



Legislative Assembly of Alberta

The 27th Legislature
Second Session

Standing Committee
on
Resources and Environment

Department of Energy
Consideration of Main Estimates

Wednesday, April 29, 2009
6:30 p.m.

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Standing Committee on Resources and Environment

Prins, Ray, Lacombe-Ponoka (PC), Chair
Blakeman, Laurie, Edmonton-Centre (AL), Deputy Chair
Berger, Evan, Livingstone-Macleod (PC)
Boutilier, Guy C., Fort McMurray-Wood Buffalo (PC)
Drysdale, Wayne, Grande Prairie-Wapiti (PC)
Griffiths, Doug, Battle River-Wainwright (PC)
Hehr, Kent, Calgary-Buffalo (AL)
Mason, Brian, Edmonton-Highlands-Norwood (ND)
McQueen, Diana, Drayton Valley-Calmar (PC)
Oberle, Frank, Peace River (PC)
Webber, Len, Calgary-Foothills (PC)

Also in Attendance

Taft, Dr. Kevin, Edmonton-Riverview (AL)

Department of Energy Participant

Hon. Mel Knight	Minister
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6:30 p.m.

Wednesday, April 29, 2009

[Mr. Prins in the chair]

**Department of Energy
Consideration of Main Estimates**

The Chair: Well, good evening, everyone. I'd like to welcome you to this meeting of the Standing Committee on Resources and Environment. This evening the committee has under consideration the estimates of the Department of Energy for the fiscal year ending March 31, 2010.

I'd ask members to introduce themselves for the record, and I would ask the minister to introduce his officials. My name is Ray Prins, MLA for Lacombe-Ponoka.

Ms Blakeman: My name is Laurie Blakeman, and I would like to welcome each and every one of you to my fabulous, springlike, sunny constituency of Edmonton-Centre.

Dr. Taft: Kevin Taft, Edmonton-Riverview.

Mr. Oberle: Good evening. Frank Oberle, Peace River.

Mr. Mason: Hi. Brian Mason, Edmonton-Highlands-Norwood.

Mrs. McQueen: Good evening. Diana McQueen, Drayton Valley-Calmar.

Mr. Webber: Len Webber, Calgary-Foothills.

Mr. Drysdale: Wayne Drysdale, Grande Prairie-Wapiti.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Thank you, everyone. Before we proceed, I'll like to take a minute to briefly review the new process for consideration of the estimates. First, I'd like to remind members that the vote on the estimates and any amendments moved during committee consideration of the estimates will be deferred until we are in Committee of Supply, scheduled for May 7. Also, members wishing to propose amendments are reminded once again to consult with Parliamentary Counsel no later than 6 p.m. on the day the amendment is to be moved.

The standing orders of the Assembly governing who can speak apply during the consideration of the main estimates. Members of the committee, the minister, and other members present may be recognized to speak. Department officials and members of staff are permitted to be present during consideration of the estimates but are not allowed to speak. Members may speak more than once; however, speaking time is limited to 10 minutes at a time. A member and the minister may combine their speaking times for a total of 20 minutes. I would remind members to advise the chair at the beginning of their speech if they wish to combine their speaking times, which we've been doing in the other meetings as well.

This evening we have three hours to consider the estimates of the Department of Energy. However, if prior to this time we should reach a point where members have exhausted their list of questions, the department's estimates shall be deemed to have been considered for the time allotted in the schedule, and we will adjourn.

Points of order will be dealt with as they arise, and the clock will continue to run while these points are being dealt with. If there is no opposition, we will take a break for five minutes after the Official Opposition and the third party have responded to the debate.

I'll invite the Minister of Energy to begin his remarks, but prior to that I'll ask the last member to introduce himself.

Mr. Boutilier: Guy Boutilier, Fort McMurray-Wood Buffalo, where we have a bit of oil sands.

The Chair: Okay. Thank you very much.

I'll turn it over to Minister Knight and his staff.

Mr. Knight: Well, thank you very much, and good evening. Thanks for attending. I'm sure that we should have an opportunity here this evening to have a good discussion.

I want to make sure that I include everybody here and get folks in the right order. I'll just start from my left here, Mr. Chairman. First we have Tim Grant, on the far left. Also with me are David Breakwell, Douglas Borland, Jason Ennis, Mike Ekelund, Don Keech, Rhonda Wehrhahn, and John Buie. I believe that is everybody. In case of mistaken identity I am Mel Knight, and I represent the riding of Grande Prairie-Smoky.

I think that initially I'll just open with a few brief comments and keep it relatively short here. The business plan and budget for the Department of Energy for this upcoming fiscal year has been, in my opinion of course, a good piece of work, a lot of thought gone into it, and in our opinion, most certainly, it represents a path forward for the Department of Energy and, we believe, the provincial government relative to the very important energy business in the province. It certainly reflects the Premier's priorities on energy and the environment and the balance that needs to be struck. We are now, of course, talking about the three Es relative to energy, with energy, the environment, and the economy in the balance.

A key priority that we have and, certainly, I think, a theme relative to the discussions that we'll have is to ensure that our resources are developed in a responsible way both from the point of view of economics for the province and environmental presence, which we all know is extremely important. We have a new mandate letter in the department. The priority that we have will be implementing the provincial energy strategy. That is, we believe, a very good road map for the future of responsible energy development in the province, clean energy production, wise energy use, and, of course, sustained economic prosperity. This strategy is a key long-term document. We think that the ability for the document to guide decisions of the ministry and the evolution of the energy industry recognizes that hydrocarbons are certainly here for the foreseeable future, and we feel that there is room to improve the way they're developed.

Another issue in the mandate, of course, is the review of the regulatory framework to ensure that responsible energy development is met and that there's a balance relative to the economy and the environment. That's especially important for us as we move forward.

Carbon capture and storage. We'll review, as we are doing now, the full project proposals, and we'll be moving ahead with funding decisions relative to that in the near future. We want to support oil sands research to reduce energy and water consumption, and as these resources are developed, we will reduce the overall footprint relative to that development and support the oil sands strategic plan as we move forward. We'll also support Advanced Education and Technology relative to value-added industry and the value-added development plan and implement the bitumen royalty in kind project that many of you will certainly be familiar with.

One key goal that we also have in the mandate is the fortification of our electrical transmission system. We believe, and I certainly agree, that this is a facilitator of prosperity in the energy strategy,

written up as such, and it's a critical piece of business for the province of Alberta as we go ahead.

Our business plan would indicate the province's responsibility in leading, setting, and consulting on energy policy, responsible management, and the development, of course, of the province's energy resources. The business plan also covers the two regulators that we have in the province. As you know, that is a relatively new thing for us to have in the province. We separated the EUB a while ago, and many of you will have gone through that with us. The two regulators we have in place now, the Energy Resources Conservation Board and the Alberta Utilities Commission, are included in our business plan.

Relative to the operating spending for the Ministry of Energy in '09-10, it's about \$501 million. Remember, of course, that that includes the two regulators that I mentioned. The substantial increase on paper is almost exclusively from a hundred million dollars that's allocated and budgeted for in carbon capture and storage projects. That is the first instalment of previously announced funding relative to what we'll do with CCS, a total of about \$800 million over three years. Most certainly, I think that the funding process that we have in place would provide us with, I think, some interesting discussion in the question-and-answer period.

Additional funding highlights that I could probably give you at the start here. One hundred and seventy-nine million dollars for ministry operations for resource development and management. These are key functions that include staff and IT needs associated with the development of these resources and, certainly, the collection of our royalties. Many of you would again know that we've been working over the last few years to be very, I think, aware and in step with the Auditor General and another report that was done for us by Mr. Valentine relative to the requirements to be sure that we're up to speed with respect to being able to do that work. Also, \$55 million dollars in this budget on biofuel initiatives and \$30 million that was announced in March for the orphan well fund; that is part, of course, of the energy incentive program that we put in place.

6:40

Also, \$172 million of what we're talking about here is allocated to ERCB and \$35 million for AUC. The ERCB, as you would know, is jointly funded by government and industry. For the AUC, of course, this is flow-through in a way because they're funded entirely by an industry levy.

There is \$5 million allocated in our budget for conservation and energy efficiency initiatives. We are determining the proper way to utilize that funding relative to some of the other initiatives that other ministries are doing in that area. There are some increases there, we believe, minimal increases for the ministry support services, DM's office, and communications.

On the revenue side resource revenues, of course, were largely affected by the economic conditions around the world, new consequences that a year ago for sure very few people would have predicted. Budget sensitivities, of course, change from year to year. They're based on estimated prices of production and a number of other benchmarks, and Budget 2009 does assume that natural gas prices over the year would average \$5.50 Canadian a gigajoule. Oil prices, we believe, will average around \$55 U.S. a barrel based on west Texas intermediate pricing. We think that we've done a responsible and prudent job of price forecasting, and the fiscal plan will show how the forecasts that we do stack up and compare to international experts relative to energy prices.

Resource revenues, of course, include royalties on natural gas, crude oil, oil sands production, bonuses, sales of Crown leases, and rentals and fees that we collect. Forecasts that we have given

account for the impact of the new royalty framework and the incentives that we announced in March, specifically the new incentives on drilling of new wells. We'll need to wait, really, for the winter season to fully assess the impact of those programs because, of course, we're off season now, and it's a little difficult to forecast what may happen, but we've had some good response for drilling completions and well completions in the early part of the year.

Again, we're responding to global economic credit problems, and the goal here with the programs is to be sure that we keep Albertans at work to the largest degree possible. There are no royalties or tax or economic spinoff relative to these things if companies aren't drilling. They need to be at work and producing energy products for the province of Alberta in order for them to access these dollars. The impact, of course, of the commodity price – we're calling it a crash. It certainly has been an interesting ride downhill after last year's record high. It's actually the largest percentage drop in resource revenue for the province of Alberta on record. It declined about \$6 billion in '09-10.

The Chair: Excuse me, Minister Knight.

Mr. Knight: My 10 minutes is up already?

The Chair: It's up already. How much more did you have?

Mr. Knight: Oh, a couple of minutes here, but I'm fine.

The Chair: Do you want to hear the rest of it?

Mr. Knight: I'll make one quick note relative to the measurement of our production and royalty collection. The performance measure: of course, there have been some questions about that. We can certainly answer that in Q and A, the reason that it's under study.

Other than that, Mr. Chairman, I think what I have will certainly come up during questions. Thank you very much.

The Chair: Certainly. And probably during the questions you can highlight some of the points that you might have missed.

I will turn it over directly to Dr. Taft. You have one hour, and I presume that you'll be going back and forth.

Dr. Taft: Sure. I'd prefer that. It's always more interesting to go back and forth instead of just talking for 10-minute blocks.

The Chair: Yes. Thank you.

Dr. Taft: If that's okay with the minister.

The Chair: You know what? This beeper is going to go off a couple of times. Every 20 minutes it's going to go off, but you just keep on going.

Dr. Taft: Sure. Terrific. Okay.

Well, welcome, to the minister and his staff. It's in Alberta a very important department. I'll start off right where the minister ended his presentation, which is referring to the bottom of page 102 of the business plan, the performance measure for sharing the revenue from resource development. I have asked the minister about this in question period. Historically, if my memory serves correctly, the target was 20 to 25 per cent. We did ask the minister last year about this exact issue because it's a very important issue. It's been flagged by the Auditor General and Mr. Valentine.

Actually, if I were to quote from *Hansard* of last year, April 29 – is today April 29? Wow. Well, a year ago this moment, we were having the same pleasure, Mr. Minister, and I was asking the same questions, and your response was at that point, “We should have a plan in place to deal with this situation within 90 days, and I believe that we’re on track to reach that target.” The question concerned the performance measures. I don’t need to reread the whole *Hansard* exchange.

I am very concerned about this. It would seem to me – and I’ve had others comment – that if you were putting a plan in place, you would set the target and then organize the plan to reach that target. The impression this creates is that we’ve got the organization in place, the framework in place, and then we’re going to see how it works and pick the target after that. Now, I don’t know if that’s fair or not. Why is it that last year you thought this would be done within 90 days, and we’re still waiting for it? When will we actually see a result?

