to the American oil industry and their future security of supply, especially development of oil shale. The American petroleum association called for the United States government and the petroleum industry to establish a floor price for domestic oil to ensure the industry's survival. In the whole aspect of looking at Syncrude and the future development of the tar sands, why don't the federal and provincial governments move to re-establish a floor price to make security of supply in these plants viable rather than looking at the bailouts or simply advancing funds to complete the tar sands? Have you really looked at the whole aspect of re-establishing that floor price for the tar sands?

DR. WEBBER: I would first of all take issue with the cause of a disastrous impact on the American oil and gas industry as being deregulation. It was obviously world prices that collapsed which was the cause of the . . .

MR. PIQUETTE: It's right here.

DR. WEBBER: I don't care where it is. It was lower prices that caused worldwide problems for the producing countries.

With respect to security of supply, as I said, we feel that the development of oil sands can play a major role in the future security of supply for this country. We want to address this question with the federal government and have scheduled a meeting in January to deal with security of supply. First of all, I think you have to define what we mean by security of supply

and then look at the options we have available, the pros and cons of each of those options, and then try to make a decision nationally with respect to what we're going to do. Obviously, a floor price would be one option that could be considered.

We've indicated in the past that in terms of assisting the industry in the current situation, a floor price is one of the lower options we've looked at, except possibly in the case of a complete collapse of world oil prices. I think the industry is now looking to stability in prices even if it stabilizes in the \$17, \$18, or \$19 range. They're not after having a floor price in place in terms of the conventional industry.

There are a number of options we can look at, and I'm sure you can think of options as well, other than a floor price across the board for the oil industry, as to how we could handle these plants in the future. Some are suggesting that the megaproject is the right route to go, and others are saying that we should be looking at smaller projects, mini-type projects, for the development of the oil sands. I suppose one option would be to tender projects to the private sector, for them to come forth with bids and indicate what they feel they would have to receive for a barrel of oil in order to make it economically worth while for them to do so, with those prices built into pump prices in the future. That's just one of many possible options.

MR. McEACHERN: Which is a floor price.

DR. WEBBER: It's not a floor price across the board.

MR. PIQUETTE: I didn't say a floor price across the board. I was saying: a floor price for the development of tar sands projects. Obviously, you're not going to have investors putting in a lot of money if there is no guarantee that they're going to receive a fair price for their investment. You're looking at a lot of jobs and dollars to put these projects together.

DR. WEBBER: Obviously, if the private sector is going to invest, they have to get a rate of return. That means that the price would have to be high enough or consumers are going to have to subsidize them to the extent where they're going to get that return.

One possibility that some are talking about is a North American price for future security of supply. In that regard, one option would be an import duty on all foreign crude moving into the North American continent. That has many negatives as well as positives but is another option that needs to be looked at. If we're looking at security of supply for Canada, my own preference would be that we expand that to look at security of supply for North America and have U.S. investment here as well in dealing with that.

MR. PIQUETTE: A change in the topic here. Last year when Mr. Zaozirny appeared before this committee, he stated the following:

I feel very strongly that while there is room for a breadth of activity by AOSTRA, that oil sands resource is so very crucial to the province and has such great potential for job creation and economic benefit that we must be constantly vigilant that we don't dilute our efforts to such a great extent that we lose a focus on the oil sands.

In light of falling oil prices and consequent reduction in demand from oil sand and oil related technology, do you still feel that the policy expressed by Mr. Zaozirny is one that AOSTRA should continue to follow?

MR. CHAIRMAN: Just for a point of clarification please for the chairman, I'm wondering if the member could tell me what -- you're saying last year? You're quoting from last year's . . .

MR. PIQUETTE: Committee.

MR. CHAIRMAN: And was it this minister or was it the Minister of Energy that said that?

MR. PIQUETTE: It was the Minister of Energy, Mr. Zaozirny.

MR. CHAIRMAN: Okay, because you started out by saying that last year you stated that . . .

MR. PIQUETTE: I said Mr. Zaozirny.

MR. CHAIRMAN: So it wasn't the existing minister? Thank you.

DR. WEBBER: I think I commented in my

opening remarks that we have to continue the search for technology to commercialize oil sands at a steady pace into the future and that research and development should not be abandoned because of the hopefully short-term problems we have. We're committed to proceed to expend moneys in research and development. It's important, as you've indicated, to the future security of supply of this country that if we are going to develop those oil sands, we come up with improved technologies. Certainly continued funding for research and development is important in the perspective of what we're able to do given our fiscal situation.

MR. PIQUETTE: Do I have one last supplementary?

MR. CHAIRMAN: A final supplementary, yes.

MR. PIQUETTE: One of the things I find about AOSTRA is that for all its patents we talked about and technologies developed, we've only managed to sell about \$2 million worth of technology. What is AOSTRA doing here to become a lot more self-sufficient in terms of becoming much more aggressive in the sale of technology? Is there anything under way to market that technology to other countries? You know, \$2 million doesn't look like much of a return on our total research investment.

