



Legislative Assembly of Alberta

The 29th Legislature
Third Session

Standing Committee
on
Resource Stewardship

Ministry of Energy
Consideration of Main Estimates

Tuesday, April 11, 2017
9 a.m.

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The 29th Legislature
Third Session**

Standing Committee on Resource Stewardship

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Hunter, Grant R., Cardston-Taber-Warner (W), Deputy Chair

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Standing Committee on Resource Stewardship

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Ministry of Energy

Hon. Margaret McCuaig-Boyd, Minister

Mike Ekelund, Assistant Deputy Minister, Resource Revenue and Operations

David James, Assistant Deputy Minister, Electricity and Sustainable Energy

9 a.m. Tuesday, April 11, 2017

[Loyola in the chair]

**Ministry of Energy
Consideration of Main Estimates**

The Chair: Good morning, everyone. I would like to call the meeting to order. The committee has under consideration the estimates of the Ministry of Energy for the fiscal year ending March 31, 2018.

I'd ask that we go around the table and have all MLAs introduce themselves for the record. Minister, please introduce the officials that are joining you at the table when we reach you. I'm Rod Loyola, MLA for Edmonton-Ellerslie and the chair of this committee. We'll begin here to my right.

Mr. Hunter: Grant Hunter, MLA for Cardston-Taber-Warner and deputy chair.

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

Mr. MacIntyre: Don MacIntyre, MLA for Innisfail-Sylvan Lake.

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

Mr. Loewen: Todd Loewen, MLA, Grande Prairie-Smoky.

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

Ms McCuaig-Boyd: Marg McCuaig-Boyd, Minister of Energy. To my left I have Douglas Borland, assistant deputy minister of ministry services; to my right Coleen Volk, deputy minister; and to her right David James, assistant deputy minister, electricity and sustainable energy.

Ms Kazim: Good morning. Anam Kazim, MLA for Calgary-Glenmore.

Ms Woollard: Good morning. Denise Woollard, MLA, Edmonton-Mill Creek.

Mr. Nielsen: Good morning, everyone. Chris Nielsen, MLA for Edmonton-Decore.

Mr. Dang: Good morning. Thomas Dang, Edmonton-South West.

Ms Babcock: Erin Babcock, Stony Plain.

Mr. Rosendahl: Good morning. Eric Rosendahl, West Yellowhead.

Mr. Kleinsteuber: Jamie Kleinsteuber, MLA, Calgary-Northern Hills.

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

The Chair: Thank you. I'd like to note for the record that Mr. Fraser is substituting for Mr. Drysdale.

Please note that the microphones are operated by *Hansard*, and the committee proceedings are being audio and video live streamed. Please set your cellphones and other devices to silent for the duration of the meeting.

Hon. members, the standing orders set out the process for consideration of the main estimates. Before we proceed with consideration of the main estimates for the Ministry of Energy, I would like to review briefly the standing orders governing the

speaking rotation. As provided for in Standing Order 59.01(6), the rotation is as follows. The minister or the member of Executive Council acting on the minister's behalf may make opening comments not exceeding 10 minutes. For the first hour that follows, members of the Official Opposition and the minister may speak. For the next 20 minutes the members of the third party, if any, and the minister may speak. For the next 20 minutes the members of any other party represented in the Assembly or any independent members and the minister may speak. For the next 20 minutes private members of the government caucus and the minister may speak. For the time remaining, we will follow the same rotation as just outlined to the extent possible; however, the speaking times are reduced to five minutes as set out in Standing Order 59.02(1)(c).

Members may speak more than once; however, speaking times for the first rotations are limited to 10 minutes at any one time. A minister and a member may combine their time for a total of 20 minutes. For the final rotation, with speaking times of up to five minutes, once again the minister and a member may combine their speaking times for a maximum total of 10 minutes. I hope that's clear. Discussion should flow through the chair at all times regardless of whether or not the speaking times are combined. Members are asked to advise the chair at the beginning of their speech if they wish to combine their time with the minister's time. If members have any questions regarding speaking times or the rotation, please feel free to send a note or speak directly with either myself or the committee clerk about the process.

A total of three hours has been scheduled to consider the estimates for the Ministry of Energy. With the concurrence of the committee I will call a five-minute break near the midpoint of the meeting; however, the three-hour clock will continue to run. Does anyone have any opposition to having a break? Seeing none, at approximately the halfway point we will have a break.

Committee members, ministers, and other members who are not committee members may participate. However, only a committee member or an official substitute for a committee member may introduce an amendment during the committee's review of the estimates.

Ministry officials may be present and at the direction of the minister may address the committee. Ministry officials seated in the gallery, if called upon, have access to a microphone in the gallery area. We will have pages available to make deliveries should any notes or other materials need to pass between the gallery and the table. Members' staff may be present and seated along the committee room wall. Space permitting, opposition caucus staff may sit at the table; however, members have priority for seating at the table at all times.

If debate is exhausted prior to the three hours, the ministry estimates are deemed to have been considered for the time allotted in the schedule, and we will adjourn. Otherwise, we will adjourn at 12 p.m.

Points of order will be dealt with as they arise, and the clock will continue to run.

Any written material provided in response to questions raised during the main estimates should be tabled by the minister in the Assembly for the benefit of all members.

Again I will remind all meeting participants to address their questions and responses through the chair and not directly to each other.

The vote on estimates is deferred until consideration of all ministry estimates has concluded and will occur in Committee of Supply on April 19, 2017.

If there are amendments, an amendment to an estimate cannot seek to increase the amount of the estimate being considered, change the destination of a grant, or change the destination or

purpose of a subsidy. An amendment may be proposed to reduce an estimate, but the amendment cannot propose to reduce the estimate by its full amount. The vote on amendments is deferred until Committee of Supply convenes on April 19, 2017. Amendments must be in writing and approved by Parliamentary Counsel prior to the meeting at which they are to be moved. Twenty copies of amendments, including the original, must be provided at the meeting for committee members and staff.

I will now invite the Minister of Energy to begin her opening remarks.

Please go ahead.

Ms McCuaig-Boyd: Thank you. Good morning, everyone. I'm here to present highlights from the Ministry of Energy's budget for fiscal year 2017-2018. Joining me at the table are the folks I had introduced earlier: Coleen Volk, Douglas Borland, David James.

Before I get into my presentation, I want to take a moment to look back at some of the accomplishments of my ministry since I was last in front of this committee. It has been an incredibly busy year, and there is much to discuss. Let me start with one of the accomplishments we are most proud of, our success in moving forward on market access issues. As the committee will be aware, market access for our oil and gas is a priority not only for my ministry but for our entire government. In a tough economy everyday Albertans deserve a government that makes life better for them.

We're supporting our energy industry and jobs by advocating for new pipelines and new energy products and markets. We worked tirelessly to get to a yes on the Trans Mountain pipeline and line 3 project and will continue to stand up for Alberta to get shovels on the ground. We're taking meaningful action on climate change, and we're proud that it has led to support for our market access needs. The Trans Mountain approval combined with positive forward momentum on the Keystone XL pipeline means that there is hope ahead for our energy industry. The Keystone XL pipeline will provide more access to the U.S. Gulf coast, which is a key access point for both the American and global markets. That being said, the U.S. has gone from our biggest customer to our biggest competitor. Getting a Canadian pipeline to Canadian tidewater is the best way for our world-class energy producers to sell our oil at world prices on the global market. That's why we continue to support the proposed Energy East pipeline.

Moving on from our market access success to another highlight of our department, we are now four months into the operation of our new modernized royalty framework. This has been a massive undertaking for the Department of Energy, and I want to thank all the staff who were involved in this. Our new royalty system has been broadly supported by industry as we conducted an open and transparent review where we listened to their concerns. The results speak for themselves. While the price of oil plays an obvious role, rig counts and drilling activity are up significantly in Alberta so far this year compared to the same period last year, in 2016. For example, according to industry sources there were 123 active rigs in Alberta in the last week of March compared to 34 a year before. That also compares to 28 active rigs in British Columbia and three in Saskatchewan during the same period this year.

It's clear that our new royalty framework encourages innovation and supports companies to lower their operating costs. This helps make Alberta an attractive place to invest and allows our companies to compete globally. However, we know that we have a long ways to go and that we can – in fact, we must – do more to support our energy sector. This means finding ways to smooth out the roller coaster of energy price swings and finding new ways to use our resources.

To that end, in the past year we launched our petrochemicals diversification program. In December I was pleased to announce two companies chosen to receive future royalty credits of up to \$500 million. The benefits of this program are significant to Alberta workers and their families: up to \$6 billion worth of investment attracted to Alberta for the two new petrochemical projects, up to 4,200 new jobs during construction of these facilities, and more than 240 full-time jobs once operation begins.

But we're not stopping there. I was pleased to appoint our Energy Diversification Advisory Committee last year. Right now they are engaged with industry stakeholders and experts to develop recommendations on how we can seize opportunities to further diversify our energy sector. This work is vitally important for Alberta's economic future, and I look forward to receiving these recommendations later in the year.

9:10

Finally, I want to highlight some of our government's accomplishments as we continue work to stabilize and transition our electricity sector into the future. Last fall we announced a series of changes and new policies for our energy sector, including a price cap to protect Alberta consumers and businesses. We have started the process to phase out pollution from coal-fired electricity and transition to 30 per cent renewable power by 2030, and we announced our plan to transition to a capacity market in the coming years. In capacity markets private power generators are paid through a mix of competitively auctioned payment of their fixed costs and prices from the spot market. Capacity markets directly benefit consumers by dramatically reducing price spikes and market uncertainty, by driving efficient use of the existing transmission system, and by accommodating energy efficiency initiatives better than Alberta's current system.

This transition was recommended to the government by current and potential energy investors as well as the Alberta Electric System Operator, which oversees the province's electricity system in the interests of the public. Alberta's capacity market will be developed carefully and in consultation with stakeholders and will be in place by 2021. Starting on June 1 of this year we will cap the regulated rate option at 6.8 cents a kilowatt hour. Our government is helping Albertans with the family budget by capping this rate and helping them save money on their energy bill.

Our transition to cleaner sources of energy is also under way. Just weeks ago the terms of the first auction in our renewable electricity program were released, and we have also asked the Alberta Utilities Commission to study the best ways that everyday Albertans can generate their own electricity, something often known as microgeneration.

It is a lot of change in a short period, but our government is working to make up for the problems we inherited from years of inaction in these areas. I'm confident that a year from now I'll be here talking about the success of these programs and the many benefits Albertans enjoy from them.

Now on to the business plan before us. I want to make two points about Energy's budget to help set context. The first is that the actual amount needed to run the department is approximately 14 per cent of the year's ministry budget. This is what the department will use to carry out its routine business and focus on specific priorities, some of which I just outlined.

A very large chunk, a full 42 per cent, is funding for the Alberta Utilities Commission and the Alberta Energy Regulator. This ensures that the people in these agencies can continue doing important work for Albertans. Statutory levies to industry fund these two agencies. This means that the money that these agencies

use to operate does not come from the same government revenue pot that funds priorities such as health care and education.

The ministry's remaining budget is linked to payments for carbon capture and storage and the cost of selling oil.

Let me begin with a quick overview of this year's budget numbers. The total budget for the ministry for 2017 is \$751 million. The total voted budget for the Department of Energy is \$209 million, including \$85 million as the identified cost of selling oil. This is the money we have available to run my department and pay for the people who work there. The department is controlling its spending in a thoughtful and prudent manner while supporting the core principles of Budget 2017.

Now let's look at the work ahead for the ministry in this next fiscal year. I'd like to start by saying that in this work consultation with Albertans and specifically with indigenous communities will be important. Our government believes in working with indigenous peoples and ensuring that our work reflects the United Nations declaration on the rights of indigenous peoples, often known as UNDRIP.

Our ministry business plan lays out many of our priorities, including developing policies for diversification of our sector, enhancing transparency of our royalty system, effective stewardship and regulation of our energy and mineral resources, and ensuring a stable, reliable electricity system. Additionally, the Department of Energy will work closely with other government departments on issues such as addressing the increased oil and gas liabilities in this province, implementing further parts of the climate leadership plan, the phase-out of coal-fired electricity emissions, and working with the Alberta Energy Regulator to further reduce methane emissions across the province.

As I mentioned at the beginning, finding ways to diversify our energy sector is something that our government strongly believes in. The committee we have established will look specifically at options that include partial upgrading, refining, petrochemicals, and other chemicals manufacturing. I look forward to getting the committee's recommendations in this important area later this year.

Earlier I discussed the success of our modernized royalty framework; however, not all the work is done. Later this year we will be coming forward with new information that will allow Albertans to know more about how the system is performing. Alberta is already one of the most comprehensive reporting jurisdictions for the energy royalties.

The Chair: Thank you, Minister.

For the hour that follows members of the Official Opposition and the minister may speak. Would you gentlemen like 20-minute intervals set?

Mr. Barnes: Yes, we would, please.

The Chair: Okay. Please go ahead.

Mr. Barnes: Okay. I'm going to jump right in. Just in the interest of time I'm going to share some of my debate time with my colleague from Innisfail-Sylvan Lake, okay, please?

The Chair: Okay.

Mr. Barnes: Minister, I'd like to go back and forth. First of all, I'd like to thank you and your entire staff for all the work that you do for Albertans.

My first question: on page 57 of the 2017-2020 Energy business plan there is a line that reads, "The Department of Energy enables responsible energy and mineral resource development... that [supports] Albertans' quality of life and the prosperity of the

province." On the topic of prosperity, Minister, under your watch the oil and gas industry has seen their corporate tax increase, the implementation of an industry-wide carbon tax, the implementation of a royalty review that saw Alberta's royalty competitiveness framework slip to the middle of the pack behind other North American jurisdictions. We also saw the doubling of the LMR ratio, no advocacy regarding punitive linear taxation levels, and no advocacy regarding the recent federal government's decision to cut the Canadian exploration expense.

I'm wondering, Minister: has your government conducted any cost-benefit analysis on the changes that your government has implemented and their consequences for the prosperity of all Alberta? Have you done a cost-benefit analysis?

Ms McCuaig-Boyd: You state a number of different areas. Certainly, we have people working in those areas, and we were constantly consulting with experts and looking at it. It's a fairly open-ended question to respond to, but yes, we do look at each of those areas. I'm just trying to figure out the best way to answer that.

Mr. Barnes: The best way, Madam Minister, would be to table the reports that you have. Would you be willing to table what you have?

Ms McCuaig-Boyd: Well, what I can do first is answer some of it, and we'll see if you need more. In our business plan on page 59 Albertans benefit economically from responsible energy and mineral development and access to global markets, that section. Diversifying our energy sector certainly has, as I stated, been a priority for our government to help ensure the long-term sustainability of our energy industry and economy. As you know, we all know, we are endowed with a wealth of natural resources. We're very blessed in our province, and the government is committed to ensuring that Albertans benefit from the responsible development of these resources for generations to come.

As I mentioned previously, in 2016 in October we announced EDAC, and they are looking at ways that we can value-add – certainly, within that: partial upgrading, refining petrochemicals – and they would be doing that analysis there of what's most cost-effective and would bring the best value to Albertans. The department is developing a natural gas value-added strategy with a crossministry team to consider all aspects of the natural gas market. Again, those would have analyses with them.

Mr. Barnes: Excuse me, Madam Minister. Of course, you know, it's very, very important that Albertans have lots of opportunity and the quality of life. A cost-benefit analysis, though, suggests some numbers, suggests something that is going to show the costs versus the benefits that Albertans and Alberta families will receive. Do you have any numbers?

