



Legislative Assembly of Alberta

The 29th Legislature
Fourth Session

Standing Committee
on
Resource Stewardship

Ministry of Energy
Consideration of Main Estimates

Tuesday, April 10, 2018
9 a.m.

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The 29th Legislature
Fourth Session**

Standing Committee on Resource Stewardship

Loyola, Rod, Edmonton-Ellerslie (NDP), Chair
Drysdale, Wayne, Grande Prairie-Wapiti (UCP), Deputy Chair

Babcock, Erin D., Stony Plain (NDP)
Dang, Thomas, Edmonton-South West (NDP)
Fraser, Rick, Calgary-South East (AP)
Hanson, David B., Lac La Biche-St. Paul-Two Hills (UCP)
Kazim, Anam, Calgary-Glenmore (NDP)
Kleinsteuber, Jamie, Calgary-Northern Hills (NDP)
Loewen, Todd, Grande Prairie-Smoky (UCP)
Malkinson, Brian, Calgary-Currie (NDP)
McPherson, Karen M., Calgary-Mackay-Nose Hill (AP)
Nielsen, Christian E., Edmonton-Decore (NDP)
Panda, Prasad, Calgary-Foothills (UCP)*
Rosendahl, Eric, West Yellowhead (NDP)
Turner, Dr. A. Robert, Edmonton-Whitemud (NDP)**
Woollard, Denise, Edmonton-Mill Creek (NDP)
Vacant

* substitution for Todd Loewen

** substitution for Jamie Kleinsteuber

Also in Attendance

Clark, Greg, Calgary-Elbow (AP)

Support Staff

Robert H. Reynolds, QC	Clerk
Shannon Dean	Law Clerk and Director of House Services
Stephanie LeBlanc	Senior Parliamentary Counsel
Trafton Koenig	Parliamentary Counsel
Philip Massolin	Manager of Research and Committee Services
Sarah Amato	Research Officer
Nancy Robert	Research Officer
Corinne Dacyshyn	Committee Clerk
Jody Rempel	Committee Clerk
Aaron Roth	Committee Clerk
Karen Sawchuk	Committee Clerk
Rhonda Sorensen	Manager of Corporate Communications
Jeanette Dotimas	Communications Consultant
Tracey Sales	Communications Consultant
Janet Schwegel	Managing Editor of <i>Alberta Hansard</i>

Standing Committee on Resource Stewardship

Participants

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

Doug Lammie, Assistant Deputy Minister, Strategic Policy

Coleen Volk, Deputy Minister

9 a.m.

Tuesday, April 10, 2018

[Loyola in the chair]

**Ministry of Energy
Consideration of Main Estimates**

The Chair: I'd like to call the meeting to order and welcome everybody. The committee has under consideration the estimates of the Ministry of Energy for the fiscal year ending March 31, 2019.

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. I'm Rod Loyola, MLA for Edmonton-Ellerslie and chair of the committee. We'll continue here to my right.

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

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

Mr. Panda: Prasad Panda, MLA, Calgary-Foothills, and with me is my legislative assistant, David Jackson.

Mr. Clark: Good morning. Greg Clark, MLA, Calgary-Elbow. I'm joined by Barbara Currie.

Ms McCuaig-Boyd: Good morning. Margaret McCuaig-Boyd, Minister of Energy and MLA for Dunvegan-Central Peace-Notley. Joining me this morning are my deputy minister, Coleen Volk; the assistant deputy minister, ministry services, Douglas Borland; the assistant deputy minister, electricity and sustainable energy, David James; and the assistant deputy minister, strategic policy, Doug Lammie.

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

Mr. Dang: Good morning and welcome back. Thomas Dang, MLA for Edmonton-South West.

Mr. Rosendahl: Eric Rosendahl, MLA, West Yellowhead.

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

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

Dr. Turner: Bob Turner, Edmonton-Whitemud.

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

The Chair: I'd like to note the following substitutions for the record: Mr. Panda for Mr. Loewen and Dr. Turner for Mr. Kleinsteuber.

Please note that the microphones are operated by *Hansard* and that the committee proceedings are being live streamed on the Internet and broadcast on Alberta Assembly TV. Please set your cellphones and other devices to silent for the duration of the meeting.

A total of six hours has been scheduled for consideration of the estimates for the Ministry of Energy. For the record I would note that the Standing Committee on Resource Stewardship has already completed three hours of debate in this respect. As we enter our fourth hour of debate, I will remind everyone that the speaking rotation for the meeting is provided in Standing Order 59.01(6), and

we're now at the point in the rotation where speaking times are limited to a maximum of five minutes. Members have the option of combining their speaking time with the minister for a maximum of 10 minutes. Please remember to advise the chair at the beginning of your rotation if you wish to combine your time with the minister's time.

Discussion should flow through the chair at all times regardless of whether or not the speaking time is combined. 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.

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 oppose having a break? Okay. Hearing no opposition, we will do just that.

Committee members, ministers, and other members who are not committee members may participate; however, only a committee member or an official substitute may introduce an amendment during a 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. Ministry officials are reminded to introduce themselves prior to responding to questions. Pages are available to deliver notes or other materials between the gallery and the table. Attendees in the gallery should not approach the table. Members' staff may be present and seated along the committee room wall. Space permitting, opposition caucus staff may sit at the table to assist their members; however, members have priority to sit at the table at all times.

If debate is exhausted prior to the six-hour mark, the ministry's estimates are deemed to have been considered for the time allotted in the schedule, and the committee will adjourn. The scheduled end time of today's meeting is 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.

The vote on the estimates and any amendments is deferred until consideration of all ministry estimates has concluded and will occur in Committee of Supply on April 19, 2018.

Amendments must be in writing and approved by Parliamentary Counsel prior to the meeting at which they are to be moved. The original amendment is to be deposited with the committee clerk, and 20 copies of the amendment must be provided at the meeting for committee members and support staff.

When we adjourned last night, April 9, we were seven minutes into the exchange between Mr. Malkinson and the minister. I will now invite Mr. Malkinson or any other members from the government caucus to complete the remaining time for this rotation. You have three minutes.

Mr. Malkinson: Well, thank you very much, Mr. Chair. It is good to be back right where I left off yesterday. Minister, when we ran out of time yesterday, I was just asking about having an electrical grid. Of course, Alberta is unique in that we have a large number of industrial customers, which means that you have lots of individuals with very large electric motors and other industrial equipment being turned on and off, which puts a unique load on our system. I know from my work as a diesel generator salesman that that means you've got to have something spinning somewhere in order to make sure that our grid can handle that. So I was wondering, you know: what are you envisioning? Dr. Starke, who was here yesterday,

mentioned that we don't really have good storage advances when it comes to having an entirely solar grid, for example. What sort of mix of renewable energy sources – variable and intermediate and sort of traditional energy sources – are you expecting, and what's that mix going to look like?

Ms McCuaig-Boyd: Okay. Thank you for the question. You know, across all our electricity policies, from capacity market to the renewable energy electricity program, we're consistent in our electricity transition that supply choices will be driven by competition for the lowest generation options. ISO is helping us with this, and they take a very long-term look. They have different scenarios. They forecast and incorporate different impacts and multiple factors, including varying demand, growth, policy drivers, and all those kinds of things.

Under the 30 per cent target our renewable electricity program is geared to finding the lowest cost renewable energy. The first round, as you know, was very, very successful, 3.7 cents. As technologies advance and decline in price and as we revise program details to respond to Alberta's needs, we expect to see greater diversity of low-cost renewables en route to reaching our 30 per cent. You know, we have utility-scale REP projects that are not only investments we're supporting. Under that 30 per cent target we're also advancing distributed solar generation, microgen programming, and encouraging more community generation as well.

As for nonrenewables, the primary generation source forecast will be natural gas fired electricity. We're committed to reducing emissions in Alberta. We're working in partnership with the ISO to maintain a stable grid as we go forward.

Mr. Malkinson: Minister, you just mentioned, I guess, the traditional energy sources, natural gas energy. Are you imagining that some of that natural gas would be from what were former coal-powered power plants?

Ms McCuaig-Boyd: You know, there are plans in some cases to convert to natural gas because it is cheaper than rebuilding a whole plant, so we're working with those industries as well. At the end of the day, it'll be about 30 per cent renewables by 2030 and roughly 70 per cent using natural gas because we have, as you know, a lot of it in this province.

Mr. Malkinson: Thank you very much.

The Chair: Okay. We'll now go back to the Official Opposition.

Mr. Panda: Thank you, Mr. Chair. Good morning, everyone.

The Chair: Mr. Panda, you'll be going back and forth with the minister? Is that your request?

Mr. Panda: Yeah.

The Chair: Please go ahead.

Mr. Panda: Minister, on page 126 you have \$77,398,000 in revenue estimated which is coming from North West Redwater Partnership operations during this year. How much of this revenue is from the sale of government of Alberta royalty diesel converted from government of Alberta royalty bitumen?

Ms McCuaig-Boyd: They're just starting up, so there are no sales from production yet, but the increase reflects the anticipated operational date of the Sturgeon refinery, anticipated when it was completed in the 2017-2018 budget. The reduction reflects – that's a little further, like, within this thing. It starts out that there was

about \$36 million in that budget line, and then the reduction reflects the shift in operational date from 2017-18 to 2018-19 – so those figures offset – and the expected start-up of commercial operations on June 1 of this year and the adjustment by inventory and prepaid bond toll. So it's adjusting for when it is up, but to date we have not sold anything.

9:10

Mr. Panda: Okay. Thank you.

How many offtake agreements do you have for the products coming out of this refinery?

Ms McCuaig-Boyd: I think that's commercial information. I'm not sure I have it at hand here. That's between the APMC and the refinery, and the refinery does the commercial agreements.

Mr. Panda: Right, but you said the APMC, which is part of your department.

Ms McCuaig-Boyd: North West sells and manages that on behalf of APMC, so that's their side of the business. We're not privy to what they – I don't believe we are. Actually, I could ask Mike. He's part of the board.

Mr. Panda: Yeah. Sure.

Mr. Ekelund: Mike Ekelund, assistant deputy minister, resource revenues and operations. The APMC is involved in a number of committees with North West Redwater Partnership as part of the processing agreements that are in place. North West Redwater Partnership acts on behalf of the toll payers, APMC and Canadian Natural Resources Limited, to sell products on their behalf. They, I would assess, are being diligent in obtaining agreements to sell, but the information as to how many, who, what volumes, price is confidential commercial information.

Mr. Panda: Thank you, Deputy Minister. Can you stay there for a couple more follow-up questions I have?

Ms McCuaig-Boyd: I will decide if he answers or not. I'm capable of answering as well.

Mr. Panda: Okay. I don't want to lose more time between your conversations. I just want to get to the question.

Given the spread between the diesel and bitumen prices, given the processing agreement between the APMC and the North West Redwater Partnership in that the APMC will have to pay a processing toll that includes a processing fee, the equity part, and the debt repayment part, how many more dollars per barrel of royalty diesel will you now make for a barrel of royalty bitumen? Is it two times, three times, or 50 per cent? What's the forecast?

Mr. Ekelund: Thank you very much for the question. The minister has asked that I respond. I don't believe that I can respond with that kind of detail. That is commercially sensitive information, what the spreads are, what the prices are. Refining is a very commercially intense business. Companies are interested in what the costs of their competitors are, and I do not think that it would be appropriate to provide that detail.

Mr. Panda: Okay. Thank you.

On page 126 of the estimates it talks about the net operating result. Given the same number on page 66 of the business plan, can you explain for me why the net income of the APMC is set to decline to just over \$66 million next year and just under \$35 million in 2020? With the refinery online, should it not be more?

Ms McCuaig-Boyd: So you're looking at the figure \$160,931,000?

Mr. Panda: Page 126, and then we reference page 66.

Ms McCuaig-Boyd: You said: a net operating result. I've got that on page 127.

Mr. Panda: It's actually on page 66, \$118,798,000.

Ms McCuaig-Boyd: Sorry. You said 126, but you . . .

Mr. Panda: Sorry. It's the business plan, page 66. Net income Alberta petroleum marketing: it's declining. In 2018-19 it is \$118 million and . . .

Ms McCuaig-Boyd: Yeah. Okay. I've got an answer for your previous numbers.

Mr. Panda: Okay. Please, go ahead, quickly.

Ms McCuaig-Boyd: They're going into production, so there'll be less of the operating costs just overall, and there will be some income derived this year. Oh, sorry. The operating costs increased because they are paying toll. That's why there's less. There's a difference there.

Mr. Panda: Okay. Now I'm moving on to the Balancing Pool, page 127 of the estimates. For 2016-2017 you had an initial transfer of equity valued at \$1,966,788. Was this for the buyouts and compensation for termination of the power purchase agreements?

Ms McCuaig-Boyd: The office of the Auditor General required the Ministry of Energy to include the financial results of the Balancing Pool into its consolidated financial statements for the first time in 2016-2017. The timing of this decision was such that the 2017-2018 budget was already approved; therefore, that was not included as part of the 2017-2018 budget. So that accounts for that amount there.

Mr. Panda: So was it a transfer of equity, or was it for the buyouts and compensation for PPA terminations?

Ms McCuaig-Boyd: This is just an accounting thing. As I said, the Auditor General required us to make this accounting change and to include the Balancing Pool into our consolidated financial statements for the first time in 2016-17. The timing of the decision, though, was that we couldn't put it in until at a later date. It's just an accounting thing at the direction of the Auditor General.

The Chair: Thank you very much.

Mr. Clark, over to you, sir.

Mr. Clark: Thank you very much, Mr. Chair. Minister, if you don't mind, I'd like to go back and forth if that's all right. Thank you very much.

I'm going to start with the petrochemicals diversification program here for my first 10 minutes or so, and we'll see where we get on that. I just want to start with the round 1 process. I understand that there were 16 different applications that were made for the PDP round 1. The two successful companies were announced at the end of 2016. What were the criteria used to determine that those two were the winning bids out of the 16 separate applications?

9:20

Ms McCuaig-Boyd: Well, it was, you know, a competitive program, and I believe there were seven criteria. I don't have them at hand, but they were things like – maybe you can help me, Doug.

The overarching was benefits to Albertans, you know, number of jobs, investment. There were a number of criteria. Was it going to be an environmental project? There were a number of considerations. The application was online. It's probably available somewhere.

Mr. Clark: So that information is out? That's publicly available information?

Ms McCuaig-Boyd: Yeah, it should be.

Mr. Clark: Okay. Great.

Ms McCuaig-Boyd: Anyway, those were the considerations. You're correct. We had 16 applications.

Mr. Clark: Okay. Are those the same criteria you're using for round 2, or do you come up with new criteria?