DR. WEBBER: I think it's an important question, and Mr. Carrigy would be happy to answer.

MR. CARRIGY: I think the \$2 million you're referring to is an annual return, and the total we've got back from technology sales is in the order of \$13 million. That's up to 1985.

Yes, we are trying to market our technology in other parts of the world, but I think the important thing about technology in foreign countries is that it act as a sort of entry for the Alberta industry. The technology itself is the first step, and then I think we want the Alberta consultants and industry people to follow and get the sales of Alberta goods and services. So we're really using our technology as an entry into the foreign market. That would hopefully be followed by Alberta goods and services to actually implement the technology.

We see sales as a very important part of our

mandate, and we're trying to get as much money as we can from sales, but we think it's more important that the Alberta industry directly benefit from the work we've done. In some cases we may just use the sale itself as an entry into the market. We think that's the way to go.

We have also implemented some payback schemes from the industry from future revenues, so if our technology is used by others, there is a payback to AOSTRA from commercial operations.

MR. PIQUETTE: Provincially as well?

MR. CARRIGY: Yes. So we're looking to bring our revenues up.

The revenue we get is not entirely from technology sales. Technology sales is only one form of revenue we get. We also get revenue from the production in pilot plants. If you added the production revenue from the in situ pilots, it would approximately equal the technology sales revenue. We try to plow that back in to reduce the cost of the research.

MR. HERON: Mr. Minister, earlier discussions in these meetings with the Premier and the Provincial Treasurer have focussed on the possibility of capping the heritage fund, given different revenue scenarios. Yes, it is a marvellous grasp of the obvious to say that the revenue received from oil is directly proportional to world oil price. In the context of recommending capping of the fund, I wonder if you have given some thought to or could provide us with a leverage figure so that we could say that a price change of \$1 per barrel annually amounts to a certain figure in terms of total revenues. It would give us some idea of the leverage dependency upon the price of oil around these price levels.

DR. WEBBER: I may require further discussion with you on precisely what it is you want. But if I understand what you're saying, it is: if we cap the fund, how does that impact the General Revenue Fund in addressing it on a per-barrel basis?

MR. HERON: No, I'm saying that much attention has been focussed on capping the fund. Can you give us a thumbnail estimate of the change in the price of oil? If it changes a

dollar, does it mean a quarter of a billion dollars in annual revenues to the province, or does it mean \$200 million or \$150 million? What benchmark do you use?

DR. WEBBER: I see. You're asking for revenues to the province for every dollar change in the price of oil. I can provide that information. I was going to guesstimate about \$200 million, but it might be closer to \$150 million. I'll get the information.

MR. HERON: Also, earlier in the discussion today you mentioned that the investment in Syncrude of \$459 million and the spinoff investments, let's say in Alberta Energy, showed an excellent rate of return. I'm just wondering again if you have any benchmark or even a quantitative measurement to assess this return. When you say "excellent" rate of return, is it showing an approximate 10 percent return per annum? In terms of a benchmark, can we say that a certain percentage of the total investment has been returned to the heritage fund?

DR. WEBBER: Again, I'm trying to understand what you're saying. Are you asking about the Alberta Energy Company's rate of return in terms of its investment in the Syncrude project specifically?

MR. HERON: Perhaps we could isolate it even a bit more. Eliminate Alberta Energy; eliminate any spinoff opportunities. We have \$459 million from the heritage fund invested in Syncrude. Has a total of 25 percent or 50 percent of that investment been returned to the province, or has it been returned many times over?

DR. WEBBER: I'll have to get that information for you.

MR. BRADLEY: Mr. Chairman, I was going to follow up the line of questioning of the Member for Stony Plain. I don't know if this question was answered when I was out for a brief period. I note that the total investment in Syncrude is some \$458 million to March 31, '86. In the fiscal year ended March 31, '86, there was some \$72 million in income to the Heritage Savings Trust Fund, down from \$86 million in 1985. Perhaps the question I have for

the minister has already been posed in my absence.

Looking at the declining revenue from the Syncrude investment — and that obviously has to do basically with the decrease in the price of oil but also may have to do with production in a specific period of time — the minister might comment on whether Syncrude is keeping up with expectations on an operating basis in terms of its production. I believe they have a capacity of up to about 140,000 barrels a day, but their average yearly production was projected to be some 110,000 barrels per day. Is that working out? The real question is: where is the crossover line in the price of oil in terms of Syncrude's break-even point, let's say, in returning money to the Heritage Savings Trust Fund?

DR. WEBBER: There are several questions there, as I understand them. Number one, production: my recollection is that Syncrude has been able to more than meet their forecasted production levels this year. As a matter of fact, so has Suncor. In fact, Suncor is significantly beyond what had been expected.

With respect to the bottom line for this year, I think Syncrude will come reasonably close to a break-even point, possibly a \$20 million deficit. I'm thinking in terms of recollection. If the price of oil were to increase by another couple of dollars a barrel before the end of the year, that could wipe that out. So I would think that the crossover point in terms of price so that Syncrude could break even would be around the \$17 range.

