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8:08 p.m.

[Mrs. Gordon in the chair]

Subcom.D: Energy

Subcommittee D – Energy

Gordon, Judy, Chairman
Haley, Carol, Deputy Chairman
Amery, Moe
Black, Pat
Boutilier, Guy
Broda, Dave
Carlson, Debby

Coutts, David
Herard, Denis
Langevin, Paul
Lund, Ty
Magnus, Richard
Pannu, Raj
Paul, Pamela

Pham, Hung
Sapers, Howard
Shariff, Shiraz
Taylor, Lorne
West, Stephen
White, Lance

THE CHAIRMAN: I'd like to call the committee to order. I'd like to welcome everyone tonight. We're here tonight to discuss the estimates of the Department of Energy. I would like to call on the hon. Minister of Energy to start off, please, and give us an overview and introduce your staff if you so wish, et cetera. One thing I do have to ask, Dr. West. I can't understand why the hon. Member for Calgary-Montrose is here instead of in the Department of Labour estimates tonight.

Go ahead, Mr. Minister.

DR. WEST: Thank you very much, Madam Chairman, and a good evening to the committee. Tonight you're going to be asked to look at the Energy ministry's budget, and that's some \$72 million. It also includes the Alberta Energy and Utilities Board budget as well as the Alberta Oil Sands Technology and Research Authority.

I'd like to introduce some staff that I have here. These people have worked very hard this year. You'll see by some of the stats that I'll give you here in a minute that we've had an outstanding year in '97, and although we're looking at some softness right now in the marketplace, the early indications are that '98 will be a very good year also. Bob King is with us, the deputy minister. Don Keech is the ADM of corporate services and our senior financial officer. David Smith is ADM of mineral operations. Harvey Walker is executive director of financial services. Doug Borland is director of financial planning and reporting. Mike Ekelund is executive director of the royalty and tenure branch. Larry Charach is the executive director; he's Mr. Electricity right now. Cheryl Mackenzie is our acting communications director, and John Buie is executive director of human resources. They're quite a team. I brought them here tonight because they know a lot more than I do, so I need their help.

At any rate, I want to get into a brief overview, and then I will ask you for your questions. Any questions that we cannot answer tonight I will take as a matter of notice and bring you the written answers following *Hansard*, as we have done in other years. We'll get a cross section and answer as much as I can here tonight. Certainly on the details of some of your questions, because of the technical aspect of this department, I will write you those answers directly as indicated from your questions in *Hansard*. So I wanted to assure you of that.

Now, the introduction to this department. I don't think I need to go into the importance of this department to the province of Alberta. It acts in the public interest. The EUB, of course, is the check and balance as a quasi-judicial board in order to ensure public interest is looked after, and it has the very arduous task of sorting out all the different types of developments in the province of Alberta, the different types of the resource, from oil and gas to

the mines and to the oil sands, and putting together a complicated royalty structure in the best interests of Albertans, who own this resource and who expect a fair return as well as the companies who do it on our behalf, from the development and exploration of these resources.

We represent 25 percent of the investment in the province of Alberta, and approximately 70 percent of Alberta exports are from energy-based dollars. The industry employs a tremendous amount of Albertans, on a direct-line basis about 175,000, but if you take that outward, you could multiply that times over just as they do in agriculture because of the value-adding products of that, right down to the service stations if you like. There's a tremendous amount of industry around energy, and I guess you could extend it almost to the car industry if you wanted, but it's truly a big labour-intensive industry.

We had an exceptional year last year in the oil and gas industry. The EUB recorded 23,683 licences last year, remarkable that 15,369 were well licences of which in the calendar year they had spudded in 12,809 wells. Now, I mean, that's remarkable activity in this province. We had pipeline permits – that's everything from collaterals right to major pipelines – of 6,391 last year; gas plants, batteries, compressors, and other facilities, 1,830, up 1,125 from the year before; and oil sands plants and schemes, 87. That's a remarkable year for an organization called the EUB and the department in activity without an increase in manpower or dollars. Also, the land sales last year topped over a billion dollars, \$1.153 billion Canadian, and that is only the fourth time in the history of the province of Alberta that we have sold the right to access to this resource in those terms of dollars.

In production, sales have been strong. We totaled up 1.56 of crude oil, 1.56 million barrels a day of the nonconventional oil. That's the oil from the oil sands. Heavy oils were about a third of that, at 525,000. To give you a comparable term of 1.56 million barrels a day, to put it in perspective, that's what Iraq produces today under the UN agreement, a little over. That's more. But in conventional oil we produce about a million barrels or 900 and some thousand. That's what Iraq will produce. If they double that, that gives you some indication of the significance of the Iraq production. It's our total production in Alberta doubled. Natural gas production was 5 trillion cubic feet for the year, or put differently, around 12 and a half to 13 bcf, billion cubic feet, a day. Our oil and gas exports have doubled since 1991, and they totaled more than \$17 billion last year.

Again, the 1998 levels will not match those. I want to indicate that. Our expectation is that we will have some good strengths in gas. Oil is down today. As you saw, it's under \$16 as it closed today. There is a tremendous amount of what we call geopolitics in the gas and oil industry throughout the world. To give you an indication when I use that word – “Why,” you said, “would oil prices be down lower than they were, and what are the production levels?” Well, the OPEC nations, including United Arab Emirates and Kuwait, are producing about 3 million barrels a day

more than they were expected to produce. That puts them at around 27 and a half million to 28 million barrels a day. Again, that's just one indication.

I told you about Iraq. The North Sea production has come up and even our Hibernia. When those first wells came on at 45,000 barrels a day, it was quite astounding. Some of the others may not be at that strength, but it's still a tremendous amount of production. When we look at Venezuela crudes, some of the heavier ends are coming in at 3 million to 3 and a half million barrels per day. The production off Mexico also gets into the marketplace, and the Americans, because of the Asian influence, which dropped the use of heavy-end oils, are now locking in some of their heavy ends and buying offshore heavies right at the present time while they build surpluses internally, because they can now pick up cheap oil coming out of the Arab states that used to go to Asia.

Of course, they can pick up some of the Venezuelan and also some of the Mexican. That's hard on our heavy oils in the province of Alberta and, of course, drives the price down of oil generally in the world and creates a differential in the margin between conventional and heavies. The other thing is El Niño didn't help us, at the equivalency of about 300,000 barrels a day. We're probably equated less because of El Niño.

As you see, there are a lot of things that play a role in why the price of oil is where it's at today. Even to the point where the turnaround in refineries – in the United States they did shutdowns, and they were refining. Their capacity dropped a million barrels a day not long ago. You get an understanding of why there's a surplus of oil in the world, but that won't stay forever, folks. We're an energy-consuming world. I think you'll see it'll strengthen. Especially natural gas will strengthen next year as our pipeline capacity comes on and some of the utilization in the United States and replacement of coal-fired generators with natural gas, and that increases the demand.

I've stopped a minute there. I'm not going into the details of the price of oil and what effect it has. You'll bring that up maybe tonight, but I wanted to give you an indication that it just isn't some cosmic thing that causes the price of oil to be as volatile as it has been. It's real issues around the world and, as I said, right from the North Sea to South America to Asia and to increased productions in the Middle East. Iraq is not a hugely significant factor, although it is emotionally in the world. But as you can see, out of the 77 million to 80 million barrels a day that are produced, Iraq or Alberta isn't significant enough to change. We produce 900,000 conventional out of 77 million to 80 million, and Iraq produces a million barrels. So you see we're not the cause or the effect of the total reason why all the volatility in the world. Enough said about that.

8:18

You know, we sit on one of the resource-rich western sedimentary basins. There's another part to our production here, and that's the synthetic crude or the heavy bitumen areas. The oil sands in this province represent about 1.7 trillion barrels locked inside oil. Right now we're developing about 1 percent of that, and we estimate the recoverable oil in the oil sands at about 300 billion barrels. With the change in the royalty regime that we announced last year and passed legislation, we have upwards of some \$20 billion worth of investments announced. Many of those applications are now before the EUB, and two plants, Suncor and Syncrude, are in the final analysis, so we're expecting them shortly to get into major phases of construction. But it's an indication of the future in this province and the stability of it when you get people that are making plans of 25 to 50 years. Some of

the plants there and their partners have on the books 80-year business plans. Although they go in 25-year tranches, they certainly are looking at the long range.