Ms McCuaig-Boyd: We haven't established that yet, but it'll be very similar. Yeah. We may tweak the odd thing, but it was so successful the first time, and people found the way to apply reasonably easy to do. Once we do decide that, it will be online and available for everybody to see.

Mr. Clark: How about the evaluation itself? Now, I recognize that there may be some commercially sensitive information in the applications themselves, and obviously we need to be mindful of that, but in the interest of transparency to Albertans, I think it would be helpful for us to know what criteria the two winning and successful bids met and where they excelled, and for the other 14, where they were strong but where they fell down. Is that the kind of information that you could make public?

Ms McCuaig-Boyd: I'll maybe start, and as Doug was certainly involved with that, he can maybe provide some flavour. The overarching was benefit to Albertans, you know, and weighing all the different factors. The two projects we're very excited about. As I said, they're bringing a lot of jobs. As I mentioned yesterday, one of the proponents is sourcing as much as they can in Alberta. They're hiring Albertans and that.

Maybe Doug, if you don't mind, just give a bit of flavour and context.

Mr. Lammie: Doug Lammie, assistant deputy minister of strategic policy with Alberta Energy. As the minister mentioned, there were eight criteria that the projects were evaluated on. A crossministry team was established with outside expertise as well. In addition to that, a fairness monitor was hired to oversee the evaluation process to ensure that evaluation was done in a fair and transparent manner. The fairness monitor did submit a positive report on that, and I believe that his letter to the minister articulating that is available on the Alberta Energy website as well.

The two projects obviously stood out as very beneficial to Alberta and bringing on new investment, new job creation, and value-added activity here in the province. As the minister said, it would probably be inappropriate and unfair for us to disclose publicly how each project ranked against each other as it may indicate and provide some commercially sensitive material.

Mr. Clark: Okay. Thank you.

As for the status of these two projects, can you comment on where things stand? I understand the IPL project is well under way. What is the timing of the final investment decision for the Pembina application?

Ms McCuaig-Boyd: I've been in fairly constant contact with them, and we're expecting either late this year or very early next year. The president assures me that they're on it and making good progress. Again, as I mentioned yesterday, they have spent quite a few millions on engineering for the project, so they've made a commitment already, before making their final investment decisions. I'm very happy with the progress that they've been making so far.

As you say, the IPL project is well under way. They've sourced a good amount of materials here in Alberta, hired a number of Albertans for the work, and they have a lot of contracts ready to go.

Mr. Clark: I sincerely hope that both of these projects do move ahead and that they're a smashing success. I think it will be certainly good for our province if they are. But as good stewards of our provincial purse and risk managers as well, I think it's important that we ask questions about what happens if, for whatever reason, one or both of these projects does not move ahead. Do you have a contingency plan if one or both of these projects for some reason, when the final investment decision is made, were to not move ahead?

Ms McCuaig-Boyd: Well, first of all, again, as I mentioned yesterday during a similar question, the risk is all on them at this point. They have to build the project and operationalize it before they can redeem any of the royalty credits. They do have milestones or targets to meet in their progress. For example, should the one project not advance, we would perhaps look at another project or whatever we would consider at that time. Honestly, right now I'm very happy with their progress, and I don't believe that'll be an option.

As I said, there's no risk to Albertans because none of the royalties go out until it's operationalized. In the meantime, people are working, procurement is happening in Alberta, taxes are being paid locally and that, so it's a win-win for this model.

Mr. Clark: I've got a couple more questions on this, and one is on the royalties mechanism itself. You know, you've actually said on your website and some of the documentation that neither of these two companies – and this sort of class of company tends to pay royalties. They're not exploration production companies. This is some feedback that I've heard from a number of different folks, economists and others, who've said: you know, is it really the most effective way of stimulating investment, where you're giving royalty credits to a company that doesn't pay royalties, and now they need to find someone somewhere to take those off their hands? In doing that, you've created some transaction costs. That means they do not realize the full value of what those royalty credits actually would be. Have you given some thought to other models that don't involve royalty credits that may help us achieve the same outcome without that transaction cost?

Ms McCuaig-Boyd: Yeah. Well, first of all, with the royalty credits what they can do is trade those for, you know, securing feedstock supplies and that. These were suggestions that came from industry as a way to incent these projects. That's why we had the EDAC committee looking at things. In the case of IPL that was absolutely the thing that made them make their final investment decision.

Again, we had EDAC look at all kinds of different ways that incentives could be looked at. Forgone revenue was one. Grants, loan backstopping, and that kind of thing were all ways. We've relied on the advice we've been given from EDAC in future considerations. I think, as we've said, even with the next PDP we'll look at the process: are there different ways? But that was one that,

you know, we've heard loud and clear from industry, is a difference maker.

Mr. Clark: Would you say that round 1 was a perfect success? I mean, is there anything that could have gone better? What have you learned in this first round that you will apply to the second round?

Ms McCuaig-Boyd: Again, overall I'll talk, and Doug can add anything if he wants. I think one of the things that we learned or that I learned, anyway, was the far-reaching interest, like in Asia, and just being able to communicate to the Asian market. I didn't foresee that they have a holiday period in there. They actually asked us if we could extend the deadline slightly so they could apply, and we did. We listened to them. This time we've already foreshadowed to the Asian area that we are going to be doing this, so they're looking and getting ready for when we do come out with the next one. That's something I learned.

Doug, do you have anything to add from your side?

Mr. Lammie: Thank you, Minister. Essentially, the program was very successful, attracting a lot of interest from a wide variety of projects.

The Chair: I'm sorry, sir. I'm going to have to interrupt.

Over to the private members. Please go ahead, Mr. Nielsen.

Mr. Nielsen: Thank you, Mr. Chair. If the minister is okay, I'd like to be able to share our time.

Ms McCuaig-Boyd: Sure.

Mr. Nielsen: Thank you. Just a couple of quick questions, Minister, that I didn't get a chance to ask yesterday. As you know, you and I have had a couple of different conversations around the Sturgeon refinery, so my questions are around that and page 62 of the business plan, outcome 1. In the February 2018 report from the office of the Auditor General they identified risks associated with the APMC's management of large funding agreements such as the bitumen supply agreement. I'm just wondering: what steps has government taken or will be taking in 2018-19 to begin addressing these risks?

9:30

Ms McCuaig-Boyd: Okay. Thank you. That's a good question. The government supports the work of the APMC and believes both its staff and board are working to manage all of its projects in the best interests of Albertans. That's their primary lens. The office of the Auditor General recognized the work that has been done by the board of the APMC in managing its risks but has pointed out areas where they believe processes can be improved, because we can always get better. The ministry looks forward to implementing these recommendations in the coming year.

The government of Alberta does not consider Albertans to be at any greater risk than is normal in this type of complex set of agreements, and the physical and economic challenges of constructing a refinery in any location, especially in a landlocked location like Alberta, can be challenging sometimes.

APMC is in the process of formalizing its enterprise risk management system and developing an enterprise risk management policy framework, with implementation to be complete by the end of this year. APMC also acts on behalf of the government of Alberta to ensure there is access to markets for Alberta products.

In addition to the bitumen-supplying agreements for local upgrading the province has also entered into pipeline shipping agreements with TransCanada to ship 50,000 barrels per day for the next 20 years on Keystone XL. Such agreements, as you would be

aware, are very vital for Alberta's economy as they support pipeline expansion projects.

Mr. Nielsen: Thank you, Minister.

Certainly, one of the questions that has come up from time to time – and hopefully I've managed to sum this up from what I've heard from constituents – is around what has caused some of the start-up delays at the Sturgeon refinery and if there are any associated costs to Albertans from that delay.

Ms McCuaig-Boyd: Okay. Yeah. Another great question. You know, anybody who's built a house knows that you start with a plan, and you hope it'll get finished at that time, and sometimes you have deadlines change. There are many reasons for refineries as well. They're very complex facilities that cost billions of dollars and take many years to build. As increased engineering and planning is done for these projects, it's not uncommon for the cost to rise. As in other projects, as construction gets down to the nuts and bolts, there can be issues in translating detailed engineering design into the concrete and metal that gets put in place. Scheduling and managing the workforce, how many people are where, and doing all the logistics and that and the resulting productivity can also be difficult to forecast sometimes.

As the more detailed work is done, you can find you need to adjust the steel, the concrete, other bulk materials. There can be issues getting modules from other countries into location. Sometimes there are errors in their construction. There can be issues with module construction in Alberta although I'm proud to say that Sturgeon did a good job of helping the local modular construction shops, helping to fill them up, and the shops here delivered product that was very good quality.

There is also a challenge and a trade-off between getting work done here and getting work done overseas. Where the people building the project have more difficult logistics, exercising supervision and quality control can sometimes be an issue as well.

There have also been, for example, weather issues such as varying temperatures, resulting in lost shifts because, again, we're a cold country. Due to safety considerations you can't work when it's really icy or very cold or in the summer when you're running cranes in high winds, so there are those issues as well. With the timing on equipment arriving sometimes halfway around the world, crane lifts, having the appropriate skills on-site is crucial.

The current estimated cost of the facility construction is \$9.7 billion. This is up from the previous estimate of \$9.4 billion plus 1 to 2 per cent from the previous estimate. In particular, it is up from the estimate of \$8.5 billion, when the estimate was substantially redone in late 2013. You know, the additional costs as well as associated additional financing will be included in the tolls paid over the next 30 years, and we expect this project will be profitable to Albertans. I look forward to see it opening soon.

Mr. Nielsen: Great. Thank you for those answers, and I look forward to be able to take those back.

Mr. Chair, if it's all right, I'd like to pass the rest of the time to MLA Woollard.

The Chair: Okay.
Go ahead.

Ms Woollard: All right. Thank you very much, Chair. Thank you, Minister. I'm ready to go. I have my opportunity now to ask some questions. First off, what were the outcomes of the renewable electricity program's first round of auctions? Could you tell us something about what it tells us about Alberta's potential in renewable energy? So we're jumping back to renewable energy.

Ms McCuaig-Boyd: Okay. Yeah. We were very happy with the first auction. I know that a little over a year ago we went to the Bloomberg conference in New York and heard loud and clear the excitement about our REP. I was, again, blown away by the international interest. The first round of the REP auctions resulted in the government acquiring almost 600 megawatts of renewable electricity at the lowest rate for renewables in all of Canada. That's 200 megawatts more than planned because we got such good prices. There were three successful bidders. One was Capital Power, which is an Alberta-based company, and two international companies, EDP Renewables Canada and Enel Green Power North America, Inc. The 600 megawatts is enough to power 255,000 homes, which blows me away. It's nearly 12 per cent of the target of having 5,000-megawatt capacity by 2030. I'm excited to see the projects that will be operational by the end of 2019. It's pretty exciting.

Ms Woollard: That's very good to hear. Thank you.

How will rounds 2 and 3 of the renewable energy program support government's effort to increase generation from renewable sources?

Ms McCuaig-Boyd: Well, yeah. Thank you. We want to build on the success of the first and, to be honest, the energy, quote. No pun intended. But, you know, on the 5th of February we announced the next two rounds, 2 and 3. They're now open and will be administered again by the ISO on our behalf. Round 2 is going to be 300 megawatts, and round 3 will add 400 megawatts, so another 700 megawatts of renewable energy, again enough to power about 300,000 homes, and it will add another 14 per cent.

I'm proud to say that round 2 of the REP has an indigenous involvement focus. I can tell you that the indigenous communities are quite excited about that round. There will be more to come and more good news in the future.

Ms Woollard: That sounds great.

If I'm repeating anything, forgive me. How does the renewable energy program round 2 aim to – oh; no. You've already answered that.

Ms McCuaig-Boyd: Well, I've got more I could add if you want more information.

Ms Woollard: I guess we're looking at: how is that round going to increase indigenous involvement in renewable electricity generation? How are you doing this? How is this being achieved?

Ms McCuaig-Boyd: Yeah. I'm probably most excited about this one because it's pretty innovative. Round 2 will involve companies partnering with indigenous communities to provide 300 megawatts of renewable power. Each bid will have a minimum indigenous equity component. Indigenous equity can be an ownership stake in the project, land. We've chosen to conduct a round of the program with indigenous equity to foster indigenous utility-scale renewables that will help develop and strengthen communities. They're excited because it's going to create jobs in their communities and benefit indigenous communities in this province.

Again, this is something that's somewhat unique. Recently I met with a minister in Mexico and shared that they were doing this, and he was quite blown away that we are doing this next step and is very interested in watching because they, too, have an indigenous population in Mexico. So I'm quite excited to see where we get with this.

Ms Woollard: That's incredible. So we're basically on the forefront of this way of doing things.

Ms McCuaig-Boyd: One of the ones. Yeah.

Ms Woollard: Excellent.

Okay. I've got another question for you. [Ms Woollard's speaking time expired] Oh. Next round.

The Chair: Thank you.

We will now go back to the members of the Official Opposition.

Mr. Panda: Thank you. Page 127 of the estimates, the Balancing Pool: when did you first become aware of . . .

The Chair: Mr. Panda, are you going back and forth with the minister?

Mr. Panda: I will. Thank you.

The Chair: Yeah. Please. A friendly reminder there.

Mr. Panda: I'm in a bit of a rush because we only have 10 minutes.

When did you first become aware of the PPA liability and the dollars this meant to the provincial balance sheet? Was it the summer of 2015, after the change to the specified gas emitters regulation?

9:40

Ms McCuaig-Boyd: First of all, page 126. What line item are you looking at, and is this germane to estimates?

Mr. Panda: I'm speaking of the Balancing Pool.

Ms McCuaig-Boyd: No, I'm aware of that, but what line item? You mentioned page 126, but is there a particular line item?

Mr. Panda: Page 127. I'm referencing the estimates. I'm asking. I don't know why only I have to quote a page number and line item. No one else has to do that.

Ms McCuaig-Boyd: Okay. So what was your question?

Mr. Panda: My question is, again: when did you first become aware of the PPA liability and the dollars this meant to the provincial balance sheet? Was it the summer of 2015, after the change to the specified gas emitters regulation?

Ms McCuaig-Boyd: Well, first of all, this isn't a very forward-looking question. We're talking about this year's upcoming budget, and I fail to see the connection of this.

Mr. Panda: Mr. Chair, I really feel it is, you know. I mean, everyone else asks their questions and gets answers independent of the references. I want to draw your attention to *Beauchesne's Parliamentary Rules & Forms*, sixth edition, section 953, page 261. "The whole management of a department may be discussed in a general way when the committee is considering the first item of the Estimates of that department." Furthermore, I would like to turn your attention to the *House of Commons Procedure and Practice*, second edition, 2009, chapter 20, Committees. Here it states under the heading Estimates and the subheading Consideration in Committee, "The questions and discussions at these meetings are generally wide-ranging, although the rule of relevance does apply."