MR. BRADLEY: I asked the question because each of the participants' economics are a little different, depending on their tax regime, et cetera.

DR. WEBBER: Yes.

MR. BRADLEY: Of course, the province's investment is on a different basis again, because we don't have to pay the same levels of taxation.

DR. WEBBER: That's right.

MR. BRADLEY: In terms of the province's investment, there may still be a return to the fund in terms of income, whereas the other

participants wouldn't be at that break-even point. That was the thrust of it. I note that the operating costs have been increasing gradually too, and that would also be a factor in that.

DR. WEBBER: You're right, in that the provincial government's return -- we'll likely end up getting a profit on Syncrude this year, even though Syncrude itself may end up in a deficit situation.

You mentioned increasing operating costs. Syncrude has been able to significantly reduce its operating costs this year from what they were at the beginning of the year.

MR. BRADLEY: I just made that comment because on page 44, under note 3(a), the report says that in '85 our share of operating costs was \$153 million and increased in '86 to \$164 million. But that trend is going down to what you are providing us with.

I want to ask a question with regard to the Alberta Oil Sands Technology and Research Authority. It has to do with a thrust that is being looked at in terms of coal, where you take bitumen from the heavy oil areas. There's a process where you agglomerate it with coal and come up with a product which can be beneficial in terms of the use of our heavy oils, using our lower grade, low sulphur coals, and an opportunity to get that into the eastern Canadian market at an affordable price. Is AOSTRA involved or interested in that in terms of their mandate to be involved in that type of research?

DR. WEBBER: I would let the chairman respond to that question.

Just to go back to your previous question, the '86-87 profit from our equity in the oil sands is expected to be \$20 million. That's down significantly from last year. In '85-86 the Alberta oil sands equity had a profit of -- our return was \$72 million.

MR. CARRIGY: With regard to the question on the processing of coal and oil sands for upgrading, certainly AOSTRA is interested in this, and I know that we're co-operating with the Alberta Research Council in these studies. I think it's too early at this time to say just how beneficial the coal addition to the upgrading will be, but hopefully it will turn out that we'll be able to use some of our coal and some of our

oil sands together to lower the costs for upgrading oil itself. The thrust of that is to reduce the upgrading costs, and I think most people are modestly hopeful that that in fact will be the case. Only the results of the research will give us that answer, but it looks hopeful at the present time.

MR. BRADLEY: Thank you. Do I have one more?

MR. CHAIRMAN: One supplementary, yes.

MR. BRADLEY: Given the earlier discussions, Mr. Chairman, if I could beg the indulgence of the members, I'm going to ask the minister about the solar and wind energy initiative, which is really in the current year's investments rather than the previous year's. Am I allowed one question with regard to that area by the committee?

AN HON. MEMBER: Oh, gosh. [interjections]

MR. CHAIRMAN: A final supplementary.

MR. BRADLEY: I see that that question then might be mine. If the minister might just outline to us where we're at with regard to that initiative, the process. When does he see us making some decision in terms of announcing how that project is going to take shape and what the components are going to be?

DR. WEBBER: I recognize the constituency the hon. member represents and his interest in wind and solar research. The government believes it is important that we look at funding research in that area. There's been a commitment on the part of the government that we would place a centre in the southwest corner of the province ...

MR. HYLAND: In the southeast too.

DR. WEBBER: ... and that we recognize that they have both wind and sunshine in that part of the province. We have had a group within the department consulting with industry, academic institutions, and research facilities to come up with some recommendations as to a number of options that we could consider in terms of the kind of research that might be done in this particular facility, and we have now received

those recommendations. As yet we have not addressed those recommendations as a cabinet or caucus, but I expect that within several months we would be able to finalize the general direction in which we would be going with respect to the particular facility that I referred to.

MR. GOGO: Mr. Minister or Mr. Carrigy, I'd like to ask a couple of questions related to AOSTRA, bearing in mind that AOSTRA is in the capital projects division, which, as I understand, is not intended to provide a financial yield but is for the improved social and economic well-being of Alberta in the longer term. My question relates to educational opportunities for Alberta youth in our universities. I understood that one of the bases for forming AOSTRA in the first place was that the majority of our research was done in Houston or Dallas or someplace in America, and it was felt that by creating this, we would be able to provide some long-term benefits to Alberta youth.

Mr. Carrigy, could you share with the committee what educational opportunities there are for graduate students out of the University of Calgary and the University of Lethbridge, for example — I think we understand about the flagship at the University of Alberta — and how they could either apply for or fit into professorships or whatever AOSTRA offers to Alberta youth?

MR. CARRIGY: We have a three-part program. As you know, we have instituted professorships at the three universities: Lethbridge, Calgary, and Alberta. We have made postdoctoral fellowships available for people to apply for and have also looked at scholarships and fellowships for people who are working towards a doctoral program. So we've spent something like at least a million dollars in '85 on this program. There are application forms available for all these programs. The only condition we put on these people is that they do something related to oil sands research, and I must say that this program has been very well received. We have had quite a number of people go through on these scholarships, fellowships, and professorships, and we're very pleased with the return we get on these programs in terms of social benefits and in research. We feel that we're setting up a group

of people who will be available when the economy turns around and the price of oil goes up, that we'll have a pretty good basis for expansion if we fund these particular programs. We've done this consistently over the past 10 years and have been very pleased with the results.

