Legislative Assembly of Alberta

The 29th Legislature
Second Session

Standing Committee on Public Accounts

Energy

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Standing Committee on Public Accounts

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Also in Attendance

Aheer, Leela Sharon, Chestermere-Rocky View (W)
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Standing Committee on Public Accounts

Participants

Ministry of Energy
- Douglas Borland, Assistant Deputy Minister, Ministry Services
- Mike Ekelund, Assistant Deputy Minister, Resource Revenue and Operations
- Doug Lammie, Assistant Deputy Minister, Strategic Policy
- Colleen Volk, Deputy Minister

8:30 a.m. Tuesday, November 1, 2016

[Mr. Fildebrandt in the chair]

The Chair: Good morning, everyone. I'll call this meeting of the Public Accounts Committee to order. Welcome, everyone here. I'm Derek Fildebrandt, chair of the committee.

I'll ask that members, staff, and guests joining the committee at the table introduce themselves for the record, beginning to my right.

Mr. S. Anderson: I'm Shaye Anderson. I'm the deputy chair. I'm the MLA for Leduc-Beaumont.

Ms Goehring: Good morning. I'm Nicole Goehring, MLA for Edmonton-Castle Downs.

Ms Miller: Good morning. Barb Miller, MLA, Red Deer-South.

Mr. Dach: Good morning. Lorne Dach, MLA, Edmonton-McClung.

Mr. Malkinson: Good morning. Brian Malkinson, MLA for Calgary-Currie.

Ms Luff: Good morning. Robyn Luff, MLA for Calgary-East.

Ms Renaud: Marie Renaud, St. Albert.

Dr. Turner: Bob Turner, Edmonton-Whitemud.

Mr. Westhead: Cameron Westhead, MLA for Banff-Cochrane.

Mr. Fraser: Rick Fraser, Calgary-South East.

Mr. Gotfried: Richard Gotfried, MLA, Calgary-Fish Creek.

Mr. Borland: Douglas Borland for the Department of Energy. I'm the assistant deputy minister.

Ms Volk: Colleen Volk, deputy minister, Energy.

Mr. Ekelund: Mike Ekelund, ADM with Alberta Energy.

Mr. Lammie: Doug Lammie, assistant deputy minister with Alberta Energy.

Mr. Dunnigan: Patrick Dunnigan with the office of the Auditor General.

Mr. Saher: Merwan Saher, Auditor General.

Mr. Barnes: Drew Barnes, MLA, Cypress-Medicine Hat.

Mr. Hunter: Good morning. Grant Hunter, Cardston-Taber-Warner.

Mr. Cyr: Scott Cyr, MLA for Bonnyville-Cold Lake.

Mrs. Aheer: Leela Sharon Aheer, Chestermere-Rocky View.

Mr. Hanson: David Hanson, Lac La Biche-St. Paul-Two Hills.

Dr. Massolin: Good morning. Phillip Massolin, manager of research and committee services.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Thank you very much. A few housekeeping items. First, microphone consoles are operated by *Hansard* staff, so you don't need to touch them. Audio of the committee proceedings is streamed live on the Internet and recorded by *Hansard*. Audio access and meeting transcripts are obtained via the Legislative Assembly website. Please turn your phones to silent.

Are there any additions or changes to the agenda as distributed? Seeing none, would a member move that the agenda for the November 1, 2016, meeting of the Standing Committee on Public Accounts be approved as distributed. Moved by Ms Goehring. Any discussion? All in favour? Opposed? Carried.

Do members have any amendments to the October 4 minutes as distributed? Seeing none, would a member move that the minutes of the October 4, 2016, meeting of the Standing Committee on Public Accounts be approved as distributed. Moved by Mr. Westhead. Any discussion? All in favour? Opposed? Carried.

I would like to welcome our guests from the Ministry of Energy here today to speak to systems to manage royalty reduction programs, which the Auditor General addressed in his report of February 2016. Members should have all of the committee research documents, the Auditor General briefing document, as well as the updated status of the Auditor General recommendation document submitted by the Ministry of Energy.

Before we hear from officials from Energy, I want to remind the committee of the time allotment format for questions during our fall 2016 meetings starting today. Members are aware that this was discussed during the October 4 meeting, and the format is similar to those approved and followed by the committee at previous meetings with the appropriate adjustments to accommodate today's 90-minute schedule.

Following opening remarks and comments from the Auditor General and the ministry, the rotation for the first 42 minutes would be the Official Opposition and government members for eight-minute blocks followed by the third party for five minutes with this sequence repeated. In the second rotation the Official Opposition, government members, and third party for five-minute blocks each. For the time remaining members of the Alberta Party or Liberal Party, if in attendance, may speak, and any of the unused time rotates between opposition and government members. Members should have a copy of the time allotment chart that was posted to the internal committee website. I would suggest that we see how this format works during today's meeting, and we can modify it if necessary.

I'll now invite the ministry officials to provide opening remarks not exceeding 10 minutes, and then we'll turn it over to the Auditor General for his comments.

Ms Volk: Thank you, Mr. Chairman. I'm pleased to be here and speak to the committee this morning. I'm here today to address the recommendation from the office of the Auditor General related to our royalty programs. Joining me at the table from the Department of Energy are Mike Ekelund, the assistant deputy minister of royalty revenue operations; Doug Lammie, assistant deputy minister of strategic policy; and Douglas Borland, assistant deputy minister of ministry services. Since I'm relatively new to the department, I suspect that these gentlemen are going to help answer your questions as we go through this morning.

I'd like to start by reviewing the recommendation of the Auditor General and discussing what is being done to meet it. Then I'll provide an overview of the programs identified in his report and describe how we are currently measuring results from them. Finally, I'll briefly describe how our new royalty framework, which is being implemented for a January 1, 2017, start, aligns with this recommendation. I'll be pleased to take your questions after my comments.

As the committee is aware, the Auditor General report in February included several recommendations for my ministry, the first dealing with an examination of some of our existing royalty programs. For many years the Department of Energy has managed numerous royalty programs intended to provide incentives for companies to develop our various energy resources. Royalty programs exist for a number of reasons such as to provide appropriate royalty rates in order to attract investment in Alberta's energy sector; to encourage the development, use, and commercialization of innovative technologies to produce resources; or to achieve certain strategic policy objectives such as increased value-added upgrading. The overall goal is to boost royalties and foster jobs by encouraging development of oil and gas resources that otherwise might not have been developed.

In his review the Auditor General found that the department did identify what it wanted to achieve through its royalty programs and that the department had effective processes to develop and administer its royalty programs, to assess program applications for approval, and to approve royalty reductions only after the department has evidence that the companies met all the program criteria.

The Auditor General examined three of these programs and expressed concerns with our analysis, evaluation, and reporting on whether the programs achieved the desired objectives. He recommended the department annually evaluate and report whether the department's royalty programs achieve their objectives. My department accepted this recommendation, and I'm pleased to provide the following update.

