10:03 a.m. Wednesday, January 25, 1995

[Chairman: Mr. Dunford]

MR. CHAIRMAN: All right. I would like to call the committee to order at 10:03. We will proceed, then, to 12:03 or whenever questions cease, whichever first occurs. Welcome back to the committee. I hope that everybody had a nice season, a nice holiday. To begin with, are there any members who wish to read any recommendations into the record? Okay.

I would like to welcome today, then, the Hon. Pat Black, the Minister of Energy. Madam Minister, we would appreciate it if you would begin by introducing your guests and then make whatever statement you wish. We will then move into questions. The loyal opposition will begin the first question, and then we'll rotate back and forth until all questions have at least been sent your way and you've had an occasion to respond. I guess with that we'll just ask you to proceed.

MRS. BLACK: Thank you very much, Mr. Chairman. I'm very pleased to be here again this year and to talk about the investments from the heritage trust fund as they pertain to the energy sector. I think something we enjoy talking about is our sector. I have with me today my deputy minister, David Manning; the executive director of oil sands policy, Paul Precht; the executive director of our energy research branch, Dr. Rick Luhning; the senior manager of non-utility generation, Chris Holly; and the director of financial planning, Grant Weismiller. Again, we are very pleased to be here. I don't know if there's a message here; my deputy just handed me an advertisement for a job, and I don't know whether it's for him or for me.

MR. WHITE: Are you going to pass it over here?

MRS. BLACK: Actually the pay scale in other provinces is quite high. I don't know what the message is there, so it should be a lively morning, Mr. Chairman.

I would like to make some opening comments. I will try to be as brief as possible, but I think there's some information that should come forward to the committee as it pertains to fiscal year '93-94. At the end, then, I would be delighted to entertain questions from the committee. I will make one thing perfectly clear: if there's additional information that the committee requires on any specific project, we would be delighted to provide that information and would filter that through your office, Mr. Chairman.

The first project I wish to report on is the biprovincial upgrader at Lloydminster. As the committee is aware, Mr. Chairman, the Alberta government announced on August 5, 1994, that it was selling its equity position in the upgrader. Two of the four equity owners, the Saskatchewan government and Husky Oil, are purchasing the equity interest of both the Alberta government and the Canadian government. The cash payment to Alberta will total $32.02 million, and there are also provisions for Alberta and Canada to receive additional funds over a 20-year period if the price differential between heavy oil and synthetic crude oil exceeds a certain level.

At the time of the announcement the upgrader was losing about $2 for every barrel of synthetic crude produced. With daily production of 48,000 barrels that's about a $3 million loss every month. By selling its share, the government is no longer responsible for meeting part of its ongoing shortfall. In fact, no Alberta contributions were made beyond April 10 of 1994. Mr. Chairman, the Alberta government could have continued to put money into the project in the hope that eventually there would be a turnaround. What is needed to improve the upgrader's financial picture is clearly a widening of the differential between the cost of crude oil purchased and the price of the light synthetic crude produced by the plant, but no one can predict when or if this may in fact occur. From our perspective the sale was a sound decision removing any further fiscal and financial risk to the Alberta taxpayers. The decision to sell also was in keeping with our government's mandate to get out of business and to leave business ventures to the private sector.

While the Alberta government would not have become involved in a similar project today, Mr. Chairman, it should be pointed out that there were some very positive aspects to the biprovincial upgrader story. For one thing, the project provided a tremendous economic boost for the Lloydminster region as well as numerous contractors and suppliers in other parts of the province. At the time of the sale about 400 persons were employed by the upgrader and another 1,300 jobs had opened up at the crude oil recovery sites. Also, the upgrader has improved prospects for heavy oil production, and producers can now see a secure, long-term Canadian market for their output. With conventional oil reserves declining, it is reassuring to have a new source of supply for light oil.

Mr. Chairman, Alberta invested $423.4 million in the upgrader. Our capital contribution, including first and second cost overruns, totaled $404,140,000. There were also operating shortfalls for which Alberta's share was $19,333,000. An additional $1.6 million was required for interest on funds borrowed by a special purpose corporation called 540540 Alberta Limited. This last amount has been paid through the Energy department's operating budget, not through the heritage trust fund.

You will recall, Mr. Chairman, that this special corporation was established to enable Alberta to meet its share of the upgrader's operating shortfalls. As the operating shortfalls were not capital costs, they could not be paid from the heritage savings trust fund. The capital cost overruns and the operating shortfalls permanently reduced the value of Alberta's investment in the upgrader. In keeping with the province's accounting policy, the investment was written down by $346.6 million over three fiscal years. As of March 31, 1994, the investment stood at $74.3 million. This was made up of $56.1 million in the heritage trust fund and $18.2 million in 540540 Alberta Limited. The proceeds from the sale will enable us to repay in full 540540 Alberta Limited. However, the fund must be written down by a further $43 million.

Mr. Chairman, I would now like to turn to the fund's investment in the Syncrude project. Sometimes we fail to recognize the full significance of Syncrude in the energy picture, so please allow me to cite some statistics. Syncrude accounts for about 12 percent of Canada's crude oil and is the country's largest single source of crude. In 1994 Syncrude's production of crude oil totaled 69.8 million barrels, a 14 percent increase over the previous year. The original overall investment in the project was $2.3 billion. In the years since start-up a further $2 billion has been invested to sustain and expand production. At the end of 1994 the company employed 4,142 persons directly and another 1,035 through contracts. Every year the project is responsible for 16,000 direct and indirect jobs, and it generates $1 billion in spending in the Canadian economy.

During the year under review a 5 percent interest of the fund's equity investment in Syncrude was sold to Murphy Oil Company of Calgary. The sale price was $150 million, the book value at the sale date. This transaction reduced the fund's equity share in Syncrude to 11.74 percent from 16.74 percent. Mr. Chairman, the fund's income from Syncrude in fiscal 1993-94 was $22 million.

This is half the amount received from the previous year. Part of the decrease is accounted for in the reduction in the fund's equity share. The other contributing factor for the lower income was a decline of about 10 percent in the selling price of Syncrude's synthetic crude oil. Overall the fund's investment in Syncrude has proven to be a very profitable one. Since production began in 1978, the fund's income from the project has totaled $627 million. We truly believe that the oil sands are our future, and you'll often hear me talk about Syncrude and the oil sands as the jewel of Alberta. We're very committed to this project and to the future of it.

Mr. Chairman, the fund invested also in one of the energy-related enterprises in 1993-94, the southwest Alberta renewable energy initiative, better known as SWAREI. The investment of $600,000 was the final portion of the $3 million from the fund earmarked for this initiative. SWAREI was launched in December of 1989 to promote development of renewable energy technologies in the Pincher Creek-Crowsnest Pass area. Another goal was to encourage and support economic diversification. The government's plan was to provide some start-up assistance to interested companies and then let the private sector carry on with further testing and development as it saw fit. Originally the program was planned for three years but was extended an additional year to March 31, 1994, so that certain projects could be completed.

SWAREI has proven to be a very worthwhile initiative. During its four years it has been instrumental in the development of 12 projects in wind-powered electrical generation, agricultural water pumping, and wind monitoring. One project is devoted to providing information through a centre established in Pincher Creek. It appears that the financial benefits from SWAREI will outweigh the initial costs of the program. Industry has invested more than $37 million in the SWAREI projects, and it is estimated that a further $25 million will be spent in the region during the operating phases. Apart from the job opportunities that opened up during construction of the SWAREI projects, it is estimated that about 13 direct and 20 indirect full-time positions will have been or will be created for the operating phase. So the initiative has definitely brought new employment opportunities and helped diversify the economy in southwestern Alberta.

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The last fund investment I wish to cover, Mr. Chairman, is that relating to the Alberta Energy Company. This diversified company is involved in oil and gas exploration development and has investments in Syncrude, pipelines, and forest products. It operates throughout western Canada as well as in the United States. With its subsidiaries Alberta Energy Company has assets exceeding $2 billion. As members may remember, in my appearance before the committee last year I informed them that on May 11, 1993, the government sold its AEC shares for $476 million. Forty percent of the shares were reserved for Albertans, and the remainder were sold to investors in other parts of Canada and abroad. Of the sale proceeds $183 million were reinvested in the heritage trust fund, and the remaining $273 million were transferred to the general revenue fund to reduce the provincial deficit and debt. The sale of the shares ended our financial involvement in AEC. Later, to complete the privatization of the company, the Alberta Energy Company Act was repealed.

Mr. Chairman, that concludes my opening remarks, and I would be pleased to answer any questions that may come forward from the committee.

MR. CHAIRMAN: Okay. Thank you very much.