The Chair: Thank you, Mr. Panda. I think that considering the questions that you were asking yesterday, I've given you lots of flexibility. As I mentioned yesterday, I can't make the minister answer the questions.

Mr. Panda: The minister is applying double standards.

The Chair: Excuse me, Mr. Panda. I'm speaking. Please refrain from speaking until I've finished, okay? Again, I cannot make the minister answer the questions in the way you would like her to answer the questions. She's free to answer however she likes.

Mr. Panda: You both can use up my time, then?

Ms McCuaig-Boyd: Mr. Chair, there's no number amount you're talking about, but it's been pretty public and stated before that we became aware of the Enron clause in March 2016. I've said that publicly many times. Again, when we talk about the Balancing Pool, we took action because of that Enron clause, you know, to protect families. In the PPA disputes with companies we provided a loan to the Balancing Pool. All of that is public. I've stated that many times. So I'm just having difficulty connecting the amounts on page 127 that you referred to and what you're asking. I'm not trying to be difficult, but I don't understand what you're getting at unless you want to relitigate things I've said in public already.

Mr. Panda: Okay. Now I'm asking you about the 2018-2019 estimates, page 127 again. Page 127 shows \$12,258,000 in debt servicing. Can you tell me how much debt the Balancing Pool has?

Ms McCuaig-Boyd: If it's okay with you, I don't have the exact figure here, but that's a figure I can table.

Mr. Panda: Appreciated. Thank you.

Under the forthcoming capacity market will the Balancing Pool be phased out, and what's the time frame?

Ms McCuaig-Boyd: The Balancing Pool will terminate in 2020, when the PPAs are done, and the capacity market will be starting after that.

Mr. Panda: After 2020?

Ms McCuaig-Boyd: In 2021.

Mr. Panda: In 2021. Thank you.

I have some questions about the regulated rate option ceiling price, line 4.3 of page 116. It's about the RRO price ceiling. Obviously, you must have information that the price of electricity is going to rise in Alberta. Hence, that's why you capped electricity prices and have decided to subsidize them from this pool of \$74,310,000. When did you first come to find out that electricity prices were going to go up?

Ms McCuaig-Boyd: A feature of this whole system is prices going up and down. That's how it works. On May 23, 2017, we did announce a price cap on electricity for consumers under the RRO from June 1, 2017, to May 31, 2021. This is going to allow the government to keep rates stable using a variety of market and other tools, including the transition to a capacity market, while ensuring there is sufficient capacity to meet the electricity needs of Albertans. The spot prices used to calculate the rate forecast were based on EDC Associates' January 2018 update and the P50 forecast.

Mr. Panda: There is \$74,310,000. What is the source of this revenue? Who is paying for this if not taxpayers?

Ms McCuaig-Boyd: It's the carbon levy.

Mr. Panda: So that's paid by taxpayers.

Ms McCuaig-Boyd: It's the carbon levy.

Mr. Panda: Yeah. So who pays the carbon levy?

Ms McCuaig-Boyd: Emitters.

Mr. Panda: Okay. Thank you.

Will you commit to an undertaking to table the electricity price forecast that was used to generate this number of \$74,310,000?

Ms McCuaig-Boyd: I think you could look it up. It was EDC Associates' January 2018 update, the P50 forecast. It should be available to you.

Mr. Panda: Would that give the basis for this \$74,310,000?

Ms McCuaig-Boyd: Yeah. That was used. It was based on EDC Associates' January 2018 update, the P50 forecast.

Just to clarify, when I talked about the carbon levy paying for it, that's from the heavy industrial emitters.

Mr. Panda: Okay. Thank you.

The rural electrification associations have been informed that they can charge a billing rate that is in excess of the rate cap of 6.8 cents per kilowatt hour. This is distinct from the large regulated rate option suppliers, who are capped at the 6.8 cents per kilowatt hour. Minister, why do the REAs get treated differently from Enmax, Fortis, Direct Energy?

Ms McCuaig-Boyd: Well, the REAs are different, and we're working with them. They are actually under a different ministry than myself, but we are working with the REAs. Our government is protecting, as I said, all Alberta families, farms, and small businesses with the four-year price cap of 6.8 cents. We're also working with places like the city of Medicine Hat, which is entirely different as well. We are working with all Albertans. We expect the rural electrification associations and municipalities to charge rates that are in line with other providers. We do not intend to remove the powers of the REAs – we're not going to interfere with how they operate – but we are going to work with them to help ensure rates are reasonable. The government has put mechanisms in place that will provide reimbursement at reasonable rates. The mechanism is called a reference rate. What a reference rate is: it gives everyone a benchmark to work from and allows us to include Albertans served by these providers in a price cap policy right away and in a fiscally responsible manner . . .

Mr. Panda: But this policy . . .

Ms McCuaig-Boyd: I'm not finished.

So should these providers choose to put in place unreasonable rates, the government will work with them and the relevant agency authorities to ensure that these rates are reasonable.

The Chair: Thank you.

Mr. Clark, over to you.

Mr. Clark: Thank you, Mr. Chair.

If you don't mind, Madam Minister, I'd like to go back and forth if that's all right.

Ms McCuaig-Boyd: Sure.

Mr. Clark: Thank you.

Mr. Lammie, I guess I'll give you an opportunity to finish the thought you had about what lessons were learned in the PDP, round 1, and if you would do anything differently in the second round.

Ms McCuaig-Boyd: Go ahead, Doug.

9:50

Mr. Lammie: Thank you. As I was mentioning before, a very successful round 1 of the program, with over 16 applicants that applied for it. I think what was quite impressive were the wide-reaching applications that we received from around the world and the broad interest in investing in Alberta and the importance of that PDP program for levelling the playing field with other jurisdictions around the world. That was, I think, a great element that we recognized and learned through that process, and it will be a piece, as the minister mentioned, as we try to leverage our international offices to get the message out to those international communities about the potential for investment in value-added activity here in the province.

Mr. Clark: Thank you.

I guess I'm curious. The companies that were successful – and ultimately Pembina partnered with the Kuwait group – didn't seem to have a lot of expertise in building petrochemical facilities per se and selling polypropylene or the end result kind of products. Did you consider that as part of the criteria in terms of, you know, their ability to actually market the end result product, their ability, ultimately, to be successful, which obviously would factor into their economics as to whether or not they would go ahead? Was there any weight given to that? If so, how much? Is that something that you'll potentially change for the second round?

Ms McCuaig-Boyd: I apologize. I don't have the criteria with me, but they were posted online. Certainly, you know, their business plan and whom they were going to market to and what they were going to create and that were all considered as part of that. I think that's why we saw some partnerships form, because there would be a group that had the feedstock or some form of expertise partnering with a company that could provide the other. I can say that I know there's interest from some of the ones that applied the first time and are applying in the second round, so it's giving them a chance to develop their plans even further.

Mr. Clark: Okay. In one of your earlier answers, you said that the criteria for the second round will be similar. A couple of questions. I suppose that if you can be any more specific than "soon," it would be great, but when can we expect to see those criteria released? When will this application process kick off? When can people or companies expect to be able to apply?

Ms McCuaig-Boyd: Yeah. We hope to have them out this spring – it should be spring now – as I said last night, sooner than in the fullness of time. It'll be very soon.

Mr. Clark: Excellent. That's good news.

Ms McCuaig-Boyd: And it will be posted right away, and we will make announcements so people will be well aware.

Mr. Clark: Okay. Good. Again, in terms of those criteria the projects themselves for round 2 are distinct from round 1. There are some additional types of projects that will be considered in round 2. Is that right?

Ms McCuaig-Boyd: Yeah. Well, we've added ethane, you know, to the criteria, the feedstocks. I can say that when I was in Houston, there was some interest in ethane crackers – and those are really big units – and that to produce ethylene, so I'm hoping we'll see a couple of ethane crackers come out of this. But it's open to any of the feedstocks that we had before. Certainly, we have a lot of

ethane, and there appears to be a lot of interest in investing in that sector.

Mr. Clark: Okay. As you do that, then, will you look at – of course, if that's one of your objectives, does that change, perhaps, the criteria to encourage those sorts of companies to consider applying?

Ms McCuaig-Boyd: I think it's the same premise because it's royalty credits, forgone revenue in the future. The risk is on them to decide if they can build here. Again, they don't get these credits until everything is built. It's going to be the same idea; it's just different feedstocks added this time, to add more flexibility mainly.

Mr. Clark: Thank you very much.

Has there been any consideration given to the future value of royalty credits? Have you done any risk analysis on this? I mean, I want to be very, very clear that I believe that Alberta's upstream oil and gas industry has every reason, I would hope, to continue to be successful well into the future. There are some headwinds there, clearly. Has your department done any risk analysis on whether any potential applicants will look at those royalty credits and perhaps value them lower given the risk of not building pipelines or for other what seem to be myriad reasons for a lack of capital investment in Alberta's upstream oil and gas?

Ms McCuaig-Boyd: I'll again let Doug provide, maybe, some flavour. Certainly, on all of this we work with TBF and different ministries, you know, looking at that. We have, under Doug, I think, an area that looks at resource development and that.

Maybe before I let him answer, I just want to clarify, on your previous question, that we probably wouldn't get two ethane crackers. One would be a huge investment, so that's one of our hopes.

Anyway, I'll let Doug maybe talk more about his department and what they do.

Mr. Lammie: Absolutely, Minister. The minister mentioned earlier on the advice of the EDAC committee. The EDAC committee looked at a wide variety of tools to encourage value-added activity, and they recognized the importance of royalty credits and the PDP program in encouraging that kind of activity. As you mentioned, you talked a little bit about the value of those credits and how that's being incorporated. That has been incorporated into our budget projections to recognize that those companies will be coming online, will be earning royalty credits, and have the ability to transfer those royalty credits to other royalty payers or use them themselves as they may be responsible for purchasing makeup gas to supply those facilities.

Mr. Clark: Okay. Thank you very much. I appreciate that detailed answer.

I'm going to switch back over to electricity now for my last couple of minutes this round. You had said previously that you felt that the EDC report, which is called The Cost of the RRO Price Cap Could Approach \$700 Million by May 2021 – it's a document that I don't see a date on here, but it looks like it's a fairly recent document. That's the EDC estimate. You said yesterday that you feel like it's probably not \$700 million. Could you remind me again where you feel the cost of the RRO price cap will be by the time the program runs its course?

Ms McCuaig-Boyd: Yeah. We had said \$279 million by March 31, 2021. That's our estimate.

Mr. Clark: Okay. So \$279 million is an awful lot of health care and education. It seems like an awful lot.

Have you read the EDC report? Can you comment on where you think they're incorrect and where your analysis differs from theirs?

Ms McCuaig-Boyd: I have not read the full report.

Can you comment at all on that?

Mr. James: Some of that would probably be just their assumptions associated with how they move from the wholesale energy price up into the actual RRO price. So there are a number of assumptions that they would need to make and there are a number of assumptions that we would need to make associated with that particular transition. Their report speaks initially to wholesale electricity prices, and that's the forecast that we generally look at and have referred to in other comments the minister has made, in other analyses. We would take that and then, based on the assumptions we would make, move that up into a forecast of RRO costs based on the number of people that are on the RRO in the province.

Mr. Clark: Okay. Thank you.

Yesterday we talked about that you've asked the MSA to do a report, and again I asked if you could table that, and I hope you do release that report. I'm just curious about the order of operations here. When making a significant change like this and putting in a price cap, which is something I'm not in favour of – frankly, I think there are other ways of achieving similar objectives – I'm just curious whether you had received that report before we passed the bill, or you passed the bill, last fall. What was the order of operations there in terms of actually considering what the MSA suggested on the RRO cap?

Ms McCuaig-Boyd: Okay. First of all, you had asked about that report last night, and I can confirm that it is public and available on the MSA website, so you'll be able to check it out.

Mr. Clark: Oh, great. I'll have a look. Thank you.

Ms McCuaig-Boyd: And I understand the report came after.

Mr. Clark: I've got three seconds left, so perhaps in our next round I will go down that path. Thank you very much, Madam Minister.

The Chair: Over to the private members of the government caucus.

Ms Woollard: Thank you, Chair. I'm looking here in the business plan at outcome 3, key strategy . . .

The Chair: Ms Woollard, you'll be going back and forth with the minister?

10:00

Ms Woollard: Yes, we will if that's all right with the minister.

Ms McCuaig-Boyd: Sure.

Ms Woollard: Thank you.

Key strategy 3.3: create a reliable electricity system that is affordable for Albertans and attractive to investors by implementing an electricity capacity market. My question is: how will a capacity market system benefit Albertans? If you wouldn't mind discussing that.

Ms McCuaig-Boyd: Sure. Alberta currently has an energy-only market, which I've spoken of before. In this system generators are paid for electricity they produce based on just the wholesale price of the electricity. In an energy-only market they rely on the

volatility of the market to send price signals for new investment. Effectively, investors rely on the ability to leverage a few high-priced hours to recover their investment capital. This reliance on volatility and tighter supplies of power to drive the investment is too high a price for consumers to pay, and it's not expected to result in a stable and reliable system in the future. Alberta is currently one of the few jurisdictions globally and is only one of two in North America using an energy-only market. So our new electricity market system will ensure Albertans continue to have safe, reliable, sustainable, and affordable electricity.

A capacity market will provide electricity consumers with greater price stability. It's a proven system that allows for competition, innovation, and private investment. Investors like the price stability and the revenue certainty that it provides. A capacity market will also support Alberta's quickly changing electricity sector transition from when we phase out coal generation to renewable energy. The investment is very much essential for Alberta because it's estimated that our province will need \$25 billion in new investment in electricity generation to meet future demands and to transition to cleaner sources of energy. So it's all part of the holistic plan, and I'm quite excited to see it develop.

Ms Woollard: Okay. That's really interesting.

What is the cost of the capacity market system transition to Albertans? Is there a cost for any new innovations?

Ms McCuaig-Boyd: Well, first of all, I can say that residential customers will not pay more because of a capacity market. There are no new costs. Previously that cost was included in their electricity charge. Now these charges are being separated to ensure transparency.

Alberta is moving to a capacity market to ensure Albertans continue to have safe, reliable, sustainable, and affordable electricity. Alberta Energy shifted its resources internally, starting in late 2016-17, towards laying out a framework for the capacity market. Roughly \$1.5 million has been built into 2017-18 and 2018-19, providing some additional capacity to enable the policy and regulatory work associated with that transition.

Ms Woollard: Okay; to get it up and running. Thank you. That's great.

Now, key strategy 3.2 in the same section in the business plan, page 65, indicates that the strategy is to develop and implement policy to efficiently regulate Alberta's electricity retail system to protect consumers. The question is: how will efficient regulation benefit and protect consumers? It's maybe kind of a repetition, but how will that policy specifically help consumers?