Since the report was released, the Department of Energy has taken several steps. An internal team reviewed the recommendation and developed an implementation plan to move forward. The department provided information about the royalty programs in the ministry 2015-16 annual report, published in June. This included the dollar amount of royalty adjustment for each royalty program for the year as well as describing the objectives for each royalty program. Our intent is to publish royalty program performance metrics in our annual report going forward. We recognize the importance of this matter. We want to be able to demonstrate whether Energy's royalty programs are meeting their objectives and help the public have confidence that the system is working properly for their benefit.

As a final step, the department has been working on a formal program evaluation framework to apply to the existing royalty programs and any future programs.

I want to assure the committee that the department regularly does program and regulation reviews to ensure they remain relevant and are operating as intended. Each time that we adjust a program, it is the result of a program review having happened. In the absence of formal evaluations for some of the royalty programs the department looks at metrics such as royalties collected or royalty adjustments, the number of eligible wells, the number of program applications, and informal stakeholder feedback. However, some programs take time for data to become available and to show results, so evaluating them on an annual basis doesn't always make sense.

For example, the incremental ethane extraction program reviewed by the Auditor General has been examined regularly over its duration to ensure that it has met program objectives. The goal for this program has stayed the same since its announcement in September 2006, to encourage the extraction of ethane for use by the petrochemical sector. A review found that the program did not meet its goals in 2009 and 2010, so it was reviewed and significantly amended in 2011. However, it can take industry up to three years to build some of the infrastructure needed to make full use of this program. Between 2012 and 2015 the department attracted sufficient proposals for new ethane extraction infrastructure. We need to wait until the end of calendar year 2016 to review what infrastructure was constructed and measure increased volumes of ethane that petrochemical companies were consuming.

Another program reviewed by the Auditor General was the enhanced oil recovery program, which began in 2014. Performance measures for this program were developed based on its objectives and the availability of data. A report on these measures was being developed but was then put on hold until the announcement of the royalty review advisory panel's recommendations. Therefore, the report on these measures was not yet finalized at the time of the office of the Auditor General's audit.

8:40

The third program identified by the Auditor General was the innovative energy technologies program. This program provides financial support to energy producers for conducting large-scale field pilot projects to demonstrate the viability of new technologies and recovery processes. The success of the program in terms of process efficiency, improved resource recovery, and incremental resource revenues is difficult to measure due to a number of factors. The commercialization and adoption of new technologies and recovery processes by the energy sector is beyond the scope of the program and the government of Alberta's control, and there is considerable time lag between conducting a pilot project and actual implementation of the technology at a commercial scale.

The energy industry and research community see considerable value in terms of gaining knowledge and understanding regarding reservoir characteristics and process mechanisms from both successful and unsuccessful pilot projects. The innovative energy technologies program uses activity levels as a proxy for achieving program objectives. It's also important to realize that the benefit Albertans receive is not only through royalties but through the jobs created by industry and value that can be added to our resources further downstream.

The department has also done extensive work evaluating programs that were not examined by the Auditor General. Last spring the department was well under way towards an evaluation and the development of performance measures for our largest royalty programs, the natural gas deep drilling program and the emerging resources and technologies initiative. The evaluation and development of potential performance measures for these programs was temporarily put on hold with the announcement of the royalty review in the spring of 2015. This was done to ensure that future program evaluations done by the department align with the recommendations of the royalty review advisory panel. While this work was not finalized then, it supports the work that is being done now to satisfy the Auditor General's recommendation and to finalize the evaluation of these programs.

I'd like to just take this opportunity now to tell you about how our royalty framework is changing. The Auditor General in his report recognized that we were reviewing our royalty framework as his audit was under way. His audit was completed before our new royalty framework was announced. I'll now outline how this impacts his recommendations.

The royalty review advisory panel came up with the same recommendation as the Auditor General. The panel's first recommendation was that our royalty system be guided by a set of lasting principles. These principles were developed based on extensive feedback from Albertans themselves, and they are: optimize return to Albertans, attract investment and promote job creation, support downstream value-added industries, and encourage environmental responsibility.

My department has been developing performance metrics to measure how our new royalty system meets these principles. Performance metrics for our new royalty system will be made public in 2017 and will be easily accessible on the Alberta government website and in our ministry annual report. Our government has been very clear that we need to provide an unprecedented level of transparency and accountability. This recommendation of the Auditor General strongly supports that direction.

As our new royalty framework takes effect on January 1, it's important to know that the royalty programs we have discussed here today will no longer be accepting new applications to them after December 31, 2016. Wells that are currently operating under the current royalty programs will be grandfathered either for a period of 10 years or until they reach certain expiring milestones already built into the programs. However, we will continue to monitor and report on these programs until they have officially expired.

Over the past year the department has announced three new royalty programs: the petrochemicals diversification program, the enhanced hydrocarbon recovery program, and the emerging resource program. Performance measures are being developed for these programs, and we are using the knowledge gained in the last year to help with that.

In closing, Mr. Chairman, I'll just summarize. My department takes the recommendations of the Auditor General very seriously. We are actively working to meet the recommendations of the Auditor General, and we anticipate this will continue for the rest of this year and well into 2017. The work is being implemented in conjunction with action on the recommendations from the royalty review advisory panel. My department is committed to fulfilling the government's vision for transparency and accountability, and we are well under way to delivering on that commitment.

I thank you for your time today, and we're very happy to take your questions.

The Chair: Thank you very much.

I'll now call on the Auditor General for his comments, up to five minutes.

Mr. Saher: Thank you, Mr. Chairman. I'll just very briefly summarize much of what you've heard from the deputy minister. We're discussing this morning the material in our February 2016 report, the Department of Energy's systems to manage royalty reduction programs. Our overall conclusion, which was reported on page 15 of our February report, reads as follows:

> Royalty reduction programs increase the amount of oil and gas recovered using new technologies and processes. Although the department knows and reports the amount of the royalty reduction . . . it does not report on the amount of additional royalties generated or other value derived through these programs. Without knowing whether these programs are achieving their intended results, the department cannot assess whether they are working.
>
> What needs to be done.
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> The Department of Energy should analyze, evaluate and report on whether each royalty reduction program is achieving its objectives and providing value to Albertans. And, if not, what can be improved.

Thank you.

The Chair: Thank you, Mr. Saher.

I'll now open the floor to members following the rotation outlined earlier, beginning with the Official Opposition.

Mr. Cyr: Thank you, Mr. Chair, and I'd like to thank Alberta Environment for being here and the Auditor General. I would like to cede my time to my colleague Leela Aheer, the shadow minister for Energy.

Mrs. Aheer: Thank you.

Good morning, and thank you for the opportunity to be able to come and speak with the PAC committee. I really appreciate it. It's really lovely to be here. I just have a quick question within the 2015-2016 Energy annual report. Of the $1.4 billion royalties reduction, would you mind giving us a breakdown from those years, the 2015-2016?

Mr. Ekelund: Okay. Thank you very much.

Mrs. Aheer: Thank you so much.