We will begin with Danny Dalla-Longa.

MR. DALLA-LONGA: Thank you, Mr. Chairman. Madam Minister, I'd like to start off with some questions on the SWAREI project. That project has been ongoing for some time, and I have a question from a constituent of mine who has some concerns about some of the particulars of that project, specifically dealing with a company called Kenetech, which is a public company listed on the U.S. stock exchange that got an allocation of, I believe, some 20 megawatts whereby they bought up the Chinook Project. This project was initially funded to the tune of about $60 million by the U.S. government and PG and E. My first question is: why would we be sort of assisting? Did the minister approve the transfer, approve the allocation? Why would we be pushing the advancement of U.S. technology by allowing the testing of their project down in Pincher Creek?

MRS. BLACK: Well, I'm going to give you a brief summary. There were phases where there was joint venturing between two projects that had been originally on the application under the SWAREI program, where they merged together. They were called the Chinook Project and Cowley Ridge, and they merged together to facilitate the development. This had been a very long process of bringing together involvement from the Peigan nation, who were involved in it, and they requested that they come together to develop the project. Today if you go down, you can see the progress that has been made on the Cowley Ridge. When I was there, I think there were 36 windmills up at the time. Naturally when you're going into these projects, when you're looking at a new initiative and trying to demonstrate and develop, you're looking at sharing of information.

I think the Cowley Ridge project has been very successful at coming together. I don't know that it would have been as successful if there hadn't been the joint venturing between the two applications. There wasn't additional allocation in that I believe. I think it was a matter of the two. One had I think $9.9 million and one $9 million, and they merged together. There wasn't additional allocation in that. It was just a matter of them coming together to develop an initiative, and as a result they were able to proceed with it. The technology that is sitting there now is being proven out and is clearly there for demonstration. I haven't been down this winter, but I have actually climbed up the windmills to see how they work. I'm utterly amazed at what has occurred with the two projects coming together.

So I think in essence the initiative, which was to do a number of things, one of them of course to be a demonstration that in fact other sources of energy could be developed on a renewable basis through the wind, has been demonstrated by that project quite clearly. The technology transfer and sharing that goes on in that community is phenomenal. So I think it's been one of those success stories down there.

Chris, you might want to elaborate further on that.

MR. HOLLY: Sure. I will add that those two projects are now the largest operating wind farms in Canada, and we are dealing with state-of-the-art equipment. It is helping demonstrate what wind energy can do, the role that it can play very successfully, and it has gathered a lot of public interest on this project. The ability for the two projects to proceed was contingent upon going together and reaching some economies of scale that helped with the financing and the development costs of the project. So it's been a very successful project in that sense.

MR. DALLA-LONGA: I'm not sure that my question was answered, but I'll use my supplementary question. Why are we sort of allowing U.S. technology? Why are we supporting what is

effectively U.S. technology when there is other Canadian technology and, more specifically, Alberta technology looking to get an allocation down there to test their projects out?

MRS. BLACK: Well, Mr. Dalla-Longa, when you're looking at testing the concept in an initiative to look at renewable sources of energy, one of the things you have to look at, of course, is the environment there, the wind. This is a demonstration initiative that came forward. There's a variety of technology down there. One of them was the stuff employed on the Cowley Ridge. There's another firm, which is just down the road actually, that has a totally different technology, and some of the concept is a European technology. It's put in place to see if it in fact works in Alberta in that region.

The community on the technological side is no different from the oil and gas side in that the technology sharing and transfer and development is a co-operative approach. It's not whether it's that person's technology or another's. They're trying to demonstrate whether in fact this type of technology will work in a renewable sense. So there's a blend of technologies not all developed from Alberta or even Canada. Some from European communities have been most effective there. The idea is to see whether in fact they will work in that type of climatic environment. Some have proven to be quite successful in that; others have not. The idea of having the demonstration facility is that we can show, based on the climate that's down there and the types of different technologies, opportunities to expand that into other markets or even within the province. So it was done as a demonstration initiative to determine, one, if the technology could be used to utilize some of our natural things like our wind and our sun. There are solar projects down there as well. It's a tremendous place to visit, and I would highly recommend it. The committee may want to go down and go through the demonstration facility and see what's there, because it's quite overwhelming.

Now, certainly there'll be decisions by the private sector as to whether they expand that initiative and get more involved in it, but that's an initiative for the private sector, not for the government. We were supportive of looking at the renewable initiative, not determining the future financial requirements in negotiations between corporate bodies.

10:23

MR. DALLA-LONGA: I might explain a little bit. I'm looking at the benefits to Albertans. Is it the minister's view that there'd be as much of a benefit by supporting this U.S. technology, Kenetech, as there would be had an Alberta company, say, gotten an allocation and been able to test their project? Like, what's the point of pushing the technology of a company out of the U.S. that may not create jobs for Albertans or may not create opportunity for Albertans?

MR. HOLLY: If I may, I would like to respond to that. At the time that SWAREI was initiated, various wind technologies were at different stages, and one of the objectives back in 1989 was to have a utility scale wind farm. The Alberta-based technology at that time was deemed by the board which administered SWAREI not to be at the stage to support a utility-grade application. SWAREI did, however, support some Canadian equipment, and we have some vertical axis equipment in Pincher Creek that is there for demonstration purposes. Clearly, the stage of the Canadian technology vis-à-vis the U.S. technology, specifically Kenetech, was at a different maturation time in terms of technological development. The Kenetech equipment is state-of-the-art equipment. It was developed with a lot of utility involvement right across North America. So what we're looking at there is essentially equipment that is state of the art, probably at the forefront in terms of utility-grade equipment. That's not to say that Canadian technology down the road won't be at that stage and perhaps even outperform U.S. equipment. It was a decision just based upon what stage the equipment was at in terms of development.

The Kenetech project, as the minister pointed out, has very well demonstrated the resource and generated a lot of discussion and looking down there, partially because the demonstration is very successful and the equipment is operating. So it has to do with the stage of the equipment evolution.

MR. CHAIRMAN: Okay. Thank you.
Denis Herard.

MR. HERARD: Thank you, Mr. Chairman. Since the heritage fund is involved in Syncrude, I'm interested in the nature and effect of the lawsuit that Syncrude initiated against Stearns Catalytic Ltd. So my first question is: what was the reason for that lawsuit?

MRS. BLACK: Well, there was a massive fire at Syncrude at the coker. This is going back – it's not current – to August of 1984. I'll give you the nontechnical side. There was a piece of pipe that ruptured that resulted in the fire, and there was a case put forward that the wrong type of metallurgy was used in the pipe that was put in the facility. There was a tremendous amount of property and business interruption cost involved with the fire, and as a result there was a lawsuit filed. It took an awfully long time – in fact, it seemed like it would never end – to claim back for the loss experienced through business interruption and property damage. That was what the lawsuit was focused on. I guess that's the essence of it, unless you have anything further, David, to add.

MR. MANNING: Well, one issue was liability, and the other issue was the ability of the defendants to pay, because Stearns Catalytic had some insurance, but there was an issue of how much insurance. There are stages of insurance, so there were some gaps. There were some skips in there where some insurers were unable to pay. The Canadian company, which was American owned, had an asset base of well in excess of $100 million but not sufficient to cover the kind of exposure here. So one of the reasons why the lawsuit was prolonged was in an effort to bring it to trial, and it was very aggressively defended by a firm out of Philadelphia, using a local firm as well. As I said, one of the issues, if they had gotten to trial, was: would they have been able to recover from the Canadian entity? One of the tougher issues was whether or not there was enough activity of the U.S. parent to be able to tie into their asset base. Those were the considerations that were going into the lawsuit throughout this period, and that's one of the reasons why it was so prolonged. It was very vigorously defended. When you're part of the legal process, you don't have any choice.

MRS. BLACK: We've never held that against him.

MR. MANNING: But I've had to defend it frequently behind closed doors.

MR. HERARD: Well, it's my understanding that, you know, the property and business interruption was a substantial amount, like somewhere close to $500 million. Now, what prompted the out-of-court settlement?

MRS. BLACK: Well, I think probably the resolution as this thing continued on, instead of going to full litigation as David alluded to and realizing and recognizing the reality of what is in fact available to be settled, was that it evolved into more of a mediation process to see what in fact could come to the table. You can drag these suits on for years and years and years, and more people fall off the table that are able to come forward. That, I believe, was clearly what was happening. So a mediation approach came forward as opposed to going to full litigation and into trial on the thing. With doing that, we brought to close a 1984 claim in 1994; 10 years of legal wrangling back and forth. Really, if you start thinking about it, you can almost end up with legal costs surpassing the initial claim costs if you continue on too long. So we did do an out-of-court settlement, and I think it was probably the way to go. Litigation could have dragged on forever.