MR. GOGO: Mr. Carrigy, I can appreciate that probably not the board of AOSTRA makes that determination as to who — do you have an advisory committee of academics and so on that would accept those applications?

MR. CARRIGY: Yes. Actually the programs are run by the academics themselves. We have two members on the board but we try to get the universities themselves to operate these programs. They've been very co-operative, and we have been able to accept all of their recommendations. Essentially it's being run by the universities with the assistance of AOSTRA.

MR. GOGO: Thank you.

Dr. Webber, with regard to the other part of your portfolio, the Pine Ridge Forest Nursery, which contains, I think, about \$15 million. I don't know, Chairman, whether we're going to visit that facility. Does the same rule of thumb apply with regard to research and reforestation which is carried out at Pine Ridge? Is there any preference given to Alberta students, for example, who want to pursue research in forestry?

DR. WEBBER: I would refer that question to the minister of forestry when he comes to this particular committee. As the hon. member may recall, all the forestry aspects are now within the department of forestry as opposed to the Department of Energy.

MR. GOGO: I'm aware of that. I was going by last year's report.

The final question then. Maybe it's academic, Minister. We tend to relate energy investments to energy, yet I note in the portfolio — I asked the Treasurer this; I don't want to share his answer with you — that Alberta Energy shares are contained within the Alberta investment division and not the energy investment division. Would you as a member of the investment committee have any comment to make as to which division the shares of

Alberta Energy should be in?

DR. WEBBER: Actually, offhand I can't think of a reason why it should be in one and not the other except that as I recall, the energy investment division was formed at a later time than when the Alberta investment division came about. I may be wrong, but I think that's what happened. I'm sure the Provincial Treasurer would welcome any suggestions this committee might have as to the appropriate location within the trust fund or which division it should be in. I don't have any strong feelings one way or the other, but I think it would be something useful for this committee to consider.

MR. GOGO: Thank you.

MR. CHAIRMAN: Before the Chair recognizes the Member for Lacombe, I would point out that there are nine members on the speaking list at this time.

MR. R. MOORE: Mr. Chairman, I'll shorten it up a little, because a lot of my questions have been answered. However, Mr. Minister, I have a concern related to AOSTRA and the Alberta Research Council in the area of whether there is duplication of spending or facilities. I'd just like to know what co-operation is happening between those two organizations. They're well funded and well equipped; they've got varying facilities. I notice in your report that you've got one little paragraph saying that four companies are participating in this access program.

DR. WEBBER: What page are you referring to?

MR. R. MOORE: Page 29, 14.4. It just mentions that there are four companies, but there must be a lot of areas that we could be doing joint work on. I'm concerned that we're going along parallel paths on a lot of this and spending money.

MR. CARRIGY: I think there's a fundamental difference between AOSTRA and the Alberta Research Council. AOSTRA is a funding organization, and we don't do research. We fund research, but we don't actually do it. The Alberta Research Council is the place where they do research.

You'll notice that some of the projects we

have come from the Alberta Research Council. We're funding them, but they are performed at the Alberta Research Council. I can assure you that there's very good co-operation between AOSTRA and the Alberta Research Council. There's very little duplication of effort. Generally, AOSTRA tries to work with industry and jointly have the research projects done in industry, but there are some of a more fundamental nature being done at the Alberta Research Council. When AOSTRA and the Alberta Research Council jointly fund research in order to have industry participate, the companies can gain access to that information by paying a relatively modest sum of money. The four companies that I think you're referring to have bought into this joint research program between AOSTRA and the Alberta Research Council.

MR. R. MOORE: Mr. Chairman, we touched on lower oil prices and higher production costs of oil sands. I wonder if the minister could comment -- we've touched on it so many times. Maybe he's answered it already and I missed it. Do you feel we can continue specifically in the oil sands research, or should we be looking more into the conventional or medium oils in our research? That area is lower priced, and we seem to have a considerable amount of it now. These oil sands are further down the road. Do you think we should be spending more time on research and recovery on conventional methods and so on?

DR. WEBBER: Taking into account the time line necessary to have oil sands projects come on stream -- approximately five or seven years -- and in view of the fact that the history of forecasting prices has not been fantastic, I don't think we should presume that we're going to have a very slow recovery in oil prices. With the current situation, where we're looking at a gradual increase in prices -- even given that scenario, by the early to mid 1990s it could very well be that investment in oil sands would start to pay off. However, at the present time the private sector sees a greater rate of return in investing in the conventional side. I think both levels of government have to work with the private sector to see if there are some options available whereby the private sector would see investment in the oil sands as a good investment.