Mr. Ekelund: The natural gas deep drilling program had an adjustment to royalties under that program. That is $573 million, and that is a calculation of the difference between what the royalty rate would have been during that time frame and the 5 per cent royalty rate in place under the program. Similar calculations on the emerging resources and technologies initiatives, which specifically target areas, so the horizontal oil program, $141 million in 2015-16; shale gas, $66 million; horizontal gas wells, $16 million.

Mrs. Aheer: Sorry to interrupt you. I'm so sorry. I apologize. Would you mind giving us some of the information previous to the report about how we got to the – just a bit more of the breakdown from, probably, I guess it would have been 2015, before we got to this? I understand what you're giving us right now. I'm just looking for the information previous to the report for the $1.4 billion.

Ms Volk: The breakdown of the $1.4 billion.

Mrs. Aheer: Of the $1.4 billion, please. Thank you so much.

Mr. Ekelund: Oh. You mean, 2014-2015.

Mrs. Aheer: Yes. I apologize. I think I gave you the wrong dates. I'm so sorry about that.

Mr. Ekelund: My apologies on that. Yes. So for natural gas deep drilling that was $716 million – and I'm rounding it – horizontal oil, $527 million; shale gas, $49 million; horizontal gas, $20 million; coal-bed methane, essentially zero, or $.03 million; incremental ethane extraction program, which is a more traditional type of program, $45 million; enhanced oil recovery program, $74 million; the innovative energy technologies program, $6 million; otherwise flared solution gas, $1 million; proprietary waivers, which probably requires some explanation at some point as to whether that's actually a program, $5 million; deep oil exploration program, $1 million. There is also an inclusion of acid gas at $6 million. I'm not sure which number you're working with, the $1.443 billion or $1.449 billion. The acid gas was originally identified as a royalty program, but that's actually a factor in the calculation for the volume of natural gas, which is hydrogen sulphide and carbon dioxide. So it's not actually a program.

8:50

Mrs. Aheer: Okay. Thank you very much.

My next question is actually about just the difference between the 51 per cent that was in the year from 2014 to 2015 versus the amount that's going into natural gas deep drilling in 2015-2016, which would be about 62.7 per cent of those dollars. I was just curious. Based on that and the royalty adjustment – so that's more than half of the $850.9 million in total from 2015-2016, correct?

Mr. Ekelund: Yes. That would be correct.

Mrs. Aheer: Yeah. So with the market being low, how do you make that adjustment? Is it based on market value?

Mr. Ekelund: Yes. The way the program works is that it's providing a 5 per cent royalty rate until a certain threshold has been achieved. There is both a time element and a dollar cap on that, with a maximum of $8 million for a development well and $10 million for an exploratory well. Depending on how deep and how long the laterals are on the well, there's a calculation in the regulation that tells what time and the dollar cap that can be achieved on that. The calculation of the royalty program, which is really a method of reducing the royalty rate in the initial years to allow for investment to proceed, is to determine what the royalty formula would have been for that month under the regulations without the 5 per cent and subtracting the 5 per cent royalty to determine that.

What has happened between 2014-2015 to some extent – and I don't have the breakdown between the amount of drilling and the price effect – is that largely there's been a decrease in natural gas prices, and that means that the base royalty rate that would have been in place, which is price sensitive and production sensitive, is lower. So the delta between the base royalty rate and the 5 per cent then becomes lower.

The other thing that has happened is that if you've got fewer wells being drilled as they come to the end of their time or as they reach their caps, then they fall off, and you've got fewer new wells coming into the program.

I believe it's a combination of the two, the price effect as well as the overall price of natural gas drawing down activity, that has led to the drop from $715 million to $573 million.

In terms of the percentage what I believe is happening there is that we've simply seen a much bigger decrease on the horizontal oil, and that has gone from $530 million down to $141 million. Again, it would be the same thing. We've seen these significant decreases in price, which means that the difference between the base rate and the 5 per cent then narrows, so there's a smaller difference that's calculated as the value of the amount reduced under the program plus fewer oil wells being drilled. That leads to those changes, and that large change has led to that difference in percentage.

So the difference in percentage itself is largely in order of the fact of what's happening in different parts of the oil and gas economy.

Mrs. Aheer: Okay. So what would be the difference in royalties, then, that were brought in in 2014 versus 2015, specifically in natural gas deep drilling? Do you have those numbers?

Mr. Ekelund: I'm sorry?

Mrs. Aheer: For the royalties. How much was brought in through royalties, then, just for natural gas deep drilling in 2014 and 2015?

Mr. Ekelund: Yes, we have that.

Mrs. Aheer: Thank you very much.

Mr. Ekelund: This is net numbers, and the 2015 actual is approximately $989 million.

Mrs. Aheer: I'm sorry; $989 million?

Mr. Ekelund: That's $989 million, 2015.

Mrs. Aheer: Thank you.

Mr. Ekelund: And 2014 was $1,103,000,000. So you can see the drop from $1.1 billion to just under a billion on the natural gas and by-products.

Mrs. Aheer: Thank you very much.

The Chair: All right. Eight minutes for government members.

You just take it as you like it. It's just for the government side.

Mr. Dach: Thank you, Mr. Chair.

The Chair: You can fight each other if you like.

Mr. Dach: Pardon me?

The Chair: You can fight each other for that eight minutes if you like.

Mr. Dach: We are pleased to be here this morning to speak about a very critical element of Alberta's energy industry. Thanks to the officials for being here and Mr. Saher as well and his department. I wanted to ask about a situation that I was kind of curious about because at the same time as the Auditor General was undertaking his audit, the royalty review panel was undertaking its work. So I was wondering if you can speak to how the recommendations from the panel address the recommendations of the Auditor General's report.

Mr. Ekelund: Okay. Thank you very much for that question. As the deputy minister stated in her opening remarks, they are very much aligned. One of the key things that was found by the royalty panel was that there were concerns in the public in Alberta largely based upon not having transparent, open information to the extent that would help allay those concerns. So accepting the Auditor General's recommendations and moving ahead with more clear and transparent reporting on the results of each of the programs is very much aligned with what is in the royalty panel report.

We are moving ahead on both. As noted, we're moving ahead in terms of developing the reporting for the individual programs, making sure that the goals are clear, and working through what the right measures are for those. We are in the same process for the overall royalty panel work. They have laid out the different measures that they are looking for the Department of Energy to report on. We expect to have drafts of those developed internally during this year and to be able to report on those mid next year. That should give some good indications. That will cover things such as international competitiveness, another number of elements that the panel reported and talked about.

[Mr. S. Anderson in the chair]

Mr. Dach: Okay. Thank you.

The Deputy Chair: Mr. Malkinson.

Mr. Malkinson: Thank you, Chair. Looking through the AG's report, on page 15 it states that "these programs are designed to increase overall royalty revenues by giving companies an incentive to recover oil and gas, previously considered unrecoverable, from existing locations." I was interested in knowing how the modernized royalty framework that you mentioned previously is going to be optimizing these royalty revenues.