Ms McCuaig-Boyd: No. It's a good question. You know, to make life easier for Albertans in a tough economy, our government has introduced a four-year, 6.8 cents per kilowatt hour regulated rate option, the RRO. The price cap, I think, as I've previously mentioned, goes from June 1, 2017, until May 31, 2021. So our government is protecting Alberta families, farms, and small businesses from higher electricity costs through the RRO, the default electricity contract available to most Alberta consumers. Should the market price of electricity rise above 6.8 cents, these consumers will not see that increase on their bills.

This protection gives Alberta families, farmers, businesses, as I mentioned, certainty to live their lives and build their businesses without worrying about electricity bills that spike without warning, as we've seen in the past. It keeps Alberta's electricity system stable while we're building a long-term electricity retail system that works for everyone.

Ms Woollard: Good. Thank you.

My final question in this section is kind of an overarching one. With all the changes to the province's electricity system how will the government ensure that Albertans will continue to have access to affordable, reliable electricity well into the future? So continuing on the same path, any other thoughts?

Ms McCuaig-Boyd: Sure. Okay. The system changes will ensure that Albertans continue to benefit from reasonably priced, reliable electricity well into the future. The current energy-only market system and our dependence on coal-generated electricity is not sustainable for meeting our future electricity needs or to keep pace with the global transition to a low-carbon energy economy.

To ensure a smooth transition to both a capacity-market system and a low-carbon future, government has a number of initiatives under way. We have the REP, or the renewable electricity program, that, as I mentioned earlier, has already attracted very competitive prices and resulted in the acquisition of renewable electricity to replace coal generation. Rounds 2 and 3 are going to continue on that success. The RRO price cap ensures Albertans will pay no more than 6.8 cents per kilowatt hour until May 31, 2021. That provides some stability, and then we'll transition to the capacity market in 2021 as well.

Our government has also asked the MSA, or the Market Surveillance Administrator, to conduct a review of the RRO. Alberta Energy is now reviewing that analysis to determine if there are changes to the RRO that should be considered in the future. It's a very holistic plan, and we're on all parts of it.

Ms Woollard: Okay. All right. Thank you very much.

I'm trying to think if there's anything else I'd like to ask in the area of electricity system transition. I know you talked about the phase-out of the coal-fired electricity generation. Key strategy 3.1 was the strategy to phase out coal-fired electricity generation by 2030. I'm not sure if you talked about that or not. Is there anything else that you would care to provide as an update on that or that you may not have presented us with on the phase-out?

Ms McCuaig-Boyd: Well, certainly, we've been working, three ministries at least: our ministry, Environment and Parks, and also EDT. In phasing out coal, we're looking at helping transition workers. For our part we're looking at helping some of those units convert to natural gas. So we're working with communities. I have to say, you know, that this first started with the federal government making this decision to phase out coal. The sad part was that they didn't even tell these communities that this was going to happen. Different from the federal government, we're working with these communities, and we're working with these companies. Our colleagues in the other ministries are working very hard, and I assure you that we're working together to make sure that this transition goes smoothly for all Albertans.

Ms Woollard: So it seems to be going approximately on the timeline you had predicted?

Ms McCuaig-Boyd: Yeah. Absolutely.

Ms Woollard: All right. Thank you very much, Minister.

Ms McCuaig-Boyd: Thank you.

The Chair: Okay. Dr. Turner.

Dr. Turner: I'd like to continue on the back and forth.

Actually, I want to go back to some questions that were posed to you yesterday on the petroleum diversification. You may recall that

I actually made a member's statement last week on this, and this was prompted by a visit that I had to a facility near Bruderheim that is really not well known. It's in Alberta's heartland, and you know that there we have a congregation of not only things like the North West refinery but also MEG Energy and other companies.

Anyways, I'll come back to it.

The Chair: Thank you, Dr. Turner.

Ms McCuaig-Boyd: I want to go back to that one.

The Chair: Okay. Go ahead, Mr. Hanson.

10:10

Mr. Hanson: Thank you very much, Chair. I'll be going back and forth.

I apologize if my questions might seem a little redundant, but I just want to get a little bit more detail on a few things. I'll refer to line item 4.3, the regulated rate option price ceiling. This year it's estimated at \$74,310,000. Could you give us some detail on the difference between how the REAs are being treated in this and how Enmax, Direct Energy, and EPCOR are being treated in this?

Ms McCuaig-Boyd: Yes. Okay. The REAs and smaller municipalities have less buying power and generally have higher electricity purchasing costs. Therefore, government needed to consider that as well as ensuring that the support to their retailers was consistent with the larger RRO providers. REAs and RRO costs: there are differences.

David, do you want to add some flavour? Are you good? That's good? Yeah.

Mr. Hanson: Okay. Well, I'll help you out there, Minister. It actually goes that you're covering Enmax, Direct Energy, and EPCOR at a hundred per cent, and the REAs are only getting 10 per cent. Now, these REAs are owned by the rural people. They've got infrastructure to maintain, just like the big three do. I'm a little bothered that maybe this was part of the Enmax deal that you made. You know, it's been no secret that the big three would like to get rid of the REAs altogether.

I don't quite understand. You know, you say that you're protecting farmers and ratepayers with the 6.8-cent cap on their power, but I'd also like to remind you that most of these farmers and people out in the residential areas in the country that are part of the REA actually own the REA. So a loss of the REA is going to cost them a lot more than 6.8 cents.

If you could just clarify for me why there is a difference in the deal made with the big three compared to the REAs.

Ms McCuaig-Boyd: Yeah. Certainly, as I mentioned before, there are two different ministries. I was in the REA for a long time where I live now, so I do understand the differences.

David has been working very closely with this file, so I'll maybe ask him to provide some clarity.

Mr. James: Sure. Thanks, Minister. Under the act there are several regulations that have been prescribed. One of those regulations governs the RRO providers that are regulated by the Alberta Utilities Commission: Enmax, EPCOR, and Direct Energy. With those three regulated RRO providers what ends up happening is that they go out and contract their power under an energy price-setting plan that's commission approved and reviewed. Once they've done that, if the power is over 6.8 cents, the difference between 6.8 cents and whatever that rate is, that's what is captured under the rate cap and, therefore, paid back to them. So if they've spent 7 cents, for example, that .2 cents difference is covered.

The difference – and it's slightly different than I think the way you described understanding it – is that because REAs and municipalities have less purchasing power, as the minister mentioned, there is a situation which results in them having potentially higher costs. So what the government directed to do was that they looked at the rate cap that was there and actually looked at adding a 10 per cent, I guess, adder on top of that. They're not just looking at recovering 10 per cent of the cost; they're actually taking the average rate that the three providers calculate. So if that average rate is 8 cents, for example, then the government will cover up to the cost of the 8 cents plus the 10 per cent adder. So they would cover 8.8 cents because anything up to that 8.8 cents would be a reasonable expected cost of the REAs.

The way that you described it, I believe, sir, was that they would only cover 10 per cent. They're actually covering to a higher level of cost because of the fact that the REAs don't have the same purchasing power and don't come in generally at the lower cost that Enmax, EPCOR, and Direct Energy do. Government was aware of that situation and wanted to make sure that they weren't disadvantaged by having that higher price purchasing and, therefore, adjusted the rate higher for the coverage.

Mr. Hanson: They must be confused, because they're very concerned that they're at a disadvantage in this deal.

I'm going to move on to another question, just some clarification again. Yesterday my colleague asked you a question regarding line item 1.1, where you had an increase to the ministry. He called it an increase of \$70,000. I'm looking at \$120,000 more.

Ms McCuaig-Boyd: Sorry. Could you direct me to that page? Line item 1.1 on what page?

Mr. Hanson: Page 116, the minister's office.

Ms McCuaig-Boyd: Okay.

Mr. Hanson: Could you explain again what that \$121,000 increase is from last year?

Ms McCuaig-Boyd: Yeah. Absolutely. As I mentioned yesterday, the increase, the majority of it, is used to allow me to add a staff member to deal with some additional questions and co-ordination of files associated with things like the off-coal agreements, the coal-to-gas conversions, the methane reduction strategy, the new RRO price ceiling to protect electricity consumers, the move to 30 per cent renewable electricity generation by 2030, output-based allocations, and just the transition to the capacity market. I currently have six positions. I have a chief of staff, a press secretary, an issues manager, two ministerial assistants, and a special adviser.

Mr. Hanson: Thank you very much, Minister.

Where I want to go with that line of questioning is, then, just going back to *Hansard* from question period in the House on March 14. In response to one of our members you said:

It's a fair agreement for Alberta.

Again, as had been said many times:

it has no impact on Albertans.

On March 22, again,

there is no impact on Albertans

from this deal. On March 13 the Premier said:

I will say that the resolution with Enmax will have no impact on taxpayers. Absolutely none.

March 13, Minister Phillips, again:

This settlement has no impact on Alberta taxpayers. It's a settlement between the two parties.

Again on March 14, the Premier:

we can confirm very clearly . . .

And this is in response to a question from Mr. Clark.

. . . that the resolution reached with Enmax will have no impact on taxpayers.

Now, Minister, the reason that you had to have a deal with Enmax was because of the coal phase-out agreements that triggered the PPAs and caused the conflict in the first place. On line item 4.3 we have the regulated rate option ceiling of \$74.3 million. Line item 4.1, coal phase-out agreements, at \$29.9 million. Again on line 4.1, liability retirement, coal phase-out agreements of \$67 million. And now a line item in the minister's office of \$121,000. How can you say that this agreement and the deal that you made and the coal phase-out will have no impact on Alberta taxpayers?

Ms McCuaig-Boyd: Well, as I mentioned, that's, you know, an extra position to help with a number of files.

Mr. Hanson: Minister, you said that it would have no impact on Albertans. A number of times I quoted you here. I quoted the Premier. I quoted the environment minister. It will have no impact on Albertans. How can you say that it will have no impact on Albertans? You're over \$100 million, \$150 million, just about \$200 million. How can that not have an impact on Albertans?

Ms McCuaig-Boyd: What line? You initially asked about \$121,000.

Mr. Hanson: Yes. I quoted you line 1.1, from the minister's office, of \$121,000. Line 4.3, the regulated rate option, \$74 million. Line 4.1, from coal phase-out agreements, \$29 million. You say that this won't have an effect on Albertans. Could you please clarify your statement?

Ms McCuaig-Boyd: Okay. Sorry. I was confused because you asked about the position, and I clarified that there was an extra position. Now you're asking about . . .

Mr. Hanson: I'm asking you to clarify your statement that the Enmax deal and the coal phase-out would not have an impact on Albertans.

Ms McCuaig-Boyd: I guess if you're talking about Enmax, you know, they and we said that the agreement was struck in fair and best interest, and it has no impact on Albertans. So I'm not sure how you're making the connection between the Enmax deal and the other figures that you're coming up with.

10:20

Mr. Hanson: The Enmax deal was triggered . . .

The Chair: Mr. Clark, over to you, sir.

Mr. Clark: Well, thank you very much, Mr. Chair. If it's all right with the minister, we'll go back and forth again for this next 10-minute segment.

Ms McCuaig-Boyd: Sure.

Mr. Clark: I do just want to go back to that MSA report. I had a brief chance here in the last few minutes to have a look at that report. What I'm just piecing together, then, is the order of operations. In April of 2017 a notice to stakeholders re RRO review went out from the MSA. Then, in addition to some other draft comments that had been received around, I think, the third week of May, Bill 16 was introduced in the Legislature on May 23, 2017, and passed rapidly. By June 1 it received third reading in the Legislative Assembly. Then on June 30 there was a draft report

issued by the MSA and the final report on July 31. Why the rush? Why not wait until the final report that you asked for as it related to the RRO review was complete before passing legislation on the RRO cap?

Ms McCuaig-Boyd: Yeah. We actually announced the decision the previous November about the rate cap, so there was actually a lot of time in advance of the dates you're giving me there for that. The MSA report was requested after the rate cap was announced. The purpose of the MSA study was to look at options for implementing and managing the rate cap. The policy work on the RRO rate cap was done before the government's announcement. The Department of Energy led that policy work with the input of advisers, as appropriate. So, you know, we had announced that well early of those dates you're giving me there.

Mr. Clark: Yeah. Okay. I mean, it just feels like it's out of order, right? There's this report that talks about how – and, frankly, as a legislator it would have been nice, I think, to have the benefit of that final report as we debated the bill. Certainly, there are some things in that report that perhaps would have influenced amendments we could have brought or changes we could have advocated for because it – so the whole thing feels very much out of order.

I guess what I'm worried about is that ever since the specified gas emitters regulation was changed in June of 2015, that set in course a whole sequence of events. It seems like your department is just playing catch-up and has come at this from a perspective of saying: well, we know our world is fixed in a certain way, and even if there's new information coming at us that may move us off that world view, we're just going to plow ahead. My concern is that this is part of that pattern, and now here we are looking at \$74 million for the regulated rate option just in this fiscal year, a best-case scenario of \$279 million of taxpayer dollars going out the door over the next four years at a time when we're having a hard time funding education, funding health care. These are choices that are not net zero, and I think that's the real concern I have.

Another, I guess, avenue I'd like to explore with you on that is just management and leadership at the MSA itself. I spent some time looking at the publicly available information on the MSA website, and I would just like – if you wouldn't mind stepping through with me, based on that publicly available information, the leadership of the MSA here over the last, say, six, eight months. Matt Ayres was MSA, Market Surveillance Administrator, from December 2015, I believe, to September 2017 if I'm not mistaken. Then Doug Doll, who I believe was the CFO when Mr. Ayres left, was MSA from September 8 until January 2, at which point Tudor Beattie took over. The announcement at the time said that his term was to end on July 31, 2018, but on March 19 of this year, just recently, Wayne Taylor took over with a term till July 31, 2018. Was there someone else in between Mr. Beattie and Mr. Taylor?

Ms McCuaig-Boyd: Yeah. We had some – I'm not privy to talk about the details of some of the people and why they left, but I can assure you that we have an interim right now, and we're in an active process of getting a new MSA. You know, those are kind of HR issues that I'm not really privy to speak about. But there was always someone in charge along the way.

Mr. Clark: I don't doubt that there was. There's a strong governance structure and bylaws which would dictate that there will always of course be someone in charge. My concern is that this is another symptom of what appears to me to be some pretty substantial upheaval – I hope "chaos" is too strong a word – and I worry about that. At a time when we have some significant change going on within the electricity market and the Market Surveillance

Administrator has a very important role to play in that whole ecosystem, I'm very concerned when I see this.