The other thing is that the natural gas, as I said, is strong. We're about 11 percent of the United States' market at the present time, last year 650 billion cubic feet, and with the pipeline expansions that we see, including Alliance and the Viking-Voyageur projections as well as some of the Portland/Iroquois lines, the future for Alberta gas exports is enhanced, and the price will strengthen. All forecasters are looking at a strong gas market in the future.

Petrochemical is a big issue around our natural gas liquids and ethane, and we're looking at about \$3 billion worth of investment over the next few years. Even Nova the other night indicated that we'd even be higher than that. Nova is projecting that they will have the largest production unit of ethylene in the world at 2.8 billion pounds, and their recent announcement to sell propylene glycol over 10 years to Shell – they don't even have that production capacity at the present time and will expand that in the near future – is just an indication of where this petrochemical industry is going. Some of the name brands are Union Carbide, Shell, Mitsubishi Chemical Corporation, and Amoco, which is coming up here with its olefin plant. I think that the future holds very well for jobs and value added here, and our ethane policy will strengthen that.

The other side of this industry. I've talked a bit about the oil and gas industry. One of the things we have to do is simplify the royalty scheme and keep working on the paperwork and the data processing and how we collect information to collect our royalties and indicate what's left in the resource or what's being produced, and we're doing that.

We're doing a royalty simplification program. CAPP and the industry members have presented the initial draft to me. It will go back out, and it will come back in April with the final stakeholder input to that. We hope to simplify once and for all something that's taken 10 years, what we call royalty simplification, to cut down the volume of paperwork and better target our resource: what's there, what we're losing, what we're not losing, what we're accounting for, and what we're getting paid for. I think in the end both that plus the reorganization and restructuring of some of the administration and some of the data systems in the EUB and the Department of Energy will give us a better resource base and database for the future.

The other thing is that electrical deregulation in Alberta is another side that's key to this department. I introduced Larry Charach and some of the others that are working almost 24 hours a day; they're not quite. Since 1995, when the Electric Utilities Act change came in, it's been a tremendous challenge to speed up deregulation so that we will have ample electrical energy supplies in this province come the year 2000 plus. The private sectors are wanting us to deregulate so they can make their investment decisions on gas-fired electrical generation, wind power, more coal-fired generation, better technology, cogeneration with industry, and better partnerships in using steam and some of the by-products from petrochemical and that to produce power and put it into our grid. They won't do that unless we deregulate, so we're fast-tracking it. In the spring, very shortly, the legislation will go in for the first phase of deregulation to allow full customer choice and to meet our target of the year 2001 for customer choice. Right now there is new power generation on customer choice as far as industrial power is concerned but not for the residential.

I won't go on too much more; I could talk the whole evening. I've talked about some of our activities, and I want to touch on a

couple more. We want to maintain our competitive edge in the province of Alberta, both in oil and gas and electricity and in our mining, coal mining, and oil sands. To do that, we must make sure our regulations are streamlined and that we're user friendly both environmentally and from our regulatory decision-making process in the EUB. We hope that that will be streamlined and enhanced. The EUB is not going to be melded with the Department of Energy, and it will be enhanced in its ability to meet on a timely basis all those applications that are put in.

The other thing is getting our products to market. That is a tremendous challenge that we have. We'll work on that to ensure that we don't interfere with the market forces that want to build pipelines and want to export the product, but we'll do it in the best interest of the resource and the people of Alberta.

The other is that Kyoto will bring us new challenges, and we want to work with industry on research and development as it relates to emissions, the CO₂ emissions in the province. The voluntary challenge and registry program must be enhanced, and we must work with the federal government and the rest of the world in meeting the targets on best effort. I do not support ratification of the Kyoto agreement. I support the intent and principles of it and making best effort but not to shut in our industries or damage the standard of living or progress that we've made so far in new technology and educated research and development. And I said today taking expeditions – I didn't name the brand, so you never know what that means.

At any rate, the other thing that we must enforce also – and we do that – is good surveillance and enforceable programs for the safety of this resource. We have such things as sour gas and pipelines that are getting older. We need to continue, in the public interest, not only our research and development but our surveillance and monitoring of how this industry performs in the province of Alberta. We should be proud of what we have here. When I travel the world, the safety that we have here for not only the people that work in it but for the public is, I think, world known. There is no place else in the world that would have better safety measures, better technology, or a better trained industry than the province of Alberta, and that's known throughout the developing world.

I'm going to stop there. There's one other thing; there is a thing called the Alberta tax credit review going on. It's \$270 million. It's brought in to help new exploration and development companies come in; juniors we call them. We're going to do the review because we want to ensure that those dollars target new junior companies and that some of those dollars are not being used to go to companies that have matured and graduated and no longer need the royalty tax credit to function as a company. That review will be done by 2001.

All right; I'm going to stop there because I'm drying out in the throat and running out of information for you at this stage of the game. I look forward to your questions.

8:28

THE CHAIRMAN: Thank you, hon. minister.
Edmonton-Calder, do you wish to lead off?

MR. WHITE: Yes. Thank you, Madam Chairman. As I recall the process, it's one question from the collective opposition, with reasonable supplementaries, then one from the government side, and back and forth until the allotted time is consumed. Correct? Good. Thank you.

The first question relates to the manpower in the department. As I understand the FTEs, the best information I had to go on is that the '96-97 number was 597, and it was to go up this year to

650. There isn't anything in the documents presently to indicate what the staff component is in that compiled number of full-time equivalents. The question that relates is: first, why would it not be included in the documents? Second, could the minister provide a breakdown in department expenses for the '98-99 year in the number of permanent position salaries, nonpermanent position salaries, salaries for those on wages, contract employees, travel, advertising, telephone communications, hosting – in one breath. I suspect you'll probably have to get back to us on that and take that on notice, sir.

DR. WEST: Postage?

MR. WHITE: No. We can probably leave that out.

DR. WEST: Okay. I just wanted to clarify that.

MR. WHITE: Mr. Minister, that's on notice. You'll get back to us with that?

DR. WEST: Yes.

MR. WHITE: Okay. Thank you kindly, sir.

THE CHAIRMAN: Edmonton-Calder, just maybe for the whole committee, this is very similar to what would happen in committee downstairs. You can go the 20 minutes. Then the minister can answer if he so desires, or he can wait until several people have talked and then he can do it all at once. It's not a debate or question and answer back and forth. You can go ahead.

MR. WHITE: Oh, that's good. How we've done it in the past has been question and answer.

THE CHAIRMAN: No. No, it hasn't.

MR. WHITE: Well, no. This minister and I; that's all.

THE CHAIRMAN: You're confusing this with the designated committees. This is different than what happened, for instance, this morning. This is not a designated committee. You do have 20 minutes, then the next person, and the hon. minister can answer when and if he so wishes.

MR. WHITE: Oh. Twenty minutes on this then. Okay.

THE CHAIRMAN: You can also speak for a second time, hon. member.

MR. WHITE: Yes, I did know that.

The second question relates to the electrical deregulation and its effect on the capital value of the assets that are already in production of energy and what that effect is. Will we and through us the public be aware of what the value of those assets are after some deregulation? I'm thinking particularly of those assets that have depreciated very little, the most recent primarily coal production. The value of those new energy sources that will be coming on in cogeneration I don't think we have, and they will not be included in any of the numbers the department has because there will be private generation. We wouldn't expect those numbers, but we would like to know the accumulative effect on each of those entities that do produce substantial amounts of power in this province.

In that this resource is finite and you were talking about some

tax review, is that tax review likely to occur in this budget year? If so, would the report be published by this year and then take effect over the next three? Or is it a report to be studied for three years and then take effect in three years?

The department's capital investment seems to be projected only for one year. It varies considerably, and there doesn't seem to be an explanation. Could the minister provide an explanation of the capital investment plans, particularly for '99-2000 and then 2000-2001, in that those are very significant years for the electrical end, certainly with the changeover from a controlled market to a much more free market?

Could the minister provide some breakdown on fees, premiums, and licences for the 1998-99 year and the subsequent two budget years? On page 227 it gives a gross amount, but it doesn't provide any breakdown between those three sources of income.

Other income through both the department and the EUB and AOSTRA in '98-99, '99-2000, 2000-2001: could you indicate and break that out also by source from your business plan on page 227?

Thank you, Mr. Minister. That's all I have right at the moment of the kinds of questions we'd like answered.