[Mr. Fildebrandt in the chair]

Mr. Ekelund: Thank you very much for that question. One of the key findings in the report from the royalty review panel was that there were situations where the existing royalty structures, including the programs themselves, did not allow for oil and gas activity to go forward. One of the key findings of the report as well was that the programs that are currently in existence were needed because, otherwise, we would not be competitive with a number of other jurisdictions. What they found was that with the programs that are being looked at today and the ones that we're going to be reporting on, we would not have been in a position to be able to get oil and gas wells, particularly long, horizontal multistage wells, drilled in Alberta because the economics would not be there.

So they identified that those programs were needed and would be and should be incorporated into the formulas under the modernized royalty framework, and that has been done. We announced those earlier this year. But they identified areas such as wells less than 2,000 metres deep which did not have as much of a reduction from what that base royalty looked like to be as competitive as the panel thought they should be as well, a particular problem for oil.

One of their notes is that the technology has changed such that in drilling in a lot of these shale gas areas, tight sands, the Montney-Duvernay horizons, there's not a distinction between what is an oil well and a gas well as much as there is in conventional oil and gas, where you either drill into a gas cap or down into an oil lake in a reservoir and they're one or the other. Our programs were largely developed on that model of natural gas economics being somewhat different in terms of your activity from the oil side.

9:00

They identified that what we should have is a single system, and that's been done through allowing the cost formula, or C-star I think it's become known as, to provide the same reduction of upfront royalties for a well, whether it's oil or gas, based on its characteristics. What that can potentially do is to open up the ability to look for shallower horizons economically as well as oil, when that might have been avoided when companies were looking primarily for gas because they've got a different royalty structure for that.

Mr. Malkinson: To follow up on that, you know, I find it really great that you were mentioning technology changes. I came from the oil and gas sector. I mean, I was a salesman and was selling all sorts of equipment for new and exciting ways to get oil out of the ground.

Now, you were mentioning that there'd be an opportunity to get royalties from shallower sort of narrow-horizon type wells. I was wondering if you could expand on that a bit as well as: are there any examples you can show on, like, how that new royalty framework is attracting new investment and jobs here in Alberta?

Mr. Ekelund: Well, we certainly expect that it will attract new investment because it will open up some of those areas that were less developed. Because the new modernized royalty framework has not been put into place and won't be until January of next year, we don't have, you know, metrics to look at that. We expect that we'll have metrics out on that in mid-2018, after we've had the initial year of activity.

What we have seen is that when the government decided to allow the early opt-in for wells that would not have been drilled in 2016 to move onto the modernized royalty framework, we saw a number of wells, I think largely the type that we had identified earlier, as being more economic under the modernized royalty framework, so the shallower wells, the deep oil wells. A number of those wells were applied for, and we received information on the economics of those wells, on the plans that the companies had demonstrating that they had not planned to drill any of those wells because they would not be economical under the current royalty structure. Given the background information we were able to determine that the wells would not have been drilled in 2016, and those wells are now in the process of being drilled.

The Chair: Thank you.

Five minutes for the third party.

Mr. Gotfried: Thank you, Mr. Chairman. Thank you for being here today. It's great to learn more about our royalty system. I guess some of the information we've been given through the Auditor General's report indicates to me that maybe there's a bit of a need for a dashboard, not just for the government but for legislators and for the public to better understand the impact of the royalty programs. Also, I guess, you know, it's the tree in the forest or maybe the drill bit silent in the field, that it's better for more people to know about what the impacts of it are.

I guess one of my questions is: through the last fiscal year do you know how many companies have taken advantage of the various royalty programs by category? I see that we have, obviously, a revenue reduction amount there, but I don't see anywhere where there's specific reference to those. I don't necessarily need specifics today but just: is that being recorded, and can that be reported concurrent with the dollar amounts that are being received on those as well?

Mr. Ekelund: Okay. I think we'll have to undertake to provide that information unless, Douglas, you've got . . .

Mr. Borland: Yeah. We can report by category the number of distinct clients that have taken advantage of each of the programs. As an example, for the natural gas deep drilling program in '15-16 we had 149 distinct clients take it, with a number of distinct well events, which is the number of areas that they drill. We had 3,412, and this produced 2.7 billion cubic metres. That was '15-16 for the natural gas deep drilling program.

For the horizontal well data what we have for oil is 168 distinct clients, and we have 227 distinct clients for gas in the horizontal wells.

The number of distinct well vents in '15-16 for oil was 3,846, and for gas it was 2,880. The total volumes that came out were 3 billion cubic metres of oil and 2.4 million cubes of gas. For shale gas . . .

Mr. Gotfried: Mr. Borland, just in the interest of time if you could provide those numbers for us, we could take a look. I'm very thankful that you are obviously recording that.

Mr. Borland: No problem.

Mr. Gotfried: We also have seen in the news, obviously, some announcements of new companies taking advantage of these. Would we be able also to understand which companies are taking advantage of this? Is that public knowledge and something that you could report on as well?

Mr. Ekelund: I'm not sure that we can report on individual companies. We'd have to take a look at, I think, section 50 of the Mines and Minerals Act, that provides for confidentiality. We may be able to provide – we'd just have to take a look into what information we can appropriately provide under our legislation.

Mr. Gotfried: I would ask that you do that. I mean, we have seen, obviously, in the news announcements of new companies taking advantage of those. They may have provided dispensation to make that public. But it would be, I think, useful for us to understand which companies and the size of the companies. Obviously, we can do our background research to really understand the nature of those types of companies – the size, the capital assets, and the capabilities – that are taking advantage of it. I would just encourage you to maybe provide that information if possible either to us as legislators or to the public as appropriate.

I was very interested to see that we also have, obviously, a great tracking of the amount of extraction that has been stimulated. I think those two numbers are very important to Albertans.

I think one of the things that is obviously of great concern to everyone is the jobs created. I wonder if within the ministry you have statisticians or economists or a liaison person working with the companies that are taking advantage of that to actually deliver to us a number not only for the enhanced production and the enhanced activity, which I would hope would then generate additional royalties and tax revenues, but also, of great concern to Albertans, the jobs created. I wonder if you have something, a department or individuals within your department, taking a look at that, specifically with the companies that are contracted into these programs.

Mr. Ekelund: Okay. Thank you. I think the approach on that is that that is a part of the work that's being done. That is an important measure and one that we look at. You know, we do generally work with folks like the Canadian Association of Oilwell Drilling Contractors, who have estimated 135 direct and indirect jobs on every rig. That gives us an initial indication, but further work on how much employment can be attributed to the various programs I think is an important piece of those measures, not just what the royalty dollars are but what that does contribute in other ways.

Mr. Gotfried: All right.

The Chair: Sorry. Your time block is up.

Mr. Gotfried: I thought that was the case. Thank you.

The Chair: You'll get more.

Mr. Gotfried: Thank you very much.

The Chair: We'll be following up on the questions. I think written responses will be expected from that exchange.

Eight minutes for the Official Opposition.