I certainly would not expect you to make any comment about any confidential human resource matter, of course, but when I look at something like this, it's a red flag, a real red flag, about what may be going on within that organization. I guess I would like you to know that we're aware of those challenges and that Albertans should be, I think, concerned about that. I guess my question to you is: what are you doing to ensure that there's stability within such an important organization within the electricity ecosystem in this province?

Ms McCuaig-Boyd: Well, first of all, I'd want to say, you know, that people do come and go in positions, and these are highly specialized positions, so they are hard to recruit to. But we have an interim in place right now, and we are actively recruiting for that.

I guess the other question I had for you is: is there a line item you're referring to, or is this just a general question about my leadership or our government? I'm not sure where you're going with this.

Mr. Clark: We've been through *Beauchesne's*, and I . . .

Ms McCuaig-Boyd: This is about forward thinking.

Mr. Clark: That's fine. I can't compel you to answer the questions, but what I do have is an accountability as a Member of the Legislative Assembly to ensure that the management of all entities within the purview of your ministry is done in a way that is fiscally responsible, that from a governance perspective we're asking these questions. I can't compel you to answer them. I'd like you to, but . . .

Ms McCuaig-Boyd: Well, I can assure that we're actively recruiting and interviewing right now or will be, and we have a competent and capable interim in place. We will be filling that position.

Mr. Clark: Right. Here's my question. What you've said is that it's a highly specialized role. It absolutely is. This is an enormously complex area, and I certainly don't claim to be an expert. When I look at this, though, again, red flags. Are we willing to pay the fair value for someone with appropriate expertise to run such a highly complex area? Is that a challenge?

Ms McCuaig-Boyd: You know, in the pay structure that was an outside agency that provided those bands and that. That wasn't part of our ministry.

Mr. Clark: So the amount, the compensation is not an issue here?

Ms McCuaig-Boyd: Yeah, go ahead, Coleen. You've been involved.

Ms Volk: There was a process led by the Public Agency Secretariat to determine the applicable compensation ranges for the CEO positions, and they took into account all the factors that a professional compensation expert would take into account in reviewing those positions. So those pay grades have been established in accordance with the recommendations received.

Mr. Clark: The Public Agency Secretariat: is that part of the ABC review? Is that where that comes from?

Ms McCuaig-Boyd: Yeah.

Mr. Clark: Well, again, I'm having a hard time drawing any other conclusion than that either we've got some significant internal turmoil here that causes people at senior levels to leave on a regular basis and an inability to replace them with a qualified person for the long term or we've set the pay grade too low. I mean, this is a highly, highly expert area, and if we want to attract the right kind of talent in something that is – and I'm not talking about outrageous pay and perks. I'm just saying: look, if the fair market for someone who has the skills required to do the job is more than we're willing to pay, I think we're going to have a hard time attracting the kind of person we need to do that job. Whether you kind of like it or not, if it's a highly expert position, I worry that we're saving pennies and costing ourselves dollars by not having the right sorts of people involved. It's a real concern.

10:30

Ms McCuaig-Boyd: Well, I can tell you that we're recruiting right now, and we do have applications. So more to come. We have an interim in place, and we do have people.

The Chair: Thank you.

Back to the private members of the government caucus.

Dr. Turner: Thank you, Chair. I'll continue on a back-and-forth basis if acceptable.

The Chair: Sure. Please go ahead, sir.

Dr. Turner: As I was saying before being interrupted, as an Albertan I am really excited about the potential of the Alberta heartland area and the concentration of highly commercial and specialized manufacturing and industrial activity that's going on out there. As I mentioned in my member's statement last week, I did tour the facility near Bruderheim, which is the oil-to-rail terminal. It's an impressive facility. In fact, in driving past it, you're not aware that there is actually a transfer operation that loads 60,000 barrels of oil – it's Canadian oil, Alberta oil – coming into Bruderheim. It's loaded onto unit trains that are taken down to the Texas coast, actually, to Corpus Christi. This is 60,000 barrels of oil that we're getting royalties on and that are providing lots of jobs for Albertans. It's a very impressive thing. So that exists already, and it's functioning quite well.

The operators of the oil-to-rail terminal did complain, in quotes, to me that they were having trouble with the rail companies, actually, getting locomotive power. It's actually analogous to what we hear from Alberta farmers, that they can't get their grain to market for almost exactly the same reason. So my suggestion is that our government should be getting after the rail companies – and I realize that that's a federal responsibility – to be more forthcoming.

Anyways, getting to the point, it really relates to the petroleum diversification part of the business plan, and that's on page 61. One of the things that I learned about when I was out at that facility near Bruderheim is that there is a proposal to try to make the oil that's put onto the unit trains and the oil that's actually put into the Kinder Morgan pipeline, which starts in Fort Saskatchewan, nearby, actually flow easier. To me, that's a brilliant way to have petroleum diversification. My question actually is: what is your ministry doing to help facilitate that sort of innovative thinking so that we can be seeing more of that?

Ms McCuaig-Boyd: Okay. Well, thank you. And lucky you. I haven't seen one of those terminals up close yet. I've driven by the one near Hardisty. I can tell you that we did have some conversations in Houston about that angle of things. Certainly, with

the Minister of Transportation we've talked about some options we can do there.

I think one of the things you might be referring to is the partial upgrading, you know, that we're looking at, the program. Partial upgrading, as you know, reduces the thickness of the oil sands bitumen so that it can be transported a lot more easily. One of the nice things about that is that it enhances the oil sands industry's competitiveness by reducing the costs, increasing pipeline capacity, and enabling – the other thing, when I was, again, down in Houston, we learned is that we can have access to a lot more refineries there and elsewhere if we do partially upgrade. So that part is exciting, and the benefits are pretty clear.

The other is that less diluent is used, and we can create more capacity in our existing pipelines. Currently, if we use diluent in the dilbit, it's about 30 per cent, so if we can reduce that, that helps. There's synthetic crude oil and conventional crude oil moving on export pipelines. You know, if we can put our attention to things like partial upgrading, it's going to mean lower costs and greater value for our industry, and ultimately that reflects on the royalties for us. It's, again, good for the people of Alberta, and it's good for our industry.

Dr. Turner: Thank you for that. There is even, I think, more excitement about it. When we do the partial upgrading, we can actually extract materials from that such as asphaltenes that can be manufactured into things like paving materials or waterproofing, roofing materials. I've been told, in fact, that the asphaltenes may actually be more valuable than the partially upgraded bitumen that's going into the rail cars or the pipeline.

Ms McCuaig-Boyd: That's absolutely the beauty of diversification, that there are other products that we weren't realizing the value of, and now we can. That's why we are putting a billion dollars towards partial upgrading over the next eight years, beginning in 2019, the next budget, and we're looking at the fiscal tools, including loans and grants. When I was in Fort Saskatchewan recently, I believe the mayor of Bruderheim was there, and there is a lot of excitement in that area. Just outside of that heartland, towns are looking at how they can avail themselves of some of these programs. They do see the economic benefits in their towns and how they can be involved. I absolutely get the excitement you probably felt when you were there because I certainly saw it when I was in Fort Saskatchewan a few weeks ago.

Dr. Turner: Since I was a kid, I've been fascinated with trains. If you ever get a chance to go to that, seeing a 200-unit train in concentric circles around the loading is . . .

Ms McCuaig-Boyd: Yeah. Like I say, I saw it when I went to tour line 3. I saw it from a distance, and I was kind of excited. You know, we do need both right now. It's not an either/or. When we talk about upgrading, there's \$22 billion to our GDP here in Alberta over the next 20 years, leveraging two to five partial upgrading facilities and \$5 billion in investment, 4,000 jobs, 200 full-time jobs. So diversifying is a really good thing for Alberta, and it takes us off that boom-and-bust roller coaster that we've felt for many years.

Dr. Turner: Another thing that's going on up in the Alberta heartland is the North West refinery, but there are also hydrogen plants up there. Actually, the North West refinery, I believe, is using that hydrogen to help make the low-carbon diesel that's being made. As I understand it, the North West refinery actually takes carbon dioxide out, and that carbon dioxide is liquefied and shipped down to Clyde, near Red Deer, and used to rehabilitate some old oil wells so we can get some light crude out of those oil wells. How

does that sort of thing fit into this? I guess it's a form of petroleum diversification or, at least, maximization of our resources.

Ms McCuaig-Boyd: Yeah. As you know, we have the two projects right now, the Quest and the carbon trunk line. Those are opportunities, you know, in the future. Not in my ministry but in Economic Development and Trade there's the carbon Xprize that they're looking for. What are the ways we can commercialize and use carbon as a thing rather than as a waste product? There's lots of exciting stuff going on. I had a chance to tour the University of Calgary recently, and there are some researchers there focusing their minds just on that very matter. I think we're going to see a lot of future opportunities. Enhanced oil recovery is what you're describing, using carbon for that. I think that in the future we'll see some good stuff.

The Chair: Thank you, Minister.

We'll now take a five-minute break and reconvene at I'll call it 10:47.

[The committee adjourned from 10:40 a.m. to 10:47 a.m.]

The Chair: Okay. I'm going to call the meeting back to order here.

We had left off with the private members of the government caucus, so now we're back to the Official Opposition.

Mr. Panda: Thank you, Mr. Chair. I'll go back and forth.

The Chair: Sure. Please go ahead.

Mr. Panda: Minister, page 64, key strategies: that's the business plan I'm referring to. Alberta has limited hydro resources to develop, but if a hydro proposal came forward for the renewable electricity program, would it be considered?

Ms McCuaig-Boyd: Well, you know, I can tell you that we put hydro in our Renewable Electricity Act for a reason. At this point we have hydro in the province. We don't have a REP that's addressing hydro, but we certainly wrote it in the act for a reason. We're exploring the options. AESO is assessing for us if and how hydroelectric development can benefit our electricity system, so they are doing that work. AESO's assessment includes cost-benefit analysis because, as you know, it's a more long-term investment. We're looking at dispatchable technologies to ensure that any future decisions, again, are in the best interest of Albertans. AESO will provide us that this fall, their recommendations.

Mr. Panda: Okay. Thank you.

What about geothermal, the geothermal that uses abandoned orphan well caves. Would that be considered for the renewable electricity program?

Ms McCuaig-Boyd: You know, again, geothermal was in the Renewable Electricity Act as well for a reason. The government is also exploring a variety of options, increasing the use of alternative and renewable sources for electrical generation and heating in our province, including geothermal. Within our climate leadership plan we set a target of 30 per cent renewables, as you know, by 2030.

Again, currently we're working on policy development for deep geothermal sources for commercial applications. Shallow geothermal is done in Alberta on a small scale for homes and household use but not for the deep, large-scale commercial applications such as utility-scale heat or electricity generation. In Alberta we absolutely have the opportunity to use our province's vast knowledge and experience in subsurface drilling to complete new or to convert existing wells, so we're also looking at that area.

We will be talking to stakeholders in indigenous communities on a variety of perspectives and further exploring this opportunity.

Mr. Panda: The stakeholders are telling us that the Alberta Energy Regulator does not want to change the abandoned well policy to allow geothermal. Why would that be?

Ms McCuaig-Boyd: Well, I think, first things first, we have to consult with our stakeholders about the policies, and our policies drive the work that the AER does. They don't just make policy up. Once we get those policies in place, they will do their part on that, you know.

Mr. Panda: But you already included geothermal in your renewable act.

Ms McCuaig-Boyd: It is, but now we have to create policies of how that could look, and then the AER – this is work that we're working on and will be coming forth with in the . . .

Mr. Panda: Stakeholders are also telling us that the AER doesn't want the geothermal industry to use the suspended well bores. Why would the AER be opposed to recycling existing infrastructure and unloading liabilities?

Ms McCuaig-Boyd: Well, I think, first of all, the lack of a regulation. You know, you don't want just anybody coming in and dealing with well bores. You've been in the industry, and I think you know that that could be dangerous if we don't have regulations in place. We have to again put the policies in place and then direct the AER to put regulations under that. There is . . .

Mr. Panda: So when can we anticipate the policies and regulations?

Ms McCuaig-Boyd: Well, as I said, we're doing that work now, and there'll be more to come as we develop the policies. This is work in action right now.

Mr. Panda: Can you give the range?

Ms McCuaig-Boyd: I would encourage your stakeholders to absolutely contact our department, and we can have somebody chat with them about: what are their thoughts on this?

Mr. Panda: Absolutely. I'll direct them to you.

But can you give a range? Like, I mean, how long would it take? How many months or weeks or years?

Ms McCuaig-Boyd: You know, again, it's a complex thing, and while we've identified as a potential energy . . .

Mr. Panda: What's the target for completing the policy and regulation framework?

Ms McCuaig-Boyd: Yeah. This is work that's ongoing. We don't have a target date on this. It's a fairly complex issue, to look at where the resources are. You know, like I said, there's the shallow, there's the deep, and then there's the energy from old well bores and stuff.

Mr. Panda: I perfectly understand.

Ms McCuaig-Boyd: Yeah. You would know this. I mean, we've got to figure out the plan and what policies would best fit with that, again, in the best interests of Albertans, and then we would direct the AER to develop regulations under that.

Mr. Panda: Yeah. Is it under a priority? That's what I mean to say: is that under what plan and if it is scheduled to be completed by the end of this year, next year.

Ms McCuaig-Boyd: We don't have that date in mind. We're just doing the policy discussions right now. Perhaps at this time next year I'll have that answer for you.

Mr. Panda: Okay. Thank you.

Page 116, line 2.1: is there a royalty in the province for collecting the latent heat that a geothermal reservoir generates, and what is that rate?

Ms McCuaig-Boyd: No, there are no royalties on the heat.

Mr. Panda: Okay. Thank you.

I'm moving on to coal phase-out now. Can you explain line 4.1, coal phase-out agreements, on page 166, in the financial transactions vote by program? Sorry. It's page 116, not 166, financial transactions vote by program, please. What does this part of the coal phase-out represent?

Ms McCuaig-Boyd: So 2017-18 was the first fiscal year where the negotiated agreements took effect. The \$31.9 million represents the annual interest paid for the current year. Then there's a reduction in interest expense every year as more principal is paid down until the agreement is fully paid in 2030.

10:55

Mr. Panda: With respect to the coal phase-out, on page 116, line 4.1 again, Keephills 3 and Genesee 3 are the supercritical plants with the lowest emissions of all coal-fired plants, meeting and exceeding the emissions of some natural gas generators. Why do you go after those two plants?

Ms McCuaig-Boyd: Can you explain what going after – like, can you repeat what you're asking?

Mr. Panda: I understand there's a plan to shut them down sooner.

Ms McCuaig-Boyd: Yeah. I can't speak to – those are commercial decisions, when they decide to shut them down. We don't direct them to shut down.

Mr. Panda: It's part of the coal phase-out plan, isn't it?

Ms McCuaig-Boyd: I'll ask David to give you some detail on that.