THE CHAIRMAN: I'll leave it up to you, hon. minister, when you do in fact want to answer questions.

The hon. Member for Edmonton-Strathcona.

DR. PANNU: Thank you, Madam Chairman. Mr. Minister, if I might take you back to the question that I asked you this afternoon in the House. You at that time of course suggested that you can go into the details tonight on that. The question had to do with the budget overruns and cost overruns with respect to MRIS, the mineral revenue information system. Would you kindly explain what was the cause of the overruns and if that is to be expected again on a continuing basis for some time. Of course, my concern was: would it not have been more cost-effective – and how would we know if it would have been more cost-effective? – to develop an in-house system rather than going on a contract basis? So there are two questions.

THE CHAIRMAN: I thank the hon. member.

The Minister of Environmental Protection.

MR. LUND: Thanks, Madam Chairman. We know that the industry has been doing quite a bit to deal with the issue of emissions. They've done a marvelous job of cleaning up the SO₂ emissions. The one area that still concerns me deals with the flaring issue and the flaring not only of solution gas. I know there's been quite an effort to reduce that. I'm wondering what research is being done currently to try to reduce those emissions. That report that was done in conjunction with the Cattle Commission and the industry and Environmental Protection indicated a number of compounds that were being released. It never came to any conclusions about the effects on livestock and/or humans but indicated that there were a number of compounds that could possibly have some negative impact, and I'm wondering what is being done currently to look at that whole situation.

8:38

Talking about the solution gas, I see in your key performance measures that you talk about the percentage of solution gas production conserved to over 90 percent. I'm wondering: where's the industry right now, what percentage of the gas are they conserving, and, do we have any indication how soon we'll be to that 90 percent in conservation?

I also have had some concern expressed to me about the EUB. Now, I realize it's a quasi-judicial body. [interjection] Did I take your question?

MR. SAPERS: No, no.

MR. LUND: I'll print you out some more, so don't worry about it.

MR. SAPERS: We share your concern about the EUB. Go ahead.

MR. LUND: Probably a different concern though.

MS CARLSON: I'm sure it is.

MR. LUND: Yeah. But the fact is that I've had expressed to me that there seems to be a building of a department in there that is duplicating what Environmental Protection does. You know, we've spent a great deal of effort to try to get the federal government to come to their senses and do away with a lot of this overlap and duplication, and I would be really concerned if the issues that have been brought to my attention are factual. I would be really disturbed.

Now, looking in your budget, on page 157 of the 1998-99 Government and Lottery Fund Estimates, I see under revenue the synthetic crude oil and bitumen royalty: \$50 million, the estimate for this year; the actual in 1996-97 was at \$512,242,000, and the forecast now for '97-98 is decreased to \$194 million. The production certainly has gone up a great deal, and I would wonder: how is it that our estimate for '98-99 would only be one-tenth, approximately, of the actual for '96-97?

That'll do for now, Madam Chairman.

THE CHAIRMAN: Thank you.

Edmonton-Glenora.

MR. SAPERS: Thank you, and I'd like to thank the minister for having his staff here. That's always important from our standpoint. I also want to comment on what a remarkably open and transparent process it is when you can have one member of Executive Council actually taking up budget examination time asking another member of Executive Council such penetrating questions that I'm sure have never had an opportunity to be discussed in things like cabinet meetings. So thanks for getting all that on the record, Mr. Minister. And you were right; your concerns about the EUB aren't ours.

I want to start off by asking a couple of questions, as well, about flare gas. In reading the business plans, I couldn't get much of a picture of where the department was going on this issue, and some of the questions that were just raised piqued my interest. I'm wondering, Mr. Minister, if you could tell us about your department's plans on how exactly you're working with Environmental Protection to deal with flare gas.

Some suggestions have been made for things like allowing flare gas to be used to generate electricity, changing the royalty regime to go from no royalty paid on the volumes that are flared to perhaps a royalty structure that would be waived to create incentives if the flare gas was used for some purpose. I'm wondering as well about things like environmental credits that could be generated. Some of the research people that I talked to that are looking at options and uses for flare gas have told me that it is possible, the technology exists, to have small, gas-fired generators that could produce enough electricity to operate pumps

but that there is a real mass of red tape involved in things like interconnect requirements into the grid and those kinds of issues. I'm wondering whether or not you're even looking at streamlining the process so that small energy producers could have requirements relaxed or if there is a standardized process or even an application form that you're looking at for small producers.

I note the minister for science and research has been talking about a tax-based program for stimulating more research. I'm wondering whether or not you've explored in your department things like capital cost allowance write-offs for generating equipment that might be used in conjunction with utilizing flare gas for some kind of productive purpose.

I leave flare gas for now and move to program 3. I want to talk a little bit about your department's involvement with other research and technology. I note that Alberta still maintains a 25 percent interest in the Underground Test Facility at Fort McMurray and that your department is responsible for managing that interest. Could you provide an update on the activities of the facility as it relates to the use of steam-assisted gravity flow drainage? The estimates don't really make it clear. In fact, if there is one general request that I would make, it would be that your departmental business plan could spend a little bit more time articulating your involvement in research and development under the planning and development program, program 3.

I'm also interested in knowing if the UTF project is still self-funded. Are there enough revenues from bitumen sales to exceed the operating expenses? If not, how close are we? If there's an excess of profit there, it'd be interesting to know how much and what your projections are for that cash over the next, let's say, three to five years.

I've been having a heck of a time looking at all the research arms of all the various government departments and trying to draw the lines between them all, particularly as they relate to the university initiatives in the province and those initiatives that are in part sponsored by industry that operate through universities or other government departments. Could you tell us a little bit about the co-ordination between the research and development division of your ministry with the Alberta Economic Development Authority, the Alberta Research Council, the Science and Research Authority, and the universities? Is there a formal mechanism that's been developed, and how will that mechanism be affected by I believe it's Bill 14 that's on the Order Paper, which would change the structure of ARC and ASRA?

Along that note as well, Mr. Minister, people from the University of Alberta in particular are very interested in knowing what is going to be maintained in terms of research funding in the areas of hydrotransport, geophysics, hydrocracking. What will be funded in '98-99 by the research and development division, and how much of that funding, in your opinion, is planned to be multiyear funding?

8:48

A couple of other specific questions also that flow out of program 3 before I take a breath and perhaps ask you to answer some of these questions. I'm interested to know about the profits achieved under the Lloydminster biprovincial upgrader disposition. In 1997 there was a 20-year agreement signed to share in the profits. I believe it had to do with the upside interest provision, and it was based on the projection that there would be a cost differential of \$6.50 per barrel and above between heavy oil feedstock and synthetic crude. So I'm interested in knowing what portion of the profits have actually accrued to the province. What is the schedule of upside interest payments expected to be in the next couple of fiscal cycles? Does it take us through to the end of the century?

Finally, I would like to know how much of the \$85.6 million royalty credit has been accessed by Suncor as of the end of the last calendar year based on the criteria of total spending on approved sulphur dioxide and odour emission reduction projects.

Those are my questions at this point.

DR. WEST: I'll answer a few questions then, and I'll start from the last and move forward. Edmonton-Glenora, the last question you asked: I'll have to get that answer for you. I can't really tell you what's used up on that.

The biprovincial upgrader. There's a historic nature to it, but your questions I think are pointed to since we got out of it. What is the upside interest agreement, what have we achieved from it, and has it been a benefit to the province of Alberta? The upside interest agreement was with both Alberta and Canada. It says that when the two-year weighted average deflated price differential exceeds \$6.50 a barrel – that's '95 Canadian dollars – then we will get a return. The price differential is the difference between the deemed synthetic crude oil price and the deemed feedstock price for the biprovincial upgrader. Again, the price differential is the difference between the deemed synthetic crude – you remember that it's upgraded – and the feedstock price coming in. The basic payment structure of the agreement is as follows, and it breaks down as the price goes higher than \$6.50 on the differential. This year the differential was as high as \$10.85, and today I think it's around \$9. So we get a percentage up to 50 percent of the portion of the two-year average price which is greater than \$7.50, and it goes from \$7.25, \$7.00, \$6.75.

Yes, we are going to get some money. We don't know what it will be for 1997. We've done the forecasting models based on the market that we see today and using variables, and 1998-99 should produce us around \$881,000, and then 1999 should produce us \$928,000 and roughly 200 in change, and then we go over \$1 million in 2001, to \$1,185,000. Those three years combined are close to \$3 million, and we don't know what the end of '97-98 will be. If we have a good differential going out, it continues to return us, and we have that until the year 2014.