If we as a nation are going to look at security of supply, as I mentioned earlier, we have to look at developing our oil sands. We have to start planning that now. Any funding that we're providing for research to enhance the ability to spring the oil loose from those oil sands we should continue as we have done in the past. I think it will be shown down the road as money that has been well invested and well spent.

MR. HAWKESWORTH: Mr. Chairman, to the minister. On maybe a general note, I wonder whether you would agree with me that there is a bias towards investing in Alberta and Canadian companies in the legislation setting up this trust fund. Is there a bias there that that's a preference?

DR. WEBBER: A bias in the legislation?

MR. HAWKESWORTH: Yes.

DR. WEBBER: With respect to investing in Canadian and Alberta companies? I haven't had a close look at the legislation. However, as mentioned earlier with respect to . . . Are you talking about in a general way or AOSTRA?

MR. HAWKESWORTH: Just in a general way, yes. It's a general comment, but it applies to all the investment divisions and also those under your particular purview.

DR. WEBBER: As was mentioned earlier, in terms of working together with the industry, we haven't been looking at a bias either way. We've been looking at jobs in Alberta, technology to be used in Alberta, and projects that are of benefit to Albertans. As a result of that, a number of projects have involved larger non-Canadian companies. Also, when looking at future investments in oil sands, particularly if you're going to be looking at megaprojects, it's only the larger corporations that can afford to invest. I think it's reasonable to involve them in any of the research projects we have.

Did you want to add to that?

MR. CARRIGY: In general, just speaking for AOSTRA, we've always tried to have Alberta first, Canada second, and foreign countries third. That's been our bias, but in fact it's turned out as Dr. Webber says: the only people able to make these investments turn out to be

multinationals. Generally speaking, our efforts to involve smaller Canadian companies haven't turned out to be as successful as we had hoped.

MR. HAWKESWORTH: Looking at one of the divisions that I think is under your purview, the energy investment division, there's only one investment, and that's to the Luscar company. In doing a corporate search, I found that all the voting shares are held by companies either in Panama or in Bermuda. Is it one of the objectives then for the Heritage Savings Trust Fund to use companies that — surely there are lots of other companies in this province that could be used to develop, process, or transport energy resources within Canada. Why would this particular one be able to get an investment from the Heritage Savings Trust Fund when its shareholders are not even Canadian?

DR. WEBBER: I don't recall the history behind this particular investment, and I think the question could probably be directed to the Provincial Treasurer as well. Either you or I could probably do some work and find out the reasons for the investment in the first place. I don't have the answer to that right now.

MR. HAWKESWORTH: Then you may not have the answer to this next one, but if you'd be prepared to pursue it, I'll be satisfied with that. My understanding is that this particular company was registered as an extraprovincial corporation on January 17, 1984, although Alberta's current corporate legislation requires a foreign corporation to register as an extraprovincial corporation before carrying on business in Alberta. These debentures were given in 1980-81, when Luscar was apparently not registered as carrying on business in Alberta. My question would be: why?

DR. WEBBER: Again, I'd have to go back and have a look at the details. However, coal is an important industry to this province. Over time we have established some reasonable markets in the coal area, particularly with respect to contracts with foreign countries. Coal is still an industry we want to see developed in this province, as well as pursuing markets in other jurisdictions. Even though the Japanese market has subsided since the contract ran out in 1982 and sales since then have primarily been spot sales, we have picked up markets in other

areas. I can just say in a general way that in terms of investment in this province, we have to look at investment in coal as well as in oil and gas.

I would presume that this particular investment was seen at the time as an important investment to the province in terms not only of a return to the trust fund down the road but of developing an industry in this province. As you know, the trust fund has been used to develop our industries and technology in this province as well as for getting a rate of return.

MR. HAWKESWORTH: Do I take it from your answer, Dr. Webber, that in terms of the details of that specific investment, you'll be forwarding further information after today?

DR. WEBBER: As much detail as I'm able to provide.

MR. HAWKESWORTH: That's fine. Thank you, Mr. Chairman.

MR. CHERRY: Mr. Minister, in view of the upgrader — I don't know whether to call it Husky or what to call it now. Over the course of the last year \$19 million has been expended, and I think the time is drawing near when the actual decision will be made. In your mind do you feel that we will go ahead with this project next spring, or do you think it's going to lie in state for many years to come? I realize there are other partners involved in it, and I know that you'll have your work cut out for you, but maybe you could just give an overview on what you think, Mr. Minister.

DR. WEBBER: I think it would be a shame if we were not able to proceed not only with the Husky upgrader, the upgrader in Lloydminster, but with other oil sands in situ type projects. I think we lose some momentum if we don't proceed on these things. In my mind the upgrader is extremely important to our production in the future.

In fact, in my discussions with ministers from across the country, the Quebec minister in particular was very concerned about whether or not we were going to be proceeding with the upgrader. With the pipeline going into Montreal from Sarnia, Ontario, their concern was that there could be a reversal of that pipeline down

the road, and they would lose out in terms of oil moving eastward from Alberta. Of course, the upgrader would provide them with the higher quality crude they want to see.