Ms McCuaig-Boyd: On page 59, 1.3, we look at market access, and certainly, you know, we've done the numbers there. There's a better netback when our products can go out through pipelines rather than rail. Certainly, everything we do we're looking at what the benefits are for our businesses.

9:20

Mr. Barnes: It would seem at this point that when we looked at increasing the corporate tax and the one-year taxation levels, that has not been part of your analysis.

I'm also wondering: Madam Minister, when it comes to the pipelines, you know, if the climate leadership plan is estimated to cost Albertans over \$30 billion in the next few years, have we somehow looked at what our royalty return will be on the extra

access? Have we looked at the extra taxation? Have we anything that will quantify?

Ms McCuaig-Boyd: Well, I'll continue with the answer I was giving you. The royalty review did not result in the study of any slipping, quote, of Alberta's competitiveness. It identified Alberta's system as being in the middle of the pack and at a reasonable rate to be competitive. It then identified areas to improve such as shallow wells and the introduction of C-star. Certainly, when that royalty review was done, it was in mind of the climate leadership plan as well.

Mr. Barnes: Okay. Thank you.

I'm just going to come at this in a little bit different way. Again on the same line, page 57 of your 2017-2020 Energy business plan, there's another line that reads, "The Department of Energy enables responsible energy and mineral resource development... that [supports] Albertans' quality of life and the prosperity of the province." Minister, it's interesting that this business plan cites resource development and prosperity as a responsibility of your department. Since May 2015 Albertans across the province have dealt with layoffs and the consequences of bankruptcies of at least 17 oil and gas companies. I want to mention Waldron Energy, Windfire Resources, Cogi Limited Partnership, Hyperion Exploration, Spyglass Resources, Argent Energy Trust, Terra Energy, Mosaic Energy, Enterra Energy, Kinwest Energy 2008, Connacher Oil and Gas, Endurance Energy, Northpoint Resources, LGX Oil and Gas, Twin Butte Energy, Shoreline Energy, and X-Cel Energy.

Albertans have also seen the buyout of four oil and gas companies that couldn't survive bad NDP policies on their own. These four were Mapan Energy, Legacy Oil and Gas, Coral Hill Energy, and Anegada Energy Corporation.

Minister, I'm wondering if your department has looked into which policies prove too onerous for these companies or ways in which the rapidly increasing financial obligations to this government might have alleviated the oil and gas industry to prevent further closures. Have you done an assessment of what government policies may have contributed to these bankruptcies?

Ms McCuaig-Boyd: I think, first of all, we would acknowledge that these have been tough times for Albertans. The oil price was a big contributor, something that we can't control here in Alberta, nor can other areas of Canada or the United States. In the last two years when I've gone to CERWeek in Houston, that's been the big topic. Last year everybody was discussing how they couldn't control the price of oil, but we would look at things we could. This year, certainly, there's a lot more optimism.

Our jobs plan, in fact, is getting results. We've secured approval for two pipelines, something that wasn't done before, and in just two years. This is a creation of 22,000 jobs and increased net-backs to our companies. We've announced the two petrochemical diversification programs, over 4,000 workers in the construction, and 1,400 direct and indirect jobs once they're completed. Then we saw recently investment come into Alberta, you know, two Alberta companies doubling down in investment, CNRL and Cenovus. I think, in fact, our policies show some confidence when we get two Alberta companies making huge investments into Alberta in this last while.

Mr. Barnes: Okay. Thank you, Madam Minister.

I'm still wondering, though, why a deeper understanding of these bankruptcies and these premature closures isn't more of a concern for your ministry. Of course, the opposite of two companies buying more oil sands assets was companies leaving the Alberta

jurisdiction and taking billions and billions of dollars of their investment with them to different jurisdictions. Is there priority for your department to analyze the reallocation of that capital out of Alberta? Again, why isn't it a higher priority for you to analyze why we've had so many bankruptcies and downsizings?

Ms McCuaig-Boyd: Well, I'd like to highlight that drilling for oil and higher margin natural gas liquids along with improving technology and techniques to raise well productivity are expected to drive conventional oil and gas activity in this province and indeed have started. As I mentioned, the number of rigs began to rise mid-2016 with the improvement of oil prices. By January 2017 rigs reached the highest level since early 2015. Recovery is expected to continue in 2017 and lift conventional investment by over 20 per cent.

Mr. Barnes: Madam Minister, with all due respect, that wasn't my question.

Ms McCuaig-Boyd: What was your question?

Mr. Barnes: My question again is: are you going to do an assessment of why ConocoPhillips, of why Shell decided to pull their capital from our jurisdiction? Are you going to do an assessment on what policies of your Energy department are too onerous on some of our good Alberta companies that they decided to leave our jurisdiction or, worse yet, go bankrupt, door closed?

Ms McCuaig-Boyd: Well, first of all, we disagree that our policies are in fact driving that. I have spoken with all the CEOs involved, and this is just business for them, business decisions they've made. They are being very bullish on our resources. Again, these are Alberta companies who have confidence in our policies and are doubling down in their investments. This is something businesses do all the time.

Mr. Barnes: Yeah. Thank you, Madam Minister. Again, it's one of the reasons I was looking for a cost-benefit analysis and some quantitative information. You know, I had the opportunity to have lunch with eight or 10 oil and gas middle managers and executives a month or so ago, who told me that they absolutely will not do business in Alberta and they prefer Saskatchewan and B.C. right now. That hurts my heart. I mean, I'm an Albertan through and through. But, again, that's the importance of a cost-benefit analysis and the importance of some information that we can compare the numbers to, you know, where our hearts and our minds want to see Alberta. I do...

Ms McCuaig-Boyd: Well, I would...

Mr. Barnes: Go ahead.

Ms McCuaig-Boyd: Well, I'm an Albertan as well, and I speak to the presidents and CEOs of these companies. To be honest, that's their business to do business as they see. We don't have access to their books. We don't have access to their shareholders. They make their decisions based on what they think is best for them. I would reiterate that we've had two Alberta companies basically double their size in the last couple months, not even that, and that shows confidence in our system, when Alberta companies are willing to invest in Alberta.

Mr. Barnes: Do you think that the two international companies left because of the cap on emissions, because of the carbon tax, because of onerous rules and regulations?

Ms McCuaig-Boyd: Well, to be clear, they still are in Alberta. Shell has investments up my way, and in Duvernay you see Shell gas stations everywhere. ConocoPhillips is still in the oil sands in a joint venture, so we disagree that they have left. They're just doing their investments in a different way.

Mr. Barnes: Okay. Again on the same line. "The Department of Energy enables responsible energy and mineral resource development . . . that [supports] Albertans' quality of life and the prosperity of the province." Madam Minister, I'm wondering: most available assessments of the royalty review do not consider the full burden of operating in one jurisdiction over the other. Has your department done an assessment of one jurisdiction's competitiveness, taking into account the cost of our carbon tax and any other estimated losses from the climate action plan on Alberta industry competitiveness?

Ms McCuaig-Boyd: Certainly, when the royalty review was done, they interviewed all sorts of companies. They were broken up into conventional oil, natural gas and liquids, and oil sands, so they looked at all the resources we have here in Alberta. There were several key recommendations that came out of that. They did a lot of number crunching. It's all available in the royalty review plan that was distributed and is available to anyone who wants to read it. You know, there were certainly key recommendations such as improving transparency, which I alluded to earlier. There were recommendations such as harmonizing the liquids in the way they were treated. As you know, they found that the oil sands was competitive the way it was, but there were things we can do with the oil and natural gas liquids.

9:30

So, yes, we certainly looked at all of the different areas in Alberta. We looked at other jurisdictions, and, as I mentioned earlier, we found that we were middle of the pack and there wasn't any slippage, that we were indeed competitive. In fact, our royalty system was popular enough that before the implementation of the new framework on January 1 we had companies asking last June if they could drill under the new regulations rather than the old ones because they found those attractive, and we allowed for early drilling. As you know, there were more than 150 rigs started up because of the new royalty framework.

Mr. Barnes: Thank you. It is very good to see some increased activity.

Backing up to my earlier question, the Shell Quest: is it exempt from the 100-megatonne cap? Yes or no?

Ms McCuaig-Boyd: I don't believe so.

Mr. Barnes: Okay. Can we get a clarification now, or do you want to provide that later?

Ms McCuaig-Boyd: Yeah. We'll provide it later.

Mr. Barnes: Okay. Thank you very much.

You mentioned "middle of the pack" for our royalty review. I subscribe to: Alberta should be the leader, and it has been in creating technology and being a top producer and providing opportunities for our communities and our families. Are you satisfied that Alberta is in the middle of the pack?

Ms McCuaig-Boyd: No. We can always do better, but I think I said that when they did the royalty review, it was discovered that we were middle of the pack. We are keeping in mind all the time that we will always be reviewing to see how we are competitively. That

was one of the things in the royalty review, that we have to keep an eye on that.

We can always do better, and we are doing better. We have an industry that's amazing. Looking at technology, long before the downturn in oil prices companies were always looking at ways to use technology to drive down costs, to be more efficient and that kind of thing. We have some of the most innovative and efficient people in Alberta, and we will always be looking to do better. But middle of the pack is what was discovered, and each year we will be looking at how we stack up.

Mr. Barnes: Okay. Thank you for that.

To move on a bit, on page 60 of the 2017-2020 Energy business plan we have key strategy 2.4 which reads: "In conjunction with the Alberta Climate Change Office, work toward the development of regulatory standards to implement Alberta's Climate Leadership Plan to reduce methane levels for the oil and gas sector by 2025." The conclusions from the OSAG panel were due in March. Why haven't these recommendations been brought forward?

Ms McCuaig-Boyd: That's with respect to methane?

Mr. Barnes: Methane, yeah, and their entire recommendations.

Ms McCuaig-Boyd: Well, Minister Phillips and I have met with the OSAG and got an interim report. There are chunks of the report they will be giving us, and we will be getting some of the parts soon.

Our industry continues to work on methane because we know that that's a big part of the climate leadership plan. We've worked with industry on ways to do that, and we continue to work with industry on that part.

Mr. Barnes: When will their report be made public, Madam Minister?

Ms McCuaig-Boyd: Sorry. May I finish?

Mr. Barnes: Please.

Ms McCuaig-Boyd: The methane part of that, though, is not part of the OSAG. It's being led by the AER. There are two different things. We are receiving some interim information from OSAG, but the AER is leading that with industry.

Mr. Barnes: Okay. Thank you. The report: when will it be made public?

Ms McCuaig-Boyd: We continue to work with the AER. We'll get interim bits along the way, but we . . .

Mr. Barnes: Will it be made public?

Ms McCuaig-Boyd: Oh, yeah. Eventually, yeah. I'm just looking to see. I'm not sure exactly when. This work has just started. They're in the middle of stakeholder consultation with industry. As you know, we've committed to a 45 per cent reduction from the 2014 levels by 2025, so we have some time to get this plan, and we want to get it right, so we're working with industry.

Just to give industry some kudos, they came up with some of these ideas at the beginning, and we're very proud of the work we've done in collaboration with them. Right now the work is to look at how we can best do that, what the standards are for industry, and what technology might be best available to do that. It's an ongoing discussion with them.

Mr. Barnes: Thank you, Madam Minister. As you know, the opposition and a lot of Albertans have had some concerns with the composition of the OSAG panel. To be more specific, I'm wondering how much we are paying the members of the OSAG panel, and why haven't Albertans seen any expense claims from this group yet?

Ms McCuaig-Boyd: Well, first of all, OSAG is under the Ministry of Environment and Parks. They are paid, I think, the government rates for attending meetings, reasonable mileage, and that kind of thing. OSAG, I can say, though, is a combination. There are three chairs. There's an oil and gas – like, one represents the industry – an environment, and an indigenous chair. The composition of it is proportional to all of that. It's not just one group representing that group. But it is under Environment and Parks, not myself, so you won't see it in my plan.

Mr. Barnes: Another 20 minutes? Okay. I will pass some time to my colleague from Innisfail-Sylvan Lake.

Mr. MacIntyre: Thank you, and thank you, Minister and staff, for being here. Minister, page 61 of the 2017-2020 energy business plan, key strategy 3.1. I'll quote it: "deliver on Alberta's commitment to 30 per cent electricity production from renewables by 2030." What percentage of peaker plant backup power will be needed to make the 30 per cent by 2030 work?

Ms McCuaig-Boyd: Sorry. You're on page 61?

Mr. MacIntyre: Correct. Strategy 3.1.

Ms McCuaig-Boyd: As you know, we have done, as I mentioned, a bit of work. We inherited an electricity market that is relying on volatility. Certainly we are making some changes to make it better for consumers.

Mr. MacIntyre: Excuse me, Minister.

Ms McCuaig-Boyd: May I finish, please?

Mr. MacIntyre: May I repeat the question for you? I don't think that you heard it.

Ms McCuaig-Boyd: I'm getting there. Government, you know, we're creating a creating a capacity market, transitioning to a capacity market system. This has been done in consultation with energy experts.

That's the overview, but I would pass it over to David, who is our electricity expert.

Mr. James: Thanks very much. The market itself will need to determine what's going to come in, what generation types will develop. The system right now under the renewable electricity program allows for different types of renewables to develop by 2030. That could include . . .

Mr. MacIntyre: I understand that, sir, but my question was simply backup. If you're going to have 30 per cent of our grid supplied by renewables, how much backup, how much peaker plant, will be required to support those intermittent renewables? It's just a number, a percentage.

Mr. James: That number will be determined by the market because it depends on what renewables come into the system. For example, if bioenergy comes into the system and it's providing firm capacity into the system, then there won't be as many intermittents, and there won't be the requirement for as many peaker units. At that point in

time it's not practical for anybody to tell you today how many peaking units would be required by 2030.

Mr. MacIntyre: The thrust of this government has been with a lot of wind generation and also attracting solar generation. Those two are specifically very intermittent. From your research that you've done, how much peaker plant do you need to back up wind?

Mr. James: Well, the issue I think becomes whether or not wind will be the predominant development. Solar costs are coming down. Hydro costs are also available. Biotechnology is coming in. All of those costs will reduce over time, so it's hard to say how many peaking units will be required for either solar or wind.

Mr. MacIntyre: Have you done modelling to estimate approximately where this will need to be?

Mr. James: The ISO has done modelling in terms of what the generation system could look like by 2030. I'd refer you to their website for all the details on that.

Mr. MacIntyre: Okay. I'll turn back to my colleague now.

9:40

Mr. Barnes: Thank you, Don.

Madam Minister, we noticed the Energy business plan 2017-2020 includes information about the timeliness of the needs and facility applications for the Alberta Utilities Commission through a performance measure which reports on whether the regulatory decisions for approvals, permits, or licences are made in a timely, fair, and transparent manner. Albertans want to know if the single-window system is working, and, Madam Minister, I'm wondering: why isn't the Alberta Energy Regulator reporting similar numbers in the business plan?

Just while you're looking, we've heard a lot of times about how it takes a lot longer in Alberta than in other neighbouring jurisdictions to get approval. Obviously, that's going to be a tremendous cost on business, so it would be nice to have a measurement.

Ms McCuaig-Boyd: Certainly, under the timeliness, needs and facility applications, the trust in the utility regulator is enhanced by efficient regulation and oversight, absolutely. This measure provides assurance that the Alberta Utilities Commission regulatory decisions for approvals, permits, and licences in respect of a needs identification document, transmission line, and part of the transmission are made in a timely and fair, transparent manner. Alberta Utilities Commission is committed to issuing decisions for all facility applications within timelines established by legislation. The statutory deadline for issuing needs and facilities decisions is 180 day.