MR. MANNING: Just to clarify, the other difficult position that we were in as a government was that all of the other claimants were very willing to accept the settlement which was finally obtained. They came to us and indicated that they were not prepared to fund the lawsuit any further, as they were satisfied with the settlement dollars. So had we rejected the settlement and gone through – in fact, we were partway through the trial process. The trial had commenced but had been adjourned. The best information that we had available was another one to two years of final preparation and litigation, and that would have been totally at the expense of the province. None of the other claimants would have shared in that expense. So if we had rejected the settlement, we were in a very, very difficult spot, as there was a proliferation of claims.

MR. HERARD: I guess for the purposes of this committee I would be interested in knowing whether any dollars were returned to the heritage savings trust fund as a result of this settlement.

MR. MANNING: Net of litigation costs? Yes. What happened was that Alberta received its royalty share, and that was one of the issues in the litigation. In other words, out of the total sum received, Alberta got the lion's share. Under our arrangement with Syncrude 50 percent of that realization became ours under the royalty side. We also received moneys through our equity ownership. So effectively the 11 percent that we owned, although there was also, because of the Murphy's transaction – Paul, I don't recall. Were we to receive a portion of the 5 percent or all of the 5 percent?

MR. PRECHT: Murphy received a portion of that.

MR. MANNING: Yeah, they received a portion of that, but we received more than our current 11 percent under the equity ownership as part of the transaction with Murphy. We received the entire amount that we would have received through our royalty interest. The vast majority of those funds received came to the province. So even net of any legal fees that the province expended, there was a very significant recovery on our part.

10:33

One of the arguments in the litigation – and I know this is on the record – was that the resource was not lost. Time was lost, but we didn't lose any oil. So they argued that Alberta could continue to recover that same oil royalty into the future, but we were able to successfully argue that because there was an opportunity in terms of the market at the time, our royalty interest was still a very real loss. All of those factors came into the ultimate solution, but the province of Alberta received the vast majority, something in excess of 60 percent, of the outcome of the litigation, and we did not bear 60 percent of the legal cost. We shared those costs with Syncrude.

MRS. BLACK: Based on our equity position.

MR. MANNING: Yes.

MR. CHAIRMAN: Okay.
Mike Percy.

DR. PERCY: Thank you, Mr. Chairman. Madam Minister, my questions relate to the Husky upgrader and the agreement by which Alberta sold its 24.17 percent interest. The first question concerns the differential. As I understand it, it's a $6.50 differential between the heavy and synthetic crudes before we would share in any of the profits, and there's a sliding scale as the differential widens. My first question then: what was actually the differential in the '93-94 fiscal year?

MRS. BLACK: I believe it was – oh, just a minute. The '93-94 fiscal year. I would say probably $4 to $5. Would that be fair?

MR. MANNING: Closer to $4.

MRS. BLACK: Closer to $4. I have to think back to where it is today. Let's say $4. It was below the upside interest. There's no doubt about that.

DR. PERCY: And there's been no improvement?

MRS. BLACK: Well, I think actually there's been a bit of slippage on that, Mike, to tell you the truth. It's probably a little less than that today.

DR. PERCY: Could I ask why a 20-year time horizon was placed on that differential? Was the number plucked from thin air? The calculation of the $6.50 differential: what series of studies or why that structure?

MRS. BLACK: Let's go back. When we were going through this process, we were dealing with – and I'm going to give you some of the dynamics of this. I probably haven't done this because you've never asked me a question in the House on the dynamics. [interjection] Yeah, you'll get me. You have three governments plus a private-sector corporate body who entered into a project which, at the time, the economics said that when the project would be complete, the differential would be between $8 to $12. That was the best information of the day. So the project developed, and as we saw more players enter into the marketplace, we saw market forces change, et cetera, and that $8 to $12 shrunk. Quite frankly, in all fairness to the project there are not many that go through the construction and start-up phases as successfully as this project did. So there was a lot of positive thought at the end of the day that it may not be $8 to $12 on the differential, but clearly it could in fact be fairly close to that. Well, as it turned out, you cannot always predict what markets will do, and in fact that was not the case. Almost immediately after start-up we went into a series of experiencing operating shortfalls.

As you know, we had made a commitment to review every project that this government was involved in with the idea of asking ourselves a couple of questions. One, should we be involved in that type of project, and if not, how do we get out of

it? Our commitment to getting out of business was very clear, but also we had to look at doing things that were economically sound.

In going through the process of dealing with three different governments with different political agendas, I can honestly say – and I hope nobody from any other government or the private sector will be offended because there's no offence intended – that when you've got different philosophies, bringing the players together was like herding stray cats on this thing, because everyone had a different philosophical and different fiscal regime to work under.

We knew what our intent was. There had been a study done by Purvin and Gertz for the management committee of the upgrader that gave us the basis of some of the forecasting. We then, of course, had done some internal work based on that information that was coming forward, and in all good conscience we could not come forward and say that we had belief that the operating shortfall would disappear. In the agenda that we have set as a government, I could not go to the table and say that I could see in three months' or six months' time a turnaround on this project. In the overall scheme of things, when you make an assessment of priority setting, it was that this is not a position that we want to maintain or stay in. I could not economically justify staying in the project and continually putting money in month after month.

So when the last operating shortfall agreement came to a close and it became apparent that there would be more money being called for by the partners – a cash call would be called – we initiated discussions with the other partners to end our involvement. That was a difficult discussion because we had a time frame and we said that we clearly have to have a position. That's why in part of the arrangements as of April 10 we did not put any more dollars into this project. I could not go to the table and clearly say in good conscience that I could see a turnaround. That's when we started the wheels in motion on the negotiations, and they were difficult. They were difficult because there were other time lines involved with other partners, and when you're in a partnership arrangement, you must deal with the partners.

So we started to work on it. We worked with different scenarios, and we came up with a deal that we felt accomplished the objectives that we had set out. Naturally, we looked at market evaluation on the price, which wasn't an awfully positive meeting I can tell you, but it was reality, and we had to deal with that. Then we said that because there was the intent initially on the $8 to $12 differential, maybe there is light at the end of that tunnel. Maybe it's there, because every time you have a forecast that comes from one direction, you've got another one coming from another direction, and quite frankly I can't tell you which one is accurate. So far on the forecasts I've looked at, they've all been wrong. I get about 18 every year, and every one of them's wrong. Nobody has a crystal ball.

So we sat down, and we went through it. One of the things we said was that if there's an opportunity down the road for that differential to move, because we have stayed with the project for Albertans, then we feel that we have an obligation to have some of that upswing. We called it the upside interest, and it's based on a sliding scale, but to move it below $6.50 is not economical for the project. The project would have no hope of gaining back. That started off a lot higher. That was negotiated down. That was one of the toughest negotiating points for Canada and ourselves with the buyers.

Now, whether that will come forward I can't tell you, but a normal agreement would be for 15 to 25 years. We went in the middle for 20 years. It's a sliding scale. The increases if in fact it moves up – is it 25 cents? – are $6.50, $6.75, $7.00, actually up to $7.50. It's a sliding scale if the project turns around, and there is potential for that. There is potential for that turnaround to occur. So we said: "Let's safeguard the upside. Let's take away the downside risk any further, but let's look after the upside interest."

So that's where it came from, Mike. It was a negotiated point. That one point was probably three weeks at the table, negotiating to get that $6.50. That was very difficult. That was not something that came easily.

10:43

MR. MANNING: If I could just add that it was actually more than three weeks. It was three weeks the minister was aware of. It was our best information that it could not make money at anything less than a little over $6. As the minister pointed out, it was a very tough number to get to. We wanted to participate the moment it started to make money as it's presently configured. If the current owners want to spend a great deal of money on debottlenecking and reconfiguring for expansion, or if they add a refinery on to the end of it, they may be able to make money at lower than that rate, but we are tied in fact to its present configuration. So if it makes money as it sits now or attributed to the size of that plant now, we kick in at $6.50, which was the point where we'd start to make money. That was the magic of that number. We held out till we got to the point of the break-even line.

DR. PERCY: Thank you.

A final sup just relates, then, to what are the probabilities of in fact the differential reaching $6.50 in any one year or period of years over that 20 years? What are the odds?

MRS. BLACK: What are the odds?

DR. PERCY: Yeah.

MRS. BLACK: I don't know that you ever do odds on price forecasting. I guess in any forecast it's clearly that: it's a forecast. I don't hedge on putting out odds on a forecast. I try to look at an economic model. I don't know that there is one that is pure enough, Mike, to give you that. We believe that with some of the ideas, the efficiencies that the operator and other owner are prepared to look at, it could realistically happen, but there's a lot of work to be done on the project. Again you're dependent upon the market forces. We don't intrude in the market, nor should we, but we are just as susceptible to market forces as anyone else is.