Mr. Knight: Well, I think it would be fair for me to say that what I would prefer to do relative to that question is expand in a written answer for you, and we’ll get back to you in due course with respect to that issue. It is, as it says, under development. If you think of what has happened, you know, the hon. member will very much understand through some of the comments that I made initially here that the landscape has changed a tremendous amount in the last year relative to the whole energy industry and the business. I think that it would be fair for us to be able to perhaps give you a written answer that might give a better explanation of where we are relative to the development and the benchmark issue as it relates to our business plan.

The Chair: Okay. If any answers are given in writing, they should come through the chair to all members of the committee. For the minister and his staff, just make sure that you get them to the clerk, and then all members will get the answers. They should be done prior to the vote, which is May 7.

Dr. Taft: So you could do that before May 7?

Mr. Knight: Yes, we can do that before May 7.

Dr. Taft: Okay. I mean, I do understand that with a price-sensitive royalty system, you know, things are going to go up and down, but I don’t understand why we still have that blank. I guess I’ll wait. It’s an awfully important issue, I believe. It’s a fundamentally important issue. I’ll take the minister on good faith, then, on that one.

I’m going to spend a few minutes on the oil sands because I feel like the information coming out of the department is not up to snuff. I don’t think, for example, that it would come anything close to meeting the expectations of corporate filings in a publicly traded company. We do go to the corporate filings of publicly traded companies, you know, so I could share this with the minister, or it’s on the web. One of the shareholders in Syncrude is Canadian Oil Sands Trust. I think they own 36 per cent or something. They forecast royalty payments. Just to give you a sense of the scale – the numbers are really quite staggering, and this is for just one shareholder in Syncrude – they’re forecasting revenue of \$227 billion. They’ll pay royalties of \$30.6 billion. Total net revenue before tax is \$102 billion, and after income tax it’s \$77 billion. So they’re forecasting long-term and extremely profitable investment in which the net revenues after taxes are in the range of \$78 billion.

Does the department, in working out its royalty system, do

something equivalent to this? Do you track what the investors are doing? I’m trying to get a sense of the information base that’s actually there.

6:50

Mr. Knight: Well, of course, what we would do is use the in-house expertise that we have, plus we have opportunities to have discussions with experts relative to the royalty structure that we’re using and the royalty structures that may be in place in other jurisdictions and make comparisons of that nature. To use a particular company’s economic information, again, personally I’m not able to answer your question because I’m not sitting in the room when the analyst would be doing that work, so I don’t know what information they would have at their fingertips.

Dr. Taft: Well, I’m concerned as a legislator and as a citizen that the companies are perhaps far more sophisticated at this than I’m getting the impression right now. They file this publicly. I mean, this is on the web. The basis of this budget – and you know this. There’s no more important department for the revenue of this government, yet I’m hearing from the minister that you’re not really certain about what the basis of your own department’s forecasts is.

Mr. Knight: Well, that isn’t the statement that I made.

Dr. Taft: Okay. All right. Well, then, help me. Fill me in here a bit.

Mr. Knight: What I’ve indicated is that we would use internal expertise that would not be dissimilar to the internal expertise that any company that’s playing in the energy industry in Alberta would use. We would use information from analysts, and that is their business, of course, to analyze the complete picture relative to the industry, use that information to base both our forecasts and the opportunity for us to build a revenue structure and a royalty structure around it.

Dr. Taft: In the spirit of, you know, the transparency and so on – I think what’s more important for me is in the spirit of a private-sector, publicly traded company where there’s a requirement for full, plain, and true disclosure – is the department prepared to disclose this kind of information from yourselves to the citizens of Alberta? I mean, I’m very skeptical of the information that’s provided because of the findings of the Auditor General and Mr. Valentine and the Hunter panel. So if we’re trying to understand this budget, is the department prepared to release its long-term forecasts of royalties, production levels, and that sort of thing? I imagine they’re in there somewhere.

Mr. Knight: Well, indeed, they are here. I mean, I think they’re in these documents that you have. The benchmarks that we use going forward are in the documents, and most certainly I think that if we take a look . . .

Dr. Taft: Okay. Which page are we on, then?

Mr. Knight: The business plan, page 113. I would certainly be prepared to discuss with you that information relative to what we’ve indicated in our operations on the ministry revenues and the results. I mean, those are there for perusal and certainly for discussion.

Dr. Taft: Okay. I guess I’m again comparing these to what I would expect the parallel in a private-sector company would be. It would have much longer time frames.

Let me ask you again because this becomes so important for establishing and working out the royalty framework: does the department have internally long-term – as in 10, 20, 30 years – forecasts of expected revenues, or do you have models that allow that to be undertaken?

Mr. Knight: Again, I'm afraid what I'd have to do with that is respectfully indicate to you that if you want that question answered, I can get a written answer for you.

Dr. Taft: Okay.

Mr. Knight: What we have in front of us of course are budgets, and this is a normal way that the government would present this information and provide this information publicly. The targets are there out to the 2011 time frame. I mean, the question is an interesting question in itself, but if you take a look at the time frame, going back for a period of four years – you would have all of those numbers on this same page – and then take a look at what you might do beyond 2011 and 2012, I think we've tried to indicate that when you start looking at those time frames going forward, it's just as difficult to try to make relative and reasonable estimates of what might happen. If you take a look at what has happened over the last number of months, that's very likely to recur.

What would we think the price of oil is going to be in 2025? We probably have some modelling that might indicate what that price would be. Very honestly, I think that if you take a look at any of the analysts globally here and try to balance out supply and demand, at the end of the day that would in my estimation be the biggest balance that would indicate where prices might go. That becomes an extremely difficult thing to predict. You know, it's quite interesting. You might have something there from Exxon or somebody else that plays in a much larger kind of global marketplace where they may have information available to them, both historic and future market information, that might be very difficult for us to assume.

I can tell you one thing. Irrespective of any pieces of paper that you may have with you that you've gotten off the website or from any other source, I don't know of any of those corporations or any of the analysts, as I indicated earlier, that could have predicted price changes from \$147 to \$38 in a matter of nine months.

The predictions that they make there are fine, but it remains to be seen whether or not that comes anywhere close to being true, particularly when you start talking about the oil sands because, quite honestly, the dependent factor there – and I would suggest to you that any of the players there may be slightly concerned with situations like what's going to happen with the new U.S. administration's indication that they're going to move towards things like a low carbon fuel standard, greenhouse gas emission controls, and a number of other issues that may very, very greatly affect these folks' opportunity to predict where their profits may or may not be 20 years from now.

7:00

Dr. Taft: Okay. We won't spend a lot of time spinning tires on that. You know as well as anybody at this table that the oil sands time frames are measured in decades, and companies are routinely building their business cases and making massive decisions on those time frames. I want to know that my government is at least as sophisticated as they are.

Mr. Knight: Would you have predicted, if I might, that the time frames and the budgets that were built in 2005, '06, and '07 would be radically modified in 2008 and going into 2009?

Dr. Taft: I think the point, Mr. Minister . . .

Mr. Knight: I don't think that they would have predicted what they were going to have to do, nor did we, quite honestly.

Dr. Taft: Actually, you can go back and get these plans year by year. This one is just dated from last month, March 13, 2009. They file them every year. My point on long-term planning is that we all know it's going to be wrong, but it's better than not having a plan or a plan that only goes out three years. I'm looking for information as a citizen of Alberta. My preference would be that I was treated like a shareholder because then I'd get a lot more information than we're getting.

We won't dwell anymore on this because my time is going to be burned up here. I'll look for some thorough engagement from your written response.

Mr. Knight: I think that in general terms what you will see with respect to all of the budgets and estimates that will be discussed during all of these discussions is that they will run in the same time frame. I don't believe that our time frame and our requirement relative to these discussions is any different than any other ministry. I think that we're pretty much aligned with what the rest of the government does. That's the information that is supplied. Quite honestly, I would suggest to you that our jurisdiction is probably one of the only jurisdictions in the country that will run out three years on budget estimates in the first place. Most of them will give you the current year, and it ends at that. I think that we're trying to be as fair as we can with respect to this information.

Dr. Taft: All right. I will make one point, and then I'll move on to a related question. My point would be that if we're developing the oil sands with a time frame that's no more than three years ahead, it's no wonder that we've had the problems we've had. You certainly don't see Syncrude, for example, or Suncor or other companies making decisions on those time frames.

Mr. Knight: Well, I think that I'd have to answer that by saying to you that there was never an indication anywhere that I know about in this budget that the plans that the government has relative to the development of the oil sands industry or any other parts of the energy industry are contained to the 2011 time frame. I think that you have a document in front of you there. I did indicate that the energy strategy was one of the pieces of business, and our mandate going forward is to implement the energy strategy. It's very clear that the energy strategy was developed over a 30-year time frame, to go out three decades. Now, if you would think that we should at the same time present a budget that tracks three decades out, I'm going to suggest that that might be a little more difficult.

Dr. Taft: Okay. Well, I will leave it at saying that as a citizen of Alberta I'd like to get the equivalent information from my government on this issue that a shareholder in a publicly traded company gets. We'll leave that particular issue like that.

Let me ask you this: as the Minister of Energy are you satisfied that the people of Alberta today are collecting – and I won't quote the exact term in your business plan – the fair share that they have coming to them in royalties? Do you believe we've hit the right balance?

Mr. Knight: Well, the short answer to that is yes. There are circumstances where royalty programs, by necessity, are required to be implemented and at some points in time changed and at some

points in time removed. The answer to your question is that I believe as the Energy minister that we certainly are doing an appropriate job of collecting the appropriate amount of revenue for the province of Alberta and for Albertans on behalf of the owners of the resource. I think the dynamic business that we're associated with requires us to be able to implement programs inside of our revenue collection framework so that we can respond both from the point of view of circumstances when the industry would find itself under pressure relative to commodity pricing or opportunities to access markets and that sort of thing and, on the other side of the issue, to make sure that in circumstances of high pricing and a turnaround in commodities and the opportunity for market share perhaps to increase, that we're able with our structure to collect an appropriate amount of money.

I think that in the new royalty strategies that we have in place, what we've said to Albertans and what we've said to industry is that we will share in the upside, and we'll share in the risk. I think that what you see now, of course, is a situation where that has come into play a lot sooner than many people would have thought because, of course, there has been a certain amount of risk relative to that industry in recent months, and most certainly the strategy that we have in place and the commodity and production-related curves that are in place in our strategies are working.

Dr. Taft: Okay. I think the short answer to that was yes, then.

The business plan mentions the document Responsible Actions: A Plan for Alberta's Oil Sands. When it came out – I'm going to be honest – I was disappointed because it didn't have time frames and such in it. I think there's one in the entire document. It does say on page 42 that an "implementation plan is under development to ensure priority items are acted upon immediately." That's under Next Steps. Because this is so important to the budget of your department and the whole government, when is that implementation plan for this going to be done?

Mr. Knight: Actually, I think, Mr. Chair, that under the circumstances I would have to inform the member that he's asking the wrong minister. That particular document is not part of the responsibility of the Ministry of Energy. In fact, it is something that belongs to Treasury.

Dr. Taft: All right. So even though it's called Responsible Actions: A Plan for Alberta's Oil Sands, the Department of Energy isn't involved in this? You're not involved in this?

Mr. Knight: I never said we weren't involved, Mr. Chairman. What I did say was that if you want to ask questions relative to that document, that document is under the jurisdiction of another ministry. Relative to what we're talking about here, what we have in front of us tonight are the estimates from the Ministry of Energy, and that does not include anything that may or may not have been done in Treasury relative to the document that you have in your hand. I don't even have it with me, in fact.

Dr. Taft: Okay. Well, if I go through the business plan, I believe there's reference to this in there.

Mr. Knight: Yes, there certainly is. There's reference to it.