Mr. James: Sure. The Genesee and Keephills facilities are two of the facilities, the six facilities that beyond 2030 – government has policy stating that no coal-fired emissions would be permitted beyond 2030. Those two facilities, notwithstanding what you've described with respect to their emissions, while they buy those emissions down with credits from other locations and get them to an operating agreement level that through those credits may be near that natural gas standard, are still emitting coal-fired emissions. They're still covered under that policy framework from government. As a result of Terry Boston's work, those two facilities were encompassed within that work, and agreements were struck with them as part of that.

Mr. Panda: So agreements were struck to accelerate their closeout – right? – or convert them to natural gas?

Mr. James: They won't be permitted to have coal-fired emissions beyond 2030 in accordance with the agreements. There is, however, work that's gone on, and the federal government has recently

gazetted gas-fired regulations for coal-converted boilers, and that would permit up to 10 years of additional life for those supercritical facilities.

The Chair: Thank you.

Mr. Clark, over to you.

Mr. Clark: Thank you very much. If you don't mind, Madam Minister, I'd like to go back and forth.

Ms McCuaig-Boyd: Sure.

Mr. Clark: I just want to ask about another agency under your department, the AUC. Is the chair of the AUC currently the permanent chair, or is there a process under way to find a new permanent chair?

Ms McCuaig-Boyd: Yeah. The chair that we had has retired, so we have one in place, and we're currently recruiting, well, interviewing for that.

Mr. Clark: When did that retirement take place?

Ms McCuaig-Boyd: I think it was January, and then there was a bit of an extension. Yeah. We've appointed an interim while we recruit.

Mr. Clark: Given that it's a retirement, though, there was, I assume, some line of sight ahead of time. When did you start the recruitment process for the chair of the AUC?

Ms McCuaig-Boyd: I can't remember exactly, but it's been some time.

Mr. Clark: Okay. So it was before the retirement took place? It would have been in 2017 sometime?

Ms McCuaig-Boyd: Yeah. It was in the fall.

Mr. Clark: Okay. So it was in the fall. It's now April of 2018. If we were to say fall of 2017 to spring of 2018, that's roughly six months' time.

Ms McCuaig-Boyd: Sorry. I'm mistaken. The current chair is still with us till May 1 because there was an extension, and you can extend for so much . . .

Mr. Clark: Right. So retirement announced but staying around until May 1.

Ms McCuaig-Boyd: Yeah. And that'll allow us the time to recruit.

Mr. Clark: Okay. And you expect to have a chair in place in time for May 1, a permanent chair?

Ms McCuaig-Boyd: I believe, yeah, if it gets through cabinet in time and that.

Mr. Clark: Okay. Good.

All right. Moving on to a different question within the same broad area of electricity. The REP process: there's been one round of renewable contracts let. I understand that the next two phases have been announced. Is that right?

Ms McCuaig-Boyd: Yeah.

Mr. Clark: So we've got one through three. My question is around transmission cost. I understand that in the past you have said that

there will be no incremental transmission costs as a result of the REP process. Is that correct?

Ms McCuaig-Boyd: As I think I've mentioned in the House before, we're blessed with a fairly robust system. When the AESO is considering these, they look at location to existing transmissions, so there won't be any new transmission built based on these reps.

Mr. Clark: Okay. So just to be a hundred per cent clear, what I'm hearing is that the province of Alberta will not require substantial new transmission for any of the renewable energy projects.

Ms McCuaig-Boyd: Yeah. I'll let David speak maybe to it.

Mr. James: Under the existing transmission system the AESO in rounds 1, 2, and 3 has clearly stipulated that the transmission would be considered in evaluating the projects themselves. The AESO does already have under way in their long-term outlook and their long-term plan transmission projects that by the natural evolution of needs within the province would grow transmission resources in certain regions of the province, in the central east, in the south. They're also looking at some projects, I think, in the north-central part of the province. Those transmission systems, when they come online, would support not just generation but would support low development in those areas or demand. They're not being built for the renewable electricity program; however, when they're in place, they would facilitate more renewable resources, generating resources on those transmission lines.

Mr. Clark: Okay. So when doing the next couple of rounds of the rep process, are you considering geographic diversity as part of the criteria as to where we're going to potentially put these, in particular wind projects, so they're not all in one part of the province?

Ms McCuaig-Boyd: Yeah. That's one of the criteria.

Mr. Clark: That is one of the criteria. That's great to know.

Have you done any cost analyses on the contracts themselves? Obviously, I was very encouraged by the 3.7 cents a kilowatt hour. That's a pretty remarkable price, and I think we would all agree. I think that adding renewables to Alberta's grid, from an Alberta Party perspective, is certainly a very positive thing. What does your analysis show in terms of what you feel that cost is likely to be? I mean, one of the challenges with wind, of course, is that when the wind blows, the price attracted tends to go down pretty significantly. You can't choose when to dispatch it. The wind blows when it blows, and that tends to cause the price to go down. So even if the overall average may be more than that 3.7 cents, the actual price realized by the wind projects often, generally, is quite a bit lower or is likely to be lower. I like the model that you've adopted. It makes sense. But I'm just curious whether you feel like that's something that we're likely to see wind producers attracting a lot of those higher prices or that, generally speaking, they're going to be in the lower price band. And if so, what costs are we looking at going forward through the life of those reps?

Ms McCuaig-Boyd: Yeah. I'll speak, and then if David wants to add in some more. You know, they'll be in the lower price band, but it is possible that they could be in a paying position down the road. The bid price we received in round 1, as you said, set record lows. With the cost of developing renewables continuing to drop and given industry interest, we're excited about the prices, obviously, for all of the rep rounds. As with round 1, AESO will run a competitive bidding process for the next rounds. By using this competitive process and maintaining the need to use existing lines,

we expect to have very good prices. At the end of the day, we may even be in a receiving position down the road the way the contracts for differences are applied. The AESO does a lot of modelling on things as well.

Mr. Clark: Okay. Thank you very much.

I'm going to go back to your business plan. Apologies. I'll try not to jump around too much, try to keep things similar thematically.

Ms McCuaig-Boyd: That's okay. As long as you tell me where you're at.

11:05

Mr. Clark: Time is wearing on here. We've now just entered hour 5, so we'll have to bounce around a bit. Thank you very much again to you and your very capable staff here for your patience and for your answers and your work.

The business plan page 60, second paragraph. Well, I guess maybe third paragraph as there's a short one up top there. It says that the "Climate Leadership Plan has demonstrated Alberta's commitment to being a sustainable energy producer and has helped to improve global perception of Alberta's oil and gas resources." I hope that's true. How do we know that? Does your department do polling? Do you do surveys? How do we quantify the help to improve the global perception of Alberta's oil and gas resources?

Ms McCuaig-Boyd: Well, I can say, you know, that once we announced our plan, I had industry companies coming and telling me that the conversation, for example, around pipelines and just marketing in general in Alberta started to change. And I can tell you that just between going to Houston to the CERA conference two years ago and this year, climate leadership, carbon, and all of that wasn't much of a focus two years ago. I would say that this year it was 80 per cent of the focus. And this is global. There are over 70 countries, more than 4,000 participants, and many of the discussions were that.

I think one of the things that's not understood is that even in the U.S. there are a number of states who are considering or are pricing carbon, so we know we're in the global stage. Just looking anecdotally in the last couple of years at the interest in Alberta, we're seen as being climate leaders as well as resource leaders. I don't know from your perspective, but just anecdotally I absolutely know we're in the right space.

Mr. Clark: I think those anecdotal reports are somewhat helpful, but I would love to see some performance measures because as much as I trust that to be true, I'd like to be able to quantifiably verify that that's actually the case, so we know.

I guess the other question I would have is: are there tangible benefits to this? Have we been able to access any new markets because of this improved global perception that you talk about? Without question, that hasn't worked in the Lower Mainland. Clearly, I'm afraid, the folks chaining themselves to the fence at Kinder Morgan don't seem to believe that Alberta is taking appropriate action in terms of climate change or, frankly, much else. So I guess I'm just curious how we square all of this, how we can actually realize that. And that's the question I'll ask next time I get a chance.

Ms McCuaig-Boyd: Okay. I'll be ready.

The Chair: Back to the private members of the government caucus. Please go ahead, Dr. Turner.

Dr. Turner: Thank you, Chair. I will continue with the back and forth if it's acceptable.

Ms McCuaig-Boyd: Sure.

Dr. Turner: Okay. I want to get into the modernized royalty framework, which is the ministry overview, pages 59 to 60, and there are some line items on page 66. But before we do that, I want to actually get you to expand on some of the outcomes and benefits of the coal-fired phase-out. I'm specifically referring to, as a physician and as the MLA for Edmonton-Whitemud, the demonstrable health benefits of switching from coal-fired electricity generation near Wabamun to gas fired. We don't seem to ever hear of those benefits, particularly from the opposition. They kind of put that under the carpet, I think. I would like to hear your comments on where those health benefits fit into the overall evaluation of the benefits of this program.

The Chair: I've given everybody a fair amount of leeway on their questions, okay? I can respect the fact that the members over on this side are asking for relevance, but I've given you the same leeway that I'm giving everybody else. So, Dr. Turner, I'd ask you to try to get it focused on the estimates before us. Please carry on.

Dr. Turner: All right. I will move on to the modernized royalty framework.

Ms McCuaig-Boyd: Okay.

Dr. Turner: Basically, where are we at with the implementation of the recommendations, and what has changed?

Ms McCuaig-Boyd: Well, thank you. Certainly, everything has now been fully implemented. This has been a journey over a couple of years. I continue to get accolades on the process that we took with industry and with environmental groups and ordinary Albertans to modernize our royalty framework. The last piece that's probably in place from this time last year was put in the latter part of 2017 with the addition of new pages in the Alberta Energy website which provide detailed information on all of the province's oil sands projects and the royalties. Visitors can go to the site, and they can access information either through a spreadsheet or through an interactive map. I would encourage everybody to check it out. It's pretty cool.

Information that could impact in competitiveness in the oil sands companies, for example the cost of diluent in cases where a company has fewer than three suppliers, has been excluded, but it's on a case-by-case basis because of commercial sensitivity. I'm very proud to say that Alberta has an unprecedented level of transparency in this regard, and now Albertans will be able to see for themselves as owners of the resources how our royalty system is working and how we are getting value for our resources. I again encourage anybody to look at that page. Everything is in place now, and people can see how we're doing.

Dr. Turner: Thank you.

Maybe as a follow-up to that, what has been going on to enhance transparency of that royalty system, and how is it better informing Albertans as to the benefits?

Ms McCuaig-Boyd: Well, yeah. One of our commitments from the start was to provide Albertans with easy access to information about our royalty system. Even when we were doing the review, we provided a learning opportunity for people to read and understand how royalties worked so that they could make some informed comments about it. Last year my ministry published a royalty website that included data on individual oil sands projects. Again, this means anyone can look at and access that information. It

enables them to understand how we benefit from the industry through our royalties, and it makes us absolutely an international leader in terms of disclosing information on our royalty system. I'm very proud of that.

Dr. Turner: There's been a lot of excitement, particularly up in northwestern Alberta, in your area and in MLA Drysdale's area, about the Duvernay and the Montney. It's my information, actually, that there's a tremendous amount of drilling and a tremendous amount of interest in that. How has the modernized royalty system actually facilitated that?

Ms McCuaig-Boyd: Yeah. You're absolutely correct. The Duvernay and the Montney are the next big thing, and there is a lot of excitement. I know that when I go to the airport now, I have to leave a little earlier, and I don't get my good parking space close to the airport anymore because there are lots of service trucks and that at the airport.

There was, you know, an increase in new wells drilled by operators that coincides with the implementation of our modern royalty framework. In fact, when I go back, there are companies who asked if they could drill ahead of the implementation date under the new framework because they liked what they saw.

According to industry estimates there was a 131 per cent increase in drilling activity in the first three months of 2017, and the number of active rigs was up at that same time, averaging 210 rigs, which, again, was a 101 per cent increase from the year before. These increases stem in part from the framework and the flexibility created. You know, the framework has now been in effect, and it encourages investment and innovation. One of the things about up where I live and where Wayne lives is that a lot of the liquids are mixed, so before they would drill, they had to make a decision about whether they wanted to keep drilling regardless. Where we combined, it didn't matter what liquid you're going for; there's a different system now. So it's easier for companies to make those decisions than before. As I say, I continue to get accolades on the new framework and how we arrived at it.

Dr. Turner: Thank you.

In the same vein, what has the impact of the new royalty framework been on land sales?

11:15

Ms McCuaig-Boyd: That's one of the strongest indicators that we've had, you know, and the results of the land sales are held every two weeks. We're seeing very strong indicators for sales in the Duvernay and Montney formations. The total land sale bonus bid in the Duvernay in 2017 was \$400 million. If we add the results for the Montney on top of that, it's more than \$500 million. A lot of land sales are being realized up that way because, again, people see the value and the excitement and potential of that region.

Dr. Turner: Are there other parts of the province that are benefiting similarly?

Ms McCuaig-Boyd: There is drilling up along Rocky Mountain House, in that area. There's drilling in a number of areas. I see it more up where I live because I'm passing all these service trucks and rigs moving – you know, right now we're heading into breakup, so that will go down for a bit. People are excited in a number of the regions, and even some of our opposition have commented that they're seeing it in their areas as well.

Dr. Turner: Thank you for that.

I'll pass on the remainder of my time to my colleague MLA Woollard.

Ms Woollard: Okay. Thank you.

This is kind of an abrupt switch. You've spoken a lot about the pipelines and what's happening there, but I just have a few last questions that might be worth while talking about. Trans Mountain, which we've talked a lot about, is one pipeline. What's the government doing to support the construction of other pipelines such as line 3 and Keystone XL? I know we've talked about this, but if I could get the details on that, I'd appreciate it.

Thank you.

Ms McCuaig-Boyd: Yeah. You know, we do a lot of work. Trans Mountain is the one you hear about a lot, and certainly to date we and Trans Mountain have been working, but we do work on line 3 and Keystone XL with the proponents. I had the opportunity to tour line 3 last summer near Hardisty and was amazed to see the logistics and all the lay-down yard and how fast they were moving at the time. We know that the construction of these pipelines is going to help improve our access to markets. The Gulf coast loves our heavy oil, and that's one of the refining centres of the world, so that's going to help. The Minister of Environment and Parks recently was in Minnesota, where line 3 is being examined, and she helped inform that state about our climate leadership plan and other actions that we're taking to be leaders of sustainable resource development.

Ms Woollard: Thank you very much.

The Chair: Please go ahead.

Mr. Hanson: Thank you, Chair, and thank you, Minister. I didn't finish my line of questioning there. Referring to page 116, we'll be talking about line item 4.3, the regulated rate option price ceiling; 4.1, the coal phase-out agreements; as well as 1.1, your minister's office expenses.