The reason we got out of the upgrader – some people say: well, were you wrong in getting out of the upgrader? Remember that in '92-93 Saskatchewan refused to pay their payment of the losses, and the losses combined that year for the upgrader were \$38 million. Our share of it was around \$13 million and change. Saskatchewan had 17 and a half percent in the upgrader. We had 24 and a half percent. They said: no, we're not paying anymore, and look at the agreement; we disagree with it. So there was a dustup between Saskatchewan, the federal government, us, and Husky. Husky was sitting in the middle, of course, controlling both the upstream and downstream prices. They could balkanize the cost and the mechanism internally on the upgrading of the product and pass the cost on to the governments. I remember the Premier making a famous statement: all I can say is that I think all governments were stupid at the same time.

Saskatchewan wouldn't have been able to get their recovery today – and they paid \$45 million for the shares of Canada and Alberta. They wouldn't have been able to sell it for this money and recover all that today if it hadn't been for the Canadian and Alberta governments giving up their shares. There wouldn't have been a position for Saskatchewan today, because there was no way that the upgrader would have paid us all out the billion six – would they? – or the shares that we had.

You can almost say that the 300 and some million dollars Saskatchewan got was a good transfer payment – wasn't it? – from Alberta and Canada. [interjections] Well, that's exactly how I feel about it, because without us getting out of that

agreement, stop the bleeding in Alberta, you wouldn't have enhanced Saskatchewan's position in this upgrader, and hell would have frozen over today to have them pay 1 point some billion dollars for this to all three of us. So I think Saskatchewan has done well and should not say any more.

Now, the Underground Test Facility does no longer belong to the province of Alberta. We've been out of it now. We sold our shares in it. There is in the Underground Test Facility six Japanese oil companies, Chinese National Petroleum Corporation of Canada from Beijing, Chevron Canada, Gibson Petroleum, Imperial Oil, and Syncrude as an associate member. The major shareholder is Northstar Energy, an operator of the Underground Test Facility at 58 and a third percent. We no longer are involved in that. The production of it: they produce about 1 and a half thousand to 2,000 barrels a day; is it? They plan on doubling that. I'm not quite sure of that, but at any rate, they operate and run the test facility on their own. So I want you to know that we sold our shares in it and got out of it here in 1997. AOSTRA was holding those shares, and they sold the remaining shares to Northstar Energy group and got out of it.

The research that you talked about and the association we have. We have AOSTRA still in place, which controls the research dollars that go through to industry. Alberta Research Council has a board of industry people on it that make decisions on recommendations of where certain dollars coming out of the Department of Energy plus money they contribute shall be levered for research programs. This year I think it's just under \$10 million that's in that program. We went to Treasury and Treasury agreed to flow those dollars through that were in a fund sitting in AOSTRA and in the Department of Energy and use those dollars up in research.

Where the dollars will go in the future. I personally believe strongly in research and development, and I know that the minister sitting beside me does also. In the future, between industry and the Alberta Research Council and AOSTRA, the remaining part of AOSTRA that delivers these funds, the determination of where they're best used will be brought forward. They're doing all types of research, but I think that with Kyoto and post Kyoto one of your indications in the first question that you had is a need for good research and development in all the areas as it relates to CO₂ emissions and better efficiency and effectiveness not only in pipeline design and construction but compressor design and construction, also in convergence using CO₂, reinjection into the formation for enhanced recovery programs, such as PanCanadian is doing at Weyburn, and working on such things, as you said, as the use of flare gas for gas-fired electrical generation or just injecting flare gas back into the formation for either enhanced recovery or for disposal.

As I say, I think there's a lot of research to be done on the use of hydrogen and other products in our industry, and those recommendations will come not only from industry on a focused area but also from members of the Alberta Research Council in combination with people still in AOSTRA. The chairman of AOSTRA is here tonight, and that's the Deputy Minister of Energy.

8:58

The first question you had – plans on dealing with the environment and its protection, research and development – I got into that. You talked about gas flares. The EUB has done and commissioned studies on flaring of gas with CASA, the Clean Air Strategic Alliance, as well as with the department of the environment. They have come up with certain studies that have indicated the costs – you're right about taking certain gases into the

mainstream, either treating them or collecting them. It's very expensive in some of our regional areas where we don't have good enough collaterals to make it economical to bring that gas into the mainstream. Nonetheless, following Kyoto, again, and with the voluntary compliance and good research, I think we will look at the future of that gas to ensure that the least amount of it is flared. I think flaring is going to disappear, folks, as a means. I think there will always be some escape, but I think the traditional style that we had before is gone. I think the companies agree, I think the EUB agrees, and I think the department of the environment agrees. Again, some of the impetus is coming from the federal government.

You said: would there be flow-through tax shares? We want to deal with the federal government. Mr. Goodale is going to phone me tomorrow night. I think they've got \$100 million in the budget. I want to talk to him directly. He's over in England, and I want to talk to him in regards to what programs they are going to put in place. They are being lobbied by the wind turbine people as well as people in the gas-fired electrical turbines to get flow-through tax credits or allow the expenses to flow through into their share structure so that the public can invest in them but get a tax credit for those investments. I don't disagree with that totally, but it wants to be co-ordinated both provincially and federally, and it wants to hit the target.

When we get a good credit system and trading of emissions – and we're going to do that on a global basis. I know Christine Stewart is working with the Americans. When we get a good program to trade emissions and get credits for this new enhanced research and development for CO₂ emissions, then you're going to see this go ahead on a voluntary basis, as well as combined efforts with governments. But first, nail down the process. We haven't done that yet, but you're bang on the targets. That's exactly what we're after here. How we do that? We're not going to give industry a lot of money. We're not getting back into missing the targets and giving them money like we did before with some of the research and development grants and that sort of thing.

Now, we get back to the minister of the environment asking these questions. He did get into the flaring issue, and I did say that we have done that research a bit with CASA, and they are doing more. EUB is right in the middle of another study on flaring. They have done quite a bit on solution gas. I can't answer you the percent that's being conserved exactly today. I had a talk with them last week in Calgary. They are talking, you know, about stopping flaring to the best of their ability. I think that if the department of the environment works with them and we get co-operation from industry, we'll see that.

The EUB and environmental duplication. I brought that up last week, and I will bring it up again. I have concerns also. I have been with the hon. minister of the environment down in Newfoundland, where we talked to all the energy ministers in Canada, and they all agreed unilaterally that the federal government's duplication with their environmental act and their conservation act is not acceptable. They overlap the process, and I wouldn't want to see that happen with our regulatory, where we have the first ministry of environment provincially in Canada, and the reason for that was to stop duplication.

Oil sands, the decrease in the royalty, you asked. That's true. The Steepbank and Aurora mines coupled with the new royalty tax regime mean that our revenues will go from some 500-plus million dollars down to – they flow out in the business plan from \$58 million to \$60 million, varying in that range, which is a tremendous drop, but that was to get the \$20 billion worth of investments. I want to hand that out. I've got several documents

to hand out that some of you will take with you, but that is the New Alberta Oil Sands Developments 1996 to 2007.

THE CHAIRMAN: Hon. minister, do you wish to table those documents within committee?

DR. WEST: Yes.

THE CHAIRMAN: Okay.

DR. WEST: I guess that's the way we do it here. That's right.

So the new regime takes the front end off our revenues by some \$450 million and adds them to the end as these projects come onstream. You'll see by this some \$20 billion worth of investments and more, considering the investments, that the job creation and the flow through of revenues down the road to the province will be tremendous. Just an example, it's estimated down the road that revenues back to the province could reach, flow out as \$3 billion a year. Three billion dollars a year. As I say, when these projects are onstream and the production levels triple coming out of the oil sands, it will indeed be a stable revenue source for the people of Alberta for health care, education, and all those nice things.

The MRS. Getting back to Edmonton-Strathcona: the overruns, why? I said in the House today that, yes, the cost of this got to \$37 million. It started out innocently in-house. They started looking at a system that we needed to invoice the industry and to collect all the information to help do that, but it got complicated. We don't deny that. It got expensive. We were working with contractors, and then we had to switch. IBM came in on almost a cost-plus basis, and by the time they got through bringing this onstream, instead of \$10 million we were close to \$37 million, and it could be as high as \$43 million for the system. It is working now.