Dr. Taft: Yeah. Hence, that's why I'm asking the question. But we won't spend valuable time on something you won't answer.

What's the role of the Public Affairs Bureau in developing these reports? There are Public Affairs Bureau staff probably here,

somebody. There are Public Affairs Bureau staff assigned to your department. What is their role in preparing the business plan, for example?

7:10

Mr. Knight: Actually, I would have to suggest that the role played by Public Affairs or, for that matter, by our communications people would be very minimal.

Dr. Taft: Okay. I expected no less from you than that answer.

Let's, then, talk about something you mentioned in your opening remarks, which was the bitumen royalty in kind project. Can we talk about that?

Mr. Knight: You can talk about anything you like, but the point is, I think, that it's my responsibility to answer for the things that I am responsible for relative to our discussions. So if the question is a bit facetious, relative to the last question you asked me, which has nothing to do with my ministry and what we're talking about here, you know, that's fine. We can continue on whatever basis you like.

Dr. Taft: Okay. What is the progress on the bitumen royalty in kind, and in particular when might we, if ever, expect an announcement on leveraging an upgrader in the province related to bitumen royalty in kind?

Mr. Knight: You, obviously, must have some information, again, that at this particular point in time I may not be aware of because I don't believe that I have indicated leveraging an upgrader at any point. You know, if there is something that I've said about leveraging an upgrader, then I would certainly stand to be corrected.

There are a number of opportunities that we see with bitumen royalty in kind, and they have a lot to do with the ability for us to access market, the ability for us to perhaps increase our opportunities in the value-added business. We think that there are opportunities there relative to feedstock for a petrochemical industry, that I think is recognized in Canada as probably the largest petrochemical industry in the country. I don't know that I've ever indicated that I wanted to leverage anything, but I may have said that at some point.

Dr. Taft: Okay. Do you foresee the government's supply of bitumen royalty in kind being upgraded, at least a portion of that, in Alberta?

Mr. Knight: Well, I think that, in general terms, when you go back and take a look at the hydrocarbon upgrading demonstration projects and some of the earlier work that government did – Alberta Energy Research Institute was one of the agencies or entities that did a lot of work with respect to that – there was an indication at one point in time, and I think that it's probably still valid, that as we move forward with the development of bitumen production in the province, what we would probably like to see is an opportunity for about a third of the bitumen to reach export markets, a third of it to be upgraded, and a third of it to reach beyond just upgrading and into higher value-added. Those types of projects we think are still viable, and I would suggest that that sort of thinking is still around. You will obviously have heard that we would like to see 60 per cent, somewhere in that kind of 60 to 70 per cent – I believe that the number is closer to 70 if you look at the two-thirds that we're talking about – reach upgrading and beyond in the province in the future.

Dr. Taft: All right. But you did specifically talk about bitumen royalty in kind in your opening comments, and my question is on

that. Mr. Minister, I'm not trying to be difficult here; I'm just trying to get straight answers from you. You have indicated to me in the past that there are opportunities to use the bitumen royalty in kind stream to stimulate, in one form or another, something like a merchant upgrader and all the ancillary industries for the province. Is there progress on that, and what's the nature of the progress? Or if there's no progress on it, that's – it's just information.

Mr. Knight: Well, of course, I think that you realize that the bitumen royalty in kind was part of the royalty structure that we announced, implemented January 1, 2009. It's there as part of that royalty structure. Most certainly, we indicated at that time that there would be a process that we would develop and go through relative to how those royalty barrels would be managed for Albertans. What I will tell you is that we are certainly proceeding with that, and I think our indications are that we would kind of expect to see the first barrels relative to royalty in kind in the 2012 time frame, and I think that we're on track to manage that.

Dr. Taft: Okay. Is your department still confident – and I infer from your comments a few minutes ago that you are still confident – that you can achieve the target of about 70 per cent of bitumen being upgraded in the province?

Mr. Knight: Well, yes. But I think, again, you know, we need, to be fair, that everyone understand the nature of bitumen production in the first place. It's an extremely lumpy business. You don't find very many thousand barrel-a-day kind of bitumen production operations in the province. What you might find, depending upon who's moving ahead with projects at any given time, are opportunities where we'll probably see something more in the neighbourhood of 25,000 to 100,000 or so barrels a day coming on stream. Given the way that that production will come on stream and also given the way that the royalty structure works, the generic regime relative to bitumen production, I think we need to understand that at some points the target may be above, and at some points it may be below. The long-term goal of the government is still to manage upgrading at a minimum but beyond upgrading, in certain portions of this, at a 70 per cent level, and we think it's doable.

Dr. Taft: Okay. I'm looking at page 170 of the estimates. This is a question perhaps just around terminology, or you can fill me in on it. The line under Revenue that refers to synthetic crude oil and bitumen royalty: are you as a government collecting royalty on any synthetic crude oil still in this fiscal year, or is that just a holdover?

Mr. Knight: No. There is royalty collected on synthetic oil at this point.

Dr. Taft: Can you explain that to me, then? This is just a pure learning moment for me. With the new deals with Suncor and Syncrude my understanding is that they're now just paying royalties on bitumen. So where are we still collecting royalties on synthetic crude oil, then? Just help me understand that.

Mr. Knight: I'll have to take that, again, under advisement, and I'll give you a written answer for exactly where it comes from.

7:20

Dr. Taft: Okay. All right. Presumably, it would be a fairly small proportion of that royalty.

Mr. Knight: Again, without having the availability to give you a

correct number, I'm not prepared to guess at a number. I would prefer to answer the question appropriately.

Dr. Taft: Okay. All right. Do you know offhand – and this might be in the document, still on page 170, the natural gas royalties, crude oil royalties, et cetera – the production trends on natural gas in Alberta and on crude oil over the forecast period?

Mr. Knight: Okay. So you want the production trends on oil. Let's see. The production trends on conventional gas. The '07-08 actuals on conventional gas are about 4.8, 4.9 bcf; the forecast for '08-09 is 4.6. Going forward, '09-10, '10-11, and '11-12 go to 4.3, 4.0, and 3.8 on conventional natural gas. Coal-bed methane '07-08 actuals are about 230 million feet. Then we have 250 million, 260 million, 280 million, and 312 million on those years out.

Then with respect to what we've done looking at production in this time frame on conventional oil, the actuals, of course, again, '07-08 is at about 520,000 barrels a day. That's in barrels a day. Nonconventionals, which would account for oil sands and bitumen, are 1.2 million a day. The '08-09 forecast going out on conventionals is 498,000; 469,000 in '09-10; 457,000 in '10-11; and 451,000 in '11-12. The production in nonconventionals, again, as I'd indicated, is 1.2 million in '07-08; approximately 1.4 million in '08-09; 1.9 million in '09-10; 2.1 million in '10-11; and 2.5 million, give or take, in '11-12.

Dr. Taft: Now, we're investing a significant amount, starting this year with \$100 million, in carbon capture and storage. As you've indicated, and many others, one of the hopes for this is that we will increase production in some of the old fields. Albertans are concerned – certainly, I'm concerned – with the apparently unending downward slope of production on conventional oil. In making this \$100 million investment this year, in a year where money is very tight, has your department got forecasts about how much enhanced oil recovery production might be stimulated as a result of this carbon capture investment?

Mr. Knight: Yes, we do. In fact, there are a number of pilot projects operating in the province, and of course, as you know, in some similar geology in Saskatchewan there has been about five years' worth of data that's been gathered and very generously shared, in fact, by companies and the Saskatchewan government relative to that issue.

The indications that we would have in Alberta long term – and, again, speaking about planning and looking forward, this probably would cover a period of something in the neighbourhood of two to three decades. There are opportunities for us in a number of the oil fields that are currently showing pretty serious decline, Pembina probably being one of the major ones. Of course, I think Pembina is probably recognized as one of the largest oil discoveries, oil pools, in Canada. It appears that it'll be an excellent candidate. There are others in the Swan Hills area, certainly Judy Creek, the south Sturgeon field. There are a number of them.

The indications that we have from pilot projects that have been done here and elsewhere are that we currently recover about an average of kind of 30 per cent of the oil in place. It appears as though this would give us an additional 50 per cent of that amount, so about an additional 15, 16 per cent.

Dr. Taft: All right. Through the course of this carbon capture and storage investment, which just grows and grows – perhaps you could provide this in writing – when does that enhanced oil recovery begin to cut in? What year might we see the downward slope maybe not

be quite so steep or even reverse itself if this works? Maybe you could provide details in a written answer, but you're welcome to speak to it.

Mr. Knight: Well, I won't need to give you any written answer for that because I think that the answer to that is dependent upon, number one, our ability under the carbon capture and storage program to proceed with a number of what we think are going to be relatively large projects. The time frame that we have for the development of the projects is between now and 2015, and we think that the opportunity, then, for those projects to be up and running and producing results would start in 2015. If you tie any of those projects into EOR – and it's not necessary that all of them will be – then I'd have to suggest that you would see results probably within a two- to three-year time frame following initial injection rates.

Dr. Taft: All right. Well, again, if the department has done longer term modelling, that would be very useful to share, so I'd ask you to please share it.

Mr. Knight: Well, I'll tell you that the information that's available from the projects that have been done, the stuff that's available publicly, is, I think, accessible. To the best of my knowledge, the University of Alberta is involved in it. I think that information relative to the projects in Weyburn particularly would be available there. For the pilot projects that are operated in the province of Alberta, my estimations are from industry and work that we have done relative to looking at the formations that we're going to deal with in the province. Again, you'll find that some of that information initially here is proprietary. Some of the companies are doing their own work.

Dr. Taft: Well, but, Mr. Minister, your government is asking for a \$2 billion investment. You know this is one that we want to support. It becomes easier to support if the case is laid out to the public.

Mr. Knight: Okay. I think that you've heard me give you an estimate that over a period of time what we see in this is an opportunity for an increase of about 16 per cent. If you take a look at what's been produced in the province of Alberta up to this point in time and take half of that figure, give or take, and then apply the opportunity for the increased royalty, the increased taxes and wealth generation around producing that kind of an amount of oil, I think you can safely get to a return on the investment that we would be making in CCS that's, I think, substantial.

7:30

The other thing that we need to probably understand about CCS is that it's not all about enhanced oil recovery. The fact is that enhanced oil recovery at the end of the day would account for somewhere around 20 or 25 per cent of the CO₂ that we will need to deal with to reach our targets that we put in place for 2050. The additional amounts of CO₂ would be sequestered in other manners.

Of course, technologies around that issue are changing rapidly, but the geology that we have here also is very productive, we believe, for sequestration in saline aquifers. A lot of work will be done relative to that. Some of the projects, again, that are going to be involved in what we're doing and some work that industry is doing on their own accord at this point in time is research relative to the sequestration in saline aquifers.

Dr. Taft: Again, I'm going to make a point. The government is asking for \$2 billion, starting with a hundred million in this budget.

If this were a publicly traded, privately owned company, you would be required to share a detailed analysis, risk factors, all of that sort of information with the investors. In this case the investors are the people of Alberta. I'm going to expect of you as a minister of the Crown to provide equivalent information to what a shareholder in a publicly traded company would be given.

Let's talk about nuclear power for a minute because my time is starting to run out. Yesterday I raised the concern that the first nuclear plant being built in Europe in 30 years has gone 50 per cent over budget, and I think that at this point it's more than three years late. Actually, the same is happening in the United States as well. Callaway, Missouri, which I think is the first of a sort of new generation of power plants down there, has run into significant financing problems. Given that portions of this budget are supporting the nuclear energy consultation, are there any considerations on the part of the government to expand the information base that the consultations are occurring on so that people don't have to do their own research to find that, in fact, nuclear power plants in both Europe and the United States that are under construction now have run into massive problems?