Mr. Barnes: Excuse me, Madam Minister, though. Does that same thing apply for the Alberta Energy Regulator as you're mentioning with Alberta Utilities Commission? Do we have one for the AER?

Ms McCuaig-Boyd: Well, right now we're doing some play-based regulations. They constantly look at the way things are changing, and they're absolutely looking for ways to cut back the time needed. But to be fair, we need to also do a good job in these projects. Safety is absolutely key, proper consultation. We all know that if we don't consult properly, it can get held up there. There's that fine line and the sweet spot that they have to get, but they're continually looking at it and trying to adapt to, you know, new technology. We're seeing really positive results in the play-based regulation, where you look at a project holistically rather than a permit here, a permit there.

They don't have the same timelines necessarily because things are very different in the projects they do. It might be a mining project. It might be in the Montney, Duvernay. It might be conventional oil. Each project is different.

Mr. Barnes: Thank you.

Certainly, safety, the environment, and consultation are absolutely crucial things, but I hear time and time again that Alberta is the slowest jurisdiction when it comes to getting development permits, and obviously that'll cost Alberta families and communities jobs. It'll cost Alberta industry the opportunity. So I'm wondering, specifically: does the Alberta Energy Regulator keep performance measures on the length of time a drilling application takes to be approved? Do we have an average time, a maximum time that it takes to get a drilling application approved?

Ms McCuaig-Boyd: I can say that we're in consultation with groups such as CAPP and with industry right now to help us understand where they see the stresses of timeliness. Right now we are actually doing some of that work, looking to see, you know, what are the – we're not the industry people. As I said, there are different ways industry finds that time maybe not the best, so we are looking into it. Hopefully, this time next year I might have some answers for you.

Mr. Barnes: Okay. That was actually going to be my next question. By next year, then, do you think the department will undertake to include a detailed breakdown of whether AER regulatory decisions for approvals, permits, or licences are made in a timely, fair, and transparent manner?

Ms McCuaig-Boyd: Well, this is work we're doing right now. I'm not sure how long it will take, but I would have more information for you next year.

Mr. Barnes: Okay. Thank you.

Will your department undertake to provide the maximum and average time from receipt of an application through to final approval and permitting for all the different segments of our oil and gas industry? Do you think it's important to know what the average time is, what the maximum time is, and how we compare to other jurisdictions?

Ms McCuaig-Boyd: Absolutely it's important. We will be doing the work this year, and I will have more to report next year.

Mr. Barnes: Okay. Thank you again.

Madam Minister, in February of 2016 your department received an immense amount of criticism from the Alberta Auditor General regarding this department's failure to keep track of the royalty reduction programs. The Auditor General recommended "that the Department of Energy annually evaluate and report whether the department's royalty reduction programs achieved their objectives." Why hasn't your department provided metrics on the royalty reduction program in the 2017-2020 Energy business plan? Why haven't you looked at this?

Ms McCuaig-Boyd: With respect to that the Auditor General had asked to co-ordinate reporting in the Ministry of Energy's annual report for the 2016-2017 fiscal year in conjunction with reporting requirements resulting from the recommendations of the royalty review advisory panel.

Mr. Barnes: Okay. Have you looked at . . .

Ms McCuaig-Boyd: By June this year you'll have that information.

Mr. Barnes: By June? Okay.

How much is the enhanced hydrocarbon recovery program projected to cost Albertans in terms of royalty reductions? How much is that specific program projected to cost in reduced royalties?

Ms McCuaig-Boyd: I would ask if I could have Mike Ekelund come and explain that. He's much better at this than I am.

Mr. Barnes: That'll be great. I appreciate it, Mike.

Mr. Ekelund: Okay. Thank you very much. I think I have to provide some background on what the enhanced . . .

The Chair: If you could please state your name and position.

Mr. Ekelund: Mike Ekelund, assistant deputy minister, resource revenue and operations with the Department of Energy.

The Chair: Thank you.

Mr. Ekelund: Okay. Some background on the enhanced hydrocarbon recovery program. It will depend on how many applications come in. What happens is that we review the economics of obtaining more oil or gas out of the reservoir and determine what kind of a return will be required to be able to have the enhanced hydrocarbon program go ahead. What this means is that each of the enhanced hydrocarbon program recovery schemes that is approved has to pass that economics test and, therefore, at the end of the day, will result in more royalties for Albertans than are given up.

There are two parts to the program. The first one is for tertiary programs. The amount of royalty reductions to 5 per cent from individual wells is laid out in the regulations. That is a defined amount, and that will depend on how many wells and what the royalty rates are for those wells, whether they're early in their life or late in their life.

For secondary programs such as waterflood we do not have a schedule set out. What we've determined is that we will take applications over the first two years, determine what those economics are, and develop an appropriate schedule for that. So that will be a straightforward economics test. We don't have an estimate of how much it will cost because we don't know how many applications. We will have to work through the economics to ensure that Albertans are going to be better off at the end of the day.

Overall what I can say is that with the tests that we have in place, the expectation is that there will be a net increase both in production and royalties over the life of both secondary and tertiary programs.

Mr. Barnes: Okay. Thank you.

Before you leave the mike, I'm wondering: is there a limit on the number of applications that your department is going to look at?

Mr. Ekelund: No. The more applications there are that have potential for gain for Albertans, we'll simply work through those and approve the ones that are able to pass the tests.

Mr. Barnes: Okay. Thank you.

A similar vein question: by how much is the emerging resources program projected to reduce royalties, and how much is it expected to enhance production?

Mr. Ekelund: Thank you very much. Again, it's a similar concept, and it is a new program. How much it will cost will depend on how

many applications we have. We have, I believe, three so far. There is a reduction of royalties for the first number of wells that get drilled in an area, and they will go to a 5 per cent royalty rate, so what the costs will be is uncertain. We'll have to develop that as we get the applications in, determine what are the existing wells, what the current rates are, and what the impact of having them reduced to 5 per cent is. Again, the test overall is that Albertans have to have more royalties coming out of the program through wells that get drilled that would not otherwise have been drilled before they're able to obtain approvals on this.

We don't have a cost estimate. What we do have is a process in place that ensures that for an area that has very little activity at this point, we will give up some money on those initial wells to get further wells drilled, which will be a net benefit for Albertans. I would say that this is primarily a net benefits test approach. I don't have an estimate for how many applications will be made, but what we'll be doing is testing each one to ensure that Albertans, at the end of the day, will be better off.

9:50

Mr. Barnes: Okay. Thank you.

You mentioned that there were three that have been approved through the emerging resources program. Can you tell me what the three are? Can you give me similar numbers in similar projects on the enhanced recovery program, please?

Mr. Ekelund: There have been none approved at this point.

Mr. Barnes: Sorry?

Mr. Ekelund: There have been none approved at this point. The system came into place on January 1, and we have had three applications under the emerging resources program. It's either three or four. I believe it's three. We're in the process of working through those. We have one under the enhanced hydrocarbon recovery program. We're in the process of working through that.

Mr. Barnes: Okay. Do you have a timeline you're hoping to have approval in? Do you have a process that will ensure that producers can get answers on a timely basis?

Mr. Ekelund: Yes. We work with industry both on the general aspects as well as with the individual producers on the specific applications that they make. We believe that we will have them done, I think, at the outside, within six months. Some of this is new work that has to be developed, but we certainly would want to work more quickly than that to provide certainty for the companies going forward. However, we do need to make sure that we have enough information available, that we've got a very good indication that they passed those economics tests and that Albertans will be better off. That's really the bottom line on it.

Mr. Barnes: Okay. Thank you for your answers.

I'd like to turn it back to my colleague, please.

Mr. MacIntyre: Thank you. Minister, I'm looking at your business plan. I was looking through it for a natural gas strategy, and I couldn't find it. This is a government that claimed we must transition to a capacity market because no new generation has entered the province since 2009, yet you didn't think maybe to provide a natural gas strategy on the business plan before exposing Albertans to an estimated \$30 billion in taxpayer liabilities? Is that a no?

Ms McCuaig-Boyd: I'm just figuring out who's best to answer this. It's a multiperson thing.

Mr. James: Just with respect to the natural gas strategy itself, we haven't developed a natural gas strategy. What we have done is looked at what the predominant type of generation that will go forward into the future is going to be, likely a natural facility. As you're aware, we spoke of that last year as well. The AESO has done an estimate associated with how much generation is needed, as I referred to earlier. They're looking at what would be required in terms of new natural gas or conversion of coal-fired facilities to natural gas. Some of the companies that are out there have done estimates as part of the original submissions of the climate leadership plan work that Mr. Leach and his panel had done, and several of those companies had identified that there was about a billion cubic feet of natural gas that could be used associated with natural gas development and gas generation in the province. There's lots of opportunity for it, and there are lots of individual investment decisions that could be made around it.

Mr. MacIntyre: Thank you.

We have heard you, Minister, discuss capacity. We've also heard you discuss total load. Industry regularly asks us if we could get the record straight here right now. How many megawatts of generation does 30 per cent by 2030 represent given the projected forward demand?

Mr. James: The 30 per cent right now: we have about 1,400 megawatts of wind, 900 megawatts of hydro, and then some additional renewables or bioenergy. That sits in around the 2,500 megawatts mark. If you take the 5,000 megawatts of additional that's been identified as part of the renewable electricity program, then you're looking at somewhere in the order of 7,500 megawatts of energy that's available from renewable sources at those moments in time. That's more or less consistent with around the 20,000 megawatts worth of full-system available energy that the AESO forecasts for the 2030 period.

Mr. MacIntyre: Thank you.

I have asked before about backup, and you've given me an answer on that, that it's going to be dependent upon what industry brings forward as far as the modes of generation for this 7,500 megawatts of energy. Given the significant increase in intermittent generation and projected growth in load demand, what has your department calculated is the increase in black start capacity that we're going to need come 2030?

Mr. James: The AESO is responsible for black start requirements. The AESO would need to look at what that is. They do a constant review and revision of all the operating characteristics of their electricity system, including what they would need for emergency management, including what they would need for black start capability. Again, this isn't the department's calculation to make; the AESO would make that, but they do it on a regular basis as part of their mandate.

Mr. MacIntyre: Do you have some idea of what that's going to cost?

Mr. James: I don't. Again, that's a contract that's arranged directly between the AESO and those companies that are the black start companies. We don't have access to that information on a regular basis or at all, for that matter.

The Chair: Another 20 minutes.

Mr. MacIntyre: Thank you.

Again, how much will Albertans be paying in standby charges either on their bill or through taxation?

Mr. James: I'm not sure I quite understand what you mean by "standby charges."

Mr. MacIntyre: Well, when we have black start and when we have peaker plants that are going to be built in order to support renewables and support an expanded capacity here, we are going to need to have some plants on standby, especially if we're going to need peaker plants for wind and solar. Do you have some estimate of what those kind of charges are going to look like per megawatt?

Mr. James: We don't have them. What the AESO will do, though, is identify what the reliability needs are. At any given moment in time they make sure that they have generation resources that are on contract for the purposes of maintaining reliability of the system. Again, that's an arrangement that's made between the AESO and the generation companies that are out there. They would put that into their cost or their tariff that goes in and is approved by the Utilities Commission. The Utilities Commission would have a view of what all those costs are when they're approving the tariff itself, and the AESO would need to defend what those costs are in front of the Utilities Commission.

Mr. MacIntyre: Thank you.

Now we're talking about coal closures and the strategy that you have for coal closures. Have you got a timeline worked out yet on coal-generation closure that is in sync with something to replace it?

Mr. James: The AESO is looking at whether or not a schedule is required. At this point the AESO's assessment is that there is no schedule specifically required for the coal plants themselves. The companies are working with us and with the federal government around the federal government's natural gas emissions standard. Once that natural gas emissions standard is in place or is established, those companies will be better situated to make decisions associated with conversions of the plants on an economic basis from coal to gas. As a result of that, there may never be a requirement for the AESO to set a specific schedule to close out those facilities.

Mr. MacIntyre: Okay. Let's park there for a second and try to understand this. You're saying that there is no timeline needed for the closure of coal-fired generation, yet if we take all of our coal offline, are you presuming that industry is going to have natural gas or something else in place at that time?

Mr. James: Because it's a market, there are two things that will happen. The first is that the AESO has a responsibility for reliability, so if at any point the AESO sees that there is a reliability risk associated with closure of facilities, whether it be the coal facilities or any other facilities, the AESO can then try to take measures under the existing act to ensure that there is sufficient generation. They have the ability to do what's called transmission must run within certain regions of the province, or they have the ability to request that a unit stay online. They've done this in emergency situations in the past, and they have that ability to do that today.

The other thing that will happen: because this is still a market mechanism that is out there, the market itself is looking at how much supply is available in the system and what the demand will be on any given basis. The expectation, as has consistently been demonstrated in the past within a market construct, is that those companies will make investments and they will bring generation online because it's economic to do so, and they will be able to

recover either through the capacity payments that will eventually be defined or through the electricity energy payments that will go through as well on the energy system and the fact that there are still energy prices and value through that. Those companies will then make economic decisions to keep generation or to build it.

10:00

Mr. MacIntyre: But as it stands right now, with the carbon taxation levels that we have right at this moment and the carbon taxation levels that are going to be going up in January coming up, rendering these coal-fired plants that uneconomical, are you suggesting that they can't shut down a highly unprofitable plant, that they must keep it generating because we don't have something there to replace it yet?

Mr. James: No. Our forecasts from the AESO right now are that there is not a reliability risk between now and 2021-2022 at the earliest. I say "reliability risk," but that's more just a matter of how much supply is on the system relative to the forecast demand. The AESO is looking out on the 2021-2022 period, and they're currently seeing that we have sufficient supply in generation in the province to ensure that there is no supply shortfall.

As we move towards that time – and we've been talking with other companies in the industry – companies are aware of that, shall I say, tightening moment, when supply and demand start to tighten, and the ability for them to make investment decisions leading up to that. The companies themselves aren't required to keep those coal facilities as such online. If the AESO in an emergency situation needed one of those companies to continue to operate that facility, then it would have a direction to that company to do so, but as of right now the companies are eligible to make economic decisions on the functioning of those plants.

If you think in a market context, yes, there are some additional costs associated with carbon charges. However, when they're in the market, if there is a need for that generation, the market prices go up, and there will be a point in time at which, if I have a coal plant that is sitting idle on the side or if I have a gas plant, it makes sense for me to put that into the market and to sell the power into the market because it has enough value to me to cover those additional costs. Again, right now we're not seeing any foreseeable changes to that.

Mr. MacIntyre: All right. Thank you.

Minister, your department recently announced the Alberta renewable electricity program, which AESO has been asked to implement. AESO is funded by its participants, so are they chipping in for this?

Ms McCuaig-Boyd: Sorry. What was your question again?

Mr. MacIntyre: Regarding the Alberta renewable electricity program, which AESO has been asked to implement.

Ms McCuaig-Boyd: Yeah. I'm sorry. I missed the question.

Mr. MacIntyre: The question is: AESO is funded by its participants, so are they chipping in for the cost of this program? I just couldn't find a line item anywhere in your budget to cover the cost of admin for this, so I'm assuming that AESO is picking up the tab.

Mr. James: Under the act right now and under the structure the AESO has administrative costs associated with that program. Those administrative costs are being borne broadly by the participants

within the sector. They're not being borne by the government or the ratepayers.

Mr. MacIntyre: AESO is responsible for implementing and administering this program through a series of competitions that will incentivize the development of renewable electricity generation through the purchase of renewable attributes. Do we have some idea of the estimated projected cost to taxpayers of operating this program?