The Auditor General said that there are some other functionalities that haven't been met. It was so complicated that some of those that we had initially stated we would have in place – and we will explain that to the Auditor General. The Auditor General is in the department today, right as I speak, looking at this. We are satisfying him that we have finished this program, and although we won't have all the functions in it, to the best of our ability it's up and invoicing on a timely basis and will be a benefit to the province of Alberta, albeit a very costly system.

Could it have been done cheaper? I wasn't there on the day it started. In retrospect anybody can criticize. Maybe it could have been done cheaper in-house. No, it started off in-house. That's when it got out of line. When we started it in-house, it got complicated in-house, as it would, and got expensive too. You'll say: should you get the private sector involved in developing this? In any ministry I've been in so far that outsourced computer services, the savings have been significant, and I'll stand by that. If it's not a complicated system in the first place and they get their terms of reference and they know what they're doing, you can give them exactly what you want, not a cost-plus ambiguity, then it will be cheaper. I'll guarantee it. We've put out systems that have saved us up to 25 to 30 percent. In this case here I guess the unknown has complicated it. That's about as far as we'll go. The Auditor General will be satisfied in the end, although he did make reference to the fact that the cost overruns were significant. Your question is a good question. It's the same question that we all asked.

Now where are we at? Lets move on to Edmonton-Calder. A manpower staffing breakdown. Well, we'll have to get you that. You see it there. It's decreased some 13 percent overall since

1992-93. In the Department of Energy it decreased 19 percent, and the EUB decreased, I think, about 6 percent. As far as the breakdown of whether it was full-time equivalents or part-time and that, if I were a company in the private sector and the EUB had put out the 23,000 licences it did this year and was able to look at 15,000 well licences with the manpower they have, with no increase in salaries and the attrition they had been going through, then I would give them one hell of a bonus. Wouldn't you? I have to give them full marks for the work they did. The Department of Energy in the same light has been working with 19 percent less people than it did a few years ago, and last year over \$1.1 billion in land sales – January 7 was the largest land sale recorded. As well, they collected \$4 billion last year for the taxpayers of Alberta, at the same time doing the inventory and all planning and development for this resource. I don't know why your question was asked, but I'll give them full marks for doing a good job. That's what you'd ask of the private sector. They didn't come back crying for more jobs. I think the EUB was concerned earlier on – and so was the industry – that they were losing good people to the private sector and that they would be stressed and that they didn't know how they could get some of it done on a timely basis. They did. They tightened up halfway through the year and did a good job.

9:08

The value of the assets. I won't discuss electrical deregulation in those terms and neither should this Assembly. These companies that we're dealing with are shareholder companies on the stock market.

The three-year tax review is the Alberta royalty tax credit review. We have to serve a three-year notice and . . . Is that all I get for now?

THE CHAIRMAN: For now. We will certainly ask you to speak again after a couple more speakers.

DR. WEST: Well, I'll pick up on that ARTC review next.

THE CHAIRMAN: The hon. Member for Edmonton-Ellerslie, followed by Calgary-McCall.

MS CARLSON: Thank you, Madam Chairman. My first comments are with regard to the minister's opening comments about CO₂ emissions. I was interested to hear that you're working with the industry on the R and D aspect of it, and when I take a look at the budget, it does look like there's an increase in funding there, which is quite interesting for the minister, who's been the king of cuts. So I'm wondering if you could elaborate on that and tell us where the new dollars are being spent and what it is that you're specifically targeting in the R and D dollars and how many of those R and D dollars are committed to CO₂ emission work and what kinds of projects you have involved in there at this stage.

[Ms Haley in the chair]

Also on the same topic, there's a lot of discussion that the air sheds in northeast Alberta are already overcommitted and that with the new projects there's going to be increased pressure in that area, and I'm wondering what your comments are in that regard.

DR. WEST: Could you repeat that?

MS CARLSON: When we're talking about CO₂ emissions, there

are many people who are saying now that the air sheds in northeast Alberta are already overcommitted and that these new projects coming on line are going to put increased pressure on the air sheds there. I'm wondering what your comments are there and how you see that problem resolving.

Then I'd like to go to EUB. Once again, here's a program where we see a small increase in expenses, and if you could tell me what that increase is going to be for, I would appreciate it.

Then I'd like to move to the business plan for EUB, page 224. One thing you say that you use as a performance measure is stakeholder confidence. When you're talking about public and industry stakeholders, I know who the industry stakeholders are. Could you clarify for me, please, who the public stakeholders are in this instance and where the landowners that have well sites on their property fit into this scheme and how you measure their satisfaction on an ongoing basis? The kinds of benchmarking that you're doing in that regard would be very important for me to know.

In number 7 you talk about eliminating the need for applications where appropriate. I'd like to know the circumstances where they are appropriate and what other kind of system will be in place to pick those up.

When we go to the performance measures, the rate of deficient applications, I've got some questions there. You say that the target is "4% data deficiency for routine facility applications." When do you expect to be at that target? What's it at now? I didn't see anything in here that specifically identified that. So if you could address that for me, I would appreciate it.

In terms of this whole EUB program, you've talked about some integration of corporate services. We see a \$10 million reported savings there. Can you give us a breakdown of what that anticipated savings is? Then what impact will this integration proposal have on the full-time equivalents in the Department of Energy and the EUB, and specifically where will those savings be? Then I'd like to know how the integration of the EUB activities with the department impact upon the outcomes when you talk about your core businesses. So one is the deficient applications that we talked about, those application turnaround times. Improvement among the poorest operations: I want to talk a little bit more about that. I'll wait and go down the line on that, I guess.

Is the application turnaround time 2.5 calendar days now, or is that your target? If you could answer that for me. It looks like that is the . . .

DR. WEST: I'm getting an echo.

MS CARLSON: You can't hear? I'll try putting this closer.

When we go to number 8 in the business plan, maintaining public safety, conservation of resources, and so on, you say that you're focusing this "surveillance on high-risk operations, problem areas and companies with poor performance records." Could you elaborate on surveillance for us in this particular instance and specifically what you're doing in terms of on-site inspections for these high-risk operations and what are classified as high-risk and problem areas? Poor performance records can mean a lot on a continuum. If you could specify that, I would appreciate that as well.

In here, I guess, I'll talk about enhanced on-site well inspections. You spoke to that in your opening comments. I'm wondering if you could a little more clearly define what that means. Certainly there has been some concern in the province that there aren't as many on-site inspections done anymore. I know the numbers of well sites have increased. I know the EUB

has decreased the number of inspections. So if you could give us some data specifically pertaining to that, I would appreciate it.

Certainly there's a high level of concern amongst landowners who have these well sites on their property that we don't see the same amount of on-site inspections as had been done in previous years. This is a concern I think for us because of the number of times these well sites are turning over. It isn't like in the old days when you had a few operators with a large number of well sites split between them. There are lots of players in the field now. Lots of these people don't necessarily have a lot of financial backing, so they may not be here for a long time. If we see these well sites exchanging hands and there haven't been proper on-site inspections done on an ongoing basis, we see potential down the line for problems. If you could address that for me, I would appreciate it.

When you talk about the performance measures, you're saying that improvement among the poorest operators has a target of over 60 percent. Can you tell us what the target is now and how you expect to get those players at that percentage? I'd appreciate it.

Also, when we talk about solution gas production, you're saying the target is 90 percent. What's the current percentage of solution gas production conserved, and what specifically are the steps that you're taking to reach that? I'd appreciate that information.

In number 9 when you talk about ensuring "useful and timely information is available to support the effective, efficient and sustainable development of energy resources," you're talking about ensuring "that information requirements meet regulatory and stakeholder needs." I understand the regulatory. Could you define the stakeholder needs in some more detail for me?

"Increase reliance on the private sector to market energy data": could you once again tell me what you expect there? We're seeing increased demands all the time on the private sector, and I'm wondering how they react to this and specifically what it is that you're going to be requiring from them.

When you talk about evaluating resource and market appraisal activities and streamlining where appropriate, terms of reference for how you're going to evaluate those would be appreciated.

Streamlining is going to happen when and how and what kinds of targets are we looking at?

I think I'll leave it at that and come back if I have more questions after you answer those items.

Thank you.

THE DEPUTY CHAIRMAN: Did you want to answer now, Mr. Minister?