Mr. Knight: I don't think that it's our intention to go around the world and determine which types of energy generation are or are not economic in places like Finland or the United States or any other jurisdiction. What we have in front of us is a very, I think, clear and relatively straightforward issue. The issue has nothing to do with whether or not somebody in Finland has an overrun with respect to a budget that they put in place perhaps 10 years ago to construct some kind of an energy-generating facility.

I think it's fair to say that if you look at people that built budgets 10 years ago to put in place any piece of infrastructure relative to the energy business and then you try to relate that budget to what's happened – you know very well the type of cost overruns that people faced when they tried to build infrastructure in Alberta, in Ontario, in British Columbia, all over. Let's just concentrate on Canada and forget about Finland for a minute.

The issue that we have here is a very straightforward issue, and that is that the people of Alberta have never been faced with a question of whether or not they may have an interest in or be supportive of or be against the application of nuclear generation in the province of Alberta, period. That's it. That's the issue. That's the question. So what we've done is – and I can repeat this again, and I'm happy to do it, by the way – we have gone out and gathered up a number of people that do have some expertise relative to the issue, and we've asked them to answer some pretty straightforward questions and to give us the facts relative to the questions. They generated a report, they delivered a report, we released the report, and we said before this whole thing started that once that piece of business was done, what we would do is open a consultation process with Albertans. We're now in the process of going through that consultation.

The workbook that we said we would produce is available now. It's online. The workbook is based on the results of the work of the panel. As we go forward, Albertans will have that opportunity either on the Internet or by hard copy.

They'll have an opportunity to express themselves, most certainly. We intend to do a fairly wide phone consultation, a poll of Albertans' opinions. They'll be able to express themselves there.

There will be some randomly selected focus groups. What this is is a public consultation that will include average Albertans from all walks of life picked by a third party independent from the government, randomly selected, given an opportunity for consultation that would take place in what we feel is going to be, you know, an

unbiased opportunity for them to look at what they think is the appropriate response for them relative to the nuclear issue.

Then we will also have meetings with stakeholders. If people that are on one side or the other side of the issue want to attend stakeholders' meetings that we will set up relative to the issue, that will be done as well.

Dr. Taft: Let me ask you this, because I think we're going to be running out of time shortly. The workbooks and the consultations and so on: what consultant is doing that? How is that being handled?

Mr. Knight: The whole process is done independently of government. What we've done is hire some people that are expert with respect to the issue, and they're managing that business.

Dr. Taft: Okay. All right. Who are those people? What's the name of the consulting firm?

Mr. Knight: It doesn't come to mind at the moment.

Dr. Taft: Would you provide that in writing, please?

Mr. Knight: I'm not sure that I can do that at this point.

Dr. Taft: Why wouldn't you be able to do that? Don't you think that's important to understanding that this is actually an independent and objective process? I mean, if you've handed off this process to a third party, then please tell us who the third party is. It will add credibility to your process.

Mr. Knight: All right. Mr. Chair, the consultation process is public. You know, I don't think there's anything really secret about any of this particular stuff. It's called the Innovative Research Group. The name had just skipped my mind, but that's what it is.

Dr. Taft: Okay. Thanks. All right. Is your department somewhere in the budget developing a capacity and expertise to manage the nuclear issue as this moves forward? I mean, you've got these consultations going on. When they come back, is there going to be somebody on staff who knows how to manage them or knows how to judge them or what to do?

7:40

Mr. Knight: The issue is going forward. You're talking about if a proponent proceeds with an application?

Dr. Taft: Is there any capacity in the Department of Energy here to manage the nuclear file? Do you have somebody on staff somewhere in that department in this budget with an expertise on nuclear energy?

Mr. Knight: The answer to that at this point in time would be no. I think that part of this whole thing that we should probably understand at the outset here is that this government has no bias with respect to the nuclear industry one way or another. I would suggest to you that if I would have hired a nuclear expert and had him on staff in the Department of Energy, that might clearly indicate that either I or someone else in the government was biased toward the nuclear industry. We do not have that bias, and at this point in time we don't have that expertise.

Dr. Taft: Okay. Fair enough.

You mentioned in your opening comments the \$5 million for conservation and energy efficiency. I won't lay my hands on that line right now, but it's in here somewhere. It's a very, very small amount. Actually, there was an increase in the Department of Environment and a corresponding decrease in your department. I assume those resources were handed off?

Mr. Knight: Yes. Well, what happened initially, of course, was that I think there was a \$60 million three-year program. In previous years you would notice those numbers show up in these documents. That was an Energy department initiative under the new mandate letters, the issuance of the mandate letters that transferred to Environment, so in fact \$15 million of the \$20 million that had been allocated this year is transferred to the Department of Environment. We had the \$5 million there relative to being sure that we're able to kind of tidy up any loose ends that we have with the program as it moves forward.

Dr. Taft: Now, given the demands on the transmission system, the consideration of nuclear power, the expansion of coal-fired power, et cetera, et cetera, has there been serious effort put forward in your department, and is it somewhere in that \$5 million – it doesn't sound like it is – to really, really, really get aggressive on conservation? Albertans and Canadians generally use inordinate amounts of electricity, so we could offset some of that demand on the transmission system and for new power plants by getting really aggressive on conservation. Is there an office with that program in mind in your department?

Mr. Knight: Well, of course, we believe that the first 15 per cent of new energy in the province of Alberta will come from efficiency and conservation.

Dr. Taft: Where is that being driven out of your department?

Mr. Knight: Well, there would probably be a number of areas. I think that when you talk about these efficiencies and conservation, if the question is relative to the upstream side of the industry, I think it's very fair to say that we've been working hard and that industry have been working very hard with respect to fuel efficiencies and conservation, on that end of the business. I don't know if you're suggesting that part of the business or on the consumer side.

Dr. Taft: No. I'm thinking more on the consumer end, demand side.

Mr. Knight: Well, certainly, again, the part around the public awareness piece and the push towards consumer efficiencies and conservation has been transferred to the Department of Environment. Most certainly, we're working in the department on the biofuels thing and alternate energy files and so on. Really, that's where we're concentrating on that effort in our department.

Dr. Taft: So, then, while your department is responsible for things like transmission lines and new power plants and so on, somebody else is now responsible for trying to reduce demand for that, the somebody else being Environment.

Mr. Knight: If you look at the consumption side, that, I would suggest, would be correct. That's in the Environment department.

Dr. Taft: Okay. Is there anybody in the Department of Energy, for example, working on solar energy?

Mr. Knight: Well, indeed, I just indicated to you that we do have people in the department that are working on all alternative energy supplies. Yes, there is. If you look at the initiatives that we have relative to wind . . .

The Chair: Thank you. That ends this portion of the debate.

We will go now to the third party opposition, Mr. Mason, for 20 minutes. I'm assuming that you'll share your time back and forth?

Mr. Mason: No. Based on the past hour, I think I'm going to ask all of my questions in 10 minutes. Then the minister can answer as he sees fit in the remaining 10 minutes. Hopefully, I'll get some actual answers in writing. Thanks very much, Mr. Chairman.

There is no money in the energy innovation fund initiative this year. That fund was intended to support research and technology development around energy supply and environmental protection. There was supposed to be \$200 million allotted over four years, and it was announced in August of 2006. I'm wondering if that money has been expended in previous years or whether we're on track to expend that at the end of the four-year period, which should be August 30, 2010.

The province released a nine-point bioenergy plan in October of 2006, and the bioenergy programs have been extended to March 2011. I'm wondering why the department is focusing on this when there are other renewable energy options that are more promising and, actually, considerably more economically friendly.

Funds for equipment and inventory purchases for resource development and management are being cut by 40 per cent this year. That's in the estimates on page 165. Resource development and management includes revenue collection, conservation, energy efficiency initiatives, and support of well abandonment and reclamation. I'd like to know why there's a reduction here and how those program areas will be affected.

The climate change and emissions management fund is expected to receive \$95 million during this fiscal year from industry, and I'd like to know what kind of clean energy technologies this money will support and whether or not that money would be considered for nuclear power generation.

Mr. Knight: What page are you on there, please?

Mr. Mason: The fiscal plan, top of page 31.

I'd like to know, specifically, why in the department's consultation on nuclear power the idea of open town hall meetings has been excluded.

I'd like to know about the drilling royalty credit and what the impact of that program has been so far and whether it is accomplishing the goals that were intended or if the department is projecting that that program will meet the goals that were set when it was announced.

I'd like to ask a little bit about bitumen in kind and the department's move towards that. I'd like to know what the advantage is of bitumen in kind in lieu of cash for royalties and why that is a policy that the government prefers. I'd like to know whether or not the market or the pricing of bitumen is now developed enough and strong enough that we can actually use bitumen in kind and get equal value to royalties in cash.

I'd like to ask about strategy 4.1 in your business plan, which calls for an increase in refining capacity in the province of Alberta.

7:50

I would also like to know, given the construction of the Alberta Clipper and Keystone pipelines, how that affects the strategy of

increasing the refining capacity within Alberta. One of the things that I will note is that while many of the projects have been shelved here in Alberta, construction of refinery capacity that will be fed by those two pipelines is continuing apace in the United States, and I'd like to know what the department projects in terms of the balance between the refining of our bitumen in the United States versus the refining of the bitumen here in Alberta.

I'd like to ask about the flaring and venting of natural gas and how the reduction strategy of the province has fared over the last five or six years. I'd like that broken down, if possible, between flaring and venting. I would like to know the estimate of natural gas production in the province of Alberta over the next 10 years as well as the royalty that will be produced over the same period of time.

I'd like to know about wind power. There are 11 projects now that are awaiting approval, for a total capacity of 1,300 megawatts. Some of them date back to September '06. I'd like to know how quickly the department expects these approvals to be put in place and whether or not there are any constraints in the approval process that prevent these projects from going ahead.

I'd like to ask about carbon capture and storage. There's a hundred million dollars in this budget out of what was announced as a \$2 billion project. Now, since the initial announcement of the \$2 billion for this program there has been a shift away from oil sands production being willing to consider this. In other words, the oil sands producers have indicated, as far as I understand, that this particular process or program may not be suitable for their industry. So it remains, then, that the coal-fired electricity industry is the main client. Does that development change the amount of money that the government feels needs to be committed to this program? Does it reduce it in some substantial way?

Mr. Chairman, those are my questions.

The Chair: Thank you very much.

I'll turn it over to the minister. You have about 10 minutes to answer those questions.

Mr. Knight: Well, thank you very much, Mr. Chairman, and thanks for the questions. It was a bit difficult to actually keep up writing, but the kind of rapid-fire questioning, I suppose, would lead me to do some rapid-fire answering, if that's going to be appropriate.

There was a question relative to the innovation fund and the \$200 million. Most certainly, what I would suggest is that that money had been expended, all but something in the neighbourhood of—I won't give you an exact number because I don't recall what it is, but it's near enough to \$30 million. Of course, what will happen with that is that as the ministry now responsible for that, we will be working with them with respect to deploying that remaining money into the areas that the program had been designed to service.

You said that you had a concern and wanted to ask a question relative to bioenergy and that you feel that there are a lot better opportunities for us to spend incentive dollars in doing other kinds of alternative energy instead of bioenergy programs. I do have to say that the \$239 million program covers a lot more than just bioenergy. I would suggest that it's very true when you look at what we're doing in little clusters, where you have, perhaps, a feedlot operation using corn. You run the corn through an ethanol production program: you feed the mash to the livestock, take the manure and run it through a digester, produce some natural gas, and fire electrical generation relative to that. Those are the kinds of things that we're doing. I would have to agree with you that it is bioenergy production, but I think they're relatively well developed. What we've found is that there is some success rate relative to that.

Also, a number of the projects that we're working on now have a

basis in the fibre business, in the forestry industry, and we think that there's a tremendous opportunity here for Alberta as we go forward relative to moving the fibre industry from where they are today into opportunities, perhaps, where they have additional revenue-generating streams such as the production of electrical energy from wood waste. There are probably three or four of those projects that are being developed and worked on in the province now. Beyond that another very interesting piece of business that will come, we think, under the bioenergy program is opportunities in the fibre industry for cellulosic ethanol. There appears to be some very good opportunities for us with respect to that.