Ms McCuaig-Boyd: Well, I'll start, and David may want to continue. These are competitive programs, so because of that, it will allow the competition to come up with the prices. We just announced the first one, the 400 megawatts.

I don't know if David wants to add to that.

Mr. MacIntyre: Is there an admin cost that we're going to see for this competition?

Mr. James: There's an administrative cost for the AESO to administer the program itself. In terms of the actual cost of the renewable generation the government has stated that the renewable generation costs – and the way that the AESO has defined it is that it is an indexed renewable energy certificate or credit.

Essentially, from the value of the energy up until some strike price that the company will define, whatever that value is, if the energy price is below that strike price, then with the cost to the carbon revenues that the government is pulling in from large industrial emitters, that carbon revenue would be used to pay the difference between the energy price and whatever that strike price is. That strike price is essentially the competitive price that these companies believe that they could successfully win the competition with and then deliver and operate these facilities. That price, that delta, on an as-produced basis, is what would then be charged back to the carbon revenues from large industrial emitters.

Mr. MacIntyre: Thank you.

Another question: regarding the 400 megawatts that you have announced that you're requesting RFIs for, what is the estimated government contribution to developing those 400 megawatts of renewable energy generation?

Mr. James: In regard to how much money the government might provide towards that?

Mr. MacIntyre: Yeah.

Mr. James: Again, it's going to depend on the energy price. If the energy price over that 20-year period is at or above the strike price, then there is no contribution from government. If the energy price is at or below that strike price that the company does, then whatever that difference between the energy price and the strike price is, that's what government will do. The AESO expects right now that the competition, based on the interest, will come in very, very competitive, and they're thinking that it would be in the order of \$60 a megawatt hour. When you think about future forecast electricity prices, right now out into the 2020-2021 period they're looking in the order of, you know, \$50 a megawatt hour, possibly slightly higher. So there is a point in time when we may find, based on the competitive value of the bids, that we could see those funds actually flowing back to consumers when they're being produced.

Mr. MacIntyre: Currently, as you well know, prices in the pool have been extremely low, oftentimes under \$20, so what we're

talking about, then, would be a contract for differences of \$40 a megawatt to get to a \$60 strike price?

Mr. James: I'm sorry. Say that one more time. I apologize.

Mr. MacIntyre: As you know, current prices this year, this year that we're looking at right now, and last year have been very, very low. I've seen it as low as \$15 some days, \$20 days some days. So if we have a \$60 megawatt strike price, we're talking about a contract for differences of \$40 or so.

Mr. James: The prices today are not the prices that we're forecasting. The AESO is looking forward in terms of 2019, when they'll have the auction in place, and it's not until the facility is actually built that there would be any charges because the charges themselves or any of the cost flow through is based on the actual production of the facility. Right now the prices are historically low. There are some generation units that are expected to come off by 2019. Sundance 1 and 2, for example, only operate until 2019. As load grows and supply tightens in that 2020-2021 period as well, that's when you'll start to see those prices start to rebound up into a more historical level of prices as opposed to the low prices today.

Mr. MacIntyre: Thank you.

Moving on, Minister, in fiscal plan 2017-2020, page 119, there's a table entitled Financing Requirements. It is noted that the direct borrowing for the fiscal plan does not include amounts borrowed on behalf of the Balancing Pool. These amounts are forecasted to include \$227 million for 2016-17, \$494 million for 2017-18, \$833 million for 2018-19, and \$699 million for 2019-20, totalling \$2.25 billion. How were these costs calculated? What assumptions went into the calculation? You can undertake to provide it if that's too detailed.

Ms McCuaig-Boyd: Yeah. Those are numbers that are supplied by the Balancing Pool, so we don't know.

Mr. MacIntyre: We have multiple e-mails from the chair of the Balancing Pool pleading with your department to give them a decision on a consumer allocation. At the time the pool was hemorrhaging tens of millions of dollars every month and paying penalties, liquidating assets, and having their line of credit cut by Toronto-Dominion due to, in their words, the Balancing Pool's inability to operate independently from the government. Has your department conducted an assessment to work out how much of this \$2.25 billion in losses is on account of your government's inaction during that time?

Ms McCuaig-Boyd: If we had not acted, average families could have been forced to pay charges of more than \$8 per month, and we have kept those charges to just 67 cents for an . . .

Mr. MacIntyre: Excuse me, Minister, but the e-mails that I have from the chair of the pool, which transpired over many, many months, were begging you for action and weren't getting an answer. Every time he corresponded with you, he was noting: we're going to have to increase the consumer allocation if we don't get an answer from you. Another month would go by, another letter would go out, and again no response from your department. Again, how much of the \$2.25 billion in losses is on account of the government's inaction during a time when the chair of the pool was asking you for a decision?

10:10

Ms McCuaig-Boyd: As I said, if we had not acted, Alberta families and businesses would have had to remain at the mercy of massive

price spikes and volatility that came with the old system. As you know, this . . .

Mr. MacIntyre: Madam Minister, please. You decided to increase the levy under the specified gas emitters regulation without any consultation at all. You're not being a hero to Albertans here. You destroyed the system.

Ms McCuaig-Boyd: The Balancing Pool manages the financial accounts arising from the transition to a competitive generation market on behalf of consumers. It's also responsible for any obligations with both sold and unsold power purchase arrangements, which is the right to market and sell electricity to consumers, to customers. All actions we took in the fall were to put consumers first and provide stability to an electricity system that needed it. The direction I provided to the Balancing Pool regarding consumer allocation was within my authority. The minister always . . .

Mr. MacIntyre: That's precisely the reason for my question.

Ms McCuaig-Boyd: May I finish, please?

Mr. MacIntyre: It was in your authority to do something, and you didn't. Why were you delaying responding to pleadings? I've never had the misfortune of reading a letter from a CEO of a major institution pleading with a minister for an answer, and he got none. Why the delay for months?

Ms McCuaig-Boyd: The direction I provided to the Balancing Pool regarding the consumer allocation was within my authority. The minister always has had the ability to set the annual amount that would be applied to consumer bills. Again, if we had not acted, average families would be forced to pay charges of over \$8 a month. We are keeping those charges to 67 cents.

Mr. MacIntyre: But you're backloading it onto the taxpayers through loans to the Balancing Pool to cover for the mistakes you've made.

Next question.

Ms McCuaig-Boyd: May I finish my answer?

Mr. MacIntyre: Minister, is your department instructing the pool to hold onto Battle River 5 even though terminating the unit would save taxpayers money?

Ms McCuaig-Boyd: Mr. Chair, I'd like to continue my answer, please.

The Chair: Go ahead, Minister.

Ms McCuaig-Boyd: The direction also went with giving the Balancing Pool the tools it needs, moving forward, to address these costs in a way that best protects consumers.

Mr. MacIntyre: All right. Next question. Moving on, is your department instructing the pool to hold on to Battle River 5 even though terminating that unit would actually save taxpayers money?

Ms McCuaig-Boyd: No, we're not.

Mr. MacIntyre: Do you know why they continue to hold on to it, then?

Ms McCuaig-Boyd: They're reviewing it right now.

Mr. MacIntyre: Okay. Are any of the borrowed amounts that I just listed earlier on this same line item needed to pay carbon taxes that are due on generating assets returned to the pool?

Ms McCuaig-Boyd: Sorry. Could you repeat that question?

Mr. MacIntyre: Are any of the borrowed amounts that I just listed earlier on this same line item needed to pay carbon taxes that are due on the generating assets returned to the pool?

Ms McCuaig-Boyd: We don't know because those came from the Balancing Pool.

Mr. MacIntyre: Could you undertake to provide that, please? Under Bill 34 you've extended a significant line of credit to the Balancing Pool. It would be interesting, I think, for Albertans to know if some of the borrowed money is actually having to go to pay carbon taxes back. You can undertake that, please.

Ms McCuaig-Boyd: So far the Balancing Pool hasn't released their financial statements, but when they do that, that information should be there.

Mr. MacIntyre: All right. What strategies are you implementing to reduce greenhouse gas emissions on the units that the Balancing Pool, which essentially means the government, now holds the contracts for?

Mr. James: The Balancing Pool itself has to decide how to operate those particular facilities. They have all the carbon charges or all of the same obligations as other generators in the province. The government is not taking any specific actions to direct them to operate those in a particular way. That's a decision that the board has to make with their management team.

Mr. MacIntyre: All right. Thank you.
I'll turn it back now to my colleague.

Mr. Barnes: Thank you. Madam Minister, in the Energy budget estimates 2017-2018, page 114, please, I want to talk about operating expenses, ministry support services, line item 1.1, the minister's office. In the 2016-2017 budget estimate documents we were told that the forecasted cost for operating your office was \$703,000. In fact, I understand that last year you spent some time bragging that, "In my own office I can say that we are taking care to manage our expenses by being prudent in our operating expenses and being focused and thoughtful in choosing travel opportunities to support our market access activities." But now we see you're 25 per cent over budget. The actual cost of operating your office last year was over \$1 million, 25 per cent over budget. Why did your office fail so substantially to control your operating expenses?

Ms McCuaig-Boyd: In the budget you'll see that in 2016-17 and 2017-2018 it's relatively the same. The number you're maybe looking at, 2015-16, includes severance paid out to former government employees in the transition.

The Chair: Thank you very much, Minister.

We're now going to move on to the member of the third party.

Mr. Fraser: Thank you, Mr. Chair.

Madam Minister, how are you today?

Ms McCuaig-Boyd: Good. How about you?

Mr. Fraser: Very well. Thanks.

Well, thanks for all the work that you do. I know that it's a challenging file. Of course, it's critically important to Albertans and all families, so it's certainly a heavy burden.

I just kind of wanted to go back and follow up on some of the questions that my colleagues from the Wildrose Party asked, just to clarify some things. I want to start, you know, specifically with electricity generation. Certainly, correct me if I'm wrong, but the idea is to try to get to the lowest possible emissions from greenhouse gases. Correct? We want to transition from coal. Presumably there seems to be an initiative – correct me if I'm wrong, Minister – that perhaps there may be the ultimate goal to transition away from natural gas, would that be fair to say, in terms of trying to get to zero. I guess it would be the utopia.

Ms McCuaig-Boyd: I think we've been fairly clear, you know, in our transition off coal to renewables that it will be 30 per cent renewables by 2030, and we expect the remaining 70 per cent will be natural gas.

Mr. Fraser: Right. But I suppose in terms of the idea of, you know, I want to say ideas and plans versus saying an ideology because it sounds extreme, but the goal is to reduce emissions as much as possible.

Ms McCuaig-Boyd: Well, we do know that natural gas burns fairly cleanly and coal doesn't, so, you know, the transition to 2030 will be off coal. We're blessed in Alberta, as you know, with a lot of natural gas that is clean burning, so, as I said, our expectation is 30 per cent renewable and that 70 per cent will be natural gas in the foreseeable future.

Mr. Fraser: Right. In terms of your business plans and renewable energy, where are you at in terms of trying to diversify, I guess, renewable energy? Again, going back to a lot of the plans kind of laid out – and my colleagues from the Wildrose have mentioned this – you have created instances. Certainly, the first person to come out and take a stance on something oftentimes doesn't always get it right the first time. Would that be fair to say? Not just in this particular instance, but there's some risk and there are some challenges in terms of trying to be the first out of the gate.

Ms McCuaig-Boyd: With respect to . . .

Mr. Fraser: Renewable energy and that sort of thing. I guess I just want to clarify for Albertans. When we're coming to renewable energy, we talk about diversification. Again, it would be fair to say that for a long, long time in Alberta we've already had wind resources. Would you agree with that?

Ms McCuaig-Boyd: Yeah. We certainly do. I think it's around 9 per cent of renewable electricity that we have right now.

Mr. Fraser: Right. For the other part, too, Minister, it would be fair to say that in our institutions and hospitals we've had cogeneration. We've had solar panels and a program before your government took office around renewables where people could give back to the grid. That would be a correct statement?

Ms McCuaig-Boyd: Yeah. You mentioned, you know, taking a sense, and certainly there has been some work started. We are not the first in, so we've been able to look at other jurisdictions to see what went right, what went wrong, and seek advice on that. We've looked at the paths others have taken, but we want to have a made-in-Alberta solution that works for us, and that's part of, you know, the natural gas probably taking some of the burden of the coal.

10:20

Mr. Fraser: Right. Certainly, I mean, I think when you look at the economic viability and you look at when we talk about the ability to get revenue from our resources, you know, around royalties, in the former government, you just mentioned, we did have natural gas. We utilized coal because ultimately it was the cheapest. You mentioned as well solar and wind during those times before your government took office. I mean, even still solar is not as cheap as it possibly can be. It's not necessarily economically viable a hundred per cent at this point.

Back to my idea of diversification. The wind farms in southern Alberta have been around for quite a long time. You know, in fact, there are places in the province where it's the old structure – right? – so, I mean, from the very infancy of the technology. Again, just back to kind of the idea that the former government didn't take action on these things, I'm just wondering if you want to maybe correct your statement. As your government comes along in recognizing new technologies and understanding that renewable energy, we've talked about sections, so to use southern Alberta. What are your conversations with the renewable companies now, particularly when it comes to the capacity market, trying to drive to that zero emissions as close as we can possibly get?

We've got current wind farms located where people feel the wind is most viable. But is your department looking at offering under the new capacity market these new renewable companies that said: look, you know, there is some new technology and new science in what we can do and what we understand when it comes to weather patterns, perhaps not always being in the same wind farm, that perhaps we're a little bit off to the side. The wind may be blowing over here when this is not going, so it helps diversify. Are you actually looking at that?

Again, the conversation around trying to get to this capacity market: is there fairness? You know, rather than going back to the TransAlta and only utilizing them, some of these other places, again, to help with that black start generation because the technology, as I understand it, is there: where is your government in the discussions around that?

Ms McCuaig-Boyd: Well, first of all, I can say there's been a lot of excitement from renewable groups as well as traditional electricity generators in the direction we're going to. So I expect there will be a lot of attraction of new investment, but I'll maybe turn it over for the technical part to David, who has been part of this from the start.

Mr. James: Thanks, Minister. The ISO has been looking quite closely at the wind regimes in the province, and they've looked at how they can actually bring diversity of wind into the province. So right now, yes, there's a lot of wind in southern Alberta, but there is wind developing in the central east of the province. There is transmission capacity up in the north, sort of northwest of Edmonton. There is more transmission capacity down into the central east as well.

The ISO is trying to make sure that as part of the renewable auction transmission is considered inside of that, so it would incent people to go to other areas. Some of the solar generators are looking at areas down in the south. Some of them are looking at other areas across the province as well. Those are people who have expressed interest in the renewable program. So there is a diversity of that that's all developing across the province, and the ISO is ensuring that they have the ability to work across the entire system and not just have wind develop in one region within the province.

Mr. Fraser: Okay. Thank you.

Then again, just to clarify and to be sure, in your office and your department – perhaps you know or don't know – there is no initiative where, you know, somebody who might have been a long-time player in the province around wind energy wouldn't get the first crack at a capacity market versus somebody else, that there will be some fairness, that everybody can apply equally.

Ms McCuaig-Boyd: Well, I can say that we will be talking to the legacy generators. Is it legacy? Is that the correct term?

Mr. James: Incumbents.

Ms McCuaig-Boyd: Yeah. To the incumbent generators to look at that matter of how we can work with them. That's in discussion.

Again, I don't know, David, if you have anything to add to that part. That's where we're at.

Mr. Fraser: Thank you, Minister.