DR. WEST: No. Let the questions roll.

THE DEPUTY CHAIRMAN: Calgary-McCall seems to have left the room, at least I don't see him.

So Fort McMurray.

MR. BOUTILIER: In terms of a lot of the work that was mentioned earlier regarding emission reductions, you had mentioned oil sands projects, SO² reductions that are taking place. I would be interested in the kind of investment industry has made in order to achieve that kind of reduction in SO². It's been purported that SO₂ emissions, in fact, have been reduced by 95 percent I think in particular sectors, and I think it raises a relevant point about some of the positive things that are going on towards that, working with Energy officials. Sounds quite impressive. That was one question that I did have.

9:18

Also, in terms of the new oil fiscal regime that has come in, the

fact that, as has been stated, investments are now amounting to close to \$20 billion, if not over, I guess the question would be in terms of, you know, the positive side of investment and if, in fact, you see any downside to that and most importantly the kind of return Albertans will receive in the long term in terms of what they are projected to be paying in terms of royalties in the next 20 years. I'd be curious to see the real value that Albertans are going to be reaping because of the new fiscal regime that has come through as well. I'm curious about what is being forecast there.

Thank you, Madam Chairman.

THE DEPUTY CHAIRMAN: Edmonton-Strathcona.

DR. PANNU: Thank you, Madam Chairman. Mr. Minister, a while ago you were asked a question about the royalty tax concessions that were made with respect to synthetic crude oil and bitumen royalty, almost a 10 to 1 ratio. The reduction is one-tenth of what it was in 1996-97. There are several other items on the same page, page 157, Mr. Minister. There are projected declines in the crude oil royalty, almost 50 percent from 1996-97. There is obviously a reduction in the natural gas and by-products royalty which is considerable, perhaps close to 15 to 20 percent.

Now, the synthetic crude oil royalty reduction is, in my view, extreme. It's really a handout of \$450 million to an industry that's already doing quite well and is interested in investing more because it's doing well. I don't know why this kind of incentive was considered so imperative from your point of view, and the same is true about this crude oil royalty regime. My understanding is that royalty rates for oil and gas were adjusted in the '80s in order to make industry at that time profitable and so they could grow. Those have never been changed, and the industry since has greatly benefited from the concessions made then and has done well for itself as it's created jobs, I would agree. So why these new concessions? Why these new reductions again here? Would you explain if this crude oil royalty reduction to the tune of about 50 percent of what it was in '96-97 is again a deliberate concession, or is it simply a new estimate based on some sort of a new basis, which I hope you will explain. So that's one question.

[Mrs. Gordon in the chair]

I notice that the total revenues as a result of these new estimates that you have presented here for '98-99, resulting from some concessions made and some new estimates, are 35 percent lower, the 1998-99 total revenue, than the revenue for '96-97. That's a very, very large reduction indicated there when in fact the last year's comparable revenue forecast is over \$4 billion. So there's some explaining there to be done, Mr. Minister, and I hope you will kindly spend some time throwing some light on it.

A few other questions while I'm at it. In terms of encouraging research in the energy area, surely you are the Minister of Energy not just minister of oil sands and nonrenewable resources kind of energy. Why is it that there is no effort being made while energy revenues are abundant, quite good, nice? Why isn't at least a small proportion of these revenues being invested in research on wind turbine and sun type of energy resources for the future? Have you got any estimates on the reserves of oil and gas that we have? For how many years can we rely on these? Surely in the not too distant future we'll need to have alternative sources of energy come onstream, and the time is now to invest some research money into that area. I see none whatsoever in the budget that you're presenting, so hopefully you will kindly throw some light on that one.

You showed me that the money you have invested, currently \$43 million, in the IBM-related activities is far higher than you had initially anticipated, and you've been very gracious in acknowledging problems with estimates and lack of knowledge about this within the department. That's not uncommon in all kinds of organizations, so I commend you for being quite frank about it. But you then in the same breath said that you are absolutely convinced that letting the private sector do these sorts of things is necessarily beneficial. I am puzzled by that. There's no evidence that you have presented. It's a matter of I guess faith or belief that one has to rely on.

When I asked the Premier this afternoon about committing himself and his government to some cost-benefit analyses on privatizing some of these activities, he fell back on the argument that this is not his job; it's the Attorney General's job. Mr. Minister, I think any responsible government would consider it its job to make sure that public money is well spent and that public interest is the one that's the primary responsibility of such a government to promote. So we can say in hindsight that, sure, one can be righteous about these things.

The same is true about the Husky Oil project that we just talked about a while ago. These are decisions which have to do with timing. These are decisions that have to do with some patience that one has to show sometimes. But it appears to me that this government has a predisposition, if not a deliberate preference, for reliance on the private sector regardless of the cost factor. I think there's something to be learned from the experience that this government has had with it. It's that predisposition that you articulated, I suppose in your speech in Toronto some time ago, in which you said one has to move towards privatization in almost a military attack fashion so that before anyone can organize to resist, one should have accomplished the task. It's not so much a matter of ideological points that one needs to make. I think the point is to make sure that public money is properly spent and that we take responsibility for the cost overruns we are responsible for. I see some reluctance in your remarks about doing that.

Now, I'm going to go to your key performance measures for a moment, and with that I will conclude. You talk on page 154 about rate of return relative to cost of capital, and you of course come to the conclusion that targets are not applicable. I wonder if there are any guidelines you would use that would help you and your government determine what would be reasonable rates of return given the market prices and market uncertainties that we do deal with. You're right that particularly the oil market – not so much the gas market, as gas prices are more stable – can be volatile and can be affected by a variety of developments outside the borders of not only Alberta but this country. So would you be able to tell us: should we then simply give up on the rate of return, or is there some sort of rule of thumb as to how to determine this? Are Albertans entitled to know what these underlying considerations are that you use to make these decisions? I have the view that certainly over the last five or six years the energy industry has been very, very profitable, that the fiscal integrity of our province would have been further served had we considered using the royalty rates in order to bolster it.

9:28

Ratio of industry to ministry research spending: a 3 to 1 ratio, you are saying, by the end of this year that's coming up, '98-99. Two questions on this. What is that ratio for '97-98? It's very difficult to take your KPM seriously unless we know what will be the magnitude of improvement over this last year that you are promising here. Secondly, is this industry to ministry research spending ratio, on research I suppose, limited to fossil fuel

industries and activity? Or is it available elsewhere as well; you know, within your own department?

Let me just have a look at my notes, Mr. Minister. I think I may have just about finished with what I wanted to say.

Voluntary challenge program. You obviously place very, very high hopes in that program. I have concerns about it. I'd like you to elaborate on it, why you think you should place so much confidence in this voluntary program. What are the monitoring and enforcement capacities that your department has that can be used if the voluntary challenge program fails? It seems to me that as one relies on the voluntary challenge program model of achieving targets with respect to pollution control, one simultaneously sees that the department's own capacity to monitor and enforce is cut back due to staff cutbacks and downsizing and so on and so forth. What if the program doesn't work? How will the department then respond in terms of enforcing and requiring the meeting of standards with respect to pollution control and things of that sort?

Thank you.

DR. WEST: Well, I'll make a few comments because the last hon. member has stimulated my interest.

DR. PANNU: I thought so.

DR. WEST: I might start off that I appreciate his questions, but philosophically he and I are about as far apart as you're ever going to get.

DR. PANNU: That's true.

DR. WEST: I admit that he doesn't have a great appreciation or understanding of why we have the services that we have in the province of Alberta or in Canada. That's because of the private sector, because of the free market system, not government. Government does not create wealth or jobs, and government did not create the standard of living that all of us enjoy here. Government did not create the services that we have in health and education and all of those things. In Canada the free market system did from the beginning of time. The people that came here and developed it, who each got up every day and worked hard – 75 percent of them do not have pension plans, do not work for unions and do not and do not and do not.

Now, you said to me: how would I know that privatization works, and what benchmarks are we going to use or what do we do to show performance measurements of privatization? It's a given fact that we cut 3 and a half billion dollars out of the structural budget of this government. We privatized a tremendous amount of things that demonstrated 20 to 30 percent more efficiency for the people of Alberta in their operations. I can use an example. Everybody got upset about CKUA and the \$4.1 million or \$2 million that we gave them in operations, but they were costing us \$2.8 million a year. From now on, 44 people no longer work for the provincial government, and we don't spend \$2.8 million a year forever. And in 1990, not 1942, what business does a government have being in the radio business?