Mrs. Aheer: Thank you, Mr. Chair. I would just like to go back for a moment. I have a few more questions about the royalties from natural gas. In 2014 you had stated that it was $1.1 billion. Is that gross or net?

Mr. Ekelund: Yeah. I believe that's net. So that would have been after the effect of the programs.

Mrs. Aheer: So we're paying in the royalties $3.9 million? Is that what we would be – that would be the outcome from that, $3.9 million? I just want to make sure that I understand what's going back into industry. What would that amount be in the royalty reductions?

Mr. Ekelund: Okay. You're looking specifically at natural gas?

Mrs. Aheer: Yeah. So $1.1 billion is the net, correct? Or is that the gross?

Mr. Ekelund: That $1.1 billion is the net that we receive.

Mrs. Aheer: Is the net. Okay. So if you wouldn't mind explaining: what are we paying in royalties, then, from that amount? What's the gross?

9:10

Mr. Ekelund: Yeah. Maybe I can just explain how the calculation is done, and then, Douglas, you can provide us . . .

Mrs. Aheer: Do you have a number?

Mr. Borland: The gross is going to be the net number plus net-back, plus $1.82 billion.

Mrs. Aheer: Right. Yeah. So we're at $1.82 billion for gross, right?

Mr. Borland: Yeah.

Mrs. Aheer: What are we looking at, then, for when – for example, what is going back to the industry, then, from that? Because we've got the $720 million going back, and then we're at $1.1 billion, then?

Mr. Borland: The $1.1 billion is net cash flow in to us.

Mrs. Aheer: Right.

Mr. Borland: The way the royalty calculation works is that you take a percentage times the net revenue.

Mr. Ekelund: Well, it's actually gross. Maybe I'll just walk through how that process works as it's a bit hard to just add the numbers up.

Mrs. Aheer: Well, for every dollar that's going back, we are giving back how much, then, to industry based on that $1.1 billion? Like, what is the . . .

Mr. Cyr: For every dollar we collect, how much are we giving back to industry? Is that 30 cents back on the dollar?

Mr. Ekelund: I think we can undertake to provide that number. The way the system works is that there is a certain amount of production. We have a monthly price and production formula.

Mrs. Aheer: Right.

Mr. Ekelund: That gives us a gross volume. That is then processed through natural gas processing plants. So there is a deduction from the gross for the processing, and that's sort of what's missing in just adding those two numbers.

Mrs. Aheer: Thank you.

If you wouldn't mind providing that, that would be wonderful.

Mr. Ekelund: Okay.

Mrs. Aheer: I'd like to understand from the dollar perspective what we're giving back to industry. That would be great. Thank you so much.

How many companies received royalty reductions through the government programs, then?

Mr. Ekelund: I'd like to distinguish that there are two sorts of programs, one which would be like the ITP or the methane extraction one, where there's an application process. The other one is a general calculation where we get 5 per cent royalties up front.

The new well royalty regulation 2010 provides for a reduction of royalties for an initial 12-month period for all wells in the province. Therefore, all companies who would drill wells and produce would receive that reduced royalty rate to 5 per cent from notionally what the base royalty rate would have been.

Mrs. Aheer: Is it possible, then, to use that data to analyze those initiatives retroactively?

Mr. Ekelund: Yes. That is what we're working on pursuant to the recommendations of the Auditor General. We understand the necessity of reducing the royalty rates up front. That was identified by the royalty panel. But quantifying that and publishing it, I think . . .

Mrs. Aheer: Okay. That was my next question.

Mr. Ekelund: . . . is more what the Auditor General has asked us to do, and we've certainly accepted that recommendation.

Mrs. Aheer: To analyze that data. Okay.
Actually, if you don't mind, may I concede a few moments of my time to Mr. Hanson? Thank you very much.

Mr. Ekelund: Thank you.

Mr. Hanson: Thank you, and thanks for allowing me to be here to ask some questions today. I just want to ask a couple of questions based on the horizontal oil well royalty formula. You had mentioned something about a cap. There's a maximum that they can claim back. What is that cap, recoverable per well, on horizontal oil wells?

Mr. Ekelund: I don't have that one with me. I remembered the deep drilling one, but I don't remember the horizontal oil one. But we can certainly provide that.

Mr. Hanson: Okay. Well, if you could provide that and then, at the same time, how many and what per cent of wells drilled actually reach that cap if you could.

Mr. Ekelund: Okay.

Mr. Hanson: Okay. Then my second question also on the horizontal oil wells: on a multiwell pad, say a pad that has 20 wells drilled on it, does the royalty reduction program only apply to the cost of drilling, or does it apply to the cost of the whole facility?

Mr. Ekelund: Okay. Thank you. The calculations for any of these – the deep gas, horizontal oil, shale gas, and so on – are based on a proxy for drilling cost, and that is based on just the drilling and completion cost of the wells. So it doesn't matter whether it's an individual well or a multipad set of wells. The calculation is based on what's the depth and then what is the horizontal length. Using average drilling costs, that's what determines that proxy for your individual well. It's not a full revenue-minus-cost system where they would report their individual well, so there's no issue around whether or not it's on a pad, a multiwell pad or a single pad. The modernized royalty framework will be similar but uses length, depth, and the tonnage of proppant. We found a much better correlation of the cost to drilling and completion using those factors. Again, it'll be independent of whether it's pad drilling or whether it is individual wells on a single pad.

Mr. Hanson: Okay. Thank you. Those are all my questions.
Go ahead.

Mrs. Aheer: Thank you. The Auditor General analyzed three of the 12 royalty reduction schemes: the innovation energy technologies program, the incremental ethanol extraction program, and enhanced oil recovery. Would you mind giving us some idea of the level of analysis that occurred with the other nine programs?

Mr. Ekelund: Okay. I think what's important, from my perspective anyway, is that these programs undergo a review quite frequently. I think the challenge the Auditor General has laid out and the recommendation we're accepting is to more formalize that process for each individual program and to publish those results. But looking at the types of programs that we've had in place, the changes that have been made have come from either internal or external reviews.
We did extensive reviews of our overall royalty structures a number of times, including 2003, 2005. There was an external royalty panel that looked at the process in 2007 and made recommendations. We made changes based on that that came into effect in 2009, the new royalty framework. We did additional work looking at the recommendations of the panel and whether or not they had appropriately captured the new technology, deep, long, multifracture wells, determined that we hadn't, and brought in a new program in 2008. Then there was the external review in 2010 that looked at the effect of those programs and whether or not they helped make Alberta competitive with other jurisdictions, and changes were made from that one, so 2010. Then we were doing internal work on the deep gas program and on the programs under the . . .

The Chair: Sorry. We're out of time for that block, but perhaps you could elaborate in written responses afterwards.
Eight minutes to government members.

Ms Miller: Thank you, Mr. Chair. On page 19 of the Auditor General report it speaks about the importance of effective and relevant performance metrics. Were there any performance measures suggested by stakeholders during the royalty review?