Again, you've talked a lot about diversification, in particular the petrochemicals diversification plan. I know that you've been out to see the North West upgrader. Of course, would it be fair to say that you agree that the work that they've done out there is exceptional? You know, it applies in terms of diversifying our market, upgrading right here in the province or refining right here in the province.

Ms McCuaig-Boyd: Uh-huh.

Mr. Fraser: It also speaks to carbon capture and storage. Where is your government? Obviously, if you believe in that project, it's a benefit to Albertans, especially under the BRIK program. When we consider that the number of jobs out there has applied, when you think about the labour paid, about \$3 billion, that's a lot of taxes, you know, collected from that job. Where are you at with phase 2 of that upgrader? I would imagine, particularly on your diversification program, that's probably the biggest win under that program. Wouldn't you agree?

Ms McCuaig-Boyd: You're correct. I've been out, I think, three times to see the refinery. We've had the tours. From what I understand, they're at about the 90 per cent range of that getting completed, so that's pretty exciting. They'll start commissioning it, hopefully, if everything goes well, this fall and be in production by next year. We're watching closely how this works as we go forward. We do want to, you know, look at how it's commissioned safely, I guess, would be the way to phrase it. We are in talks, I can tell you, with them, but right now we're waiting to see how the first one starts before we look at that. I've also asked the EDAC committee, that I was referring to earlier, to look at the economics. Hopefully, that will be part of their report as well.

Mr. Fraser: Very good. You say that it's at 90 per cent completion. I'm glad that you're aware of where they're at. You know, we've heard from the Conference Board of Canada on this project: the viability, that the numbers match up, and that it is a benefit to Alberta.

Secondly, you know, in those discussions with the company you know that it is ramping down. That's about 6,000 jobs roughly to date that will be coming offline if phase 2 is not approved and there is no work in the province at that scope. Would you agree with that? Like, 6,000 jobs for one refinery and no others that I'm aware of to come online at that scope or that scale. Have you talked to those companies about their fear of losing those skilled workers to regions like the United States, particularly with the new government, B.C., Saskatchewan and then not having the ability to

bring them back if phase 2 is actually approved? Again, Minister, have you thought of, I guess, the cost benefits of that? Has there been an analysis of losing that skilled worker to be able to start phase 2? When that thing is under full production, it's about 8,000, but there are about 6,000 working there now.

Ms McCuaig-Boyd: Yeah. We've been in conversation, absolutely, with them. I would point out that there are two petrochemical projects in the last phases before they can start. A number of the positions they will need are similar to the refinery's. So there's an opportunity there for many of those jobs to perhaps go over to those projects as well.

Mr. Fraser: Very good. I'm glad you mentioned that. Basically, it was Pembina and Inter Pipe that were given the go-ahead from your government. That was \$500 million shared.

Ms McCuaig-Boyd: Yeah.

Mr. Fraser: That's about \$250 million per company. When we think about those projects, I mean, the North West upgrader is at the tune of \$8 billion right now, I think, in terms to build that, so \$250 million is really not a lot of money.

I guess, to that point, you've said that you've talked to a lot of these groups. Between Pembina and Inter Pipe have you heard at the executive level that they've actually decided to take the money or the grant that you've given to actually move ahead, considering, you know, the looming federal carbon tax, the increased carbon tax here, and some of the uncertainties as your government is trying to forge ahead? Have you talked to them at all in terms of whether they're actually going to accept that money and move ahead?

Ms McCuaig-Boyd: Well, they're continuing with their FID, you know, to move along. They're getting quite close. Yeah. We're in constant conversation with them. They haven't said no yet. They've agreed to continue and pursue. Again, those credits that they're given won't be redeemed until they build, but it's looking good so far.

Mr. Fraser: Yeah. That's great, Minister.

I have to commend you. I do know that you do get out there. You talk to a lot of people, and you're certainly welcomed at those sites. I know that you went out and you visited a group called Hifi, the pipeline company, you know, and I'm certain that they were very pleased to see you. In terms of all that would it be fair to say that between Environment and Park and Economic Development you guys have a crossministry co-operation? Would it be fair to say that?

Ms McCuaig-Boyd: Yeah, it would be. Certainly, as ministers we talk on a regular basis and work with each other. You know, we're encouraging collaboration on a number of projects, and there's a lot of crossover. Sometimes it's also with Indigenous Relations, you know, depending on what we're doing. Certainly, that company was one of the best tours I've done. For those of you who haven't gone, it's a great company. You go and see about pipeline safety. It helps me when I'm out doing my work talking to people who maybe don't trust the safety of pipelines as much to tell them these good stories of our Alberta companies that are doing this.

10:30

Mr. Fraser: Right.

Minister, you would agree that part of you having to get out there and visit companies like this and visit the pipeline companies is part and parcel of the legacy that the NDP government comes with

around, you know, maybe not understanding the industry as well and then getting on board.

Now that we have these approvals – I mean, Keystone is one of them and Trans Mountain and line 3, which are important, right? It's my understanding that in some of these instances – again, back to the economic development: you mentioned jobs, and you've mentioned quite a few, I mean, to the tune of 26,000 jobs. I think that somebody listening and maybe not paying attention would assume that those jobs are under way. It'd be fair to say that those jobs are likely two, three years down the road, wouldn't you agree?

Ms McCuaig-Boyd: No, actually, I wouldn't. Ian Anderson of Trans Mountain expects to break ground this fall, so there will be some jobs, and those will be in Alberta. Right now there are pipeline jobs up my way, smaller gas lines, so there is pipelining, you know, just smaller gathering lines and that, going on. Again, up my way, if people came up, they'd be surprised at how much activity is going on up there in pipelining as well as natural gas compression stations and that. It's a pretty exciting time because of the Montney and the Duvernay, and there's going to be a lot of growth, we predict, in the next while up there. It's slowly coming back, but it won't be two, three years down the road; it'll be sooner.

Mr. Fraser: Right.

Again, just going to your business plan, like, I mean, the government has talked quite a bit about championing, you know, that you've got two pipelines, but you've just mentioned that the pipeline work, actually, in your area has been going on for a lot of years. It is important to reference the difference between pipelines because, I think, if we want to correct the record, there are 250,000 links of pipelines in this province that came well before this government was ever in place. Again, here's the thing, Minister. Respectfully, it's around what your government is doing, you know, collaboratively with the other departments and talking about jobs and laying it out for Albertans in terms of the expectation of revenue that we can expect to support those things like hospitals and front-line workers. There is still a lot of work that needs to be done, and the work was actually being done before.

At the risk of making announcements without – again, it's around clarifying. To support my members and colleagues in the opposition, it's about living above suspicion. I don't know if you've ever heard that term. It's about making sure that everything is open and transparent.

I think that when we talk about the coal transition, you know, one of the questions that I have is really around when you guys made that transition to change the fate of coal in the province: would you be willing to table all the documents and all the correspondence between those companies, between your office, work with your partners in Economic Development and Energy and Environment and the Premier's office to table all those documents going back and forth? I think what we're hearing, certainly, from the Balancing Pool is that they've had questions, and I know that other companies have questions.

Please don't take me wrong. It's not to call your integrity into question, but we know that those conversations are out there. I think it's for your benefit, for our benefit as a committee, and for the benefit of Albertans to really get down to where you're going because I don't think anybody would disagree that trying to get to zero emissions is not a bad thing to undertake, but ultimately we need to have some transparency so that companies can make prudent investments in this province and Albertans can understand their fate, whether it's their electricity prices – would you be willing to table all those documents in full without having to FOIP, without having to do anything, and just put it all on the table, Minister?

Ms McCuaig-Boyd: First, I'd like to go back to your pipeline comment. Certainly, the pipelines I was speaking of are smaller pipelines. The two major ones that we have been proud to announce are interprovincial. Pipelines are all different. There are different types.

With respect to the documents, we have been very open and transparent where we can be, but a number of those things you're asking for are commercially sensitive, and we would not be able to provide all of that. You know, as we go forward, we are transparent about the stages we're in. With the royalty review, that's one of the things. We have vowed to be very much more transparent on where Albertans' money, you know, their part of the royalties and all that, is coming from, but we also have to be sensitive to companies and the commercial sensitivity as well.

Mr. Fraser: For sure. Minister, you would be okay if those companies – and you had promised no repercussions – were to actually give us the documents and we were to table them. You would ensure that there are no repercussions from the Premier's office down? You would guarantee . . .

Ms McCuaig-Boyd: Yeah. I'd have to look at the FOIP rules.

Mr. Fraser: It wouldn't be FOIP. They would just hand me the documents, you know, that they have.

Ms McCuaig-Boyd: The companies themselves?

Mr. Fraser: The companies themselves. If they were to actually give the documents, Minister, can you promise that from your office and from the Premier's office there would be no repercussions? If they tabled those documents with us and we gave them to this committee and we tabled them in the Legislature, you'd promise that there would be no repercussions for whatever those documents said from more specifically, perhaps, the Premier's office and your office?

Ms McCuaig-Boyd: Well, I'll speak broadly. A number of the discussions have been under confidentiality agreements.

I don't know. David, do you have more to add because you've been part of this? No?

Mr. Fraser: Minister, just quickly, that's not really living above suspicion, and that's kind of what I was trying to get to in terms of . . .

Ms McCuaig-Boyd: But I'm not clear right now as to what I could and could not share because of confidentiality agreements.

Mr. Fraser: Thank you, Minister.

The Chair: Thank you very much, Minister.

We're now going to take a brief break. Be back at 10:42, okay?

[The committee adjourned from 10:36 a.m. until 10:42 a.m.]

The Chair: Thank you, everyone.

We will now move on to the private members of the government caucus, who have 20 minutes. Please go ahead.

Mr. Nielsen: Thank you, Mr. Chair. Through you, if it's okay, we'd like to share our time with the minister.

The Chair: Perfect.

Mr. Nielsen: Fantastic. I'll probably be sharing my time with my colleague MLA Babcock as well.

The Chair: Sounds good.

Mr. Nielsen: Thank you, Mr. Chair, and thank you, Minister, for coming this morning. I guess, also, thank you for the hard work that your staff has done preparing for today and coming to present to us. Thank you so much for doing that for us this morning. I really appreciate that.

I guess I'll start off talking a little bit about the royalty system. Specifically, I'd like to direct your attention to key strategy 1.2 on page 59 of the business plan. It states that the department will "enhance transparency of Alberta's royalty system." I certainly know that the government has placed a lot of high priority on that and is strongly committed to it, especially on such an important file as the royalty system. I'm just wondering: how is the department planning to do this and achieve that transparency that we're so committed to?

Ms McCuaig-Boyd: Yeah. You're correct. One of the key recommendations of the royalty review advisory panel was to improve transparency of Alberta's royalty framework and report the performance of the system. Our department, Alberta Energy, is developing information that will be reported in the summer of 2017. It will include performance indicators for the royalty system and the royalty and cost disclosure for oil sands projects.

The MRF, or modernized royalty framework, took effect January 1 for the new oil and gas wells. Information on how this system is performing will be published in 2018, including the Alberta capital cost index and disclosures on strategic programs, as were referred to earlier.

To improve transparency of the oil sands royalty framework and the strategic oil and gas royalty programs, government will annually publish financial information for each project.

All of these together will provide comprehensive reporting to Albertans about the system and how it benefits Albertans. Implementation of all four recommendations is expected to be complete at the end of this summer, 2017.

Mr. Nielsen: Thank you very much, Minister.

I guess, with regard to the royalty review advisory panel, which I understand was led by a wide range of stakeholders, including industry – they worked on that framework, which, as you had mentioned, had just come into effect on January 1, as noted, I believe, on page 29 of the fiscal plan. Can you point to how these changes have helped our energy sector?

Ms McCuaig-Boyd: Yeah, I can. The changes to the royalty framework make the system more responsive to the economic realities facing our industry. For new oil and gas wells, for example, the modernized royalty framework calculates a cost allowance which is based on historic average industry costs and will be updated annually. Because the allowance is based on the average drilling and completion costs, companies are incented to lower their costs and to innovate.

Upon industry's request industry had the opportunity to opt into the modernized royalty framework ahead of January 1, 2017, which I alluded to earlier, and this allowed industry to make new investments in Alberta and create jobs right away. We approved 158 new wells as part of this early adoption, and more than 40 companies applied. Numerous leaders from industry have stood up to support not only the approach we took but the final products as well. So far this year the number of active rigs in Alberta is significantly higher than this time last year, and while the price of oil is a driver of this, activity in Alberta is higher than in other provinces.

Mr. Nielsen: Well, thank you, Minister.

Just a half-step back on the topic of transparency again, with key strategy 1.2 in mind. An important part of implementing this new framework is industry transparency. Can you update the committee on plans to publish oil sands royalty project data again?

Ms McCuaig-Boyd: Yeah. The government will publish annually information on oil sands projects, starting this summer, in addition to educational information to support transparency and public understanding of Alberta's royalty framework because we did learn when we were doing the review that it was hard sometimes for Albertans to understand exactly how the royalty system works. By putting in some of this educational component, it was helpful to Albertans. No additional reporting to government is required by industry. This is about making the information that government already receives from oil sands operators available to Albertans.

Government may consider delaying publishing data in limited circumstances to protect against potential commercial harm situations. We will reach out to industry, as we have done in the past, when we have more details to share. We anticipate the first publication of the oil sands royalty project-specific data to occur later this year.

Mr. Nielsen: Thank you very much, Minister.

Chair, I'll pass it over to my colleague.

The Chair: Sure. Sounds good.

Ms Babcock: Thank you. Thank you for being here this morning, Minister. I'd like to talk a little bit about the electricity system transition. As I'm sure you're aware, 40 per cent of the electricity in Alberta is made in my riding, so it's something that I hear about every day. Key strategy 3.1 on page 61 of the business plan states that the department will "implement a plan to phase out emissions from coal fired electricity generation by 2030." How is the department phasing out emissions from coal-fired electricity generation? Where are we going with this in the future?

Ms McCuaig-Boyd: Okay. Certainly. Yeah. And I'd like to congratulate you on your advocacy for your coal folks. We're transitioning from coal-fired electricity generation, and this is part of a provincial, national, and global movement to reduce emissions. We have a made-in-Alberta plan that allows us to control the phase-out of GHG emissions from coal in our province while maintaining our competitive advantage and supporting our communities and citizens.

The climate leadership plan, as I've said, sets out a 30 by '30 renewable energy target in which Alberta meets its goal of 30 per cent renewable electricity by 2030 while ensuring an affordable, reliable, and sustainable system. We will attract new investment to help build this future. For example, we estimate that the renewable electricity program will attract new private investment of at least \$10.5 billion and create approximately 7,200 jobs. We will work to maintain system reliability during this transition to ensure uninterrupted, stable, and affordable power for Alberta families and businesses.

10:50

Last year the government of Alberta announced Terry Boston as the coal phase-out facilitator, whose job was to engage the government, coal-fired electricity generation owners, and the Alberta Electric System Operator, or AESO, to develop options for phasing out emissions from coal-fired electricity generation. Mr. Boston provided us with recommendations on the best ways to phase out coal-fired emissions last fall. All emissions were

approved, leading to three off-coal agreements being signed with coal-fired generators. Those companies were TransAlta, Capital Power, and ATCO. These recommendations include annual payments to the companies, requirements for companies to achieve zero emissions by 2030, and to provide funds for community and employee support as well as investment in Alberta's electricity market.

Ms Babcock: Thank you, Minister.

In my riding we have beautiful communities such as Wabamun. The village of Wabamun is, of course, on Lake Wabamun and is a community affected by the coal transition. I anticipate that phasing out our coal-fired electricity plants while ensuring that Albertans working in these sites – that their livelihood isn't negatively impacted by that is going to have a cost to us. Where do those costs of the coal phase-out agreements show up in the budget this year?