You asked about the reduction of dollars for resource development and management. I think the answer I would need to give you there is that we incurred an increased expense in IT. The expenses are budgeted as operating, and they're classified there as capital expenditures. As a consequence of developing and implementing changes due to the new royalty framework, capital development in the area has been reduced as we have redirected efforts from that particular piece of our business management into the new royalty framework.

You asked about the situation relative to the climate change and emissions management fund on page 31 of the fiscal plan. There's \$95 million in payments from industry into the fund. I believe that the question was: what's to become of that? Again, what I would have to indicate to you is that those dollars in that fund actually are not in my department. They are actually the responsibility of the Department of Environment.

8:00

Relative to the issue around a consultation process for getting the opinion of Albertans on the issue of the use or not of nuclear for production of energy in the province of Alberta, I think that the focus groups that we're going to operate and put in place instead of town hall meetings are going to be, in my opinion, a much more productive way to actually engage average Albertans with respect to the issue. I think that the member will know very well that there has been a tremendous amount of experience around the issue of consultation in Alberta in the last number of years and, certainly, in certain circumstances globally around issues. This issue is very volatile. It's very sensitive, and many individuals will have extreme positions relative to the issue. I think that in order to allow for what I would suggest might be a bit more calmer opportunity to have the discussions, I have the feeling that focus groups would be more productive relative to that particular issue, so that's the way we are proceeding.

The royalty drilling credit. Your question had been answered previously. It had been asked by a member previously relative to: what is the outcome? I had indicated at that point that it's very difficult right now to gauge the outcome simply because we're on a down cycle relative to the deployment of capital in the drilling industry. If you look at this time frame – and, you know, you can look at it from now back as many years as you would like – the breakup period, well, in Alberta but western Canada generally speaking, extends through this period of time that we're talking about right now. Drilling programs will be worked on over the next two or three months, and the capital deployment of most of the energy industry players relative to the drilling business will take place starting in the fall. Of course, what we intend to do is monitor the program, see how well the resource revenue and commodity pricing are at a stage in the fall, and as the industry goes back to work next winter, we think we'll have a better opportunity to answer that question for you.

What advantage is there in bitumen royalty in kind? The advan-

tage, of course, that we see is that it gives Albertans an opportunity that they now have in conventional oil and have had for some years to take the royalty in kind . . .

The Chair: Thank you. That ends this 10 minutes.

Now, there are a couple of minutes left that Mr. Mason didn't use in his portion. If you would like the minister to continue to talk for a couple of minutes . . .

Mr. Mason: Yeah. Sure.

The Chair: Okay. Then you've got two more minutes.

Mr. Knight: We think that Albertans will then have an opportunity to have these barrels managed for them in a way that we think can be more advantageous to Albertans. Of course, part of the opportunity that we think we will see is opening up new markets, part of it may be additional upgrading, and part of it might be feedstock into the petrochemical industry. There are many areas where we think that this can be helpful.

Bitumen valuation methodology and whether or not there's a fluid price, western Canada select, upgrading and refining versus pipeline capacity, and projections of amounts shipped into the U.S.: again, I've answered that question. It's a very difficult one because the business will come on a bit lumpy, and we think that over a period of time we'll be able to reach the targets.

Flaring and venting. That information is relatively available in CASA, the Clean Air Strategic Alliance. You can access that information. It's been globally accepted as a very, very productive and successful operation.

The gas production 10 years out is not part and parcel of what we're discussing here today, but most certainly I've given you the numbers three years out. I've done that already. Those numbers I made available.

Wind power approvals. That will depend, basically, on intervenors relative to hearings and, of course, the availability of transmission, which has been problematic because of intervenors.

The hundred million dollars in CCS, and why isn't there anything in oil sands? There are three programs on the table relative to oil sands in the process as we move forward now.

Does the fact that some of the majors may determine that they may not want to be involved at this point in time affect the amount of money in the program? The answer is no.

The Chair: Thank you very much. The time has elapsed for the opposition.

We'll take a five-minute break. We'll start again in exactly five minutes, starting with Mr. Frank Oberle.

[The committee adjourned from 8:06 p.m. to 8:11 p.m.]

The Chair: Thank you. We'll reconvene.

I'll turn it directly over to Mr. Oberle. You'll take your 20 minutes and combine it?

Mr. Oberle: Yeah, we'll combine it. I have a number of questions. Maybe we'll get through this with the minister.

I want to jump back to what my neighbour Dr. Taft was talking about with respect to the information available to a publicly traded company. Of course, we're not a publicly traded company, not part of a publicly traded company. This is a government. Governments typically budget on a one-year basis. Are you aware of any governments in Canada that budget as this one does on a three-year basis with a fully funded, three-year capital plan?

Mr. Knight: Well, no. As I indicated earlier, I think it's an exception.

Mr. Oberle: Okay. You know my background in forestry and my interest in long-range planning, and I don't disagree that long-range planning is extremely valuable, so I'll give you some parameters here. You had indicated to the member that you may be able to provide him with some forecasting. The document he quoted from was a Canadian Oil Sands Trust document. The parameters are using an exchange rate of 82 and a half cents in 2009, incrementing that by a quarter of a cent per year up to 95 cents by 2013 and a fixed exchange rate thereafter; a fixed inflation rate of 2 per cent per year from 2009 on; an AECO-C spot gas price of \$7.58 in 2009, incrementing by about 5 per cent a year up to \$9.95 by 2018 and 2 per cent thereafter; a west Texas intermediate price of \$57.50 a barrel in 2009, incrementing initially by about 10 per cent, declining to about 2 per cent per year at a price of \$101.59 by 2018, and 2 per cent fixed thereafter.

Of course, with all of those forecasts, ultimately, to calculate a return on investment, you have to discount that future capital, and the document presents a bunch of discount rates from zero to 20 per cent. So while it would be easy, I suppose, for you to provide a forecast on those parameters, would you bet a lot of money on the future turning out that way?

Mr. Knight: Well, I think the answer to that is no.

Mr. Oberle: Okay. Ultimately, though, for a publicly traded company, which this is not, certainly somehow they have to calculate a return on investment to get an investor to invest in that business, and an expensive business it is. The government of Alberta doesn't actually have any capital investment in oil sands or in energy infrastructure, in mining operations, or upgraders, or refineries. We're not investing in that business, are we?

Mr. Knight: No.

Mr. Oberle: For that matter, we also talked about, you know, the cost overruns of nuclear facilities. There's a lot of information on the Internet and elsewhere. I always think that if it's on the Internet, it has to be true. The government of Alberta is not actually planning to build or pay for a nuclear reactor, are they?

Mr. Knight: No. That has never been part of our discussions at all. There were no discussions around this issue until there had been a proponent that came to Alberta looking at an opportunity.

Mr. Oberle: Okay. Thank you.

I would like to ask you a couple of questions about the current budget, first of all the projected investment in the orphan well fund. This is part of your three-point plan. I believe that the investment was \$30 million. There is already an orphan well fund, and it would normally generate about \$10 million or \$11 million per year in orphan well work. Isn't that true?

Mr. Knight: Yes. It's a fund that is collected from industry by the ERCB. They collect in the neighbourhood of \$12 million or \$13 million a year that goes into the fund.

Mr. Oberle: Our investment in the orphan well fund, the one-time investment, is not going to offset the normal work that the industry would do anyway, is it?

Mr. Knight: That's correct. We have no intention of interrupting or in any way adjusting the amount of work that would be done normally. What we want to see are some very problematic and long-standing issues that we think this money could be targeted towards that would provide, certainly, an environmental benefit to Albertans now and in the future and an opportunity to have additional service industry people at work.

Mr. Oberle: Okay. If I could briefly turn to carbon capture and storage, we've got a \$2 billion proposal of investment in carbon capture and storage technology and projects. Why is there only a hundred million dollars unfolding this year, and what benchmarks do we have in place for any investments that we make to ensure that we're getting value for money here?

Mr. Knight: Well, the initial hundred million dollars and why it is that amount: that's the amount that we have indicated would be proper to go into the engineering and design phases of these projects in the first year.

Mr. Oberle: Okay. My last questions are around alternative energy. I think, in certain circles at least, our energy strategy has been criticized for being focused on traditional hydrocarbon energy, coal resources. There is concern about our commitment to alternative energy. Could you talk about what your plans are in alternative energy for this year? I think that probably one of our stumbling blocks in alternative energy is transmission capacity. If you could talk briefly about our plans there.

Mr. Knight: Well, most certainly, if I might, on the initiatives that we have going forward with respect to alternative energy, as I had indicated, there is a broad range of opportunities for us in Alberta, and we want to explore all of them. We believe that the programs that we have in place will certainly help people to get started with respect to a number of those issues.

I had said previously that we see opportunities here in the fibre industry. We see opportunities in agriculture. We see opportunities in wind generation, in solar. We see opportunities in run of the river and installation of weirs and these types of things. We see opportunities in getting down to microgeneration in individual residential customers and so on. We've done some work with that and put regulations in place that allow these people to get into the grid. We think that these opportunities will expand a lot. There's going to be, most certainly, I would probably suggest, in a decade or two 15 to 20 per cent of the power demand in the province of Alberta supplied by those types of resources.

I need to go back, if I could, just to finish the answer to your previous question. Although I did indicate what we're doing with the hundred million dollars, I did not address the second part of your question, which kind of leads me into the area of where the money is going to be expended, the time frame of it, and what we're expecting to see as a result. There is, as you know, a CCS group that we put together that did a lot of work on behalf of Albertans relative to this piece of business, and we will have a group that will assist us with monitoring this thing as it goes forward. There is a cross-ministry group that's also working with respect to the issue.

8:20

The hundred million dollars this year I explained. Of the about \$700 million as we go into the next two to three years, where they'll start actual construction, 60 per cent would be deployed in capital in construction up to 2015, and then the remaining 40 per cent – we'll be able to show Albertans that there is value for these dollars – would be paid out on a per tonne sequestered basis.

Mr. Oberle: Okay. If you could just touch briefly on my last question, the transmission capacity. We have, if I understand correctly, a significant amount of wind power potential currently stranded, if you will, by transmission capacity. What are our plans there?

Mr. Knight: Well, again, the situation around transmission in the province of Alberta is one that we are working very, very hard and diligently to resolve. Transmission upgrades in the province of Alberta have come, unfortunately, with quite a bit of difficult hearings and other intervention and so on relative to the construction and siting of transmission, so it is an extremely difficult area for us. We want to be sure, although we realize that this is in the public interest, that particularly in places where there are aboriginal concerns or landowner concerns, all of those concerns are addressed before we start any of these types of projects.

There has been some fairly robust expansion and upgrading of the system in certain parts of the province. The northwest has had some success recently. But relative to wind power and some other alternate power generation sources, we do have an issue with transmission and the ability for us to get transmission in place in a timely manner. The critical transmission infrastructure in the province – certainly, it's no secret – requires a major amount of upgrading. AESO have come forward with a 10-year plan to do that. We would like to of course see us as a government adopt the plan and move forward with respect to those build-outs, and they will address the issues of alternate power supply into the grid.

Mr. Oberle: Okay. Transmission, of course, is not a problem unique to Alberta. This is a North American problem at least, if not elsewhere in the world. In the States they're facing aging infrastructure and new power sources that are far from population bases and places of alternative energy, like wind power in North Dakota or solar power in Texas that are far away from population bases. Are we doing anything different or having any more success than they are in the States, where they're really at a critical stage with their transmission infrastructure?

Mr. Knight: Well, of course, there are some similarities, and there are a lot of differences. I think it would be fair for me to say that we think we are on the verge of being able to show quite a bit of success and, I think, relative support from the general population in Alberta with AESO's plan. This, again, is public information, of course. We've been out with AESO in the public domain holding town hall meetings relative to the plan and how Albertans may or may not feel about the build-out of the transmission system. We think that the movement of splitting EUB and having a stand-alone Alberta Utilities Commission will help us to deal with those particular issues going forward. We think that we're moving in the right direction, and I would have to say that I'm optimistic that we will be in better shape than many jurisdictions both in Canada and certainly in North America relative to the issue.