Mr. Ekelund: Okay. Thank you very much. I have a copy of the panel's report, and I'm just looking for their recommendations. I wasn't involved in all of the work of the panel, so I don't remember all of the things that were suggested by Albertans during that process, but the panel itself pulled together a number of ideas.
They suggested in respect of how we measure whether or not the royalty system optimizes returns to Alberta. They looked at things like research and development; what average well costs are and if they trended up or down as technology changes; net profit percentage from oil sands post payout; royalty revenues; production revenue; key ones around whether or not they attract investment; the amount of capital expenditures in Alberta compared to other jurisdictions – and I think that's potentially an important one and one that we do look at as well – how much activity there is in Alberta compared to other jurisdictions. I think that was a key measure that the royalty panel looked at to say: "Are we competitive with Texas? Are we competitive with North Dakota?" We saw Texas actually increase from I think 2008 or 2009 to 2014 to have more oil than all of Alberta, including oil sands. That's how quickly the technology rose there.

9:20

Those, I think, would be key measures that, you know, we would be looking at for our overall measures but also important measures in looking at the benefit of the programs. How competitive do they make us with other jurisdictions? We've got similar rock to what we see in Texas, similar rock to what we see in North Dakota, in eastern seaboard jurisdictions. We've got the same technologies, the same companies. Are we maintaining the same levels of activity, accounting for the fact that we are further from tidewater? Those are the kinds of measures, I think, that the panel has brought up, which I think were the kinds of things that they heard when they were out talking to Albertans about how we can determine whether our royalty structure is appropriate.

Ms Miller: Thank you.
Was job creation seen as a suggested performance measure?

Mr. Ekelund: "People employed in the energy industry in Alberta as a percentage of total employment in the energy industries of Alberta's competitor jurisdictions." Yeah. Sorry. I just didn't want to read all of them out, but that certainly was one.

Ms Miller: Okay. How will the modernized royalty framework implement and monitor the recommended performance measures from the royalty review?

Mr. Ekelund: Thank you. We certainly would be following the type of work that we are developing for the existing programs for the programs under the modernized royalty framework. We've got two programs, or what the panel calls strategic overlays, one for emerging resources and one for enhanced hydrocarbon recovery. For the enhanced hydrocarbon recovery, it would be very similar to the enhanced oil recovery program. The goal there is for the royalty reductions to result in additional investment that leads to incremental oil or incremental natural gas being produced from the reservoir. So we'd be looking at the engineering of the reservoir to understand what would have been the production decline and then what the incremental oil or gas was that gets developed and then being able to determine the royalty revenues based on that.

The kinds of measures we'd be looking at would be: what is the incremental production, the incremental royalties that would come from that production? What's the incremental activity that then comes from that? That gets us back to what the incremental jobs are.

One of the benefits of both the existing EOR and the enhanced hydrocarbon recovery program is that they're application based, and they are sort of worked through on an engineering basis for each pool or each horizon that is developed. We've got fairly good detail on that. Similarly, the emerging resources program under the modernized royalty framework will be an application-based program. Companies will have to identify a scheme where they're going to drill a number of wells in an area that is now largely undrilled. What would be determined is how much royalty is reduced on the first 15 per cent of the wells that could ultimately be produced from that area, and as the royalty reduction that they get declines, as they get up towards that 15 per cent, we will start to get incremental royalties from wells that are drilled after that.

As we get into those programs, we'll be able to look at each scheme on an individual basis to determine how much royalty was given up on the early wells in these undrilled, unknown areas and how much, then, is coming out of that as it becomes a really developed area. So we should have very good indicators, but it will take some time as we move from unknown areas to them being, basically, developed areas.

Ms Miller: Thank you.

Ms Luff: Thanks very much for being here today. I'm particularly concerned just with the area of transparency. The Auditor General's report speaks to the importance of transparency with Albertans on the royalty reduction programs. In particular, it states on page 16 that "it is important that the department have effective processes to analyze and report to Albertans whether the royalty reduction programs are meeting their objectives and providing the intended value and benefits."

Now, it sounds to me like the work within the department has always been ongoing, and you've been reviewing programs regularly to determine whether or not they're working, which is good to hear, but, you know, given that the people of Alberta own the resource, I think it's really important that we are reporting adequately back to Albertans on whether or not these programs are working.

I guess my question is: why were we not making this information publicly available before, and then, you know, based on the royalty review moving forward, what are we doing to really make sure that we're being transparent, that we're reporting back to Albertans, and that we're reporting back to Albertans in a way that they can understand? Some of this is very technical, but given, again, that Albertans are owners of the resource, I think it's really important that we get this right. Moving forward with the royalty review, how are those transparency measures going to look?

Mr. Ekelund: Okay. Thank you very much.

The Chair: Thirty seconds.

Mr. Ekelund: Well, certainly, we will be following up. We have been doing internal reviews. We have had external reviews – 2007, 2010, 2015 – but that more robust and annual, more detailed review I think is important. That's what the Auditor General has pointed out. That's what we have accepted from the recommendations. We've accepted all of their recommendations, of course. The royalty panel has made similar recommendations. We expect to have that information out mid next year.

The Chair: Thank you.
Five minutes for the third party.

Mr. Fraser: Thank you, Mr. Chair. Thanks for being here today, and thanks for all your hard work. We have an exceptional public service in Alberta, and I just want to thank you for that.

Just a couple of questions. You mentioned that we compare ourselves to other jurisdictions, and that's important. Just from that, can you maybe elaborate on some of the best practices that maybe Alberta has had comparatively and/or any other best practices that you're looking into in terms of these types of programs from other jurisdictions?

Mr. Ekelund: Thank you very much. That is one of the things that we do when we look at both development of programs and as we monitor how well they're working. I can just give you an example of some of the work that we did to support the royalty panel. Not only did we have the Wood Mackenzie work, which is publicly available there and did comparisons with other jurisdictions; we also did literature reviews to determine what kind of things they do in other jurisdictions. What we found was that we tend to be quite similar in a lot of the approaches. We do tend to think that, you know, some of our approaches are better than others. There are some differences, but you'll see similar patterns.

If you take a look at most of the states in the United States, they will have a base structure. Now, it's largely around their taxes because most of the royalties are private, or else they're on federal lands. But just conceptually you'll see that they generally have a base tax, and then they would generally have some sort of stripper well tax, which would be for wells that are below a certain level and nearing the end of their lives. In our current system we have a productivity function that provides the same sort of outcome, and in the modernized royalty framework we have a maturity threshold, which will provide the same sort of outcomes. We see that in common. That's simply because people don't want wells to shut in prematurely.

We'll also see changes in the U.S. jurisdictions for shale wells or technically equivalent deeper wells or horizontal wells. A number of jurisdictions have reductions of their tax rates on those, and that's similar to the kind of programs that we have. Now, we've got royalties. You know, they've got a much smaller tool to work with with their severance taxes, but the patterns tend to be similar.