Minister, would you agree that the conflict with Enmax resulted from them returning that power purchase agreement to the PPAs?

Ms McCuaig-Boyd: Well, you know, first of all, I think I need to go back and talk about why we're doing all of this. Before I was ever minister, you know, we ran a cattle operation, and I was very aware of the spikes and the way the system worked.

Mr. Hanson: Minister, I asked a fairly simple question: would you agree that the conflict with Enmax resulted from them returning a power purchase agreement to the PPAs?

Ms McCuaig-Boyd: It's hard to answer because there's a holistic . . .

Mr. Hanson: Was it a result of them returning their agreement to the PPAs? Yes or no? It's fairly simple.

Ms McCuaig-Boyd: Well, again, you know, I think you're talking about some different files here. The deal with Enmax was including carbon credits and that kind of thing. This is a result, though . . .

Mr. Hanson: I'm talking about the original conflict with Enmax, not the deal that you made with them. I'm talking about the conflict. Why did Enmax go to court?

Ms McCuaig-Boyd: Well, it goes back to what I was trying to say about the backroom deals many years ago, the way the PPAs were written and the interpretation of the change in law.

Mr. Hanson: We have the exit clause. We all understand that, Minister.

Ms McCuaig-Boyd: Yeah.

Mr. Hanson: The reason that the PPAs became unprofitable – would you agree? – was because of the early shutdown in coal-fired generation.

Ms McCuaig-Boyd: It was because of the way the change of law clause was written in the backroom deals, is what started that.

Mr. Hanson: Okay. This is my question to you. I have you on record in the House on many occasions, and I can go through them all again. I've got the Premier on record making the same statements, and I've got the Environment minister making the same statements, that the Enmax deal – and again I can quote you on March 14. "It's going to help us meet our greenhouse gas commitments. Again, it has no impact on Albertans. It's a fair agreement for Enmax. It's a fair agreement for Alberta."

Now, Minister, it's a total this year alone of \$171,401,000 that resulted from the deal with Enmax. That was triggered by them returning their agreement to the PPAs because it became unprofitable because of the early shutdown of coal-fired generation. Can you sit here and tell us that this has no impact on Albertans, \$171 million this year alone? Can you really say that the deal with Enmax will not have an impact on Albertans? Where is that money coming from if not from Albertans?

Ms McCuaig-Boyd: Again, the deal you're referring to: Enmax settled. It's to do with carbon credits, and it has no impact. The deal that was reached a few weeks ago is not going to result in extra costs to Alberta.

Mr. Hanson: Minister, the deal would not . . .

Ms McCuaig-Boyd: You're confusing two files.

Mr. Hanson: . . . have had to be made at all. It all goes back to the early shutdown and phase-out of coal.

Ms McCuaig-Boyd: It goes back to, again, a backroom deal, that I will not apologize for and for defending Albertans. I'm frankly surprised that you guys continue to support that backroom deal that caused it.

Mr. Hanson: I'm simply asking the question for you to clarify how you can sit here and in the House and claim that the deal with Enmax, that was triggered by early phase-out of coal, that triggered the nonprofit clause, that triggered the exit clause for the PPAs, somehow has no effect on Albertans.

Ms McCuaig-Boyd: You're confusing two things.
I don't know. David, can you clarify the difference?

Mr. Hanson: Please, David.

Ms McCuaig-Boyd: I'm not, apparently, doing a good enough job. I'll try it once more.

The deal with Enmax closes the dispute with the company. The costs that are under the climate leadership plan are related to getting off high-emitting coal, increased renewables, and protecting consumers. They're two different things.

Mr. Hanson: But, Minister, this is what triggered the whole conflict with Enmax, so they're part and parcel.

Ms McCuaig-Boyd: I think we have to go back . . .

Mr. Hanson: You wouldn't have had to make a deal with Enmax if it wasn't due to the PPAs and them returning their agreement. I mean, we're on the hook for \$74,310,000 this year alone, line item 4.3, regulated rate option price ceiling, and you tell me that the deal has no impact on Albertans. How can you sit here and say that?

Ms McCuaig-Boyd: The \$74 million you're referring to has zero to do with this. That's the cost of returning to more normal prices, and that has nothing to do with what you're describing. It's a whole different number.

Mr. Hanson: I beg to differ, Minister. It's all tied together. The coal phase-out agreements, the PPAs, the regulated rate option price ceiling, the deal with Enmax: it's all tied together. It was all triggered by the early phase-out of coal and the power purchase agreements becoming nonprofitable and triggering the exit clause. All of those things are tied together. This year alone it cost \$171,401,000 to the Alberta taxpayer. Do you still stand by your statement that this has no effect on Albertans?

Ms McCuaig-Boyd: First of all, I might remind you that it was the federal government that came in with the rules about phasing out, retirement, of coal-fired electricity. Again, they never bothered to tell anybody that this was going to happen. Our part was dealing with the six companies who would be operating beyond 2030. So that's part of it.

11:25

But, again, it all goes back to when there was a change-in-law clause. This goes back to the backroom deals. I've seen the paperwork. It's been posted, and it was not protecting Albertans, everyday families. We're looking at a system that's going to protect Albertans, provide stability, affordability, and go from a system of price spikes to a system that's a little more predictable. Again, we're going to be saving families money in this system, and you guys can continue to defend companies that made a lot of money with backroom deals.

Mr. Hanson: Minister, let me ask it another way. The four line items that I was referring to – 4.3, \$74,310,000; 4.1, coal phase-out agreements, \$29,907,000; the liability retirement, 4.1, coal phase-out agreements, of \$67,063,000; the increase in the budget of the minister's office, \$121,000, for a total of \$171,401,000 – would you agree that that will be covered by the taxpayers of Alberta?

Ms McCuaig-Boyd: First of all, you're conflating . . .

Mr. Hanson: No, no, no. I'm just asking a simple question.

Mr. Nielsen: Point of order, Mr. Chair.

The Chair: Go ahead, Mr. Nielsen.

Mr. Nielsen: I'd like to direct the member's attention to 23(c): "persists in needless repetition." How many more times does the minister need to answer the same question in the exact same way?

Mr. Hanson: It's a different question.

Mr. Nielsen: No, it's not.

The Chair: You have another question, Mr. Hanson?

Mr. Hanson: Wow. Sure. Okay. Let's go to the business plan, page 61, paragraph 3. This is, I believe, from your department. It says,

“There has been a recent global shift away from high-emission sources of electricity to cleaner sources of generation.” Does that statement include the fact that Japan is planning to build 45 new coal-fired power stations?

I’ll defer the rest of my questions to my colleagues.

Ms McCuaig-Boyd: So you don’t want an answer to that? Okay.

Mr. Panda: I’ll come back to that when I come to electricity.

I’m picking up where I left off. Alberta Petroleum Marketing Commission, page 126: there were references to the North West refinery.

The Chair: Thank you, Mr. Panda.

We’ll now move on to Mr. Clark.

Mr. Clark: Thank you very much. If the minister would be so kind, we’ll go back and forth if that’s all right with you. Thank you very much. Thank you, Mr. Chair. I’m just going to pick up on the question about the change-in-law provision in the renewable energy, the REP, process. Is there a change-in-law provision in the REP contract?

Ms McCuaig-Boyd: Yeah, there is. Again, somebody with a legal background can explain it better than myself. That’s a pretty standard thing in a lot of agreements. The difference is that if there’s a small change in the law, the compensation or consideration would be for the small change. The difference in the one that we’re disputing was that there was a small change in law, and the companies wanted to claim – they were losing some money before that, and they wanted to claim that as well, so there’s a huge difference in the way they’ve been written.

Mr. Clark: But I think you said it yourself: these provisions are quite common. I guess, in doing the research you did on the previous PPA setup – because clearly you had to dig into that. You’ve talked about the change-in-law provision that was brought in, in your words – I can’t remember the exact words – sort of implying that it’s sort of a secret, backroom deal I think is what you’ve said. Was that the only change made at that time, or were there any other changes made immediately before those contracts were let, or those arrangements, the PPAs, were let? Was that the only thing that changed, or was there a series of other things that happened around the same time, using that same mechanism?

Ms McCuaig-Boyd: Yeah. There were, from what I understand, a series of addendums approved at that time.

Mr. Clark: So are you being selective? I mean, the reason this is material and relevant today is the reaction that you’ve had right from the very beginning to this. You know, occasionally politics has been known to break out in the Legislative Assembly, and that’s my observation of what seems to happen here. There was a set, fixed idea of what you wanted to do, and you needed to adjust some perception around that. I think you’ve quite skilfully used, I have to say, the complexity of this whole area to create a narrative that there was some sort of backroom dealing, when really it appears to me that this is just a normal and ordinary course of a contract negotiation in a very complex area to the point where your current rep contract has a very similar provision. You’ve taken Alberta down a path which has cost taxpayers hundreds of millions of dollars in the best case, probably over a billion, and that’s something that I think Albertans should be rightly concerned about.

What’s the difference between what happened then with a series of addendums and where we are today? Was there not another way of going about this?

Mr. James: The addendums at the time that were done – there were a number of addendums. The significant majority of those addendums were formulaic addendums. The one substantive addendum that was identified by the government was the one where they had identified a shift where to add the “or more unprofitable” clause inside of that particular part of the change in law provision. There isn’t that particular detail inside of the change in law provision that the electric system operators built into their support agreement. That change in law provision is predicated on if there is a change in law that creates a cost associated with an item, then that cost associated with the item is discussed with the electric system operator, and decisions are made associated with that shift in cost and the allocation of that particular cost, but it doesn’t affect the entirety of the payouts associated with that particular agreement.

Mr. Clark: Okay. Thank you for that answer.

Ms McCuaig-Boyd: If I could add, too, you know, I think the difference is: this change of law in these agreements is publicly posted for all to see. The ones in the past were not.

Mr. Clark: Okay. I’m going to move on to the NWR partnership, operations. The budget in 2017-18 was for revenues of \$36,700,000. The forecast is zero. The estimate for this fiscal ’18-19 is \$77.4 million. Can you just tell us – I know from previous answers that is a result of the start-up being delayed. What risk do you feel there is that that \$77.4 million will not be realized this year? What are the risks to Alberta taxpayers of this particular investment?

Ms McCuaig-Boyd: Sorry. What page, Greg, were you on?

Mr. Clark: Page 126 of the blue big book, government estimates.

I guess, really, the real question – and apologies for interrupting. We’ve got four minutes left. The real question is: what is the total anticipated updated cost to taxpayers from the NWR project as a whole? I’ve raised concerns in the past that taxpayers are potentially at substantial risk here, and I recognize there is some potential benefit, but costs seem to be going up. Timelines are slipping, and there’s a grave concern that we may be in fact in a position where we’re losing money on this project.

Ms McCuaig-Boyd: I might ask Mike. He’s been involved with this project for probably the longest of anyone. Are you able to give some clarity, Mike, to that?

Mr. Ekelund: Yes. I can give some clarity.

Ms McCuaig-Boyd: Sure.

Mr. Ekelund: Thank you very much. Mike Ekelund, assistant deputy minister, resource revenue operations. Perhaps if the member could repeat the question just to make sure I’m answering it correctly.

Mr. Clark: Yeah. What’s an updated assessment of the risk of the North West Redwater Partnership operation piece in terms of the potential for not realizing the revenues we’ve estimated this year, potential for commercial risk around commodity pricing, operational risk around whether barrels can be produced and the way we thought they could be, the carbon offtake, all of that kind of stuff?

11:35

Mr. Ekelund: Okay. I'll go through sort of the key ones. Certainly, there is a risk in terms of what the capital cost is. There has been a recent announcement. The minister stated this morning that the expected cost is now \$8.7 billion. I think the last cost that was forecasted was \$9.4 billion plus 1 to 2 per cent, so \$9.7 billion is above that. That will mean that there will be an additional requirement for equity and for subdebt and senior debt. I'm sorry; \$9.7 billion. I guess I'm still living in 2017 or 2016. My apologies. The last one was \$9.4 billion plus 1 to 2 per cent. It's now \$9.7 billion.

Yes, of course, that does increase the costs, both in the amount of equity required and the amount of debt required, and that will flow into the tolls. I have not done a calculation in terms of what those tolls look like. Each year APMC does an analysis of the owner's contract, and when that is completed, that will be reported in the annual report. My assessment is that we still expect the refinery to be profitable, but we certainly recognize that there is a risk.

There are always risks that there will be additional delays in the start-up timing. The closer you get to the completion of a project, the narrower those risks should be in terms of the cost of the facility and the start and timing. But there are still risks, and there will be until it actually gets started up and we see if it's running once the entire facility is up.

There will be risks, of course, on the commodity side. As you know, prices are volatile, and this will depend very much over the next 30, 40, or more years on what the product prices are, what the feedstock prices are. There will impacts of a number of issues such as pipeline capacity, what happens with marine fuel issues, and so on.

Mr. Clark: Thank you.

I mean, just in the last 30 seconds here, if we find that we're in a position where we're chasing good money after bad, the costs keep going up, and we're in a negative position, what option do we have to get out of this deal?

Mr. Ekelund: At this point my assessment is that there is very little process for terminating an agreement. To obtain debt in the market for a reasonable cost, there must be reasonable certainty . . .

The Chair: Excuse me, sir.

Mr. Clark: Thank you.

The Chair: We'll continue now with the private members of the government caucus. Ms Woollard, please go ahead.

Ms Woollard: Thank you, Chair. I'm not going to belabour this, Minister, but I was in the middle of just getting some information. As I said, if I'm being repetitious here, it's accidental. What is the government doing to support the construction of the other pipelines? I know you mentioned that if we get two out of three, you know, that goes a long way towards helping us be able to transport better capacity. What is the government doing to support the construction of line 3 and the Keystone XL, please?

[Mr. Drysdale in the chair]

Ms McCuaig-Boyd: Yeah. I kind of forget where I left off.

Ms Woollard: I know.

Ms McCuaig-Boyd: Anyway, yeah, as I mentioned, we're supporting the companies wherever we're asked. An example is

that Minister Phillips went to Minnesota to speak there about our climate leadership plan. Premier Notley will also be standing up in May at the North American Governors and Premiers summit and certainly talking about the good work we're doing here in Alberta. Through the APMC we've taken a very significant and direct step, I think, as I mentioned earlier, with the Keystone. We've actually committed to be shippers, 50,000 barrels per day of capacity over 20 years upon its completion. You know, both pipelines are still to be reviewed by regulatory bodies in the U.S., and we're monitoring those situations and providing support when needed.