Now, when it comes to computer services, we have demonstrated how this government has purchased large computer systems, central computer systems, and they were outdated before they even installed them in the building. Public Works, Supply and Services could write a book on the amount of money that they've spent on retrofitting and overhauling. Why wouldn't you contract that out to the private sector, and why wouldn't you keep up to date the equipment and technology and new ideas and save

yourself 30 to 40 percent? We have done that and demonstrated that in Municipal Affairs, in registries, in all types of things. When you get your head out of the sand, you get a driver's licence that's in one piece of plastic rather than two pieces of paper. That's just a simple example of how we advanced because we thought of getting out of the business of being in business.

You don't want to hear about Alberta Mortgage and Housing and the liquor board. You don't want to hear about all the types of other programs that we got out of and how much we saved, because you don't want to listen. In the Department of Energy before my time we went and got the private sector marketing our oil. They're doing it as efficiently as we were doing, and the first studies say that they're doing a good job and probably even giving us a better return. But you don't want to hear about that because it goes against the philosophy of which I'm really tired.

Now, the voluntary challenge was another shot. Another shot was taken because you don't trust . . . [interjections] Well, he asked a question about the voluntary challenge and how do we know the companies are going to do a good job. Because it's in their best interest to be efficient, and they are citizens that do listen to the public interest. They deal with stakeholders.

I'll go back, because there was a question from the Member for Fort McMurray about the position that the companies are taking there on SO₂ and CO₂ emissions. They are doing their research because two things take place. Yes, it is the marketplace. When they started the oil sands, it cost \$27 a barrel in 1974 to upgrade a barrel of oil and take it to market. By the time they're done in 2007, they'll be looking at somewhere around \$9.25. This year it's about \$11.90 or something for a barrel of oil. In doing that, they want to get more efficient, and in getting more efficient they put out less CO₂, less SO₂, and less energy. The new hydrotransport system that moves oil through 24-inch pipelines is going to save 63 percent of the energy costs in efficiency, and it's going to cut back over 30 percent – some say maybe 60 percent – of the CO₂ emissions. Yes, they're going to produce more, maybe increase production 30 or 40 percent, but we damn well better get credit when we go to the global marketplace for the CO₂ emissions that we save in the same relationship to the amount of production we're getting.

Of course, look at Suncor. The other day somebody asked the question of what we're doing to stimulate – why aren't we taking some of the surplus money and putting it into research and development in wind energy? Well, we don't have to, because the voluntary challenge and the new Kyoto deal – Suncor just purchased 350,000 megawatts from Vision Quest under contract. We'll be using that when we get the new emission trading system set up in the world. We're dealing with the United States on that, but they will be asking for credits for the CO₂ emissions they're producing and using green power to do that. In so doing, they're stimulating the investment in wind energy. We didn't do that; the private sector did that.

The private sector is spending one in three dollars. Somebody asked the question: how much money do these companies spend? In Syncrude, for example, almost \$7 billion of the \$20 billion will be spent on environmental and new technology, investment in equipment to save energy, to save CO₂ emissions, and on it goes. Right now the research beginning in the industries – I talked to them the other day – is to collect the CO₂ they're emitting into the air today and take it in pipelines as they do at PanCanadian at Weyburn, where they bring it up from the States. The States will be wanting credit for that CO₂, so we're going to have to get a trading system so they get credit for injecting it in our wells for enhanced recovery of our oil basin. Our companies are going to start catching their CO₂; it's called convergence. They're going

to bring it down in pipelines, and they're going to reinject it back into the wells.

9:38

You said: why voluntary challenge? Because we've had an experience in this country with a national energy program, and any indication whatsoever to us of a carbon tax or some veiled threat that you will do something at the wellhead or something else if you don't collect CO₂, the companies will take their money and run so fast to the developing nations like China, Mexico, South Korea, Venezuela. They don't have any type of programs there whatsoever. They're not going to stay here while we come and threaten them with this big stick. I think that's exactly what your philosophical difference is from mine.

Thank you very much for your questions. That's the end of my answers.

THE CHAIRMAN: Well, when we open the door, he's definitely going to come through; right?

Edmonton-Calder. [interjections] I have Edmonton-Calder down next and then Calgary-Montrose.

MR. WHITE: Some of my questions in fact have been answered, and I wasn't about to get into any more philosophical questions for fear of having to sleep over.

The questions relate to some performance measures in corporate services and how one is going to justify the integration of the management structure between the EUB and the department and how one is going to measure that efficiency while maintaining the integrity of an independent operation that the EUB must maintain and the perception of that independence also. [interjections]

There are some other questions as they relate to . . .

THE CHAIRMAN: Edmonton-Ellerslie, the hon. Member for Edmonton-Calder is talking, and I'm sure he would like the hon. minister to listen to what he's asking.

MR. WHITE: The other questions, too, relate to some quality management services. I gather that there are some initiatives in corporate services in the '98-99 year, and there are the government estimates on page 145 that need some explanation.

I'd also like, just in parting, to have some elaboration on the questions asked by the Member for Fort McMurray as to the bitumen royalty question. I don't want to get into the philosophical argument again, but it seems to me that if those arguments . . . [interjections] I'm not. I keep telling you; I forgot my pillow, so I'm not going to stay for that. I think I might have heard the indignation of the minister before in this questioning of his philosophical stance. So I don't need it.

THE CHAIRMAN: Hon. member, no interjections.

MR. WHITE: We don't need that anymore. We've heard it.

You know there are some questions to be asked and some information that could well be beneficial to the understanding of Alberta's position in the competitive world of oil production. It seems to me that in the minister's own words – I think it was something to the effect that we're not about to become a world of non carbon based consumption in the near future, and therefore the implication is that there'll be an expanded need for production of the nonrenewable resources of oil and gas. In the same breath – not quite in the same breath but a little later under perhaps a different breath, he spoke about a bitumen royalty that moved forward the production of this finite resource at a lower cost and

lower return now in the way of royalties and a higher one later on. Not wanting to fall on either side of the question here but just trying to understand the situation that Albertans, the owners of the resource, are in, that resource is there for my children and my children's children unless we remove it and ship it down the line perhaps at a lower price now than later. The philosophical question is: why would you take a lower price? A display of the numbers and in further answers to Mr. Boutilier's question would certainly be nice to be explored.

The other question, too, is that you went through in your opening remarks at some great length a discussion of the reserves as they relate to the oil sands proper, and you pegged a number that was recoverable. I was always led to believe that all of that oil is recoverable, that it's just a case of cost. I mean, you could recover oil at \$120 a barrel if you wanted, but it was recoverable. I wonder how you came to the numbers that you did in your opening statements and whether you have some documents or some studies in hand that show what the recoverables are at in today's technology and the volumes that are there.

Time is short, and there are others that certainly want to ask some questions, so I'll give the floor to my colleague from Calgary.

DR. WEST: Madam Chairman, I think tonight it's interesting. Some of the questions are targeted, but some of them are very interesting for the people of Alberta to get into the discussion and that's: how soon on a timely basis shall we develop the resource? That was one of the questions. How do we know whether we should be developing 13 bcf a day of natural gas and exporting 11 percent or 20 percent to the United States? We have never had that philosophical discussion with all Albertans. I know one thing: those that have a job today and have children to raise and need a good job, a good standard of living are pretty proud of how we develop this resource right now. I think that if I talk to the people that do the exploration and development plus the scientists we have, we are doing a good job of not overdeveloping the resource at this time.

How did we come to the conclusion that there are 300 billion barrels? Well, that's because they look at the recoverable resource – that used to be about 10 percent; we said we're at about 1 percent right now – and they take the volume and the depth of the oil sand and the concentration and it's viscosity and all types of things that I'm not very good at understanding. But those are the figures. That's about the only figure I know that's consistent in the whole industry: 1.7 trillion barrels, 300 billion recoverable. That's the only one I've heard across all industry and all documents that seems to bear weight. You can say: how'd they come to it? As I said, those people – geologists, geophysicists – that we train, that are the best scientists that we have today, that work in the Department of Energy, that work for the companies that are out there come to those agreements. We do it in partnership with the private sector. It's in their best interest to know what reserves are there.