I think what we're seeing, whether or not they're following us or we're following them, is that over time a lot of those best practices have developed, and it's largely based on the economics of the wells. We understand the economics for a conventional oil or gas well. If you can go out and find those conventional large pools, they're cheap and have a royalty structure that is able to take more, but you get into these new technologies, with much higher costs, much more upfront costs. You know, we try to deal with those.

Mr. Fraser: Right. You mentioned a couple of things just in terms of tax base. Is there criteria for any company that applies for these types of reductions, or is it just that whoever produces, whoever attempts those types of things and there is some production would get these royalties? I guess what I'm saying is: is there more support for royalty reductions for small to mid-sized or junior oil and gas companies versus some of the large ones based on the overall economic health and that sort of thing?

Mr. Ekelund: Well, the answer is no, but I can elaborate. We've got probably a distinction between what we do on the royalty side and what is done on the regulatory side, and I think a lot of what you're talking about may be tied into more of the regulatory side.

9:30

On the royalty what we look at is a well basis: you know, how deep, how long is the well? What's the production rate? What's the price? That's how we calculate the royalties. We don't make distinctions between large companies, small companies, whether companies have the wherewithal or not. But certainly in the regulatory process that is looked at. We have the licensee liability rating, that looks at small companies, whether or not they'll be able to manage their liabilities and what that ratio is.

We've also seen decisions of the regulator; for example, one of the gas wells southwest of Calgary, where the regulator turned down a well because they did not feel the company had the ability to drill a second well, a relief well, in case there was a blowout. So those kinds of things do get looked at in terms of the regulatory side but not on the royalty side itself.

Mr. Fraser: Okay. Now, can you point to any . . . [A timer sounded] Is that time?

The Chair: We're out of time there.
Five minutes for the Official Opposition.

Mrs. Aheer: Thank you, Mr. Chair. Just going back to just a few numbers to clarify, we were just doing a bit of quick math here. Just going back to natural gas and the royalties, $1.82 billion is your collected gross, and then $720 million was given back to industry with a net of $1.1 billion. That's correct, right? Approximately?

Mr. Ekelund: I think that's generally correct, but as I mentioned before, I haven't calculated the process cost into that.

Mrs. Aheer: Okay. Yeah. I understand that, but I just want to understand on behalf of Albertans generally that for every dollar collected, 40 cents is given back into the industry. The question that I suppose I want to ask you based on that is: with the industry the way it is right now for natural gas specifically, how do we justify spending 40 cents on every dollar going back to industry?

Mr. Ekelund: Maybe I can give you my perspective.

Mrs. Aheer: Sure. Thank you so much.

Mr. Ekelund: It's not that we give back money to industry. The natural gas deep drilling program and other programs: what they are is an adjustment to what the royalty structure is. If we did not have any reduction at the front end from the royalty rates, what we believe and what the panel has told us and what we saw in the 2010 review as well is that many of the wells that are drilled today and have been drilled over the past few years would not have been economic, so they would not have been drilled. What we have is a notional rate, and then we have the actual rate, and we actually collect the money based on the actual 5 per cent. We don't collect on the gross and then give it back.

Mrs. Aheer: Right. So this will give us sort of a roundabout number, but like you mentioned before, you'll be able to clarify those numbers maybe a little bit.

Mr. Ekelund: Yeah.

Mrs. Aheer: Okay. If you don't mind, I'll just move on to some other questions.

Mr. Ekelund: Certainly.

Mrs. Aheer: Thank you so much. I just wanted to go back to some questions about the programs. With regard to the retroactivity, did you have any findings regarding the success of programs with regard to the royalty reduction programs? You were mentioning IETP and a few other things, but what were your findings on the success of those programs?

Mr. Ekelund: Well, we have not completed that work. We had draft work that was going on. I think there are some just general things that we can comment on. First, on the innovative technology program, I'd like to draw a distinction between the direct goals and the indirect goals. The direct goal – and I was involved in the development of that program – was to have projects go ahead and have that information distributed out to producing companies and to service companies so that the technology they developed, you know, they could tweak using that information, that the government of Alberta had contributed to, so that then the technology that they used to go out in the field would result in more production, more royalties, lower costs. The direct piece: we designed the program so that we would meet that measure because we actually publish all of that information ourselves. Companies have to report it to us; we publish.

Mrs. Aheer: So you have metrics on that to show . . .

Mr. Ekelund: Well, the metric is that all of the information is received as the projects are done, and then it's published.

The indirect one is the one that we are now working on to make sure that we've got a good understanding – and it is challenging – of how, then, that information from those programs flows out to the various companies, how they change their technologies, and how that flows back into the industry with lower costs and different technologies that increase the amount of production from the kind of reservoirs that were involved in IETP. That's where we're at on that, and we do know that we did provide that information. Some of the tests were failures, and some were successes, but both are valuable.

On the enhanced oil recovery, because we've got relatively good or direct information from each scheme, we're able to look at that, and I think our estimate, at least an initial estimate, is $120 million that we'd received in the last year. About $100 million of that was incremental.

Mrs. Aheer: Would we . . .

Mr. Ekelund: It's oil that would not have been produced.

Mrs. Aheer: I'm so sorry to cut you off. Would we be able to get, maybe, the information of that listed? Is that possible? That would be wonderful. Just some of the . . .

Mr. Ekelund: Well, we don't have the final – as I said, we've not completed the work yet. That's part of we are working on.
Thank you.

Mrs. Aheer: Okay. [A timer sounded] Is that the end of that?

The Chair: That's time.

Mrs. Aheer: All right. Thank you so much.

The Chair: Five minutes for government members.

Ms Luff: Yeah. I was just hoping to sort of finish up on the question that I asked last time because you didn't have the full time. I mean, if you could just expand a little bit more on the issue of transparency measures, what you're planning to do going forward, and then if you have any information on specific timelines for when we can expect to see those measures.

Mr. Ekelund: Okay. Well, I can certainly talk about some of the general ones. Out of the royalty panel report we are looking at a number of measures to see how our royalty structure works, whether we're getting the best benefits, potentially, for Albertans, whether we're competitive, whether we're getting those investments: you know, the kind of things that the panel pointed out in their report. We expect to have draft measures. We're working on those as we speak, and we expect to have those for the system to look at sometime late this year or early next year and to have those completed and published on our website in June 2017.
I think we are on a similar track with the program information. As we speak, we're working on what the measures are. We were a bit ahead on the enhanced recovery in the IETP because there was work done on that. There was work that was being done on the natural gas deep drilling and the emerging resources piece, that we, you know, deferred as we went into supporting the royalty panel. But I expect we'll have those measures looked at by our elected folks early next year, going into the political process, and then published in June.

Ms Luff: Awesome. Thank you.

Mr. Westhead: Mr. Chair, if it's okay, I'll go next. Thank you very much. I'm just wondering if you can talk to us a little bit about the paper that came out yesterday from the University of Calgary's School of Public Policy. The report by Jack Mintz and Daria Crisan found that the change in the royalty program, with our modernized royalty framework, will make Alberta the most competitive jurisdiction in Canada. I know the paper just came out yesterday, but I wonder if you might be able to, you know, help us understand what the findings of the report were.