The upgrader is important from a number of perspectives, as I'm sure you're well aware, not only in terms of providing jobs in this province but in terms of upgrading the oil so it can move through the pipelines more easily. We are in a situation where it is forecasted that by the early 1990s there will be a shortage of the diluent that's mixed with heavy oil to move it through the pipelines. That makes it all the more important that we put an upgrader in place so that we won't have to use that diluent, the pentanes that are used to transport the heavy oil through the pipelines.

So it's extremely important to the economic future of this province that we proceed with that. However, I can't answer the question as to how negotiations are going to go between now and, I believe, April 1.

MR. CHERRY: In Cold Lake you have the steam flooding. My other question is: has AOSTRA taken part in the portable steaming in the Lindbergh field also? Is that a project they may have had their hand in?

MR. CARRIGY: I don't think we have anything specifically at Lindbergh, but we have had some requests for that area. I don't think the industry is proceeding as quickly as we had expected, and I don't think there is anything on our plate in that area right now.

MR. CHERRY: Home Oil has a small field just west of Lloydminster. I understood that's what they're doing, and they're having really good success. That is why I wondered if AOSTRA played any part in it.

MR. CARRIGY: Our mandate doesn't allow us to go into these fields without the company asking us to get involved.

MR. CHERRY: Oh, I see.

MR. CARRIGY: So unless the company has made an application to us, we would just hope they would proceed on their own.

MR. CHERRY: Thank you, Mr. Minister.

DR. WEBBER: I would just add that in terms of confidence in development in the heavy oils area, I think the announcement today by Mobil is very important from a psychological perspective. They intend to begin construction next summer on a project that will probably involve about 50 jobs. The total amount of money, some \$12 million, may not sound like a lot in terms of oil sands and heavy oil development, but I think the fact that that company is prepared to proceed to invest money at this time, with the prices the way they are, is very good.

MR. R. SPEAKER: Mr. Chairman, my question is under the category of alternate investments, and we've kind of touched on it already in terms of the small tar sands plants. Could the minister indicate what price per barrel would trigger the decision on a small tar sands plant? You've mentioned Syncrude breaking even at \$17.

DR. WEBBER: Yes.

MR. R. SPEAKER: Can the smaller ones trigger at an earlier price, or has the government any projections on that?

DR. WEBBER: I don't have any projections relating to size, whether it be a small project or a large project. However, given that the capital expenditure of the current projects, Syncrude and Suncor, began a number of years ago, they are able to get a rate of return at a lower price than new projects would demand today. As a guesstimate I would think we would have to see oil prices above \$20 and maybe closer to the \$25 U.S. range before new oil sands projects of the type we have in Fort McMurray would come on stream. However, in the heavy oil area, we have Mobil announcing an in situ project proceeding with today's prices in anticipation of confidence in the market, I would assume.

MR. PIQUETTE: That's only a research [inaudible].

DR. WEBBER: It's a pilot project. It would lead to commercialization around 1990, as I understand it, and in the pilot project stage would produce approximately 1,500 barrels a day.

MR. R. SPEAKER: In terms of our return on investment, as of March 31, 1986, Syncrude had \$72 million. If you take 15 percent of that as a return to the Heritage Savings Trust Fund, that returns to the fund about 2.4 percent on the \$459 million. In making a decision as to another tar sands plant investment, what kind of a return would the government look at in terms of our investment dollar? I know "as much as possible." That's very true. But would that \$20 figure you mentioned in your estimates relate to a 12, 13, or 15 percent return to the heritage fund?

DR. WEBBER: I couldn't answer that at all at this time, other than to say that I think it would be pretty tough to ever negotiate a deal of the type that was negotiated with Syncrude. That has provided a tremendous return to Alberta. It would just be impossible at this stage, until you get into discussions, to say what kind of a return we would expect. I think it would be very much harder to get anywhere near that kind of return to Alberta given the situation today and the reluctance of industry to invest.

MR. R. SPEAKER: The government, through both the Premier and yourself, has talked about oil sands development: small plants being put on stream as a factor that could improve the economy of Alberta. I think I gathered from your remarks today that before that kind of project could be initiated or we could enter into any kind of investment from the Heritage Savings Trust Fund, say, the Alberta investment division, we're looking at maybe 1988 or 1989 at the earliest. From your projections, 1987 isn't going to bring the price per barrel up to \$20.

DR. WEBBER: I don't know if we could come to that conclusion or not. It may be that kind of time frame if the private sector on their own were to go into the projects with the current rate of return they would expect. Given the current benefits that we announced in the conventional side, I think they'd have to see in the short term a rate of return of at least 15 percent before they were going to look at investing in oil sands. That's what they can probably get: 15 to 17 percent, even at today's prices, and that varies so much from company to company, depending on their debt.

MR. R. SPEAKER: So an investment from the

Heritage Savings Trust Fund to get it on stream would just about have to be a grant, in other words, without any return to the fund.

DR. WEBBER: I guess how we would develop oil sands in the future depends on what comes out of any national discussions on security of supply. Given what might come out of that, it's possible we may be able to invest a long time before 1988. I just don't know at this stage.