Mr. Oberle: Okay. Mr. Chair, I'd like to thank the minister for those answers, and I'll surrender my time.

The Chair: Okay. Thank you very much.

We'll go next to Ms Blakeman. You have 20 minutes. I assume you will share them as well and go back and forth?

Ms Blakeman: No, thank you. I'll take the 10.

The Chair: Okay.

Ms Blakeman: In the business plan on page 100 it's referencing electrical generation and transmission as a challenge. Flowing from that, my question to the minister is: what kind of wind-generating capacity is the province expecting to come on stream this year? In addition, how much renewable generating capacity will be added in the coming year? Does the ministry have targets for the amount of renewable capacity, and can the minister lay out those targets, please?

Under goal 6 of the ministry business plan on page 107 strategy 6.3 reads:

Alberta Energy will promote smart metering, smart grids and better consumption measurement in order to help Albertans better understand and adjust their electricity consumption patterns and incent greener practices.

My questions to the minister around that: when can we expect to see this smart grid rolled out; in other words, a timeline? Where is this expected to take place at first? Also, what specific measures is the government taking to allow consumers to sell electricity back into the grid if they invest in home generation? I think you referred to it as microgeneration. I'm specifically interested in timelines on that and on how this appears in your budget over the three-year budget plan.

My next set of questions reference page 168 of the government estimates, Energy Resources Conservation Board. There is \$21.7 million in statutory capital investment, and this is following on a \$15.2 million investment in '08-09 and \$12.1 million in '07-08, so that's a total of \$49 million in three years. My question to the minister is: can he expand, please, and give us details on what the capital investment is for the ERCB? It's a fairly significant number. Why is it so high? Given that the old EUB, which did the work of both the ERCB and the AUC, had significantly less than the ERCB does now, why is the board spending so much on capital? Exactly what are we getting for that, or what are they getting for it?

Mr. Knight: Laurie, I'm going to have to ask you to repeat that question because I'm not able to hear, unfortunately, what you're saying very well. As you know, I have a bit of an issue with hearing, and the way that you're speaking there, I couldn't catch that question. Was the first part of it to do with the ERCB expenditure?

Ms Blakeman: Yes. That's correct. It's on the capital expenditure for that particular area. Over the last three years there has been \$49 million spent, and I'm questioning why. That's a fairly large capital investment for one agency. What has it been spent on? Again, an explanation, please, on why it's such a large capital investment. It's statutory, but it is related to the budget. It's money that's being spent.

Of course, for any of my answers, if the minister is able to answer now, fine. If he cannot supply the detail, I'm happy to take it in writing through the chair so that it's shared with all members of the committee.

I'm going to move on now to the Auditor General recommendations, and I note that there are a significant number of outstanding recommendations that have not been implemented. In fact, one in particular, which I will review for you, has been repeated. I'm looking for an answer on why the department has been unable to implement outstanding key recommendation 10 from '03-04, appearing on page 125 of that particular AG report, asking that the department "set expected ranges for analyzing the costs and forecasted resource prices submitted on oil sands project applications" and on why the department has been unable to implement the recommendation to "incorporate risk into its present value test used to assess project applications."

8:30

I'd also like to know why the department has been unable to implement recommendation 28. It's a key recommendation from '04-05 appearing on page 165 of that report. The department was asked and has been unable to implement, evidently, completing a risk assessment and evaluating

the assurance obtained from the Petroleum Registry System and the Department's controls over well and production data

and communicate to what was then the Alberta Energy and Utilities Board, on

how much assurance, if any, the Department needs over the completeness and accuracy of well and production data.

Further, from '05-06 recommendation 27, again, a key recommendation. It, in fact, is the repeat of the previous year, so for some reason the department was unable to implement that recommendation – it's still outstanding – in which it was requested that the department

complete its risk assessment and evaluate the assurance obtained from the Petroleum Registry System and the Department's controls over well and production data

and communicate that to the Alberta Energy and Utilities Board with the

assurance, if any, the Department needs over the completeness and accuracy of well and production data.

From the '06-07 Auditor General recommendations key recommendation 9 is also outstanding, which asks that

the Ministry of Energy clearly describe and publicly state the objectives and targets of Alberta's royalty regimes.

Also from '06-07, appearing on page 119 of that report, key recommendation 10, which is an outstanding recommendation asking that

the Department of Energy improve the planning, coverage, and internal reporting of its royalty review work.

Again from '06-07, recommendation 11, an outstanding recommendation asking that the department "improve its annual performance measures that indicate royalty regime results." Also from '06-07 recommendation 12, recommending that the department periodically report on the province's royalty regimes. Periodic public reports should use the methods and tools of technical review to:

- provide information to owners, MLAs, and stakeholders about the performance and issues for Alberta's royalty regimes; [and]
- demonstrate the Department's capacity and methodology to analyze [those same] regimes.

Also from '06-07 numbered recommendation 13, appearing on page 129 of that report, recommends that the department "enhance controls for its monitoring and technical review work."

Also outstanding, the recommendation, not a numbered recommendation, that

the Department of Energy follow its own policies and processes by ensuring discussions, conclusions, and actions taken – including the risk-mitigation strategy – when an employee has declared a potential conflict of interest are clearly documented and retained.

There is one recommendation which is also outstanding, recommendation 25 from October of '08, which is six months ago. I don't think the department has had time to do that one, so I'll pass over that.

Also, a second recommendation, recommendation 26, also from six months ago, hasn't been responded to or implemented.

There is also a series of recommendations that are outstanding around the AEUB, which no longer exists, of course, but its responsibilities do, as reassigned. What has the department done around ensuring – and this is referencing '04-05 key recommendation 29 – that the delegated administrative organization "explore ways to strengthen controls for verifying the accuracy and completeness of

oil and natural gas volumetric data and for enforcing measurement standards"?

From the same year recommendation 30, also referencing an arm's-length DAO, that it "improve its systems by monitoring the timeliness in which industry restores wells, facilities and pipelines."

The Chair: Well, thank you very much. That draws an end to this portion of the meeting.

I'm going to ask the minister to answer as many of those questions as he can. Again, if you can't answer those questions, they can probably submit it in writing if it's relevant to the estimates.

Mr. Knight: Thank you very much, Mr. Chairman. I think that we'll be able to get through the answers to these questions. A bit of a situation relative to the fact that we're actually here tonight to discuss this ministry's estimates, so, you know, that's an interesting side that the Auditor General's report would be part of my estimates. Nevertheless, we'll do what we can with this.

What amount of wind is available in the province of Alberta? The people in the wind business would suggest to you that there's upwards of 13,000 megawatts of wind power available if you could use it all. How much of that wind are we going to use? I would suggest that we think that over a period of time it can probably get into, you know, something like 2,500 or 3,000 megawatts, depending on the size of the market that is developed in Alberta over years, but it will take some time.

How much renewable energy over the long term? Something in the neighbourhood – and I had answered that question previously. We think that there's an opportunity here for 15 to 20 per cent in Alberta, you know, over the period of time that we're talking about relative to our energy strategy.

The smart grid: where is it? Well, where is electricity delivered? That's where it is. The smart grid will encompass the whole grid. When is this going to happen? Our initial work relative to the smart grid is already started. Of course, what we would like to see is an opportunity to move into some advanced metering, and that would allow us to make a lot more use of new grid facilities as they go forward and the grid that we have in place now.

Paying for microgeneration: when can we do that? We can do it now. The regulations are in place right now, so you can do microgeneration at home now if you like and produce power that goes back into the system.

There was a question on ERCB capital expenditures: why is it so much for such a small agency? First of all, I think that it's fair to say that when we did the restructuring and have ERCB and the AUC now as separate entities, there was a requirement – and it follows up, all of the questions that you had asked, really, relative to the Auditor General. The ERCB and the Department of Energy have to get a little bit more horsepower with IT equipment and with people. The capital expenditures around ERCB: that would be related to that. Of course, there will be some ongoing expenditures relative to that.

You went then, I think, pretty much to questions relative to the Auditor General, I believe, and I'll do the best that I can with it. I would suggest that for a number of the items that you flagged in the Auditor General's report, all of the items that I believe that you've discussed, we have agreed to the recommendations. Most certainly, I would tell you that the work that we're doing with the Auditor General's department and with the staff from the Auditor General's department would indicate that they're in general terms quite satisfied that we continue to work. A lot of this is a work-in-progress. They are satisfied with the work that we're doing.

Things about the risk assessment, volumetric measurements, and how we are going to determine that the correct amount of revenue is

being collected, et cetera: again, work is being done with ERCB and the Department of Energy. I would suggest that we have been apprised by the Auditor General that they are not dissatisfied with the progress that we're making. I would suggest that that's relative to almost all of the things that you cited from the Auditor General's report.

8:40

The objectives and targets in the royalty regime. I mean, that's been brought up before, and I did suggest that there will be an opportunity for us to give a little better explanation for that. As you look at the indications here of the work that we're doing with the Auditor General relative to some of those questions that he has raised, the ability for us, again, to look at our objectives and the targets are being developed in conjunction with the work that we're doing with him.

When we look at the periodic reporting, the Auditor General and the Valentine report have suggested that that indeed should be done. We've agreed with that, and we will most certainly be doing periodical reporting of the royalty regime. Again, a work-in-progress, and I would suggest to you that indications from the Auditor General are that they are not dissatisfied with the progress that we're making.

Relative to employee conflicts the information that I would have, if I can remember, going back a bit here, generally I think that that issue has been resolved to their satisfaction at this point. I don't know that it's still outstanding, but certainly if it is, I will get a written answer for you with respect to that.

The insurance around measurement standards. Again, that goes back to a number of these other requests from the Auditor General. They're basically tied together. The measurement standards in volumetric measurement that takes place in battery locations where we're collecting information relative to royalty collection is certainly ongoing. Again, the Auditor General is very interested in the work we're doing, and to my knowledge at this point he is not dissatisfied with the progress that we're making.

I think that that pretty much gets to the answers to your questions. I think you had a question about recommendation 25, the bioenergy program. That has been reviewed with the Auditor General, and certainly we will be reporting back. I think the department has implemented his recommendations relative to what we should do with that particular point.

Mr. Chairman, I think that answers the questions that I had received.

The Chair: Thank you very much.

Then we'll go next to Mr. Berger, please; 20 minutes, and you'll share the time?

Mr. Berger: Thank you, Mr. Chair. Yes. If that's all right with the minister. I'd like to go back and forth if that's fine by you, sir.

Mr. Knight: Sure.

Mr. Berger: Great. As was stated earlier by the Member for Edmonton-Riverview, this is a year to the day of last year's same department estimates. It's an interesting comment. It brings me back to a comment I'd made at those estimates from this ministry. It goes along the lines of: you, sir, are in charge of the ministry, which I compare to being the family breadwinner; you come home at the end of the month with a cheque, and you're then berated because it's not enough or it's too late or one thing or another.

Dr. Taft: Or you stopped at the bar and drank some of it.

Mr. Berger: That I hope not.

It's similar to last year. At that time you were working too fast. We were moving too much, too fast. Well, we have found out this year that we can't move things fast enough, that the economy has changed, everything is different. Which brings me to the question on the revenues. Last year we were sitting at the revenue level of \$12 billion for this ministry, and this year we're projecting about \$5.9. So we're a little less than half. Given the world economy and the climate, what is your confidence level in being able to come up and deliver that \$5.9 billion that we're projecting for this year?