Ms McCuaig-Boyd: On the advice of the office of the Auditor General government recorded a one-time \$1.1 billion expense in last year's budget for the agreements to phase out coal-fired electricity generation by 2030. Actual payments, though, of this amount will be made over the next 14 years and will be funded through the price on carbon. For 2017-2018 the cost of this agreement is \$31 million.

Ms Babcock: As we move away as a province from coal-fired power, can you speak to where in the budget and what is being done to support communities where coal plants are major employers? Again, in my riding I can tell you that there are almost 1,300 people that are directly employed by TransAlta alone. What's going to become of that existing infrastructure, that has made these communities viable?

Ms McCuaig-Boyd: Thank you for that question. It is important to us to support the communities and the workers impacted by this transition. The good news is, though, that we have time. These changes are expected to take place gradually over the next 14 years. The Advisory Panel on Coal Communities is leading the discussions with communities and workers to provide recommendations to government about potential actions and policy approaches to assist communities impacted by the coal plant retirements. My colleague Minister Bilous of Economic Development and Trade is leading this work. The panel's report to government is expected in 2017.

In some cases existing coal communities are ideally situated for new investments such as a coal to natural gas transition. Power plants often have good water access, transmission access, and are driven by hard-working employees. We want to ensure companies take advantage of this opportunity, and we will be in continuous discussion with them.

Ms Babcock: Thank you, Minister.

Key strategy 3.1 on page 61 of the business plan states that the department will "deliver on Alberta's commitment to 30 per cent electricity production from renewables by 2030." What is the government's strategy to generate 30 per cent of electricity from renewables? Because it can't just be wind and solar. We have a lot of renewables available to us.

Ms McCuaig-Boyd: Yeah. Absolutely. The climate leadership plan sets a 30 by '30 renewable energy target in which Alberta will meet its goal of 30 per cent renewable electricity by 2030 while ensuring an affordable, reliable, and sustainable system. Increasing renewable electricity is one part of the climate leadership plan.

On March 23 we kicked off the renewable electricity program, which will help diversify our economy and create jobs, over \$10.5 billion in investments and over 7,200 jobs by 2030. The 5,000-megawatt program is putting us on track for 30 per cent by 2030. The REP has been designed to use a competitive process to ensure the selection of the most effective projects while at the same time driving investment and maintaining great reliability. This will be a very competitive and transparent process, bringing new generation online at the lowest possible cost in a way that gets the most value for our investment. The first competition, as you may be aware, is 400 megawatts, which is the equivalent of about 170,000 homes. Projects will be operational by 2019 for this auction. The renewable electricity program will be run by the AESO, which is the Alberta Electric System Operator.

I have to say that there has been tremendous interest in this program, even before we announced it. When we were down in Houston recently, there was a lot of interest there by other companies that had heard about Alberta's plan. As you know, in the Renewable Electricity Act we stated that there's more than wind and solar that are considered renewable electricity, and we are continuing to work with companies, to work with Albertans and present and future investors on these projects as we move forward.

Ms Babcock: Thank you, Minister.

Key strategy 3.3 on page 61 of the business plan states that the department will "create a reliable electricity system that is affordable for Albertans and attractive to investors by implementing an electricity capacity market." What is being done to ensure that Albertans have access to affordable and reliable electricity well into the future?

Ms McCuaig-Boyd: Thank you for that question. Certainly, in a tough economy, as we've been experiencing, everyday Albertans need a government that is going to make life more affordable. Our government is helping Albertans with the family budget by capping electricity rates and helping them save money on their energy bills. When implemented in June, the rate ceiling will ensure Albertans pay no more than 6.8 cents per kilowatt hour for electricity during the next four years. From June 2017 to June 2021 that rate ceiling is in effect. Consumers that are on the regulated rate option will pay whatever is lower, the market rate or the ceiling rate. When the details for implementing these changes are being discussed, this rate cap will give Alberta families and entrepreneurs the certainty they need to plan for the future and build businesses without worrying that their electricity bills will spike without warning.

The AUC, or the Alberta Utilities Commission, regulates the utility sector, natural gas, and electricity markets to protect Albertans. The Utilities Consumer Advocate, or UCA, exists to support Albertans. I encourage all Albertans to contact the advocate if they have concerns about their utility bills or questions about how this system works.

Ms Babcock: Thank you.

Key strategy 2.1 on page 60 of the business plan states that the department will "establish a balanced and sustainable approach to resource management" in collaboration with other ministries, of course, including addressing "increasing industry liability related to inactive, aging and orphaned wells and facilities." What is the government doing to manage the increasing issue of infrastructure liabilities related to resource development?

Ms McCuaig-Boyd: Yeah. Thank you. Certainly, that is a matter before us in these times. First, I would like to publicly thank the federal government for supporting Albertans both economically and environmentally with a grant that was recently given to us of

\$30 million. This was an important issue for us, and we worked closely with the federal government to secure this funding. We are working on how best to apply these dollars for the greatest benefit to Albertans through the work of the Orphan Well Association. Once the details have been finalized, we will speak more to this exciting opportunity, but we know that safety around all types of oil and gas sites that are no longer producing is a concern for all Albertans. We're looking at how we can better manage historic, current, and future liabilities associated with oil and gas infrastructure, and we know this is just the beginning of our work.

Our liability management review will look at ways the process can be improved to further protect Albertans, the environment and keep Alberta a competitive place to invest. Our goal is to address this issue in a sustainable way by working with industry stakeholders. We remain committed as always to the polluter-pay principle. Albertans expect that industry should continue covering the cost related to cleaning up and decommissioning wells and associated infrastructure.

11:00

Ms Babcock: Thank you.

Key strategy 1.3 on page 59 of the business plan states that the department will “foster and strengthen energy-related relationships nationally and globally to emphasize . . . receptivity for Alberta’s energy resources and products.” Given that access to markets, especially new ones, is key to developing the province’s energy sector, what efforts have been made to access new markets for Alberta’s energy products? I know you were in Houston lately, and I think I’d like to hear a little bit more about that, too.

Ms McCuaig-Boyd: Okay. We have been and we continue to advocate for pipelines and expanded market access across Canada and overseas to help create good jobs and make life better for Albertans. We recently sought intervenor status in court, where necessary, to defend these interests.

The more customers any business can have, the better. Alberta’s oil and gas sector is no different. We will continue to support all the current pipeline proposals as it will likely be a while before the oil flows from any of them, but we will continue to do that work. The more pipeline options there are, the more choices we have for industry. It gives them the ability to react quickly to market conditions such as moving products to where prices are higher. More markets mean Canadians can capture more value for their natural resources and the netbacks.

This is about jobs for Canadians and ensuring that we have a healthy oil and gas sector across Canada. All parts of our country benefit when we have a strong industry here in Canada. Every day Canada is importing thousands of barrels of oil from countries with much lower environmental standards and protections than exist in our country, and every province in Canada is home to companies that supply goods and services to our industry. So this is not just about Alberta; it’s about Canada.

Indeed, when we were down in Houston, there was a lot of interest in hearing about the two pipeline approvals that existed at that time. Keystone was in the works, but we did talk to suppliers down there who like our heavy crude and would like to get more as we develop those market accesses. There was a lot of interest in our province, and I see that as my job, to advocate for Alberta and what a good industry we do have.

Ms Babcock: Thank you.

The Chair: Thank you, Minister.

We’ll now move back to the Official Opposition. Now, I’ll remind people that we’re going to shorten time, so you either have five minutes or, combined with the minister, 10 minutes as a whole.

Mr. MacIntyre: We’ll have it combined, please.

Minister, on page 114 under operating expense, biofuel initiatives, line item 3, the actual expense for the 2015-16 budget year fell way below the projected expense, and we know from the previous estimates that payouts are lower when facilities underperform. I have a quote from a previous *Hansard*. “Our commitments are based on the actual production volumes at a facility. The overall production is expected to be lower than originally indicated, triggering lower bioenergy grant payments.” Minister, has your department conducted a cost-benefit assessment of the taxpayer dollars wasted over the lifetime of the biofuel initiative grant program?

Ms McCuaig-Boyd: Evaluations of programs have been done as they’ve expired.

Mr. MacIntyre: All right. Can you please table those?

Ms McCuaig-Boyd: I’ll take that under advisement and get back. I assume we can. We’ll just find out if there’s any reason for competitiveness or whatever that we can’t.

Mr. MacIntyre: All right. Minister, has your department ended the biofuel initiatives grants?

Ms McCuaig-Boyd: It’s now under the climate leadership team, so it’s no longer in our ministry.

Mr. MacIntyre: All right. Thank you.

Alberta Innovates also provided a grant to Enerkem Alberta Biofuels. Why is Alberta Innovates providing taxpayer funding to another biofuel initiative when the Department of Energy has consistently found this initiative underperforms expectations? Year after year we see the actual payout fall well below the forecast.

Ms McCuaig-Boyd: I would think you’d have to ask that ministry. It’s not under our ministry.

Mr. MacIntyre: Has your department provided any feedback to the office that will be allocating the \$10 million and the carbon levy dollars earmarked for SBI BioEnergy, which is a canola-to-diesel project?

Ms McCuaig-Boyd: Again, it’s not under our ministry.

Mr. MacIntyre: All right. We just risked a few billions to have the North West upgrader satisfy domestic diesel markets, and I’m wondering why we’re risking this investment further by subsidizing another diesel producer, a canola-to-diesel producer, to put more diesel into the market in Alberta and to press prices and increase taxpayer exposure. It’s like we’re purposely competing here.

Ms McCuaig-Boyd: Yeah. Can’t answer it because it’s not under our ministry.

Mr. MacIntyre: In nine rounds of programming the Alberta government has invested \$53,923,000 into biofuels through the BCMDF and the BIDP. What have the returns on that investment been?

Ms McCuaig-Boyd: Again, not our ministry.

Mr. MacIntyre: You've moved all that out of your department?

Ms McCuaig-Boyd: Yeah. Biofuels: that's all no longer under Energy.

Mr. MacIntyre: All right. Well, that leads to another question. Given that your department has been responsible for nine rounds of this, with all of that experience your department has, why did you move it out? This is an Energy thing, after all.

Ms McCuaig-Boyd: It was previous to when I was minister. It expired, I believe, March of – it expired, and then there was a lag, and then it was taken up by the other.

Mr. MacIntyre: It was extended to March 31, 2016.

Ms McCuaig-Boyd: I think it was 2016. Yeah. So it went, and we didn't continue with it after, and it's now under . . .

Mr. MacIntyre: I understand that, but why? It was your department that had all of the experience in-house. Why did you move it out of your department? It is a Department of Energy thing.

Ms McCuaig-Boyd: Previously it was in Ag and Forestry, and then it was in Economic Development and Trade, it came to us, and then the program expired, and it went back to ACCO's department. So it's a file that has been in several departments.

Mr. MacIntyre: Again, your department has experience on that file, and now here it is getting bounced out of your department one more time.

Ms McCuaig-Boyd: Well, as did other departments. It was something that . . .

Mr. MacIntyre: But why? What was the reason for bouncing it out?

Ms McCuaig-Boyd: It was before my time. It was the previous government that had put it in Energy, and then when it ended, we chose not to continue it. I don't know why it was changed or what, but I just know we chose not to continue it.

Mr. MacIntyre: All right. I'll hand it over to my colleague here.

Mr. Barnes: Okay. Thank you. On page 114, operating expenses, cost of selling oil, line item 4, Minister, just to confirm, this line item includes the cost of operating the bitumen royalty in kind program. Does that number include that?

Ms McCuaig-Boyd: No, it does not.

Mr. Barnes: Okay. What does it include, then?

Ms McCuaig-Boyd: Under the cost of selling oil it reflects costs incurred by APMC in selling crude oil royalties on behalf of the department. This includes agency fees, condensate purchased, pipeline tolls, and trucking. Those are the ones that are there. That's what it includes.

Mr. Barnes: Okay. Where is the BRIK program, then? Where do I find that?

Ms McCuaig-Boyd: Oh, it's included in APMC, page 124.

11:10

Mr. Barnes: Page 124? Okay. Minister, we're thinking it is included. Do you want to revise your answer?

Ms McCuaig-Boyd: Yeah. It's in the estimate for 2017-2018 as \$36,700,000 because it hasn't started up yet. The refinery will be starting up at that time. That's when it will reflect what we estimate the cost to be.

Mr. Barnes: Thank you for that clarification.

Right now the government is transporting and selling under this program. Is there any selling going on?

Ms McCuaig-Boyd: Bitumen is in cash, and oil is paid in kind.

Mr. Barnes: Okay. How many barrels per day?

Ms McCuaig-Boyd: Which? For bitumen or for . . .

Mr. Barnes: Can you do both, please?

Ms McCuaig-Boyd: I'll ask ADM Mike Ekelund to speak to this.

Mr. Barnes: Okay. Please.

Mr. Ekelund: Okay. Thank you very much. Mike Ekelund, assistant deputy minister, resource revenue and operations. I didn't bring numbers with me today with respect to how much APMC is handling in conventional oil, but I believe in the previous year it was something in the area of 70,000 barrels a day. That may have gone down with prices and with the royalty rates from wells, so I think we're somewhat below that. That's part of why the costs are going down, but the APMC does take delivery of the conventional oil in kind. It takes the royalty share and then sells that through an agent as well as making sales by itself, so the cost of having the diluent for some of the heavier oil is one of the major costs as well as trucking, pipeline transportation.

Mr. Barnes: Okay. Could you table those for us? Could you get the specific numbers and table them in the Legislature, please?

Mr. Ekelund: I think you would have to ask the minister rather than an ADM on that.

Mr. Barnes: Okay. Minister?

Ms McCuaig-Boyd: Yup. We will.

Mr. Barnes: Okay. Thank you.

The North West upgrader: I want to turn attention to that. What are the penalties for not fulfilling our supply obligations to the North West upgrader per barrel?

Ms McCuaig-Boyd: There is no penalty.

The Chair: We'll now move on to a member from the third party.

Mr. Fraser: Thank you, Mr. Chair. Madam Minister, how are you today? Very good.

I just want to clarify. Is the government lending money to the Balancing Pool?

Ms McCuaig-Boyd: Yes.

Mr. Fraser: Where does that money come from?

Ms McCuaig-Boyd: Treasury Board and Finance has the arrangements.

Mr. Fraser: Right. Would you be aware where they collect that from?

Ms McCuaig-Boyd: Borrow as they need.

Mr. Fraser: Borrow as they need. Do they borrow from the taxpayer, or do they borrow it from a different agency?

Ms McCuaig-Boyd: Investors. Yeah. It's with Treasury Board and Finance as to the arrangements.

Mr. Fraser: Okay. None of it comes from taxpayers, presumably?

Ms McCuaig-Boyd: No.

Mr. Fraser: What kind of investors would they be? Electricity companies?

Ms McCuaig-Boyd: That's something that's under their ministry, not ours. I don't know who the investors would be.

Mr. Fraser: Right. That's unfortunate, Minister, because, again, I just think it would be beneficial – with the policies you've undertaken, you know, to try to diversify and try to create this capacity market, it would be, I think, beneficial for Albertans to know, and I think every minister in each one of those departments should probably know the answer. I would dare say, I guess, that if it's coming from investors, those investors are getting money. So if we're saying electricity companies, they're getting it through the ratepayer, and then if they're taking it from the carbon tax, then it's probably coming from taxpayers to fund that liability.