Paul, you may want to get in on this – this was one of your babies – and talk about some of the ideas that you came up with.

MR. PRECHT: I'm not prepared to give anybody any odds, Madam Minister.

MRS. BLACK: Oh, no, don't give anybody any odds, because I don't think that's fair.

MR. PERCY: There must have been a variety of projections, some of which were realistic, and at some time on the horizon a possibility of that differential existing.

MRS. BLACK: We obviously think the potential is there, Mike, or we would not have settled on this $6.50. But, again, what year and when does it happen? That's why we spread it over the 20 years. You know, if in fact a number of things occur and some efficiencies come into place and maybe some further development, et cetera, then in fact I think it's a realistic number. If the market changes dramatically, then it may not be, but it's there if it occurs.

That to me was the critical part, that after this massive investment on the longer term we better have some form of an upside protection.

MR. MANNING: If I could just add to that. What Paul and I did do is we did canvass confidentially all of the major companies that are in this business, and none of them would be quoted on paper. None of them would give us a letter. They gave us their internal numbers, which did range. We did consult Purvin and Gertz as well for their number. Purvin and Gertz were prepared to take us over the $6.50, 10 years out in their estimation. That I believe was done for the board, not for Alberta. Part of the difficulty is that when that plant was conceived, it was a very different market, and now that all the retooling of the U.S. refineries has developed an appetite for heavier oil than the government had anticipated, it's a very different market dynamic now than it was in '89. I think that's what we discovered, and that's why this differential forecasting is so tough. Those who have a major plant and billings have a much lower view of the differential than Purvin and Gertz, and that was the bind we were in.

MR. CHAIRMAN: Okay. Thank you.
Bonnie Laing.

MRS. LAING: Thank you, Mr. Chairman, and good morning to you, Madam Minister and staff. I'd like to ask about Syncrude, a bit more on Syncrude. What is the current status of Syncrude's application to the ERCB?

MRS. BLACK: Actually, the application has gone through the ERCB and has been approved. In fact, it was approved in the summer. They have been allowed to expand their production, and their lease dates have been moved now to 2025, which was very important for their long-term strategic planning. They have gained approval to import or export bitumen, which again is very important for them, and they have approval of reclamation plans subject to progressing alternative reclamation techniques and developing a base mine lake as a test site. So that went through last summer, and that's a very positive move for Syncrude.

MRS. LAING: Thank you.
I know you went over part of this in your introductions. What would be a little bit more detail to the province's plan for divesting its interest in Syncrude?

MRS. BLACK: Bonnie, again, in our overall scheme of things as a government one of our philosophies that we've clearly laid out is: it's not the government's business to be in business. However, in saying that, I think the Premier and the Provincial Treasurer and at least myself have said time and time again that we are in fact interested in divesting ourselves from Syncrude if an appropriate buyer would come forward at an appropriate price. Clearly Syncrude has contributed to Alberta's economic well-being over the years, not only in revenue back to this fund but also on the royalty side, so we have a tremendous interest in Syncrude continuing to be enhanced and developed. We did sell 5 percent to Murphy Oil, which left us with 11.74 percent. We have had some interested parties come forward to look at taking a part of that interest or even all of that interest or a combination of it, as they have also looked at other partners within the project.

Getting involved in Syncrude is long term. It requires not only a tremendous financial commitment up front but also a commitment to stay with the project, because the oil sands are the future. They truly are our future. Now, probably the experts are going to gasp when I say this. Syncrude and the rest of the oil sands at the Suncor plant could in fact supply the entire needs for all of North America. We wouldn't have to import one barrel of oil. Those needs could be met through our oil sands involvement. When you consider that that reliability and confidence could be placed right in Alberta's backyard in the oil sands, it's a pretty phenomenal thought.

So the importance of the oil sands to Canada becomes very profound. I call it the jewel of Alberta because I truly believe it is our future, and as we see more enhancements, new technologies come in place – Syncrude has just switched over to a truck and shovel process which is providing tremendous efficiencies for them. I've been up on the dragline and actually operated the dragline. I think it's one of the most fascinating programs that has ever evolved. I call it the eighth wonder of the world. To go up and see those oil sands, it's phenomenal what's there and what has been accomplished over a relatively short time frame. I get reminded of it when Dr. Luhning and I go to the Karl Clark awards each year. He was the gentleman who came up with the idea of how to extract the oil from the sands back in the 1930s?

DR. LUHNING: June 23, 1926, was the patent date.

MRS. BLACK: June 23, 1926. How a vision and a dream that came out of that has become a reality; it's a phenomenal project to go and see.

So I guess when you're looking to divest your interest in something that is profitable, that is the future, certainly you have to have a financial investment that is solid and also replaces a commitment that we would have as a government. That's tough to find. We do have some interest in it today, and we're working with those companies. We're not going to give away Syncrude, but we definitely are working with a few companies right now to look at a further divestiture, which is in keeping with our government plan. We would be very happy with that divestiture because at the end of the day we would know that it would be solidly placed. Naturally, we would retain the royalty on it; that wouldn't go with the divestiture. We've had over a billion dollars in royalties out of Syncrude so far, which I think is fairly substantial. I love the project. I like the oil sands very, very much.

10:53

MR. CHAIRMAN: Do you realize, Madam Minister, that you've just heaped a whole bunch of pressure on the chairman because of my cheapness in not taking the committee on little tours? Now they'll be after me about not taking them up to Syncrude.

MRS. BLACK: Well, if you need help with going to Syncrude . . .

MR. CHAIRMAN: Good luck.

MRS. BLACK: No. In all honesty, we would be delighted to help make those arrangements that probably wouldn't be as expensive for the committee. You may have to go in two shifts, but we'd be delighted to take your committee to Syncrude. You must see Syncrude. It is a phenomenal project. I mean, when you go up there and you realize that they're breeding buffalo on reclaimed lands – we now, this year, have 50 buffalo; we started off with 30, I think – and when you realize that this has been a mining site and it's reclaimed and we're breeding buffalo to go up to Wood Buffalo park, it puts to rest an awful lot of the concern from a lot of angles. You look at the wheat that's growing on site, the grasses, the reforestation that's taken place, the expansion of

the mine. I believe it is one of the wonders of the world, and I would really like your committee to go and see Syncrude. You must do that.

MR. CHAIRMAN: All right. We'll work with your office to see if we can't establish that.

Bonnie, you have one supplementary left.

MRS. LAING: Thank you, Mr. Chairman, and I hope you do it before my term expires here.

Madam Minister, this last year seems to have been a real banner year for Syncrude. Can you give us some of the factors that you feel have made this such a significantly successful year, and is it something that can be sustained in the future?

MRS. BLACK: I believe it is. In fact, the production levels have increased dramatically this year over the previous year, and I think that's sustainable. Again, one of the things that drives that is the market. Of course, Syncrude has changed some of their technologies, and their cost of production has gone down even from what they had forecast it would be. So some of those initiatives have certainly helped them at the marketplace. There's also been the approval on the expansion that is very important, and they've been able to purchase two more leases. That was completed in November. They purchased leases – am I allowed to say the lease numbers?

MR. PRECHT: I think so.

MRS. BLACK: Leases 12 and 34, which have the potential for being exceptional development. Of course, the technology: they've moved to a truck and shovel concept, which you have to go and see. They're 240-tonne trucks. They were operating with 100- and 140-tonne. Now there are 240-tonne trucks there.

MR. MANNING: Primarily driven by women. The operators are primarily women.

MRS. BLACK: So?

MR. CHAIRMAN: Perhaps I'll use the prerogative of the chair to explain . . .

MRS. BLACK: Strike that comment.

MR. CHAIRMAN: . . . to our committee what has just occurred. The deputy minister, whose job and concern of course are to keep the minister fully informed, whispered that these 240-tonne vehicles were operated primarily by women, and the minister turned to him and said: so?

MRS. BLACK: Actually, when you go on your tour, you will find that . . . [interjection] We have never got into those kinds of discussions in the oil patch; they're just not things we talk about. Anyway, you will find that the mix of employment up there is very heavily balanced between women operators and native operators. There was a real commitment. Probably one of the best employment programs in all of Canada is in fact situated in the oil sands, between Syncrude and Suncor. They adopted initiatives years ago, many years ago – it's nothing new – to look at bringing in a mix of employment, and actually the efficiencies have been there. I guess my response of "So?" is: this is not new; this has been going on for many years. It wasn't something that changed this year. It's been a commitment that Syncrude and Suncor have had for probably 20 years. It's been very, very successful and in fact has formed a model for many other corporate bodies to try and follow. So they deserve full credit on it. I guess it's not a revelation to me because I'm used to it being there. It is different from other industries; there's no question. But it's just been the norm, not the exception for them.