Whether it's Trans Mountain, Keystone, or Enbridge, we aren't sparing any efforts, you know, to gain the access for our Alberta producers. We know we need that for our markets. As you mentioned, we need to get the full value here in Alberta, keep that here. We know Albertans are on our side in this matter of pipeline access and many Canadians as well, and it's work we're not going to drop. We're going to keep going.

Ms Woollard: Okay. Well, obviously things are moving along. I hope things are moving along. Everyone does.

I've got a few questions here on the business plan. In the business plan book page 63 has strategy 2.1, and that strategy indicates that the government aims to "promote a positive legacy from non-renewable resource development". What is considered a positive legacy, and how will this be achieved, please?

[Loyola in the chair]

Ms McCuaig-Boyd: Well, certainly, we've looked at transitioning our renewables to 30 per cent by 2030. You know, we're looking at diversifying our economy. The idea of a positive legacy, I think, is to bring benefits to Alberta and industry well into the future. When companies engage in resource development in Alberta, they are entering into an agreement with Albertans as owners of the resource to responsibly develop those resources here in our province. A positive legacy includes making sure that they properly operate and shut down their operations, for example, and clean up after their activities. When we leave a positive legacy from resource development, it means that both industry and future generations of Albertans will benefit from resource development activities taking place today without being left with safety and environmental problems. It's a very holistic look. Obviously, as I've said many times, I want to leave this place better for my children and grandchildren, as I think we all do want to leave this place, and I think that's a pretty good legacy that our government is looking at.

Ms Woollard: That's great. I know it's not in the book, but it's interesting because having observed one partial upgrading site up by Christina Lake, I was really taken by the fact that environmentally the impact is so much reduced from conventional procedures.

Ms McCuaig-Boyd: Yeah. I can tell you that there's a site up south of Grande Prairie. I think Wayne has been there as well, and it's Seven Generations, and they have a well pad that's only 22 acres. The rigs are there, and they drill out, and there are, like, 36 different lines going underneath, and it goes underneath lakes and everything. If you fly over, you have no idea of the extent. They are one of the better companies of really looking at a small environmental footprint. I would say from just their name, they're looking at a legacy of responsibly developed resources. I wish everybody in the country could go see and tour that site. I know that we're pretty proud of that company up our way.

Ms Woollard: Thank you. Personally, I was just really taken by that. So that's great.

Just a couple of other business plan questions. Strategy 2.4 on page 64 indicates that the government "will develop and implement regulatory standards as part of Alberta's Climate Leadership Plan to reduce greenhouse gas emissions by . . . 45 per cent from 2014 levels by [the year] 2025." How is the government consulting stakeholders to take an informed approach to this work? That's a kind of convoluted question, but I hope that makes sense.

Ms McCuaig-Boyd: I'm sorry. What page were you referring to on that?

Ms Woollard: Page 64, key strategy 2.4, please.

Ms McCuaig-Boyd: Okay. You know, I've been very proud that in my ministry, regardless of what the matter is, we consult not just with industry but with all stakeholders and indigenous groups and that. We continue that work. The regulator is no different. They do that. When we look at the methane file, for example, we've consulted all kinds of stakeholders and, again, in all areas to develop a made-in-Alberta plan that is going to fit for our industry and is going to be cost effective and flexible. Those are the kinds of outcomes we look at regardless. In regulations we're looking always at ways we can still have those regulations but do them in a more cost-effective way or in a more timely way. That's just the work we do.

11:45

Ms Woollard: Okay. That's good. So the consultation with stakeholders is an ongoing process. It's not just . . .

Ms McCuaig-Boyd: In everything we do. Absolutely.

Ms Woollard: Okay. Thank you.

One quick question. There are references in the business plan to the business risk to the energy industry posed by climate change. That's on page 60. Can you elaborate on what some of those risks might be, please?

Ms McCuaig-Boyd: Yeah. Climate change impacts regional weather plans and trends and can sometimes result in more catastrophic weather phenomena or natural disasters. In Alberta we are familiar with natural disasters such as forest fires and floods, and we know all too well the devastating impacts on our communities and disruptions to our businesses, especially in the resource development sector. So with climate change these natural events can be more frequent, and they can be more severe. It's important that businesses are able to adapt to climate change and have mitigations in place as we collectively make efforts to reduce our overall impact on climate through emissions reductions and transition to a lower carbon economy.

As we introduce provincial and national climate change initiatives to reduce emissions, industry also is looking to adapt its technologies and operations to meet those targets. This could be another form of a business risk, which the Alberta government takes into consideration when looking at climate change initiatives. Certainly, we have a number of initiatives now that are going to help our industry and technology and that kind of thing. Again, we work with industry all along, looking at how we can work with them as partners.

Ms Woollard: Excellent. Thank you.

I'm going to pass it over to MLA Rosendahl.

Mr. Rosendahl: How much time is left, Mr. Chair?

The Chair: You have 51 seconds.

Mr. Rosendahl: Well, Minister, on page 61 the third paragraph mentions moving away from high-emission sources of electricity to cleaner sources of generation. I'm not sure how well aware you are of the geothermal project in West Yellowhead, but if you could explain how that fits in with future needs and the greener energy production from that and also the issue of reclaiming orphan wells as part of that whole process.

Ms McCuaig-Boyd: Certainly, with . . .

The Chair: Sorry, Minister.

Back to the members of the Official Opposition.

Mr. Panda: Thank you. Minister, I have only 10 minutes, so I'll be a little faster on these ones. I'm back to the North West Redwater refinery. Given that you said that capital costs have soared to \$9.7 billion, how many dollars more will taxpayers have to provide to the Sturgeon refinery for subordinated debt?

Ms McCuaig-Boyd: For which?

Mr. Panda: For the debt. Your assistant deputy minister told us.

Ms McCuaig-Boyd: Oh. We don't have that information.

Mr. Panda: Can you provide it later? Just a yes or no. I don't need a long answer.

Ms McCuaig-Boyd: Just a yes or no? Okay. Maybe just briefly here.

Mr. Ekelund: I'll just give you a very short answer. As I mentioned, APMC is in the process . . .

The Chair: Sorry to interrupt. If you could introduce yourself just for *Hansard*, please.

Mr. Ekelund: I'm sorry. Thank you. Mike Ekelund, assistant deputy minister, RRO.

Very quickly, APMC is in the process of doing the onerous contract review. I think they have completed or are very close to completing that process. It will be reported in the annual report. That will provide the information that's available.

Mr. Panda: By when?

Mr. Ekelund: In the annual report. In the annual report every year we produce the information on what the total is over the lifetime as well as the onerous contract result.

Mr. Panda: Okay. Thank you.

Why did North West Refining withdraw their application for phase 2? Have the economics changed, or is there anything you can comment on?

Ms McCuaig-Boyd: I don't know their exact reasons, but I know it happened, you know, after we had talked about the new initiatives coming. We've talked to the company all along. We expect phase 1 of the project to provide a positive return, but there has been uncertainty in markets and final cost estimates and schedule delays. We're waiting until that's done. We've seen cost increases and delays and planning, as we've been talking about this morning. But I think times have changed, and they want to just withdraw and regroup. I expect we will be hearing – perhaps they're now

interested in some of the partial upgrading, that kind of thing. They voluntarily did it.

Mr. Panda: Thank you.

Page 126 again. The February 2018 report of the Auditor General had four very specific recommendations with respect to the Alberta Petroleum Marketing Commission. How soon will all four recommendations be implemented?

Ms McCuaig-Boyd: I'm sorry. What was the last part of your question?

Mr. Panda: When can you implement all those four recommendations?

Ms McCuaig-Boyd: You know, as I said, I think, previously, we support the work of the APMC and believe both its staff and board are working to manage all its projects in the best interests of Albertans, and that's what we ask of them.

The report of the Auditor General is helpful in reminding the staff and the board of the APMC regarding best practices and processes in corporate government. In general, any organization can always improve their processes.

What you're referring to is that the Auditor General recognized the considerable work that has been done by the board of the APMC in managing risks but has pointed out areas where they believe processes can be improved. I and the ministry look forward to the implementation of these recommendations.

We don't consider Albertans to be at any greater risk than is normal for this type of complex set of agreements. The physical and economic challenges of constructing a refinery in any location, especially in a landlocked location like Alberta, are complex. APMC is in the process of formalizing its enterprise risk management system.

Mr. Panda: Okay. Thank you, Minister.

How much Crown-owned bitumen is currently in storage, and who is storing it?

Ms McCuaig-Boyd: How much which?

Mr. Panda: Crown-owned bitumen from BRIK. Who is storing it, and what are the storage fees?

Mr. Ekelund: Thank you very much for that question. As part of the bitumen royalty in kind process the government of Alberta, APMC, and industry a number of years ago worked towards a simplified model of collecting bitumen royalty in kind. I made a presentation to a standing committee several years ago. It actually involves purchasing of the barrels of bitumen in the open market as long as there are willing suppliers at appropriate market prices with a regulatory backstop, which was just passed earlier this year. What that means is that until there is any requirement for the bitumen to be delivered either to a refinery or a pipeline, there isn't any bitumen royalty that's being held by the Crown anywhere. There is certainly heavy oil and light oil as part of our conventional oil business, that the APMC handles every day. I wouldn't know offhand how much of that is in storage. That's just normal business practice, and there may be a day or two of storage involved in that. But there's no Crown bitumen as part of that.

Mr. Panda: As a follow-up question, at the end of November 2017 the cabinet granted you, the minister, the powers to commandeer pipelines and storage facilities with compensation for Crown-owned products managed by APMC. Is the Crown getting into the

fuel distribution business? Are the powers needed for bitumen or diesel or both?

Ms McCuaig-Boyd: Did you say, "Are we getting into fuel distribution systems?"

11:55

Mr. Panda: Business, yeah.

Ms McCuaig-Boyd: Business.

Mr. Ekelund: When I mentioned the regulatory backstop to the simplified bitumen royalty in kind model, that's the legislation that I was referring to. That is, if we actually physically need to get Crown bitumen into pipelines, into trucks to get it to be delivered, put it in storage, put it in pipelines, then there will be requirements to put regulations in place to ensure that those things can happen. It would be very, very unlikely, in my assessment, that that would be used for the distribution of products. I think there may be a legal possibility of that, but I would see that as extremely remote.

Mr. Panda: Thank you.

Minister, now going back to the coal phase-out, there was lots of discussion – and I know Mr. Clark and Mr. Hanson asked you the same questions. I'm giving you one more opportunity here to set the record straight. You and the Premier said that there was no impact of the deal made with Enmax, and you went back to the exit clause that resulted into it. I get that. I don't need you to repeat that. Even if it is the reason, Albertans ended up paying for that debacle. Will you agree, and will you admit it? It is inaccurate information when you say that there was no impact to taxpayers because your budget numbers are saying that there is an impact.

Ms McCuaig-Boyd: The Enmax PPAs were returned because of the changing electricity supply and economy. More supply and less economic growth resulted in lower prices and revenues.

Mr. Panda: You are repeating the same thing.

Ms McCuaig-Boyd: Because that's still the answer.

Mr. Panda: What would you say to Mr. Neil McCrank? Are you going to apologize to him? He was one of the former chiefs of the utilities under your ministry.

Ms McCuaig-Boyd: I would welcome speaking to him, but I don't...

Mr. Panda: He's a very well-respected bureaucrat of the ministry.

Ms McCuaig-Boyd: I don't apologize for anything we're doing as far as taking the electricity system forward and making it more affordable for Albertans, stable, a place in Alberta to invest, because there wasn't investment before in the old system. It was broken.

Mr. Panda: If the bureaucrats have to do their job without fear, they would appreciate you and the Premier setting the record straight and do the right thing and apologize to him. If you want to take time to go through that, we can provide you with all the information.

Mr. Westhead: Point of order, Mr. Chair.

Ms McCuaig-Boyd: Again, I'm not sure what that has to do with the estimates today.

The Chair: Minister, we have a point of order.

Mr. Westhead: The minister just went there. I just wondered what this has to do with estimates.

Mr. Hanson: It has as much relevance as his love for trains.

Mr. Panda: Mr. Chair, in the Chamber the Premier and the minister gave inaccurate information to Albertans. For the people of Calgary-Foothills who are asking me those questions, I have to set the record straight.

The Chair: Okay. Thank you.

Mr. Clark, please go ahead.

Mr. Clark: In the very brief time I've got left, in the last answer about the Sturgeon refinery you said that there was an updated cost estimate to \$9.7 billion. Is that information new?

Ms McCuaig-Boyd: No. I spoke of that earlier today.

Mr. Clark: Okay, but is that new as of today?

Ms McCuaig-Boyd: No. I think it's recent, though.

Mr. Clark: Well, when did it come out?

Ms McCuaig-Boyd: In the last couple of weeks.

Mr. Clark: Okay. I've been doing some searching online. I can't find it on your website. I can't find it on the North West Redwater website. Where can we find that information publicly?

Ms McCuaig-Boyd: Mike is part of the APMC.

Mr. Ekelund: It's disclosed in the latest Moody's update of bond rating for NWRP.

Mr. Clark: Isn't that material information that Alberta taxpayers ought to be hearing from the minister?

Ms McCuaig-Boyd: Well, I think, as Mike mentioned, there's an annual report that comes, and that information would be captured in there.

Mr. Clark: If the cost went down, would you do a news release?

Ms McCuaig-Boyd: Probably not. It would be captured in the annual report.

Mr. Clark: You probably would.

Ms McCuaig-Boyd: No, I don't think I would. I've got too many other things to worry about.

Mr. Clark: I don't know.

In all seriousness, though, this is a great concern. I'm going to have a look at that because there never seems to be good news coming out of this project, unfortunately. We seem to be chasing ourselves.

Ms McCuaig-Boyd: Well, as I mentioned, this was not a project we started. We inherited it.

Mr. Clark: I appreciate that. I just wonder if you've done some work on what – and this review of onerous contracts I look forward to very much. Just to be clear, will we see that in this June's annual report, the review of the onerous contracts?

Ms McCuaig-Boyd: Yes.

Mr. Clark: We will see that by June of this year? I will wait for that.

Ms McCuaig-Boyd: If you can't find it, please contact my office, and we'll help you find it.

Mr. Clark: You can be assured, Minister, that I will.

You know, we've been here six hours. Again, I'll just take the last few seconds to thank you all for being here for this long and exhaustive process. It's very much appreciated. I'll cede my final 30 seconds to you.

The Chair: Thank you, Mr. Clark.

I apologize for the interruption, but I must advise the committee that the time allotted for this item of business has now concluded. I would like to remind all committee members that we are scheduled to meet tomorrow, Wednesday, April 11, 2018, at 3:30 p.m. to consider the estimates of the Ministry of Transportation.

Thank you, everyone. This meeting is adjourned.

[The committee adjourned at 12:01 p.m.]