I guess just when we speak of that liability – on page 57 of your fiscal plan part of the liabilities are listed as a current year expense. Can you please clarify the distinction there? Does that refer to interest payments on the coal transition?

Ms McCuaig-Boyd: Sorry; what page are you referring to? That's under the business plan?

Mr. Fraser: Sorry; not Balancing Pool. That's coal transition. Sorry. I kind of threw you for a loop there. This is on coal transition, on page 57 of your fiscal plan.

Ms McCuaig-Boyd: Oh, the fiscal plan. Okay.
Sorry; now I've found the page. I forgot what you asked.

Mr. Fraser: Part of the liability is listed as current year expense. Could you clarify the distinction? Does that refer to interest payments?

Ms McCuaig-Boyd: On that chart, yeah, the numbers, the paydown of liability is the first figure, and then the current year expense is the interest.

Mr. Fraser: Okay. How much is the government expecting to pay interest out of the \$1.1 billion?

Ms McCuaig-Boyd: About \$300 million over 14 years.

Mr. Fraser: Over 14 years? Thank you, Minister.
Minister, can you also undertake to provide us with the analysis that the community supports will be sufficient to successfully transition the coal communities?

Ms McCuaig-Boyd: I can't give you too much information because that portion is under Minister Bilous in Economic Development and Trade.

Mr. Fraser: Okay. Again kind of back to the diversification. I mean, a lot of these companies have been around in Alberta for a long time. Some of the coal companies that provide energy here have been the ones that have undertaken wind and some of the solar.

Minister, is your government and your department looking to, you know, support such projects as the Brazeau hydro expansion, which can provide a more stable base load than wind and solar and still reduce carbon emissions?

Ms McCuaig-Boyd: You know, we're talking to a number of companies about different ideas they have. Certainly, as we look to diversify, those are ideas that will be considered. We have EDAC looking at some matters like that, and then that would be part of the coal transition.

Mr. Fraser: Okay. Again just kind of in terms of that, you know, have you guys looked at other provinces and other jurisdictions in terms of best practices, what has worked, what hasn't worked, and, I guess a cost-benefit analysis between how much these projects help reduce big industry emissions versus personal use? I think we could look to places in Europe, where I think they've done a number of things that would be able to highlight that. The other part, too, really close to us: have you ever gone out to take a look at the Boundary dam in Saskatchewan in terms of how they're working with carbon capture and storage to almost bring that plant to zero emissions?

Ms McCuaig-Boyd: I've been to several plants. Not that one in particular, but I've spoken before about how innovative our industry is. There are always, even since I've first been minister, things are developing all the time that are helping these transitions move forward. This is another example of where we are talking to industry about what are the best ways forward in this transition. To be clear, we've got until 2030 to do this transition, so there's probably technology that isn't existing now that will be existing through innovation. We will look at a number of things. You're quite correct when you say that we have the benefit of looking at what's working in other areas. We can borrow when it fits Alberta and learn from maybe mistakes that were made in other jurisdictions that we don't want to replicate.

Mr. Fraser: Right.

Minister, on page 61 of your business plan key strategy 3.4 mentions electricity interties with other jurisdictions. What partnerships or collaborations are being looked at? I know that – I believe it was last year – there was mention that perhaps we would be buying power or the idea that we'd buy power from the site C dam in B.C., which is under construction, as I understand it. Can you give us a full detail of what partnerships you're looking at?

11:20

Ms McCuaig-Boyd: Well, I can give you an overarching. Certainly, with my fellow ministers and with our federal ministers Alberta is working with its New West partners in the Northwest Territories and Canada to evaluate and rank the most promising clean electricity infrastructure projects in the western provinces. This has been a matter of conversation for a while. These are projects with the potential to assist in the transition to a more sustainable grid. This study that's being done is funded by Natural Resources Canada. Alberta is also working with British Columbia to explore potential improvements in the existing intertie between our provinces and allow it to operate at full capacity. We have been clear that renewable power created for our goal of 30 per cent renewable power by 2030 will be, however, based in Alberta.

Mr. Fraser: Right. When you talk about a more sustainable grid, what do you mean by that in terms of, you know, power being able to be delivered? I think Alberta has had a pretty successful track

rate with the ability to deliver power. Or is that more of a political statement in terms of, you know, your objectives politically versus sustainability from actually what it's been providing?

Ms McCuaig-Boyd: Well, certainly, the provinces we're working with are all different political stripes, but it's something we think is important to start to discuss. Perhaps rather than north-south maybe there's some east-west potentials, but we're in discussion stages. As I said, NRCan is taking the lead on these discussions, so we don't have detail at this point, but it's always good to discuss what could be.

Mr. Fraser: Right.

Just one other quick question, just as a side note because I'm running out of time before my next set of questions: when you're looking at, I guess, some of the declaration with the UN around indigenous people, how is your department actually working in that way? Like, when you mention that, how is your department working with that declaration? How does it fit into your department?

Ms McCuaig-Boyd: Well, I think, you know, some easy things that come to mind for me are, certainly, when we talk to our companies about engaging on projects. A lot of our energy people are operating in indigenous territory. I think some of our companies do a very good job. Some maybe could improve. I'm looking at working with the AER and just in general talking to our companies about what are some ways we could do better.

Recently I was in . . .

The Chair: Thank you, Minister.

We'll now move on to the private members of the government caucus.

Ms Babcock: Thank you. I would like to start out.

The Chair: Sure.

Ms Babcock: Thank you, Minister. On page 75 of the Budget 2017 fiscal plan the benefits of market access through pipelines is addressed. I know that I come from an oil background – my dad was a pipeliner – and I know that it's part of many family stories. I know that you have an oil background as well, Minister. It's really important that we are doing everything we can to increase and encourage our investments. Can you explain the increase in royalties that Alberta and all of our citizens here could achieve through pipeline projects being completed such as Trans Mountain?

Ms McCuaig-Boyd: Yeah. I'd be glad to answer that. I actually was talking to a pipeliner last week up in Hines Creek, Alberta, at a trade fair, who's pretty anxious to know how he can get in on some of this work. As I mentioned before, we continue to advocate and work on pipelines and expanded market access to help Canada and overseas, to help create those good jobs such as your dad had and one of my constituents is looking for. We're proud of our government's record in getting the results for Albertans.

The approval of Kinder Morgan and line 3 is good for everyday Albertans. We did it while being world leaders in environmental stewardship and innovation because we know that we can develop our resource sector, but we also can do it in an environmental way. My department estimates the construction of Trans Mountain and line 3 pipelines will allow Alberta producers to receive between \$2 and \$7 more per barrel compared to a scenario without additional pipeline access. That's per barrel, and we have a lot of barrels in Alberta, so that's significant money. Between 2017 to '22 this adds

an additional \$10 billion of oil investment. The higher investment would increase oil sands production at capacity by 150,000 barrels per day by 2022, add around 1.5 per cent to real GDP, and lift average annual employment by 12,000 between 2017 and 2022. Higher production in prices would boost royalty payments by \$3 billion to \$9 billion between 2017 to 2022, so that's a significant increase and to the benefit of Alberta.

Ms Babcock: Thank you, Minister.

In addition, given that the alternative is shipping crude oil by rail, what is the differential on this for our province?

Ms McCuaig-Boyd: My department estimates that shipping crude or bitumen by rail will add \$2 to \$7 more per barrel compared to the scenario with additional pipeline access, as I mentioned. Having more pipeline capacity and avoiding this cost adds an additional \$10 billion to oil investment between now and 2022. The higher investment would increase oil sands production capacity by, as I mentioned, 150,000 barrels per day. Again, the GDP is increased by 1 and a half per cent and around 12,000 or more jobs as well.

We know that in addition to all that, pipelines are safest and most reliable. We know that they're many times safer than transporting by rail. According to industry figures there's 119,000 kilometres of transmission pipelines across Canada, and in 2015 there was \$1.5 billion invested in pipeline safety, so it's a very safe way to transport crude, but it's also beneficial to Albertans and our energy companies.

Ms Babcock: Thank you.

I'm going to at this time ask my colleague MLA Nielsen to take a few of them.

Mr. Nielsen: Well, thank you, Chair, and through you to the minister. Minister, I know the Sturgeon refinery – we've talked about it a couple of times already here this morning, and I know that in Edmonton-Decore there's a lot of excitement about the project. I've had the opportunity to visit it several times myself. I guess, you know, in regard to the fiscal plan on page 74 it's mentioned that the refinery is coming online in 2017, and I certainly know that the residents of Edmonton-Decore are wondering: what can be the expected benefits from this refinery for Albertans?

Ms McCuaig-Boyd: Yeah. There are going to be a lot of benefits. Alberta and APMC entered the agreements in the North West Redwater Partnership to construct and operate the Sturgeon refinery for strategic reasons. Some of them are that the refinery will produce 79,000 barrels per day of diluted bitumen in the Edmonton region, removing it from the export pipeline system. This helps to provide markets for diluted bitumen production and reduces the risks of wide diluted bitumen price discounts when production exceeds pipeline and refinery capacity. Such wide price discounts reduce the value received by all bitumen producers and reduce the value of bitumen royalties received by our province.

The refinery will sell about 28,000 barrels per day of diluent back into the local market, helping to reduce diluent imports from the U.S. and potentially reducing the price that bitumen producers have to pay for diluent, so that's an advantage. Lower diluent costs increase the value of bitumen and therefore the value of bitumen royalties.

The refinery will also help to meet the diesel shortages that western Canada has experienced over the past several years. While these shortages have not occurred since the dramatic oil price crash of 2015, they are likely to arise again as full economic activity returns. The processing agreement diversifies a portion of Alberta's price exposure from bitumen to diesel and other refined products.

Refined products tend to receive global prices as they are widely traded. This will help diversify Alberta's price exposure, as we've seen before.

The refinery is designed to capture 60 per cent of the CO₂ produced while refining the diluted bitumen for use in enhanced oil recovery projects, where it will remain sequestered in deep reservoirs underground. As a result, the diesel produced by the refinery will have the lowest CO₂ intensity of all diesel produced in North America, so that's something to be very proud of.

11:30

There are currently over 6,000 skilled tradespeople and leaders on the site working to complete the construction. As construction is completed in the coming months, the focus will be to shift to the commissioning stage and start-up. The ongoing workforce operating is expected to be 225 plus between 100 and 200 contractors doing certain maintenance-type work.

In December 2016 a study by the Conference Board of Canada estimated that the economic impacts for Alberta would be \$1.3 billion during construction and \$217 million per year during operations. That's significant as well. Spending on the development of the project has been between \$150 million and \$200 million per month over the past year, with the majority of this occurring in the capital region for equipment, modules, and labour. It will be exciting to see it completed soon.

Mr. Nielsen: Well, all the best of luck to the Sturgeon refinery. Hopefully, that start-up goes . . .

Ms McCuaig-Boyd: According to plan.

Mr. Nielsen: . . . absolutely as smoothly as possible.

Ms McCuaig-Boyd: Absolutely.

Mr. Nielsen: I just wanted to touch back quickly on the business plan and specifically key strategy 1.1, page 59. It's about the initiatives that support diversification of energy resource value chains as well as value-added processing in the province. I was just wondering if you could explain more what the department is doing to achieve this strategy.

Ms McCuaig-Boyd: Yeah, absolutely. You know, as I've mentioned before, we are so blessed with a wealth of natural resources here in Alberta, and the government is committed to ensuring that Albertans do benefit from this wealth, developing it responsibly for generations to come. As I mentioned previously, in 2016 the Energy Diversification Advisory Committee, or EDAC, was formed to explore opportunities, and we've asked them to look at: what are the next best ideas, investments that we could look at? They include such value-added ideas as partial upgrading, refining, petrochemicals, chemical manufacturing. The committee will provide its recommendations by the fall of this year, 2017. The department is developing a natural gas value-added strategy with a crossministry team to consider all aspects of the natural gas market.

The petroleum diversification program, announced last year, encouraged companies to invest, and I think mentioned many times that we had a number of good applications. We had 16, and in December we approved two, with up to \$500 million credits for the two projects. We do know that there's a lot of interest in Alberta, and we look forward to hearing from EDAC as to what the next steps will be.

Mr. Nielsen: Thank you, Minister.

The Chair: Thank you very much, Minister.

We'll now move on to the Official Opposition once again.

Mr. Hanson: Thank you, Chair, and thank you, Minister. Just a couple of quick questions.

The Chair: Would you like to combine your time, sir?

Mr. Hanson: Yes, please.

The Chair: Thank you.

Mr. Hanson: Thank you. Back and forth.

Going to page 63 of the business plan, up at the top, under the freehold mineral rights tax we saw a reduction from the 2015-16 actual to the 2016-17 budget, and then we see it going up to \$90 million in the 2017-18 estimates and then continuing to climb in 2018-19 and 2019-20. Can you explain the forecast on that or where the money comes from?

Ms McCuaig-Boyd: The freehold mineral rights tax is forecasted to rebound, reflecting the improved market pricing both of WTI and the gas reference price. However, the forecasted \$90 million represents roughly 60 per cent of the amount achieved back in 2013-14 when WTI reached \$99.05 per barrel while the gas reference price was \$3.28 a gigajoule.

Mr. Hanson: Okay. They're not reflecting an actual increase in the tax, then?

Ms McCuaig-Boyd: No.

Mr. Hanson: Okay. My second question, then, is just on the orphan wells. I don't know if somebody has asked the questions or not. A lot of companies have gone bankrupt. My colleague read you a list of 17 companies, and I know that there are more. I have one in my area where the landowner called me and said that last year, because their five-year cycle had gone through, they had actually renegotiated with the company and increased the revenue or the payout on the lease by \$300. Then when they did their income tax this year, they noticed that they hadn't been paid for it. So they went out to investigate, and now there's an "orphan well" sign hanging on the well. Now we have these bankrupt companies. Is there a program in place, and how do these landowners access it? They still have the equipment sitting in their way when they're trying to farm their land, and they still have the access roads, but nobody is paying the bill. So what options do they have?

Ms McCuaig-Boyd: Yeah. Well, we do know that we need to be conscious of the safety of all these types of oil and gas sites that are no longer producing. We do know that's a big concern. I, like you, live in a rural area, and I hear it a lot. As I mentioned previously, we're working with Ottawa to create good oil field service industry jobs and . . .

Mr. Hanson: If I could just interrupt, obviously this well was producing; otherwise the company wouldn't have negotiated an increase to the lease payment. But they've since gone bankrupt. What I'm asking is: is there a program by the government to cover the lease payments to these landowners for the orphan wells, the ones that have recently become orphaned due to bankruptcies?

Ms McCuaig-Boyd: It depends. Some of these landowners would have had agreements with the oil companies, so it really depends on the agreement. What I've been doing, you know, as a constituency office is encouraging them to contact the Surface

Rights Board, which is under Environment and Parks. The other one that I've had really good success with as an MLA is the Farmers' Advocate if it happens to be on farms. They're doing really good work to try to work with the companies and smooth that out. Neither of those groups is under my ministry, but I can tell you that that's been working fairly well.

We will be looking at liability management and the orphan well situation, and I expect that we'll hear some advice on maybe directions we can look at with the Surface Rights Board and with the Farmers' Advocate as well. Those are two different ministries, but it certainly is a holistic problem that we're looking at through liability management.

Mr. Hanson: Okay. Thank you, Minister. I'll go back to my colleague.

Mr. Barnes: Okay. Thank you. Minister, in the business plan, page 59, under key strategy 1.3 market access is mentioned. Myself, my colleagues, the vast, vast majority of Albertans are greatly cheering and hoping for your success with the pipelines and, as one of the colleagues here today mentioned, a lot of the economic benefits. Of course, we've seen a lot of legal challenges to the Trans Mountain pipeline, and I'm wondering where in your budget, where in your estimates we will find – and I would just like a number. What have you budgeted for intervention in the legal challenges against the Trans Mountain pipeline?