One of the other things that I think is very important is that Syncrude has just opened a new research facility here in Edmonton. Some of you attended the opening. I think it's another initiative that again will bring together the communities as we recognize the importance of this resource development and have it on a focused basis so that we have the very best minds looking at how we can enhance our position even further. I believe that can occur.

So I guess the expansion, the new efficiencies, the commitment, and the new purchase of the leases have helped to change the way that Syncrude operated last year. They actually even changed the name of the synthetic crude to synthetic sweet blend, which I think was an interesting move. So it's very positive.

MRS. LAING: Thank you.

MR. CHAIRMAN: We'll watch for that on the commodity markets, then, in the future.

Okay. I'm not a party to the negotiations, to what went on with the trade, but Howard Sapers has conceded his turn this round to Danny Dalla-Longa.

MR. DALLA-LONGA: Yeah, they were long negotiations, Mr. Chairman.

Speaking of negotiations, I'd like to get back to the negotiations on the upgrader. I was wondering if the minister, maybe with the assistance of her deputy, could sort of inform the committee as to how long these negotiations have been going on for the sale of the upgrader. At about what point did the department sort of close in, or hone in, on a final selling price and a settlement, given that I think the minister said April 10 was the last date of payment for the overruns?

MRS. BLACK: Well, we started probably in March, and it proceeded at a snail's pace initially, Danny, for probably the first couple of months. We had a lot of background work we were doing with the other partners so that we were all working ideally off the same models and the same assumptions.

[Mr. Herard in the Chair]

I believe that our team, in all fairness, was the lead in bringing this to the table and keeping people at the table and prodding them along. At first, the purchaser looked to be one player and ended up being one of the partners, one of the governments and the private sector. So the dynamics were continually changing, and it went on and on. One of the difficulties was that we were getting people to come in from Ottawa, people from Regina, but of course ourselves were going down to Calgary to meet with the people from Husky. Fitting into timetables, pulling people out of different locations when Houses were in session, et cetera, et cetera, and planning meetings was difficult. Our officials were meeting probably at least weekly, if not entire weeks, to bring people to realize what was there.

11:03

So it was a very, very, very long process. As I said – I wouldn't want to offend anyone by saying it – I truly believe it

was the ultimate experience in herding cats, keeping people at the table because of different political agendas, and that's a fair comment. I think it was actually a monumental day when you could realize that three governments from three different political philosophies put those philosophies aside and actually sat down, and here was a private-sector company which was used to doing business in a different frame than what you do with government. I think it was frustrating. I found it to be one of the most frustrating experiences for me because I had not been involved in that kind of scenario before. I had been involved with private sector to private sector. I hadn't thought there would be as much difference seen in direction and philosophy.

Once we came to the conclusion that there had to be an end to the day – that I think started to really evolve about May and June, somewhere in that time frame. We dedicated hundreds and hundreds and hundreds of hours to keep the players at the table, and we finally closed in August. We reached agreement in August, and that was the end of it.

MR. MANNING: Part of the difficulty, if I could just add, was that Saskatchewan was very focused on the Newgrade upgrader. Paul and I spent a great deal of time trying to sell with Saskatchewan. Then when the Newgrade sale closed, Saskatchewan changed position and was no longer interested in selling its interest but decided it wanted to purchase.

MRS. BLACK: It wanted to be a buyer.

MR. MANNING: So we had been marching down a road for a period of many, many weeks with one focus, and then at a critical point in Calgary Saskatchewan stood up and said: well, we're not selling; we're buying. That came as a surprise to all players. That may be telling stories out of school, but I think that is on the record now, that Saskatchewan started out wishing to divest itself of the interest but has now committed itself to upgrading with the acquisition of the Newgrade and changed position midstream, and I think that's fair.

MRS. BLACK: Well, without telling stories out of school, the dynamics were unbelievable on the negotiations. At the end we reached our objective, but it was quite different. The officials, unfortunately, from Canada and from Saskatchewan were dealing on a different issue, similar by nature. I mean, they only could do so much at any one time, and we were trying to fit into that time frame as well, so it dragged on. It was a totally different schematic than what you would have had, say, in a private-sector negotiation. It was quite an experience to go through it.

MR. DALLA-LONGA: Well, in the course of negotiations, probably even when they started, clearly the government must have recognized that they were going to be taking a write-off on their interest in the upgrader; in other words, they weren't going to recover their cost. I've always had a problem with the Acting Auditor General's disclosure of the upgrader and why a write-off wasn't reflected in the March 31 financial statements. I was wondering if the minister might comment on if she has any idea why we didn't recognize this write-off last year, March 31, '94, and why we're having to recognize it in the next year.

MRS. BLACK: Well, clearly over the three years we wrote down the project 300 and some odd million dollars of a $400 million investment, so we recognized that the investment had depleted. Until you actually get into the idea of going to market to have someone buy a project, you don't have an idea of what the market value will be. I think we had diligently done our write-offs, and I don't know that anyone could have projected them any closer than that, in comparison, say, to the other partners that had not done that. We had recognized that in the previous couple of years. You know, we were dealing up front on our thoughts on the investment, but until you go to market, you have no idea what the market will bear when you're looking at selling your interest. When we started to go to market, we were dealing with one scenario where we had three partners selling their interest. Then the dynamics changed, and we had two selling and one had switched over to being the buyer. Again there was a range of ideas as to what that market value was, and again the differential forecasting entered into it. So all of those factors came into play.

[Mr. Dunford in the Chair]

I think we in Alberta had correctly recorded the asset on the books with the write-downs, and it will result in a further write-down of the heritage trust fund. There can be no doubt about that. I think it's – what? – $43 million which will come down. But I don't make any apologies for having something left on the books, because based on the information we had, that was a realistic number.

MR. DALLA-LONGA: Are there any trailing obligations that the government will have on the upgrader; for example, to lay out additional dollars that the province of Alberta may have on this project that may come up for whatever reason?

MRS. BLACK: Zero. We're out of it.

MR. DALLA-LONGA: Okay. Thank you.

MR. CHAIRMAN: Okay.
Lance White.

MR. WHITE: Thank you. Madam Minister, I'll return to SWAREI. That doesn't sound quite the way I meant it. Back to the SWAREI project. SWAREI sounds like we're off to a dance or something, which we certainly aren't. My concern is this. Here we have a new method of producing sustainable energy from a renewable resource, but there has to be a regulatory market that would allow that to come onto the EEMA grid. Now, have there been any rule changes to allow the producers of the project to come onstream, extraordinary changes in the rules, or have they been allowed on the same as any other producer, either coal based or gas based?

MRS. BLACK: Well, there are two things that have occurred. As you know, we've gone through a restructuring of the electrical framework for Alberta. That will provide for open access for generation, and that can come from a variety of forms: projects like these, a variety of small programs, plus the traditional that we have. That will be effectively in place. We're going through the implementation January 1, 1996.

In addition to that, right today the programs that are here, the allocation that went through SWAREI, what came from the grid, was used to facilitate these programs, but there's a cost associated with that. Because of the program the cost of generation was more than the traditional cost of generation. What occurred was that there was – Chris, correct me if I'm wrong – negotiation between the major power generators to buy in, and this power, in essence, filters through EEMA today. I believe most of their contracts are for 20 years, which is the standard for these projects that are in

existence today. So there's been, I think, a tremendous amount of co-operation by the more traditional generators and the people under the SWAREI program or even the small power program, but there is a cost associated with that.

What you have for the future under the new model is an opportunity like Mr. Dalla-Longa talked about: someone that has an idea to be able to go and get into the marketplace through the open access on generation. If he has an idea that makes economic sense and there's someone that wants to get involved with that, then they don't have to have something else displaced to do that. They have to show that there's a market. So it provides a little competitiveness within the market. I think, clearly, it's going to be very beneficial for a lot of these programs, but it will also provide some sharpening up through competitive forces to lower costs because of some competition within the system. It's a very positive program.

11:13

MR. WHITE: Correct me if I'm wrong, but you say that there's a cost associated with it. There is a subsidy because the production cost of all the SWAREI projects is greater than would normally allow entrance into the grid. The grid – correct me if I'm wrong – starts from the cheapest producer who sells all their energy and then moves up as the consumption requires. So the peak of the usage is taken off by the higher end cost producers; i.e., the ones that can be brought onstream quickly, the gas-fired and that sort of thing. How does the government decide that they're going to support and subsidize a technology that obviously hasn't come of age as yet? It can't produce at the same rate as normal producers. When you know that the production is not sustained all the time – you can't call on it on demand; I mean, it can vary – how long does one justify that? Do you continue the 20 years, or do you add to it?