Mr. Knight: Well, again, I think I've indicated a couple of times that it is an extremely difficult task to make these kinds of predictions in the economic climate that we find ourselves in. I'm going to suggest to you that no one can predict with any certainty where prices are going to go either in the short or long term. Alberta Energy prepares its forecasts by assessing market fundamentals such as supply-demand, and we're doing that. Then we compare that with energy industry, oil and gas and other industry, analysts. As Budget 2009 stated, the key assumption that we had was with respect to the depth and length of this recession, and we think that the prices that we have given here are consistent with what we see as a recovery that would begin in 2010.

Mr. Berger: Thank you. Now, this \$5.9 billion is based on our forecasted prices of \$55.50 a barrel and \$5.50 a gigajoule. There are many that have said that is too high, and I think some of the same were saying last year that \$78 was too low. This reflects just how volatile this market can be. Now, right today we are below these prices, and I expect that your forecasting does say that over the year, with the lower prices we're experiencing now, we're hoping that we are above significantly to bring us back to the \$5.50 a gigajoule and \$55.50 a barrel. Is that budget obtainable, those two numbers? Do you see one outdistancing the other and hopefully averaging back, or do you feel they're both going to kind of work up to that level throughout the year or above enough to bring it back to that level at some point?

Mr. Knight: Okay. I think it's important for us to remember that the forecasts that we're giving you there in the budget are annual forecasts for average prices over the entire year. Just to put a little bit of clarity around this issue, when we look at our forecasts relative to oil price forecasts in general in the industry, we benchmark ourselves and use information from a number of sources. Most certainly, our prices that we're forecasting as we go forward would be not inconsistent with averages of other forecasters in the business.

If you look at what we've done in '09, the average forecast out of about a dozen forecasters is something in the neighbourhood of \$51. The maximum is at \$76 and the minimum at \$42. When you look at the price that we have set in our budget, I think that it's relatively consistent with what we've done, being reasonable and conservative in the forecast. Outgoing years we're looking at \$62, \$63, \$70, \$71, that range in 2011; \$75 and change in 2012. Those are the averages that industry forecasters have come up with, and I think when you look at our numbers, we're certainly not inconsistent with those kinds of numbers.

Mr. Berger: Thank you. Further on to a blast from the past again. Comments from the leader of the third party last year all centred around his trip to Alaska and his visit at that time with the soon-to-be Republican vice-presidential candidate and her changes to the

Alaskan royalty regime. I've not followed up on that royalty regime change there and how it's worked out with the changes and the drop in the world-wide commodity prices. Mr. Minister, with the benefit of hindsight that, I guess, will be apparent to all of us again next year, for these royalties that we're discussing, it's been said that the government needs to do a better job in measuring and explaining the performance of the royalty program. How will we address the comments of the Auditor General and the Valentine report to improve this measurement?

8:50

Mr. Knight: Well, I'm going to kind of answer the first part of your question, which was, I suppose, a bit of a preamble. Relative to how we kind of stack up and measure right now with what Alaska has done, I can tell you that they're finding some extremely difficult circumstances in Alaska relative to some of the initiatives that they put in place. As a matter of fact, there's been curtailed production out of Alaska that, interestingly enough, in the Pacific Northwest has been taken up by product from Alberta. That is relative to some of the situations around Alaska's current regime. So there are situations there where, you know, the royalty systems most certainly do make a difference.

The Department of Energy has a team here, and we established that team to address and implement the recommendations set out in Mr. Valentine's report. We've made significant progress, and I think that I could say that we did have a review of the department's audit and compliance group, an organizational review that resulted in departmental restructuring, a communications audit with recommendations on what audiences, messaging, and tools would best address the public understanding of the royalty system. Certainly, we fully expect that those recommendations will be implemented this year.

Mr. Berger: Thank you. Supplementary to that, as complicated as this whole issue is, how is it that we'll measure the performance of the royalty regime for this year? You know, we're very mixed back and forth here.

Mr. Knight: Well, again, this question is similar to questions that we've already been dealing with here this evening. This task, as I'd indicated, has been very much complicated by a need to address the downturn in the economy and to figure out how you're going to work that into the measures.

The new royalty framework, of course, was implemented in January of 2009. That's another reason that we're going to take a bit of time to be sure that we develop this thing properly. We're currently developing a specific performance measure and targets for the royalty framework for inclusion in the 2010-2013 business plan.

Mr. Berger: Okay.

Mr. Knight: Interesting to note, if I might – I don't want to interrupt you. It's also a case that Alaska does not have a published performance measure for their royalty regime. We have one. We're short of some information in it, but they don't have one at all if people want to make comparisons with Alaska.

Mr. Berger: Thank you. The ministry has targeted \$842 million for this fiscal year for the drilling incentive programs. Do we feel that's sufficient? Is that going to be enough for this year? Knowing the importance of the drilling programs to the province, is that a feasible number?

Mr. Knight: Yeah. Well, of course, we tried to take a look at the drilling forecast. For the coming year there isn't any doubt – and this is not an Alberta-specific problem; this is going on across North America – that drilling forecasts are down significantly. Short-term success with respect to the program we think will be measured in jobs saved in Alberta and money that would continue to be spent in communities throughout the province. What we'll be looking for is an opportunity here to see the upstream industry at work.

We're going to certainly monitor the impact of the incentive program, and at the end of the year we can assess whether it's necessary or appropriate for it to be supplemented or continued. We will have a much better idea then whether the \$842 million is the appropriate amount of money for an initiative such as this.

Mr. Berger: With the incentives and the changes that we've had to the royalty programs, is there any chance that this is going to send confusing signals to the industry and the marketplace there?

Mr. Knight: Well, again, you know, that brings me back to an answer I had to a previous question. I think that the industry players and most certainly the Department of Energy and other people associated with the energy industry and the royalty system that's in place in Alberta are very familiar with the fact that programs are brought into the system and programs are moved out of the system to address certain circumstances. The programs are intended this time to address cash-flow issues that are inhibiting investment in Alberta. We think that the time to act is now to help ensure that investment dollars will be available, particularly for smaller oil and gas firms so that they can continue to play an active role and have a drilling season in the season coming up that is constructive and keeps Albertans at work.

The other issue around this is that we know that our conventional resources in the province of Alberta are on a decline, and anything that we can do to continue drill bits turning in the province is most certainly important relative to our ability to continue production levels.

Mr. Berger: Thank you. I know that in Small Town, Alberta, it's very important. Excellent comments back on it to this point.

Given the current global economic pressures and the impact on the budget for this fiscal year, is it sustainable for us to continue with the large initiatives, with our revenues to be so much lower than we had last year? I understand exactly. You answered part of it in the last question with that need to ebb and flow and to keep the industry out there and the people that are working within it employed, which brings me back to: be careful what you wish for. Everybody was wishing for a slowdown last year. It kind of takes me back to the Toby Keith song, *How Do You Like Me Now?!* I don't know if anybody in this room likes it as much now as we thought we might last year. I'll just let you answer on the initiatives there. With the lower revenue do you believe we can sustain that? I guess our crystal ball gazing is hoping that this is turning around as we speak and we're into a different program next year again.

Mr. Knight: Yes. Of course, the way that I would look at the initiatives – they're budgeted and accounted for in our budget. The numbers are accounted for in the '09-10 budget cycle. How do I feel about the ability for us to continue these types of incentives in an area of lower revenue? I would suggest that what will happen here is that these investments that will take place in industry will create a wealth generation spinoff that includes, of course, people being at work. That increases our ability to collect taxes, increases our ability to generate royalty revenue from increased production, and

I think that at the end of the day, when you see the program roll out in the next two to three, four years, the return on those incentive programs will be marked and will be very positive for Albertans.

Mr. Berger: That's interesting. One of the numbers that you get asked quite often, that I know is probably on the top of your head, that I can't think of right now, is: with each rig what is the spinoff? What is the revenue generation from that?

Mr. Knight: Well, when you look at this thing from the point of view of getting the upstream industry to work, I think a benchmark that we can use – and the numbers vary depending upon who it is that is actually developing a number. If you look at the Association of Oilwell Drilling Contractors, CAODC, they will indicate to you that the spinoff effect from putting a rig to work puts about 120 Albertans to work with each well drilled. You know, when you take a look at what we're going to do and what we think may materialize from this incentive, it is substantial, and I think it's something that we'll be able to benchmark and monitor.

9:00

Mr. Berger: Thank you. Another comment earlier was on wind power generation. I think I'm still the constituency that has the leading amount of wind power generation taking place. A lot of it is on hold yet because of transmission issues. Everybody likes to talk big about how we need more wind power generation, but while that happens, they never stop to think that there isn't a city at the bottom of each one of those towers. Somehow that power has to move out of there, and it's going to be the site of some line when it does move. I think we've finally got an approval on that cross-link down there to let a bunch of that wind power go ahead, and I see in a local paper that there's been another approval on a wind farm in the MD of Willow Creek. Since last year when we opened up the level of possible wind generation, how much of that has been taken up, not actually producing but permitted and moving forward? You may not have that with you, and that's not a big issue.

Mr. Knight: Yeah. The exact number I don't have in my mind. What I can tell you is that – and I've answered this before – we have about 1,300 megawatts in the queue there currently. Well, I should actually make sure that I explain this. The queue would be a long, long list of generating possibilities that is in front of AESO. It extends into numbers of thousands of megawatts of wind generation. Many of those opportunities, of course, may not see reality. I think the right answer for your question is that we currently think that under the regime that we have, AESO's operating parameters for a stabilized, secure grid operation and what we see as projections going forward for the load and increased requirement for generation, we think that we can safely say that we could get to 2,500 megawatts of wind power in the province of Alberta. That, I think, is probably doable in a decade.

What's there right now? We've got a number of projects. I think when you look at Shell and Naturener, there are a number of these projects that are there waiting to see what happens with respect to transmission. I think that the permitting and the applications and so on will continue to go forward. We believe that there is an opportunity for these pieces of business, meaning that the generating side and the highway to move that resource will converge over the next two or three years.

Mr. Berger: Thank you.

The Chair: Thank you very much. That finishes that portion of the questioning.

We'll go back to Dr. Taft.

Dr. Taft: Great. Thanks, Mr. Chair.

The Chair: Are you going to combine your time again or not?

Dr. Taft: Sure. Why don't we try that again.

I'm just going to pick up where I left off. As I recall, I was starting to talk a bit about solar power. There are references here on page 99 of the business plan: a couple of points under goal 3 about renewable and alternative sources of energy that the department is to facilitate and specific mention of solar energy under significant opportunities, under Alberta's Energy Supply. We were just beginning to talk about the capacity in the department for working on solar.

Looking at page 166 of the estimates, the budget for solar support, would that be in line 2.0.5, conservation and energy efficiency initiatives? Where in the budget would solar programming be?

Mr. Knight: I would suggest that you look at line 2.0.2, resource development. There had been, of course, opportunities for us under resource development to work with those programs in alternative energy development.

Dr. Taft: Can you tell us a bit about what the department is doing on the solar side? Is it photovoltaic, solar thermal? Is it research or policy? What's going on? If you'd like, a written response is okay, too.

Mr. Knight: No, I don't think that's necessary. What we're doing is working with the industry. As a matter of fact, I have done that this week. We continue to meet with the players in the solar industry, the Canadian players particularly, and we think that they're displaying what is a very robust opportunity in Alberta. When you look at the numbers relative to hours of sunshine, the solar capability, in the province of Alberta and compare it to other jurisdictions where there is a tremendous amount of activity in the solar industry, the possibilities for Alberta stack up very well.

Again, what we're doing is working with the industry players, looking at where the programs that we have in place may incent what they're doing. We're looking at program development in other areas, other jurisdictions across Canada and other places and trying to make some comparisons with opportunities in Alberta and opportunities that this particular industry is presented with elsewhere. We really see some good opportunities here. I can tell you that some of the players in the solar business and some individual Albertans that have taken an opportunity to engage in this business now receive 8 cents a kilowatt hour for any excess power that they return to the grid.

I think that, you know, it's fair to say that the policy development for all the renewables, not just solar but the rest of the ones that we need to deal with in the province of Alberta, is moving forward. We've looked at policy development around renewables. Actually, relative to this issue we've doubled our staff in the division that is looking at alternative energy supply for the province.