MR. R. SPEAKER: I think I've had my three questions. I'm not sure.

MR. PAYNE: First of all, Mr. Chairman, just a comment and then a question with respect to the international program. I notice on pages 54 and 55 that a technical review was conducted by the Technical Audit Steering Committee. I'd just like to make the comment that I'm encouraged that AOSTRA makes use of this kind of external or third-party review process. If I could be permitted a personal comment, I notice that one of the three auditors is Dick Aberg, who is identified as a consultant. You may or may not be aware that he's a member of the Advisory Committee on Heavy Oil and Oil Sands Development, which I chair, and I'd like you to know that he's making a very significant contribution to that committee as well as to the audit process.

With respect to the international program, the descriptive material about that program appears on page 50 of the 10-year report and page 20 of the current annual report. I wonder if I could just read a sentence from page 50, in which it says:

AOSTRA has endeavored to be aware of all the variations in the occurrence and nature of the resource industry and to assist others to understand and apply the technologies we have developed. To achieve this objective, technology exchange agreements have been signed with many foreign organizations.

Mr. Minister, I'd like you to know that I recognize the potential value to the province of such agreements, particularly with respect to increasing our trade potential with the other participants in those agreements, and I certainly would like to applaud AOSTRA's efforts to date. However, I'm sure you appreciate that such agreements are a two-way street. I guess my first question is: what has

been our experience relative to how much of our technology we're sharing and how much technology we're learning overseas or in other jurisdictions?

MR. CARRIGY: I'll try to answer that one in general terms. I think that the benefits to us in terms of what we've learned relative to the application of our technology in foreign countries and in foreign situations has been of immense benefit to us. Often when you're developing a technology, you don't quite know the best sense it should be applied in, and having access to foreign data on their resources is very beneficial to us so that we can then go out and promote our activities in these particular areas. That's a sort of intangible benefit but one that's very important. We feel that going out and comparing our technology with what's available in foreign jurisdictions lets us know where we stand in the world in terms of technology. Without being modest, I think I can say that we're very well up in that area. Our technology is probably as good as any in the world, if not better, so we have no problems promoting in foreign countries the technology that we've developed here. The tangible benefits haven't been that great in terms of being able to sell our technology, but being able to make these comparisons and to introduce people to Alberta goods and services is, to my way of thinking, the important part of this.

We have had one more or less serious inquiry about using Alberta technology, and that's in Madagascar, where we have a technology developed in Calgary by Mr. Taciuk. We believe that this technology is very much applicable to that area, and we're continuing negotiations with the government of Madagascar to try and test that technology in their particular situation.

MR. PAYNE: Mr. Chairman, perhaps by way of a supplementary I can clarify that my concern is not so much how we are doing with respect to other jurisdictions, we keeping up on the technological batting order, but rather what program criteria or safeguards do we have to ensure that we don't give away the technological store in return for a very marginal benefit or return from an international signatory who is a better wheeler-dealer at such agreements than we are?

MR. CARRIGY: I can assure you that we're very cognizant of that and that we have not given away any technology without adequate return. If you talk to the people we deal with internally, I think you'll find that we're pretty hard bargainers in that area. I can assure you that we haven't given anything away.

MR. PAYNE: Thank you, Mr. Chairman. I appreciate that reassurance.

DR. WEBBER: I would just add that in terms of learning about technology, a number of years ago -- I don't remember the exact year -- along with the United Nations, Alberta hosted an international conference on oil sands technology called the UNITAR conference. This conference was held last time in California and the time before in South America. We'll be hosting this conference in Alberta in 1988. In the past these conferences have been extremely well attended by nations all around the world. It will be an opportunity again to have an exchange of ideas about the technology we develop.

MR. McEACHERN: Mr. Chairman, before I ask my questions, I wonder if I can ask for a report from the minister. The AOSTRA 10-year study made 140 recommendations, and they were not specifically put in their general report. I guess maybe they thought they were too long and detailed or too specific. Could this committee be given a copy? They're referred to in there, but all 140 recommendations are not really listed.

DR. WEBBER: This is a summary of the 10-year report, and it's the only one that we have made available. I think there are real problems with making a more detailed report available in view of those particular corporations referred to in the overall study. It would not necessarily be of benefit to some of those companies.

MR. McEACHERN: There's a long way from 140 recommendations in that document. They really covered hardly any of the main recommendations.

DR. WEBBER: Do you want to comment further on this?

MR. CARRIGY: I think you'll find that all of

them are covered in general terms in this 10-year report. Echoing the minister's concern here, we had their the consultants -- when they came to us, we said that to make sure they gave us a free and frank opinion, we would not make them available, so I think we have to live up to that commitment.

MR. McEACHERN: Okay. I do have some other questions. Thank you for that answer.

In terms of the Alberta Energy Company, one of the things I notice in their last annual report, which I believe, by the way, was December 31, 1985, is that they indicated they had proven oil and gas reserves something to the tune of 19 years reserved. With all this deregulation going on, I'm wondering if they are still maintaining that? Do they intend to maintain it. With all the deregulation, is that going to go by the by?