MRS. BLACK: Well, the contracts, remember, are between the individual renewable energy company and one of the private utility companies. They're not between the government and that group, and those I think are all 20-year contracts. So the private company is buying that power from the renewable energy company, and it's pooled into their power generation and sold. The government is not subsidizing the program. This is blended in, and the consumer is paying for the program, not the government. The consumer is because it was passed right through, and it's expensive. There can be no doubt about it. There is a cost attached with this. The difficult balance that the marketplace will have to determine is: when you look at the electrical generation capabilities within the province today, can you see a horizon where there's additional need for this? If there is, is the market prepared to pay for it? That shouldn't be a decision of the government. That should be a decision of the marketplace. Under the new framework for electricity there's an opportunity for small power people or people with renewable energy schemes to come into play under the open access, but there has to be a market for them. I don't think it's appropriate to intrude in that marketplace and try and make things happen. The market should evolve, and I believe it will. There's enough from this initiative to demonstrate that in fact renewable projects can work, can be effective, and the technology can be demonstrated clearly that they do do that. I really think there is a longer term to this, not through a program that almost makes it happen but through its own initiative. There's enough there now.

Down in Pincher Creek we've taken on this transition of government involvement of support that we had for the $3 million to ease this into the private sector. We've been paying out of my department a little bit to help with the maintenance of the demonstration office so that information is there, and we have partnered up with the community in Pincher Creek for them to take that over and operate it on their own. They need a little bridging to get on to that, and we provided it through our operating funds out of the ministry, not out of this program. This program is over with; it's finished. But to get that bridging there, we've helped them out a little bit this last year, and I believe we've made a commitment to help them for a couple of years. We're anxious for the community to take over the demonstration and the information centre and maintain it and try and enhance their position down there because of these demonstration sites. So the program itself is finished, but the long term is to show that some of these can in fact work.

MR. WHITE: My last supplementary, Mr. Chairman. Correct me if I'm wrong in the summary of the situation then. Is it that the department does not and will not be putting anymore funds directly into this kind of operation, into any kind of new technology in sustainable resources? Two, there will not be any further regulation changes or allowance of this private company buying this more expensive energy to put through their grid. The PUB had to approve that, of course, so it's a different arm of government, not directly related, but it was absolutely necessary. Otherwise, it can't be in the system. It's another cost to the utility. Presumably that will not occur again, but going on to January of this coming year, then any new project, aside from this 20-year contract, will have to – will absolutely have to – stand on its own two feet on sustained production cost into the grid at the point of the grid. So there will not be subsidization, either through regulation or allowance through regulation or through direct subsidy, to any renewable resource project in the foreseeable future.

MRS. BLACK: One clarification. Chris is going to get into the detail on it. All projects that involve electrical generation, no matter what size they are, go through the Public Utilities Board for approval, because it involves the rate base. I believe they also all go through the ERCB, and now there'll be one board, the AEUB, to handle that. The government does not get involved in the regulatory side of that. We don't get involved in that. So let's be very clear on that: we do not get involved.

MR. WHITE: Somebody did.

11:23

MRS. BLACK: No. What we do is create a framework and a policy, but we don't get involved in the regulatory review. That's done separate from government. Now, in the longer term as new projects come on the drawing board, they will have an opportunity through this open access if the market determines it

Today in Alberta, quite frankly, we have a large surplus of electrical generation capacity. So, number one, if I were sitting evaluating a project, determining whether there was an opportunity for that surplus to be eaten up by economic development – because clearly since generation has been on the books, the cost of that has gone down. Because of the amortization of the projects over the life, the cost of it goes down. If I were looking at a new project, I'd have to determine what the economic climate would be if I was going to evaluate my project as it fits into the marketplace. There is clearly an opportunity for that to occur. As plants become obsolete and are retired, then there will be a need for new ones to come in to take over. There's almost a crossover point of where that occurs from what we can determine today. So there is an opportunity to come in. Clearly the regulatory process is there for all, and they will have to continue to go through that, but the

shape of the market could dramatically change. I think the future is there for a lot of initiatives to come forward, and I daresay that this program has been instrumental in showing that in fact they can work. What they've learned from this program can do nothing but enhance the decisions of the next group that comes along and wants to get into renewable energy. So it's been very positive I think.

Chris, do you want to get in?

MR. HOLLY: Exactly. I think when we're looking at this under the new industry structure, the price that somebody receives for their power will be determined by the market. Under the small power program or under the process by which all the SWAREI projects went ahead, the price was actually legislated. So there will be a difference. The advantage of the new structure is that it will signal appropriately when you want to bring power on. It'll also give the opportunity for projects to add to existing capacity or whatever else in response to market conditions. We are aware today of discussions of various small power projects looking at this new industry structure and seeing an advantage to adding incremental amounts and being able to compete in the marketplace.

As the minister pointed out, it's a very good transition. The SWAREI projects, the small power program projects, have provided us with some information on how these projects run but more so have provided the industry with the information it requires. We are moving to a situation where there will be a price these projects can respond to and decide on their own merits whether this is something that would be worth pursuing or not. This is a very exciting time. A very exciting time. It's providing lots of opportunity for people to come forward with ideas and test their ideas.

MR. CHAIRMAN: Okay. Thank you.

Ken Nicol.

DR. NICOL: Thank you, Mr. Chairman. I would just like to follow up on this issue of SWAREI for a minute. I hear you saying, just in the answer to the last question, that the information which has been received from these experimental projects that have been implemented will create an environment that will encourage expansion and other new entrepreneurs to get involved. Yet what we're looking at here is a situation where the current pricing structure has the electricity coming in from those currently operating plants at an above average cost within the EEMA grid, in the sense that they're effectively being subsidized by the contracted or the legislated price that you talked about. As an economist I see a lot of problems coming out of that scenario, because unless we're going to give these people that price, their entry cost of production has got to be more effective than any other source of electricity. Otherwise, they should not be coming into the grid. So what you're telling me is that there is a scenario there whereby wind power can be as competitive as any other source of electricity to supply into the grid.

MR. HOLLY: If I may, Madam Minister.

MRS. BLACK: Chris.

MR. HOLLY: When we're taking a look at, say, the future possibility of renewables, you have to understand as well that we're talking of projects being larger in scale, reaching economies. We're also talking about reduced production costs. So we are taking a look at an industry that is maturing. As it matures, of course the costs begin to drop and it can become more competitive. Those are the types of projects that could be looked at in the future. When we're talking about the existing projects that have been developed under the small power program or under SWAREI, correct: they will continue until their contracts expire in 20 years' time.

The type of information that they have provided is information on when the resource is available, the type of financing that is required, the type of regulatory concerns that are required, and that information has been very useful to everybody in the industry at large. Some of those projects have the ability to add another unit on at very little cost, and we do envision that they will in the near future be able to begin to operate in the new market and respond to the price that comes out of the market, out of the proposed structure in the power pool.

We're looking at sort of two different questions. We're looking at an incremental stage from an existing project as they move into the new industry structure, and then we're looking at the technologies that are maturing. The costs are dropping and coming to a competitive position because of those types of economic realities.

So the market structure that the minister referred to provides an opportunity for people to come forward with ideas not only in wind generation but in natural gas generation technology or all sorts of technologies and allows people to assess the potential in response to the market.

DR. NICOL: Okay. Madam Minister, what I see here, then, and from what I've heard in the answers to the questions on wind generation in this supported project is that effectively the project only achieved the creation of data that would verify that there is wind in southern Alberta.

MRS. BLACK: Is that a statement or a question?

DR. NICOL: It's a question.

MRS. BLACK: I don't think that's true. I think what you find is that – well, let's go back. Wind power requires, first of all, the right climate and location to begin with. Then there are different technologies involved in capturing that wind. If you go down to Pincher Creek, you'll see clearly different types of windmills. One looks like an eggbeater, a giant, giant eggbeater. That would be terrible if the people ever thought – but that's what it looks like. Then there are different configurations of types of windmills. Some of them were developed out of old streetlight posts to various configurations.

The idea of SWAREI was to take a location that should have been conducive and I think was proven to be receptive to wind power and test out the technologies to determine if in fact it could result in generation of power. As a research project, which it was through this initiative, it's now at a point where the private sector can look at that and say, "Can that technology that's been proven there and demonstrated there be employed on a broader scale and in other locations?" That was what the SWAREI initiative looked at. In fact, the small power program involves other things besides wind – hydro and biomass, et cetera. Both have proven to be very effective.