Our geologists and such admit that probably at the pyramid of geology we're only in the top part of the pyramid, that there is a tremendous amount of resource that we haven't even explored and developed yet. We haven't done deep gas cuts in major dimensions here. When I was in China, they talked about deep gas. They go massively further than we do to recover gas. The enhanced recovery programs that we have in oil are just the tip of the iceberg. We used to say that it's 5 to 7 percent out of heavy wells. Now they talk 15 to 20 percent or 14 percent depending on the SAGD technology and some of the rest. So the volume of reserve there is directly proportional to technology. We're going

to go back into the reserves that a few years ago we just touched a little bit, and we're going to take another 20 percent out of those reserves.

To say that we have overabused this resource – I think anybody in the world today would not say that. There'll be ample discussions in the future for you and your children and the children's children to discuss this. I firmly believe that we have only touched the tip of the iceberg as it comes to the resource here in Alberta. If you do the reserves of coal, the estimated reserves at the present day usage was 300 years at one time. We haven't even looked at things like gasification and other things that we could use in coal. We haven't even touched that yet. Natural gas reserves: unlimited when you start to think of some of the geology that hasn't been studied.

Conventional oil: well, there was 30 years of conventional oil when I came in 1967. I can remember that. I came to Alberta, and they said that there was 30 to 40 years left of conventional oil. Last year they told me there was 30 to 40 years. So I guess when I came to Alberta in 1967, there was actually 60 to 70 years left, but they told me 30.

9:48

So I guess as we go forward, that answer and that philosophy will have to come, but I don't think it's a measurement of the function of the Department of Energy as a failure or as a positive light. It's a process that we work together as a society. I think it serves Albertans well, it serves Canada well, and it will serve a lot of people in the world better if we develop the technology here of enhancing that recovery of resources and export that technology to China and some other places that could sure use energy rather than rotten, high-sulphur coal. So I think the best is yet to come when it comes to this industry. I'll leave that to the future generations.

As far as some of the other questions – I had a lot of questions there, and I'm going to leave that so that our department can answer those.

The one member that was talking to me – I couldn't hear that well when she was going through and reading off the budget book, and she covered a lot of territory very quickly. I think that I will just say that if she was talking about the pollution of our air sheds, I could get into the Kyoto issue and CO₂ and what it actually means.

You understand, of course, that Canada is 2 percent of the world's CO₂ emissions. At best, you know, on a given day we won't affect the world pollution in the increase of CO₂ because China, which is not part of this program, is 18 percent of the emissions and growing. If we did our best effort to cut out all our CO₂ emissions, without the developing nations of, like I said, Mexico, South Korea, and India, then we would have affected the world by 25 days while the rest of them produced all the CO₂ we produce in Canada, not Alberta. I guess there's got to be a better understanding that they're not filling the air shed, as some environmentalist or somebody said to you. It's almost like you think that there's a silo up there over Fort McMurray that, you know, they put up every night and fill with CO₂ and it stays there. It doesn't.

The pollution in Canada is split about a third, a third, and a third: a third between transportation, a third between your personal living – your houses, your furnaces, your fireplaces, the electricity you burn, and all of the things you use – and industry. So the oil and gas industry, although very prominent in Alberta as an industry, across Canada on an ongoing basis is only responsible for about 30 percent of the problem. Of course Canada as a 2 percent contributor will not solve the world's problems but will

probably enhance the solution to it by the research and development that's done here in Alberta in the oil and gas industry.

I just say that every time you start attacking this industry by using examples that are totally, I guess, irrespective of the global problem, then I think you're damaging the solution on a global basis. So I think it would stand well for all members of the Assembly not to take lightly their comments detrimentally to this industry and what they're doing. In fact, I would ask the opposition to join with us in support and don't negativize these things, because it's not healthy for Alberta. And lest we forget where our standard of living comes from.

THE CHAIRMAN: We have just a very few short minutes left. I have three speakers.

Calgary-Montrose.

MR. PHAM: Thank you, Madam Chairman. It is a pleasure for me to join the debate today on the business plan and the budget of the Department of Energy. I think that on the spectrum I am somewhere in the middle between the Member for Edmonton-Strathcona and the Minister of Energy. He's as far to the right as I can see and as I can remember in my memory.

I have gone through the business plan, and I agree with every goal in there. However, on goal 4 I think that the Member for Edmonton-Strathcona has a point, because when it comes to measuring something – I'm not talking about a philosophical debate right now. I just ask you how we can measure. We say that we would like to have a “target of 70% emissions covered by action plans by 2001.” How are we measuring it today? How are we measuring it tomorrow? How are we going to measure it by the year 2001? How can we tell whether we have reached the target or not? As you mentioned earlier, the CO₂ emission is split up: 30 percent by transportation, 30 percent by household activities, and 30 percent by industry. It's a very complex structure to come up with that bulk figure. I remember that one time you and I discussed this, and you made a joke. You said that your department is going to import all of the machines from Vietnam to measure the CO₂ emissions.

Mr. Minister, I have had an opportunity to travel a lot outside of Canada. When I went down to South America, when I went to Asia, I could see that the problem they have with the environment is quite severe. I think that you are right on when you say that we are leading in this area, and many of our efforts to try to deal with this problem will benefit the world. However, when you say that you rely entirely on companies to voluntarily do these controls because you say that it is in their best interests to do so, that works in theory. We all know that it is in our best interests to drive carefully, but not everybody drives carefully. We can see that. We know that it is in the best interests of these companies to have an energy-efficient plan and try to reduce a number of the emissions as much as possible.

But I would like to propose something. Rather than coming in with a big stick, I would like to see the department come up with a plan to reward the companies who have demonstrated that they can meet and exceed the target that we set out for them to meet voluntarily. I do believe that we have that flexibility that we can play with. I for one support the energy industry in Alberta. I think that you were perfectly right on when you pointed out that it is the main force that drives our standard of living the way it is today, and we should do everything that we can to protect it from the federal government coming in and levying a green tax on us. However, we also have to make sure that we have done everything possible, that we have given industry every incentive to

demonstrate their ability and their willingness to meet the targets we set out for them.

That's all I have, Madam Chairman.

9:58

DR. WEST: I don't want to belittle what was just said here, because there is a lot of truism in the last statement, that we must recognize the well-performing companies and the new technologies that come forward and in some way enhance the environment for them to do better and to want to do better. Part of that is through a regulatory body. They set standards of emission control as it relates to gas plants, pipelines.

When the applicant comes forward and the new technology is there, they ensure that they apply that technology so that we don't lose as much gas. The biggest gas losses were in pipelines. It's a sin in some of these countries around the world the amount that's lost by the plants, the pumping stations along the pipelines, and the pipelines themselves. So on that stage we are measuring that and the emissions that go through, and we are, as the new technology comes in, able to put actual figures to that in kilotonnes or megatonnes of CO₂ produced. We are also monitoring that.

You say: what are our performance measures? We will take from Suncor, the Syncrudes, the Novas, and the rest and apply figures to the exact savings of the amount of CO₂ from before and after as they put in place the new compressors and the new plants and the new technology in hydro transport or whatever you have. It is the same thing our government puts forth when it saves money and retrofits buildings, puts in new insulation, puts new electricity in, and changes the heating systems and that sort of thing, measures the amount of kilotonnes of CO₂ it saves and puts that as a benchmark and starts again. All of those are being formulated.

We tabled a report in the Legislative Assembly of what savings the government had done, and industry is doing that as well. Our department and the EUB and the department of environment are working with the federal government and other provinces to literally put forth those performance measurements to measure the amount of tonnes of CO₂ put out, and it comes right back down to everything from the amount of new trees we plant to the sinks that we're going to get in the future to some of our programs.

I didn't go into the details, which I should have for the Member for Edmonton-Strathcona; he got me off on a tangent. But the issue is correct.

THE CHAIRMAN: The hon. Member for Airdrie-Rocky View.

MS HALEY: Yes. I'd like to move that the subcommittee rise and report progress.

THE CHAIRMAN: The hon. Member for Airdrie-Rocky View has moved that the committee rise and report.

MR. SAPERS: Madam Chairman, we still have six minutes left.

THE CHAIRMAN: There's a motion before the committee. The hon. Member for Airdrie-Rocky View has a motion before the committee. All those in agreement, say aye.

HON. MEMBERS: Aye.

THE CHAIRMAN: Opposed? It's carried.

[The subcommittee adjourned at 10 p.m.]