DR. WEBBER: I think the opposite. As a result of deregulation we'll be seeing a greater degree of exploration in the gas area and in the Alberta Energy Company in particular in terms of their commitment to explore in the gas area.

In my view, it's the gas side of things that is going to bring about a quicker economic benefit to Alberta than oil. I think we'll see the gas side of things bring a significant increase in return to this province over the next several years, depending on how quickly the gas bubble in the United States disappears. Some believe that bubble could disappear as early as early 1988 and that in 1988 we could see a doubling of our gas sales to the U.S. over what they are right now. There are others who are less optimistic and think that bubble will not disappear until maybe 1990.

The deregulation process we've seen take place actually enhances the opportunities for our producers in this province to try to have access to U.S. markets, particularly when we will have more flexibility in the surplus tests and also when the border pricing tests that have been in place have been removed as a result of our negotiations with the federal government. In fact, if it had not been for deregulation, we probably would not have been selling as much gas in central Canada or the U.S. as we are now, because of the competition in the industrial markets with fuel oil and alternate fuels. So it's just the contrary: gas deregulation is a benefit to the oil and gas industry of this province.

MR. McEACHERN: I don't see how it will necessarily lengthen the reserves unless the price holds, and that's what worries me in a deregulated market. If we have to take a lower price in order to get into that bubble in the States, it seems to me that that will end up hurting the industry the same way the oil industry is being hurt. I guess the future will answer that question.

What would be the sort of projected revenues for the Alberta Opportunity Company this year? They brought in a fair amount of money last year, showed a profit, and all that sort of thing, but are they not going to be in a certain amount of trouble this year in terms of return on our investment, which is fairly substantial in the Alberta Energy Company?

DR. WEBBER: I think we have quarterly reports that come from the Alberta Energy Company describing what's happened in each quarter and also reports from the Heritage Savings Trust Fund. I can't remember the exact numbers there, but with the diversification of the Alberta Energy Company, I think prospects look very positive for them.

With respect to gas and lower prices, yes, there are lower prices, but that's related to the drop in world oil prices. Again, I make the point that we would not have the sales we've had in the past year if it hadn't been for deregulation. In the future, as oil prices rise, then I expect to see gas prices rise as well.

MR. McEACHERN: If they do.

DR. WEBBER: Well, I'm possibly more optimistic than you in that regard.

MR. McEACHERN: A final question related to the shares of the Alberta Energy Company. At this stage I think we own some 37 percent of the shares of the company. In terms of other investments in other companies, in many cases the government has sort of restricted itself to 5 percent or less so it wouldn't have to get involved in the running of the companies. I know you've said that we don't in Alberta Energy. Would it be the intention of the government — it seems to me you can go one of two ways. You can either go to a lower percentage and cut down on the number of shares we hold in Alberta Energy, or you can go the other way and increase it to over 50

percent, turn it into a proper Crown corporation, and start using it as an instrument of government policy to invest, for instance, in oil sands projects, conventional oil projects, and that sort of thing. It would seem to me that it would be a useful tool in view of the fact that the federal government has a Crown corporation which they use as an arm of their oil policies, and it would give us a counterweight to the multinational control of our economy and a number of things. Any thoughts in which direction to go with that or what you're likely to do with the shares in Alberta Energy?

DR. WEBBER: I would recognize the NDP position with respect to nationalization and the establishment of Crown corporations.

MR. McEACHERN: I didn't say "nationalization." We put up most of the money to start with.

DR. WEBBER: In fact, I understand that the NDP would love to form a national oil company in this province, and maybe this is what you have in mind with respect to the Alberta Energy Company.

MR. McEACHERN: Of course.

DR. WEBBER: That's not what we have in mind as Conservatives in this province. The Alberta Energy Company was formed a number of years ago and received an excellent response from the people of Alberta. I think the people of Alberta are happy with the operation of the Alberta Energy Company and with our investment in it. We made a decision some time ago that we would decrease our ownership from 45 percent to 37 percent in line with the basic approach of having a lesser share of these companies, as we did with Pacific Western Airlines, coming down in terms of the total percentage of shares. Whether 37 percent or less than that is appropriate will be an ongoing discussion, but I'm not hearing too many concerns from Albertans at this time with respect to our investment in the Alberta Energy Company.

MR. CHAIRMAN: Mr. Minister, in light of the hour I want to take this opportunity to say thank you to you and to Mr. Carrigy for appearing here this afternoon. You'll be

interested to note that this is the first time we've had full attendance of this committee for this sitting. You'll also be interested to note that I think you've probably set a record for the number of questions answered, in that you've answered this afternoon close to 40 questions. We thank you for your most helpful answers.

DR. WEBBER: Thank you very much for having us.

MR. CHAIRMAN: I also want to observe that Robert Bubba is back and is with us this afternoon after once again successfully completing the New York marathon.

[The committee adjourned at 4:05 p.m.]