11:33

Now, as we go into the new framework, I think you'll see electricity in Alberta if not in North America handled in a different way. In the past the bigger the facility the more economies of scale came into play, so these massive generation facilities were constructed. I don't think you'll see that so much in the future. I think you'll see smaller facilities and more of them. As you see

some of our existing facilities start to come out of the grid, start to come out of production, I think you'll see a different look at how new facilities will go on. Some of them will be able to benefit from this type of program. Others will use a different technology altogether, but they won't be precluded from coming into the market system. You'll have open access to generation. Today, because of massive facilities and grid allocations, there hasn't been an awful lot of entry other than through this type of program and the small power program for different ideas to come into the system. I think the plan for tomorrow, the planning we're doing today on our new framework, will definitely allow that to occur without having to force it to occur by taking an allocation of the grid and saying: that will be for this type of programming. That will evolve on its own. I think clearly we've seen as a result of this an awful lot of interest in this type of technology, a lot of changes in how electricity is generated.

I think our new model clearly brings us in tune to the year 2000 and beyond, but today there is a hard-core economic fact that we have an abundance of electrical generation in this province. We have a massive plant that has gone through the regulatory process just outside of Edmonton here. It's built; it's there. I don't think you're going to see massive projects like that anymore. I think you're going to see smaller ones, more of them cropping up and fitting in. It's going to take time to evolve. It's not going to happen next month, but it will happen.

DR. NICOL: Still the question is there. You have funded a research project, and you have committed the electricity users of Alberta to a 20-year subsidization of that project, but from the answers you've given us, all of the expectations of when this is going to be really economical, really effective haven't been answered. You know, you talk about when these scenarios develop. Do you have a report out of this project that gives you three or four scenarios under different conditions of energy pricing, under different conditions of, say, fossil fuel generation costs? At what point will these wind generators become effective, and when can they move into the system? There are no answers there other than: we've proven the technology works, and now it's up to the private enterprise to decide when it's going to come into place. You haven't developed guidelines or scenarios. At least, I haven't heard them in any of the answers. You know, the feasibility of large-scale wind-driven systems has been proven around the world. Why do we have to duplicate that here other than the sense of testing to see whether our wind's any good?

MRS. BLACK: Well, we don't have to duplicate it here.

DR. NICOL: We did though.

MRS. BLACK: Well, no. What we did was use the factors that were here to see if in fact some of that technology that we enhanced here would work. On other projects outside of this, out of SWAREI but in small power, they have been very, very successful, and they're being used today. In fact, one of the companies that is involved in this program has now taken the technology that they've developed here and has gone abroad with it. The difficulty we have is that I can't tell you when that will flow in, and I don't know that I should be saying when it will, because that would depend upon the economic development that takes place. Today we have an abundance of electrical generation in this province. That is all going through the EEMA grid, the EEMA formula. In the new model that EEMA formula is maintained as of the generation that's in it. Any new generation comes in under the open system. You cannot go back and unbundle that, because you disadvantage the entire province.

So as we went through all of that restructuring discussion, that was one of the things we determined. If I could tell you when that will occur, I could have told you when we would have needed the generation that was coming in. Again, it's like forecasting the price. I can't tell you what next year's economic development will be because the government doesn't determine that. The market determines that. There's no difference in whether you're looking at an electric framework. All we can do is create the framework that doesn't disadvantage new ideas coming in and doesn't preclude someone from entering it. We can't go and change what happened before, because clearly we have an overbuilt system today. I can't change that; it's already built. But as it is retired – and we predict that that retirement will start to come; there'll be elements that will come out over the next five, 10, 15, 20 years – the new projects will come on.

These projects, keep in mind, are not developed in six months. They're long-term projects. Already we know that in some of these, the bodies that are involved in it are prepared without the subsidy to expand their project. We already know that. So that's a plus, I think. I think it's a positive. I think I said in the report that there would be further investment from the private sector almost matching what's gone into it to date under this program. That's what we have been told will happen.

We are committed to continuing to monitor these programs. That was our commitment to the SWAREI people. [interjection] Jump in anytime, Ken.

DR. NICOL: It's clarification on this point.

MR. CHAIRMAN: Is it? Oh, okay. All right.

DR. NICOL: You spoke of this framework about five or six sentences ago. That's the issue that I'm trying to address. Do you have a paper now that says: based on these experimental results, here is a framework where we see this kind of technology becoming effective?

MRS. BLACK: We have our entire electrical framework that we can give you a copy of.

DR. NICOL: No, no. This specific kind of electricity.

MRS. BLACK: I don't believe – Chris, correct me if I'm wrong – that we have something that says: this project will fit into the economic framework of Alberta there. I don't have that, if that's what you're asking me for.

DR. NICOL: No. The objectives of the SWAREI project were to determine the feasibility criteria for wind-driven electric generation. Did you get an answer to that? When is this going to be feasible, and under what framework would it be feasible? Did you get those questions answered? That's what you told us was the objective of the project.

MRS. BLACK: Well, SWAREI is obligated to file a final technical report with the government as a result of the program winding up. I don't believe we've received that yet, but that apparently is a requirement.

I don't know, Chris. Have you received that yet from them?

MR. HOLLY: We've received some reports. There are still some reports that have amendments, and some of the reports actually

have confidentiality clauses because of proprietary equipment. So the information is definitely coming in. We are fairly aware as to what these projects will require to go ahead at the current price. We are aware also of projections as to what the capital cost price will be in the future. The indication is that it could be competitive.

So what we have here is a knowledge base. We have some actual operating experience. We have industry information that's stating that because of the expansion of the wind industry, for example, in North America and elsewhere, the capital cost of the equipment will start getting down to a stage that is competitive.

DR. NICOL: So, in essence, you have to consider wind electricity in any future planning for the electric grids.

MR. HOLLY: True, but it's the market that will determine it.

11:43

MRS. BLACK: It's a part of the package.

MR. CHAIRMAN: Okay. The question's been answered. Mike Percy.

DR. PERCY: Thank you, Mr. Chairman. Madam Minister, my questions relate to AOSTRA and the Underground Test Facility at Fort McMurray and another project funded by AOSTRA, the steam-assisted gravity drainage project. I'd like to know the status of the evaluation that was being conducted by AOSTRA and, I think, a number of industry participants – Amoco, Conoco, Chevron, et cetera – with respect to the technical and economic viability of a 30,000 barrels per day oil sands project that was going to employ the steam-assisted gravity drainage technology.

MR. CHAIRMAN: Michael, can you direct me in the report as to where . . .

DR. PERCY: That would be part of the AOSTRA bundle.

MR. CHAIRMAN: Okay. I found it.

DR. PERCY: Specifically, the project that is looking at the commercial viability of steam-assisted gravity drainage.

MRS. BLACK: Just for clarification, Mr. Chairman, I don't believe there has been any funding of AOSTRA from the heritage trust fund for a few years.

DR. PERCY: Overall our grubstake is about $419 million.

MRS. BLACK: Certainly the initial investments are in the heritage trust fund, but they haven't been . . .

DR. PERCY: The reason I bring this up is because of the efforts of the government to promote the commercialization of R and D. AOSTRA clearly is one of those vehicles, and this was to be one, I think, of the projects that would be commercially viable.

MRS. BLACK: I'm going to ask Dr. Luhning, who's here from AOSTRA and has been very individually and personally involved in those projects, to give you an overview on those, if that's all right with you.

DR. PERCY: Yeah.

DR. LUHNING: Thank you very much for the question on the Underground Test Facility. I'm glad to hear that the committee is considering visiting the Fort McMurray area and would hope that it may be able to visit the UTF. The last time the committee visited was in 1991 when we were drilling the expansion wells, the next group of experimental wells that are currently under way. As a matter of fact, the minister at that time was on the committee, and the whole committee stood at the bottom of the mine and watched the wells being drilled.

MRS. BLACK: Four hundred feet below ground.

DR. LUHNING: But very safe. I'm happy to report on that that the set of wells that were drilled – there were three sets of twin horizontal wells that were drilled. Those wells now are at, we think, their maximum capacity, and we're producing in excess of 2,000 barrels a day of bitumen, which is being at this time and has been for the last six months trucked out of the McMurray area and sold into the international market. The bitumen prices have been very buoyant over the past period, and this has certainly helped our economics on it considerably.