Ms McCuaig-Boyd: I don't know if we have a specific number, but if it's all right, we can table that number when we . . .

Mr. Barnes: Thank you. I would appreciate it if you could get that to us.

Ms McCuaig-Boyd: I will mention that we have a market access division within our ministry, so some of those costs would probably be in their line item, but we will get back with a more fulsome answer on that.

Mr. Barnes: Appreciate it.

Okay. I want to go back to the North West upgrader, the processing toll per barrel. Can you tell me what the processing cost is per barrel?

Ms McCuaig-Boyd: It fluctuates depending on the capital and the operating costs. Is that what you're asking?

Mr. Barnes: Okay. Maybe it'll become clearer.

The cumulative toll per barrel: we think it changed due to an increased APMC obligation towards these processing fees to be paid by the government over the life of the project. We think an increase from \$19 billion to \$26 billion. Is that accurate, and what impact will that have on the Alberta taxpayers' obligation?

Ms McCuaig-Boyd: I'll ask Mike to answer.

Mr. Ekelund: Thank you very much. I believe those numbers are correct. At the end of 2013 as new cost estimates came in, the expected cost of the refinery moved from \$5.7 billion to approximately \$8.5 billion. In the 2013-14 annual report I believe we had – the \$19 billion, I think, comes from that. It's in the footnotes to the financial statements. And then the following year that was revised up to \$26 billion. So those numbers would be accurate. They are in our annual reports and are based on the increase in the expected cost.

11:40

Mr. Barnes: Okay. What would the impact of that be on Albertans?

Mr. Ekelund: Well, it means that there will be higher tolls paid over the life of the project.

Mr. Barnes: By the Alberta taxpayer, right?

Mr. Ekelund: The tolls are paid through APMC on behalf of the government of Alberta. They are the agent. There will be bitumen delivered, and there will be tolls paid for the processing of the bitumen, and those tolls are paid on behalf of Albertans. That's correct.

Mr. Barnes: Okay. Thank you.

If the North West upgrader opened tomorrow with the current WTI price, the current diesel pump price, and with the processing toll for the North West upgrader, what is the profit margin after our costs? If it opened tomorrow, what would it be making?

Ms McCuaig-Boyd: I don't think we would have those figures on hand.

Mr. Barnes: Could you table them?

Ms McCuaig-Boyd: I'm not even sure if we can table that information because it's their business.

Mr. Barnes: If you could, I would appreciate it. If you can't, I understand.

Ms McCuaig-Boyd: We'll look into it.

Mr. Barnes: Okay. Thank you.

With the North West upgrader and the carbon capture and storage are there any contracts in place to buy the trunk line's CO₂ right now?

Ms McCuaig-Boyd: I don't believe so.

Mr. Barnes: Okay. The same line item. In reviewing the budget estimates put together since you took over the ministry, we see that the estimated operating cost for the program has increasingly been off base and changed. The 2015-16 estimate for the cost of selling oil was \$184 million. Your ministry later adjusted that to \$120 million in your forecast for the 2016-17 budget. Now we see in the budget that your numbers have fallen to an actual cost for 2015-16 of \$77 million. For the 2016-17 budget estimate we had \$156 million, and now again in the most recent budget we have a forecast of \$78 million for 2016-17. Given that this line item is directly tied to royalty volumes and has considerable discrepancy, how confident should Albertans be that any of your royalty estimates are accurate?

Ms McCuaig-Boyd: The cost of selling oil through the Alberta Petroleum Marketing Commission is made up of a variety of factors such as the cost of condensate and tolling fees based on the volume of the oil being sold. These factors vary every year, and our new forecasting method will better estimate these costs going forward. Forecasting the cost of selling oil is complex, as I mentioned. The four components correlate strongly with crude oil volume and, to a varying extent, to west Texas intermediate, or WTI.

The Chair: We'll now move on to the member from the third party, please.

Mr. Fraser: Thank you, Mr. Chair and Minister. I want to go back and touch on the orphan well issue. We know that the federal government has given \$30 million for the orphan well cleanup. Can you give us details on the mechanism of how that money is going to flow?

Ms McCuaig-Boyd: I can't yet, but I hope to soon. As I mentioned, we were given \$30 million from the federal government, and we're looking at how we can best leverage that. You know, we were grateful for that. We do know that currently, as of March 23, we have 1,394 wells that require abandonment. We have 1,088 wells that require suspension. We have 690 sites that require reclamation, 1,766 pipeline segments that require abandonment, and 98 facilities that need attention. So it's a very important issue to us as well as Albertans, and we're looking at how we can best leverage that. We will have details to announce in the next while, but at this moment we are talking to groups such as CAPP and OWA to see how we can best use that money.

Mr. Fraser: Right. In your mind and your strategy how do you plan to work with other departments and agencies to increase the number of wells being cleaned?

Ms McCuaig-Boyd: Well, we'll again work with our industry partners. The AER would have a piece of that, Environment and Parks as well. You know, we'll just look at how we can best leverage that, but at the end of the day the duty to reclaim, or the polluter-pay principle, will still be respected. We're just looking at how we best can leverage that money at the moment.

Mr. Fraser: Right. In terms of leveraging that money, I guess, what's your philosophy in partnership with private industry to stretch those dollars further?

Ms McCuaig-Boyd: Well, you know, I think we need to get a holistic plan, and we need to look at a process that's going to protect Albertans on this. We need to look at the environment and keep Alberta still as a competitive place to invest. We need to look at finding that sweet spot of how we can administer the cleanup of some of these wells and the liabilities but at the same time work with industry and everyone. We want to do this right, so we want to take the time to leverage that money and do a proper process.

Mr. Fraser: From a high-level approach and, I guess, kind of looking down, have you done sort of an analysis of how many extra wells this money might help with in terms of the cleanup and reclamation?

Ms McCuaig-Boyd: That's part of what we're doing right now. We know it won't be all of them at once, but it'll be a good chunk towards it. I will note that this will be in addition to the \$30 million that we have this year. Then it's going to go to \$45 million and then to \$60 million. You know, in looking at upping the amount so that we can start attacking this problem, we're certainly in touch with groups like CAPP, who have an orphan well group, and the Orphan Well Association. To be honest, it's not just a concern for us as government. It's a concern for industry, so we want to work with them and do something. But we don't want to, in this lower price environment, make it hard for industry to continue, so we have to look at: what's the right pacing, what are the right amounts, and how do we get at the worst ones first?

Mr. Fraser: Right. You know, from that perspective, in terms of jobs do you anticipate how many jobs will be created from this money?

Ms McCuaig-Boyd: I had a number. I don't have it with me right now, but we do know that there will be jobs. That's something that, perhaps when we do our plan, we'll be able to tell you.

Mr. Fraser: From that perspective, is there a strategy or, again, kind of a hard line where your department would take a look to make sure that a lot of this money isn't caught up in extra administration, that sort of thing, that it's actually boots on the ground and wells being cleaned out?

Ms McCuaig-Boyd: Yeah. That'll be part of, you know, getting a process. Absolutely, we need boots on the ground to start tackling this issue. We know it will bring jobs. I know that up in my area I have one of the companies that's in the top six, I think, in the province. I know that they're anxious to see this cleaned up because that's their business.

Mr. Fraser: Right. Minister, I'd just like to move over to the change in the electricity market and those proposed changes. Can you provide us any details on the changes to OBEG and whether Energy expects any budgetary impacts because of those changes?

Ms McCuaig-Boyd: No. There's no connection to our budget. The Market Surveillance Administrator is doing that work.

Mr. Fraser: Okay. Is there any consolidated study on the economic impacts of all the recent proposed changes to the electricity market?

Ms McCuaig-Boyd: I think there's a high-end look at that through the AESO. On their website there's a bunch of information available through them.

Mr. Fraser: Right. Also, on page 62 in your business plan performance measure 3(b) talks about maintaining a minimum 7 per cent margin over peak demand. Considering that the current margin sits at 31 per cent, why have you set the target so low?

Ms McCuaig-Boyd: Would you like to answer that, Dave?

Mr. James: Yeah. That's sort of a standard, I would say a North American standard, to have a minimum requirement of a 7 per cent margin that you need to keep in order to make sure that your system has minimum reliability. The 31 per cent is just the effect that's actually happening in the market today based on supply and demand. The 7 per cent is required for reliability purposes. Above that is adjusted over time.

Mr. Fraser: Right. Again, that reliability number: where has it been traditionally? Like, has it always been up around that 30 per cent mark?

11:50

Mr. James: No. We're quite high. We've been somewhere usually between 12 and 18 per cent over the last few years, so it's varied. Quite often we haven't been below 12 per cent, as best as I recall the data, but I could be wrong. For the most part, it stays in around the 15 per cent range. Over the last few years it's been growing with the generation that's come on, and then they sort of slipped down in the economic demand.

Mr. Fraser: Right. So the current market, as it was and as it is today, before the capacity market, essentially, is meeting more than the peak demand.

Mr. James: It has been providing enough reliability to meet the peak demand, yes.

Mr. Fraser: It's been reliable. Very good.

The other thing. One of the identified risks in your business plan points out the need for analysis on the electricity system transition. What analysis is being prepared, and will the minister undertake to release this analysis to all members?

Ms McCuaig-Boyd: So is there a particular risk you're referring to or just the risks in general?

Mr. Fraser: Yeah. So the transition to the system.

Ms McCuaig-Boyd: Okay. This risk highlights the complexity of our system, as you'll appreciate. The transition is under way, and it's linked primarily to outcome 3 of Energy's business plan. The potential consequences of this risk could range at one extreme from higher electricity costs to consumers and business, poor system reliability, and failure to attract sufficient investment through to improved environmental outcomes, more investment, and reliable electricity at reasonable cost to consumers. The key drivers of this risk include medium- to long-term system reliability of Alberta's current electricity system, including the transmission and distribution system, and the level of investment needed in new or replacement generation capacity.

Energy certainly is working closely across government and with the AESO; the Balancing Pool; the AUC, the Alberta Utilities Commission; the Market Surveillance Administrator; and the UCA, the Utilities Consumer Advocate to control these risks. Keys measures include designing the capacity market . . .

Mr. Fraser: Minister, I hate to interrupt you, but I just want to get one more quick question in because I don't think I'll have much time after the fact.

Ms McCuaig-Boyd: Okay.

Mr. Fraser: In those risks has there been a conversation with the Alberta Emergency Management Agency as you transition from where it is now? I mean, certainly, they have a business plan on how to protect Albertans in the event of a disaster, but has there been a conversation with the AESO and other regulatory departments, you know, in terms of how that would work and being able to provide energy in the case of a serious emergency like an ice storm?

Ms McCuaig-Boyd: That falls under the purview of the AESO. They work with them, and that's part of their . . .

Mr. Fraser: Right. But has there been an analysis in terms of the risk to your department, how that flows through your department?

Mr. James: With the risk itself, right now the AESO is looking at reliability. There isn't an assessment on reliability per se at this date.

Mr. Fraser: Okay. Thank you.

The Chair: Thank you very much.

We'll now move on to the private members of the government caucus. You have six minutes.

Mr. Nielsen: Thank you, Mr. Chair. Through you to the minister, I just wanted to quickly touch on renewables, referencing key strategy 3.1 on page 61 of the business plan. It's my understanding that auctions will be a part of the government's plan to get to the 30 per cent renewable energy by 2030. I was just wondering: for our

millions of listeners at home can you explain the auction program and any associated costs with it?

Ms McCuaig-Boyd: Yeah. You know, we're leading the way in taking action, as I mentioned earlier, on reducing emissions. One of the pieces is the renewable electricity program, certainly a key part of that plan. The program is administered by the AESO, or the Alberta Electric System Operator. We announced, as I've said before, that we're going to do 30 by 30 renewable energy targets, so 30 per cent renewable by 2030. This will attract new investment and help build this future. For example, we estimate the renewable electricity program will attract private investment of at least \$10.5 billion and create over 7,000 jobs.

We were pleased to announce the beginning of our first auction. The first competition is going to be 400 megawatts, which is roughly equivalent to powering 170,000 homes, so that's significant electricity. Projects in this first competition will be operational by 2019. This is a competitive and transparent process. It began just a week ago or so, a little over a week ago, March 31, and is going to bring new generation online at the lowest possible price as it is a competitive auction.

There's tremendous interest, as I mentioned. When we were down in Houston, people said that they thought we would get significant interest, and indeed AESO told us, even before we announced it, that there were lots of inquiries to them. They have told me that there has been interest from over 80 projects, and this was in advance of us announcing it, so that's very encouraging.

Mr. Nielsen: Thank you, Chair.

I'll pass it over to MLA Babcock.

Ms Babcock: Thank you. The petrochemical diversification program, as described on page 5 of the fiscal plan, has had two projects approved which we are really excited to see in our region. Can you provide an update on those two projects for us today, please?

Ms McCuaig-Boyd: Yeah. I can update you a little bit. Certainly, part of our royalty review suggested that we need to look at adding more value to our resources and create more activity from those resources in Alberta. We have two projects, as you allude to, under the petrochemical diversification program to help create not only world-class petrochemical facilities but also to diversify our economy.

The first project is a joint venture between Pembina Pipeline Corporation and Petrochemical Industries Company, known as PIC, so Pembina-PIC. It's been approved to receive up to \$300 million in royalty credits to build an integrated propylene and polypropylene facility in Alberta's Sturgeon county. The project is expected to cost from \$3.8 billion to \$4.2 billion to build. During construction they estimate an average of 2,000 to 2,500 workers on-site, more than 150 full-time when in operation, and the head-office jobs upon completion. The facility would process about 22,000 barrels per day of propane into polypropylene. That's a plastic material used in the manufacturing of a variety of products such as automobile parts, containers, even Canadian bank notes. Construction is expected to start in 2019, with the facility operating by 2021.

The second project is with Inter Pipeline, and it's been approved to receive \$200 million in royalty credits to build a \$1.85 billion facility in Alberta's Strathcona county. At peak they expect a three-year construction employing around 2,000 full-time jobs. About 1,600 of those would be at site, and the rest would be in the fabrication and module shops and engineering firms. An additional 95 full-time operations positions would be created once there's a

start-up. Inter Pipeline would process 22,000 barrels per day of propane into propylene, a feedstock for the production of polypropylene and other derivatives. They expect construction to start this year, with their operation opening in 2021. So pretty exciting for both of those.

Ms Babcock: Thank you, Minister.

A lot has been made about the comparison between Alberta and Saskatchewan regarding the energy sector. Could you highlight how our two provinces compare and how your current budget is helping Alberta to be competitive?

Ms McCuaig-Boyd: I'm very proud of our Alberta energy industry. Not only are we the largest oil producer in the western provinces; we are the largest in Canada. Alberta clearly leads Canada in oil and gas

production, and concerns about Saskatchewan drawing away from the industry are misguided and even overblown. According to Stats Canada in 2015 Alberta recorded more than \$38 billion of capital spending in oil and gas extraction, more than five times the amount when we compare to Saskatchewan.

The Chair: Thank you very much, Minister. I apologize for the interruption, but I must advise the committee that the time allotted for this item of business has concluded.

I would like to remind committee members that we're scheduled to meet again tomorrow, April 12, 2017, at 3:30 p.m. to consider the estimates of the Ministry of Municipal Affairs.

Thank you, everyone. This meeting is adjourned.

[The committee adjourned at 12 p.m.]