Dr. Taft: Sounds good. Doubled from what to what? Is it a four-person office? What is the budget here supporting? Again, I'm thinking specifically solar.

Mr. Knight: Oh, specifically solar. We don't actually take an individual from – the group that we have looking at alternatives is eight staff members that are currently there, but they would deal with a range of issues. We won't say that we have one guy there that just deals with solar and one guy there that might be dealing

with run of the river, one guy there that's going to deal with opportunities for small home generators, one guy there that might be looking at opportunities for wind and that kind of thing. The staff work together as eight members to provide us with direction, to provide industry players and Albertans, generally speaking, that are interested in that business with support, with information, with guidance on our initiatives. Certainly, the feedback that we get, generally speaking, from all the industry players in the bio industry, in the alternatives has been very positive relative to that group of people that work with them.

9:10

Dr. Taft: Okay. I'm going to continue to focus just another minute on solar. One of the reasons I do that is that the Member for Livingstone-Macleod and others here – actually, it's come up repeatedly – talked about wind and Alberta's tremendous capacity for wind generation: 13,000 megawatts, maybe 14,000 potential. Alberta also has incredible capacity on the solar side. It's remarkable that even in a location as far north as Edmonton the solar potential here actually compares very well to locations much farther south. In this budget, in this business plan will we see, or maybe there already exists, say, a discussion paper, a plan, something specific to solar in the same way that we've seen specific initiatives on wind and on bioenergy? When will solar get the equivalent attention to, for example, wind power?

Mr. Knight: Well, I think that it'll get the equivalent attention to wind power when individuals in that industry indicate that they have a level of interest in developing in Alberta that would match the level of interest in things like wind power, like the opportunities for run of the river, like opportunities in generating with weirs, like opportunities in bioenergy development, where we see forest industry players have come to the table and brought their initiatives forward for us to work with them to develop programs that will help them put those initiatives in place and create realities in Alberta.

It's early days with respect to the solar business in the province of Alberta. Of course, I think that I could safely say to you that the energy industry is the largest user of solar power in Canada. They've been no slouches with respect to using this resource and have done so for nearly a decade, and they continue to expand their opportunities in the use of solar. That's one of the areas that's been quite well developed.

As I said, the individuals are at the table with us. I've met with a number of people from the Canadian association this week and will continue to work with them. Microgeneration, of course, applies to all fuels, and that certainly does include solar. The generators, as I've indicated, are the people that'll make choices, and right now those choices have been, by and large, other generating opportunities. There hasn't been as much activity from the industry's point of view in solar as there has been in some of these other initiatives. As that builds, we'll continue to support it.

Dr. Taft: All right. I'm going to ask a handful of questions, so the minister might want to take some notes, or he can respond in writing in case we run out of time here.

The Chair: You have about 10 minutes, a little more than nine minutes.

Dr. Taft: It just seems to get eaten up, though, doesn't it, Mr. Chairman?

Page 99 of the business plan. Again I'm referring to the paragraph on Alberta's energy supply. It refers to saving energy through

efficiency and conservation, and of course there are lines exactly for that in the estimates on page 166 and elsewhere. The minister has spoken specifically this evening about the possibility of a 15 per cent reduction in demand. That's the low-hanging fruit. You didn't use that phrase, but you used something equivalent to that. I would think that 15 per cent is probably a minimum. My first question is: what time frame are we looking at for achieving what would amount to a 15 per cent improvement in energy efficiency in the province? That's one question.

I'm going to just refer to page 104 of the business plan next. We talked about this earlier. Strategy 3.1 reads:

The Ministry of Energy will work with other government ministries and major stakeholders to implement the Provincial Energy Strategy and the long-term strategic plan for oil sands development, Responsible Actions: A Plan for Alberta's Oil Sands,

which was this document which I showed the minister in our earlier rounds of questions. I'll repeat the question, and you can respond in writing if you prefer.

Mr. Knight: Oh, no. I'll answer it.

Dr. Taft: I'm looking for a detailed time frame on the implementation that is spelled out on page 104 of the minister's business plan.

Page 104. The next strategy refers to something we discussed earlier, which is "complete consultation and policy recommendations for nuclear energy development in Alberta." I'm wondering if the minister can tell us: where in this budget are those, and what is the cost figure – the full, complete cost figure – for strategy 3.2, which would be consultations and policy recommendations for nuclear energy development in Alberta?

Over to you, Mr. Minister.

Mr. Knight: Well, thank you very much. Initially your question is: when we look at the opportunity, we think there's opportunity for about a 15 per cent reduction on the demand side relative to the electrical utility in the province of Alberta; in what time frame would we see that? I would suggest to you that what we're looking at here is a time frame that would probably extend into about five to 10 years.

It's very difficult to say how people will take up these initiatives. One of the things, of course: when we get into a smart grid, we're not sure of the time that it would take to install all of the equipment that we need across the province. As this program kind of moves forward, I'm going to give, you know, a bit of leeway here and suggest that that time frame could stretch into something in that kind of five- to 10-year range.

You talked about the plan for Alberta's oil sands, Responsible Actions, and you want to know about the implementation and the timeline for implementation. You obviously have the document with you, so I would assume that you've had an opportunity – and I'm sure that you're diligent about this – and you've read it. If you look at that framework and what it suggests that we need to do, the time frame won't in my opinion be all that much different than the time frame that we have relative to some of the other initiatives that are very crucial to that particular document.

We have, as you know, a very aggressive piece of work going forward in the land-use framework, the implementation of that. The work that regional advisory committees are going to do; the work that we're doing in consultation with the aboriginal community; the work that we're going to do with Environment relative to air, water, and land quality as we develop: all of those things will certainly have a major impact on the timing of the implementation.

What I would suggest to you is that we're beginning the imple-

mentation of the energy strategy now. The energy strategy, we believe, is a document that gives us a good road map for development over 30 years, three decades out. I would suggest that the plan for Alberta's oil sands development is going to stretch out for quite some time.

I think that you would know that if we move – if we move – to a high-development, high-productivity scenario relative to the opportunities that we have with 174 billion barrels of production capacity, we have about 80 years' worth of production. So the development is going to be staged over a period of time, and the implementation of that program, of course, as I say, started now but will continue over some period of time.

9:20

With respect to nuclear consultation what we're doing there is working, as I have said and indicated to you, with a group of individuals that are external to our department. We would have to I think suggest to you that what will happen relative to the costs of that consultation will take some time to determine. I couldn't give you a specific dollar number as we're sitting here now. It will be determinant upon what the costs are relative to getting people to respond. The full cost of consultation includes things like contracts relative to the consultation, some government staff time, and, as I'd indicated, things like the rental of halls, report preparation at the end of the consultation. There'll be printing costs and, certainly, for some people involved, honorariums. We can, if you like, provide an estimate. We can do an estimate and provide it, but I think what is fair to say is that these costs would be part of our budget for resource development.

Dr. Taft: Well, I appreciate that, but I would actually like an estimate. I mean, I'm assuming – gee, I hope I'm right in this – that when the decisions were made to go ahead, somebody said: okay; before we decide, we'd better estimate the costs. I'm sure it isn't going ahead on a blank cheque basis. If you could provide those estimates, that would be much appreciated, and if you could do that before we vote on the budget on May 7. I can't imagine that'll be very difficult.

How much time do I have, Mr. Chairman?

The Chair: One minute exactly.

Dr. Taft: Okay. On page 101 of the business plan point 6 there refers specifically to bitumen royalty in kind. It says, "Implement strategies to increase upgrading and refining capacity in Alberta, including the implementation of Bitumen Royalty In-Kind." You mentioned that in your opening comments. We did have some discussion about that. I am very interested and eager as we see unemployment rolls building, as we see momentum shifting to the U.S. and so on to see a bitumen royalty in kind strategy that involves stimulating one way or the other, upgrading and other projects moving along. If the minister can give us some sense of the time frame. Is it, you know, this year? Is there a good chance we'll see some announcements on that?

Mr. Knight: Are you done?

Dr. Taft: I'm done.

Mr. Knight: Not years. I'll have to frame this answer . . . [Mr. Knight's speaking time expired]

The Chair: That's it for this section of the meeting. We'll just go to the next person. Thank you very much. That'll be Mr. Drysdale.

Mr. Drysdale: Thank you, Mr. Chair. I just have a couple of questions around carbon capture and storage. It must be important because there have been lots of questions about it tonight and lots of interest. You know, we all know the \$2 billion that this government has committed and has allocated a hundred million dollars this year. I've heard there are numerous projects in the queue that you're interested in. You've said tonight that there are even still three oil sands projects. I'm sure these are all good projects, and this is really important to Alberta because I think all the world is watching our CCS. Being that these are all good projects and it's not easy to pick winners – and I think we all want to have a winner here – I guess my question is: what sort of process do you have in place to ensure that we pick the right projects?

Mr. Knight: Well, thank you for that. First of all, there is an evaluation committee that consists of representatives from the departments of Energy, Advanced Education and Technology, Environment, Sustainable Resource Development, the Treasury Board, and Finance and Enterprise, so well represented across different government ministries. There are independent external experts that may be consulted also to provide advice. An external fairness auditor has been brought in so that we're not in the business here of making a political decision to pick a winner or loser. The Minister of Energy would have the authority to make final decisions relative to these projects.

Mr. Drysdale: Okay. Do you have any timelines? When will these decisions be made about these projects that are currently under review?

Mr. Knight: Well, the FPP deadline for project description and so on, as you know, is March 31. The evaluation team are working very, very diligently at the moment. We have had from the outset the idea that we'd meet a deadline by the end of June for final selection. I have to say that the number of projects that are left in the mix are making that work difficult. There are some very good projects there, and the assessment may take us a bit longer than that, but we're still shooting for that target.

Mr. Drysdale: Well, that's good. I know that everybody is watching what's happening, so I hope you pick a winner.

While we're talking about CCS, I don't know: is it really achievable to have five megatonnes of reduction by 2015? I think that was one of the goals. Do you think that's achievable?

Mr. Knight: It certainly is my intention to move toward that target. Let's, I think, be fair about this, that five megatonnes by 2015 is certainly not insurmountable, but we also want to be aware that when you start looking at investment dollars for almost any type of major projects anywhere in the world, the ability to attract investment in these projects is more difficult. We are expecting that we'll meet that target. We think that what we've done is provide industry with, you know, a very solid partner with respect to the issue. We also believe that the federal government will want to participate in this program. We have interest in this program from the International Energy Agency, from the European Union, from the G-8, from the G-20, from individual states in the United States, and, most certainly, from the current U.S. administration. There's very solid support, and we really feel that we do have a good opportunity to reach those targets in that time frame.

Mr. Drysdale: I guess I have a couple of questions around the biofuels initiatives. You know, I've had lots of interest from

industry approaching me, and I see that you've committed \$55 million in this year's budget for biofuels initiatives. How do we know that this will achieve any results in improving our environment?

Mr. Knight: Well, what I will say is that this is Alberta; it's the first jurisdiction in Canada to include an environmental threshold as part of our provincial renewable fuel standard. So we do have a benchmark in place. The life cycle base is that greenhouse gas emission from renewable products must be at least 25 per cent lower than the existing fuel pool. So we do have a mark there that will indicate at the end of the day whether or not the processes that people put in place will actually provide an environmental benefit for Albertans. For the producer credit program the grant agreement

actually requires annual reporting on water, air, and energy consumption around the issue. The commissioned bioenergy productive capacity now avoids, in our opinion, just under 150,000 tonnes of greenhouse gas emissions annually.

The Chair: Thank you, everyone. That concludes the budget estimates for Energy.

I'd like to remind everyone that we're scheduled to meet next Monday evening, May 4, to consider the estimates of the Department of Agriculture and Rural Development.

Pursuant to Standing Order 59.01(2)(a) this meeting is adjourned. Thank you very much.

[The committee adjourned at 9:30 p.m.]