Mr. Ekelund: Okay. My apologies. I've only had a chance to skim the paper, so I'll give you my initial understanding, and I could be wrong on that. They're looking at the marginal effect of tax rate, and I think that is one measure. It is a valuable measure to look at, but it's only one of the numbers. We have tended to look more at the net present value of the entire life cycle of an oil or a gas well as probably the best indicative measure. As well, there's the split-of-the-barrel work that Wood Mackenzie did. They as well did net present value calculations.
The marginal effect of tax rate does a couple of things. One, they included both the royalty rate at the margin and also the tax rate. In doing that, they don't look at what happens prior to getting to that marginal tax rate. It states in the report that they don't look at the 5 per cent program period. They go to: what is the rate after the 5 per cent? If they're looking at prior for natural gas or the deep drilling program or horizontal oil, they would not look at the 5 per cent period. They only look at the royalty rate after that.

9:40

One of the things that the panel talked about is that we've got sort of these high posted rates in the current system, but they are actually lower when you've taken into account the programs. It's similar to the modernized royalty framework. We've adjusted to get similar net present values, as we were directed by the Premier in January, so similar returns for Albertans, similar returns for industry at current prices, and then somewhat higher returns for Albertans at higher prices. That's been based on largely discounted cash flow, net present value models. The marginal effective tax rate, I think, is more sensitive to what those rates are.
I think the good news in that report is that it states that we're sort of in the middle of the pack, as was found by the royalty panel and as we are with the calibration of the royalty structure. It's a measure. It's a good measure, an interesting one, but I'm not sure it's the whole story.

Mr. Westhead: Thank you.

The Chair: Thank you.
Five minutes for members of the third party.

Mr. Gotfried: Thank you, Mr. Chair. I just have a quick question – it's somewhat related to the last one – with respect to the royalty reduction program. You know, we hear a lot anecdotally about the fact that there are companies that are moving activity into neighbouring provinces and other jurisdictions. Obviously, there are economic and political aspects of that. But I just wonder if you're in a position, you think, going forward to sort of measure the royalty reduction programs and how other legislation or taxation can impact that, like carbon taxes, corporate taxes, and whether you believe that you'll be in a position to be able to measure those impacts relative to other jurisdictions.

Mr. Ekelund: That's a really good question in terms of how we're able to extract the differences between different programs. That was always one of the challenges in understanding the effect of our royalty programs. You know, there are a number of different things that go on. We've got different income tax rates in different jurisdictions. We've got different transportation issues. Just the TransCanada mainline tolls are something that affect what our net-back price here is. So we have to take a look at those to determine how effective our structures are.
I think we will be able to do some work in terms of other costs, income tax rates, various other burdens. We do include those in our modelling any time we do work. Determining what the impacts of those are could be challenging.

Mr. Gotfried: I'm sure you have the best and the brightest working for you on that. I'm encouraged by the fact that you are watching that and will be able to measure that to some degree.
Just another quick question with respect to the time period during which the royalty review panel was undertaking their review. Did you see a decrease in the uptake in terms of utilization of what you

had pre-existing that? Was there a bit of a pause button pushed? If so, do you have any sense of that period in terms of uptake of the royalty programs versus similar periods either before or after?

Mr. Ekelund: That's another challenging question because we also had some big price movements. I do think that we saw some reduction in the amount of activity, but we can perhaps take a look at that. I think we saw reductions in activity, but I have to correlate that with what was happening on the price side. In fact, I think we hit – what? – $30 for oil. That certainly has a big impact on drilling activity.

Mr. Gotfried: Thank you.
I'm going to pass the questions on.

Mr. Fraser: I'm going to ask a couple questions just in case I don't get them in, and you can reply in writing. First, you know, from these programs have we seen any excellent technology come from Alberta that's being shared around the world?
Then, secondly, is there a measure of how many of our indigenous oil and gas companies have utilized the royalty program?

Mr. Ekelund: Okay. Well, interestingly, Alberta tends to be a leader in technology and technology flowing into other jurisdictions. I'm not sure that it's always tied to royalty programs as long as our royalty structure allows for that technology. The bigger factor is likely the range of oil and gas that we have in Alberta, right from the shallow to the very heavy, deep, sour stuff. There is some key technology on multistage fracturing that's coming right out of Edmonton, you know, a major company involved in that. I think we were involved in some of the development of horizontal well technology, although a lot of it got implemented in some of the fields down in Texas, in the Austin Chalk and so on. We continually export expertise both in terms of people and technology around the world.
In terms of indigenous do you mean companies indigenous to Alberta versus First Nations companies?

Mr. Fraser: Yeah. Well, First Nations is what I'm driving at. Are they aware? And are they using the programs as much as others in terms of percentagewise? You know, like, is there a measurement of that?

Mr. Ekelund: Not one that I am aware of in terms of our department looking at royalty structure, whether or not indigenous people own or are shareholders on that. I think that could be a challenging thing to fully understand, but I can certainly look to see if there is work being done.

Mr. Fraser: Thank you.

The Chair: Thank you.
We're running up against the clock. Unless members have any other burning questions, I believe we'll wrap it up so that members have time to get to the House for the 10 o'clock start.
Do any other members have questions that they want to ask before we finish? Mr. Barnes.

Mr. Barnes: Yeah. Thank you, Mr. Chair, and thank you all for being here. Just kind of back to quantifying the benefits of the royalty reduction program since its inception, you provided a lot of good information, and I appreciate that. It sounds like a lot of work is in progress. One thing I don't think I've heard, though: do we ever look at the total amount of capital invested in our jurisdiction compared to other jurisdictions as a relevant indicator of how successful our programs are?

Mr. Ekelund: I will have to check on that, but I believe we have in the past. I know that we looked at that, I think, primarily in the oil sands at one point, although we may have gone with an indicator of how much production. It's certainly something that we do watch. When I'm looking at sort of the state of play in Alberta, that's always one of the indicators: how much activity, how much capital, and then how much capital compared to the U.S. There may have been some work in the panel's report on that as well. It's certainly one we're cognizant of and that, I think, would or potentially could be part of what we report back in the Auditor General's report.

Mr. Barnes: Okay. Thank you.

The Chair: Okay. I'll thank the officials from the Ministry of Energy for the presentation today and for responding to questions. We ask that any outstanding questions be responded to in writing within 30 days and forwarded to the committee clerk. I know we'll be awaiting written responses to questions from Mr. Gotfried, Mrs. Aheer, Mr. Fraser, Mr. Hanson, and Mr. Barnes.
Are there any other items for discussion or other business?
Our next meeting is next Tuesday, November 8, with the Ministry of Justice and Solicitor General. The meeting is scheduled from 8:30 to 10, and the premeeting is at 8.
I'll call for a motion to adjourn. Would a member move that the meeting be adjourned? Moved by Mr. Malkinson. Discussion. All in favour? Opposed? Meeting adjourned.

[The committee adjourned at 9:49 a.m.]

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