Given that the results are extremely encouraging – and I might point out that each of the three production wells in that facility, that are currently operating at 500 metres of horizontal length each, produces an average of about 650 to 660 barrels a day of oil. In order to put that in perspective, in the summer of '93 we asked the then Energy Resources Conservation Board to conduct a survey of every oil well in Alberta and to let us know how many wells there were in Alberta that produced above 650 or 660 barrels per day. At that time there were 24,468 producing oil wells. Of those 24,468, 48 produced above 650 barrels a day, three of which are at the Underground Test Facility. So that's a very good success story. The project is meeting all of the expectations and all of the predictions that were made on it. I might add that, of interest, there are 10,000 of those 24,000 wells that are producing below 20 barrels a day of oil.

What is happening with the project at the moment is that the industry participants, who control 75 percent and fund 75 percent of the project, are extremely interested in seeing the technology developed and demonstrated in new experimental wells at the UTF site in McMurray with drilling from the surface. So we're putting together at the moment the design and feasibility cost estimates of doing that particular additional experiment. We've made preliminary approaches to the AEUB on that. So things are moving forward, and hopefully a decision will come forward on that in due course. That would widen the appeal of the process to other areas that would not be amenable to underground access approaches.

The one question you had raised there about the future and the viability of the SAGD process in other areas is one I'd like to answer for you. For those members that aren't familiar with the SAGD process, it's an acronym for steam-assisted gravity drainage. It's a process that uses two horizontal wells drilled either from underground or from surface that are placed one above the other at a distance of about three to five metres apart. The process works by injecting low-pressure steam into the upper well so that the formation is heated, and then the heated oil or bitumen drains down to the lower production well and is produced. This has a lot of advantages over the different methods that have been tried over the years for in situ production. The approaches that have been followed before have traditionally been vertical well processes, where you put heat in at one well, heat up the bitumen or heavy oil or whatever it may be, and then push it through the formation a distance of maybe up to 100, 120, 150 metres. You can see the difficulties with that approach, attempting to push something that

looks like asphalt with a vapourlike steam through a consolidated or semiconsolidated reservoir over that distance.

So the steam-assisted gravity drainage process addresses those ones. It puts the heated well and the producing well very close together. It recognizes that what heat likes to do is rise and that what fluids like to do is drain down into the reservoir to be collected in the production well. It has worked out extremely well, and on the economic side of it, of the various types of methods that are used to produce heavy oil or bitumen in with oil wells, it uses the least amount or close to the least amount of steam energy to do that.

One other one I'd like to add to that is that two years ago one of our industry participants in the Underground Test Facility, Shell Canada Ltd., that operates a commercial bitumen recovery operation at Peace River using vertical wells from surface – they produce just under 10,000 barrels a day from 216 vertical wells – wanted to look at a mechanism, a method of production, that would provide a step-change reduction in their production costs that they could achieve out of the Peace River oil sands. They approached approximately two years ago the AOSTRA organization to jointly be involved in drilling two sets of the SAGD horizontal wells from the surface at Peace River. These wells were predicted to produce something like a thousand barrels a day. So you'd have an increase of about 10 percent in the overall production there with essentially four wells compared to the 216 vertical wells that are making approximately 10,000 barrels a day. Those wells have been placed, successfully drilled from the surface. They are a thousand metres horizontal length. These are on production, and the process is going forward.

11:53

With regard to the economics of the process, with the nine industry participants that are with us in the project, we've done relatively detailed economics on different levels of expansion. I shouldn't say expansion but different levels of economics for different sizes of projects, and these have ranged from 10,000 to 50,000 to 60,000 barrels a day. You find that when you do those as economics, at about 30,000 barrels a day you have achieved about 85 to 90 percent of the improvement that you get in economics with scale. At about the 30,000 barrels a day level – and we've published these in papers at various conferences, et cetera – it looks like you could achieve a production of bitumen in the Athabasca area of about $6.50 to $7.50 a barrel. It depends on the price of natural gas, which has dropped considerably lately. These analyses were done at about $2.25 per mcf of natural gas. Natural gas is now selling in the area of whatever the spot market bears, certainly less than that. [interjection] The minister says around a dollar. So that would even help those economics additionally.

As I mentioned earlier, we have been trucking it out of McMurray. The cost to truck out of the McMurray area to market to pipelines in the Edmonton area and over to the Lloydminster area runs about $4.00 to $4.50 a barrel for the trucking, but we have been able to get a very nice return on that. The market for heavy oils is quite buoyant at the moment, particularly with the changes in the refineries, which have been indicated earlier, in the U.S. northern tier.

Other areas are very interested in the SAGD, to follow up on your question there. SAGD has also been looked at very carefully in the Cold Lake area. Amoco is considering a variation of that technology in their project on the old bombing range. We've done feasibility studies with Suncor on their Burnt Lake acreage, which is north of Cold Lake. There's been a SAGD well drilled by Amoco at the old Wolf Lake site, which was a project that was initially done and has gone from pilot to commercial with AOSTRA involvement with BP, and that project has now been transferred to Amoco. We're doing a separate study with Suncor at their Fort McMurray operation looking at the possibility of using the SAGD twin well process on those elements in areas of their leases which are a little bit too deep to be mined but are deep enough that they could contain the steam pressures necessary with the SAGD process.

At conferences and in papers we've also done and published studies which we've done with Syncrude where Syncrude has looked at the possibility of using SAGD on those areas of their lease where it will be again too deep to mine but a correct depth where you could put in a SAGD type operation. There also are heavy oil operators that are considering expanding the technology for use in the heavy oil areas.

DR. PERCY: Thank you.

My supplemental to the minister concerns the actual Underground Test Facility. As I understand it, there was some talk of industry participants taking it over as private operators. Is that process under way? There were bids, as we understand it.

MRS. BLACK: Yes. It's still ongoing.

MR. WHITE: Are you going to sell?

MRS. BLACK: No. There was a discussion about – we're a partner in the UTF – some private-sector people taking over the operational side of it, and that's ongoing.

One of the things I think we should mention, that I'm surprised Dr. Luhning or Mr. Manning haven't mentioned, is that last year the United Nations chose Alberta, in particular as a result of the work that has been done through our heavy oils, as the site for the United Nations world centre. It's located here in Alberta. [interjection] You don't know about that? Well, it's right here in your city. UNITAR has an office here in Edmonton, and I believe it is the first United Nations' world headquarters in western Canada, the second in Canada. This is because of the enhancements, the technological advancements, and the developments that have taken place in our oil sands and heavy oil projects. We were chosen throughout the world as the site for the world headquarters, and they are here in Edmonton.

In fact, in a few weeks' time we have a contingency, not large, very small, that will be going down to Houston to the UNITAR conference. I was going to be going and was invited to give the keynote address; however, it kind of conflicts with the opening day of the Legislature. I unfortunately am not going to be able to go to the United Nations function. My deputy will be going for me. I have to say that I am very disappointed in not being able to go; however, I am looking forward to the day here as well.

We sometimes take for granted the significance of this development that has happened here. We as Albertans have not done a very good job bragging about the accomplishments that have occurred right here in our own backyard. We're trying to beef that up a little bit and get that exposure out there, Mr. Chairman.

I would add an addendum to the offer to take the committee to Syncrude. I hope it could be coupled with a trip to the UTF. To see the SAGD process in place when you consider – and correct me if I'm technologically wrong, which I'm sure you will – that you're below the limestone and that you're drilling two wells into sand, into sand is what you're drilling, the technology required so that the levels don't flip all over the place is phenomenal, and you can see it right there if you go in underground. It's a little eerie if you've never been underground, but it's perfectly safe. It's well

worth seeing it, if you have the opportunity and the time. So when we organize the tours, we certainly will be delighted to take you to the UTF, and then you'll know why the world is focusing on Alberta. You'll have an idea. These investments will pay off. The world is focusing on us. I think both of you have been bashful about saying it.

MR. CHAIRMAN: It always intrigues me about human dynamics how a thought moves to a suggestion, moves to a plan, and then a fait accompli, that we will have a tour to Syncrude, but we will certainly try to accommodate that, probably in '95-96.

You have one sup left. You're fine? Okay.

I want to, then, thank Minister Black for her candidness and her openness and her co-operation in handling the questions today. I would want to compliment you also, though, in terms of the windmill projects. You've created a tourist destination point, actually, in southern Alberta. Last time I was out there to Cowley Ridge, I counted 51 – I think it was – windmills now, and it's really becoming quite a fantastic site. So thank you. I appreciate again your co-operation and certainly the co-operation of your guests.

Now, are there any recommendations to be read into the record at this time? I want to remind committee members that this afternoon is the last opportunity to read recommendations into the record for our discussions next week.

With that reminder, we'd look for a motion to adjourn. Mike Percy. All in favour? Carried. Thank you.

[The committee adjourned at 12:03 p.m.]