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The 27th Legislature
Third Session

Standing Committee
on
Resources and Environment

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Standing Committee on Resources and Environment

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Standing Committee on Resources and Environment

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Independent Power Producers Society of Alberta RE-310
Evan Bahry

Canadian Wind Energy Association RE-315
David Huggill

Enmax Corporation RE-319
Gary Holden
Ian Todd

Capital Power Corporation RE-323
Dwain May
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9:33 a.m. Wednesday, October 6, 2010

[Mr. Prins in the chair]

The Chair: Well, good morning, everyone. I'd like to welcome everyone to the meeting of the Standing Committee on Resources and Environment. We'll call this meeting to order. What we'll start out with are some introductions. Maybe I'll start on my left, and we'll go around and introduce ourselves for the record.

Mr. Lindsay: Good morning. Fred Lindsay, Stony Plain, filling in for Diana McQueen.

Mr. Berger: Morning. Evan Berger, Livingstone-Macleod. I will only be here for the first 15 minutes, and then I will be phoning back in by 10:30, 11.

Mr. Dallas: Good morning, everyone. Cal Dallas, Red Deer-South.

Dr. Massolin: Good morning. I'm Philip Massolin, committee research co-ordinator, Legislative Assembly Office.

Mr. Anderson: Rob Anderson, MLA, Airdrie-Chestermere.

Mr. Jacobs: Broyce Jacobs, Cardston-Taber-Warner.

Mr. VanderBurg: George VanderBurg, Whitecourt-Ste. Anne.

Ms Blakeman: My name is Laurie Blakeman, and I'd like to welcome each and every one of you to my fabulous constituency of Edmonton-Centre. I'm pleased to serve as vice-chair of the committee today.

The Chair: Good morning. Ray Prins, MLA for Lacombe-Ponoka, chairing the committee.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Thank you very much, everyone. Just for your information, *Hansard* will operate the microphones, so as we go through the meeting – and that's for the guests as well – you don't have to touch the microphones; *Hansard* will do that. Just a note that we'll keep our Blackberrys and other stuff off the tables because it interferes with the equipment.

We'll go on to the agenda. I would like to have a motion to approve the agenda as presented unless there are changes. We have a motion from Cal Dallas. All in favour? The agenda is approved.

We have a couple of sets of minutes from past meetings, one from Monday, November 2, 2009, and one from Wednesday, November 4, 2009. I would like a motion to approve these minutes, maybe one at a time. The first one, November 2: all in favour? That's carried. The second one, November 4: Cal Dallas. That's carried. Thank you very much.

Today we are gathered together here to hear from groups who are providing an industry update to the presentations made before the committee last November related to the electricity market in Alberta. This is an area of general interest to the committee and within the scope of its mandate.

The first presenters will be the Alberta Federation of Rural Electrification Associations. I believe that the members are approaching the table as we speak. Welcome, gentlemen. You were at the meeting in November, I believe – most of you were – so you know the kind of presentation that we had then. What I'll do is just ask you to introduce yourselves and then go directly into your presentation.

I think we have about 15 minutes, and then we'll have time for questions. People will put their hands up, and they'll indicate to me who wants to speak for questions. I'll just manage that, and we'll go through that after the end of your presentation. We'll take as much time as needed. The total time is half an hour, and then we'll take a 10-minute break, and then there will be another presentation, and then we'll go on.

I would say go ahead, please. Introduce yourselves and go ahead.

Alberta Federation of Rural Electrification Associations

Mr. Rockel: Okay. Thank you. Thank you for giving us the opportunity to make this presentation and answer any of the questions you might have. My name is Merv Rockel. I'm the president of the Alberta Federation of REAs. On my far left here is Glenn Hennig, who is from Lakeland REA, also the board of directors. Dan Astner is from the Battle River REA. He's vice-president.

I'd like to introduce Al Nagel, who will be doing most of the presentation. He's worked with various utility companies, including Battle River, for over 40 years. This position provided a great deal of experience in the field and in management positions. Before joining the federation in 2008, Al held the position of operations administrative superintendent with Battle River, where he conducted an investigation into the AMR. Also, he attended a lot of conferences and workshops regarding AMR and AMI in the United States.

Glenn, did you want to say anything else?

Mr. Hennig: No. I'm fine.

Mr. Rockel: Okay. Well, Al, go ahead.

Mr. Nagel: Thank you very much for the opportunity today to be with you and to provide our input into the smart grid and where we feel that the Federation of REAs would like to see it go.

I guess, first of all, I want to say that the federation supports the whole smart grid and smart metering process. Also, I have to say that that's pending some financial support for this project.

I thought it was important for us to determine what smart grid is. There's always quite a bit of discussion about how this process works and what it means and how you define smart grid and smart metering. I think it's important to say that the upgrading of the electrical system is important. We need to make sure that the system technically and physically meets the electric consumers' needs. It seems to me that the idea of making sure that that occurs for the industry is very important.

Also, I think that the government, Legislature, whoever, can provide the definition of smart grid, what the vision is, the road map, what the principles are, and also set the path for future generations. I don't think this is an initiative that's short term. We'll see the future generations will also be affected by the decisions and where we go with this today.

9:40

What smart grid isn't. I think there's a misconception that it's going to be the saviour of all. It's not necessarily the relationships between all technologies; it will be the effect in the relationship between and an overlaying with communications and also with the system as we know it today.

I think it's also important to say that smart grid is to ensure the sustainability of the energy future in our province and the electrical

industry. Smart grid is a global initiative that's happening in many jurisdictions in the world – we mostly see it in the U.S. – but everywhere in the world is working on smart grids, smart metering, and having a look at their systems. I think as we explore strategies in Alberta, we will find that there's a huge benefit to this process. However, our choices are how we get there, not necessarily what we do.

There's no doubt that technology provides cost savings, and there are benefits to this.

I think some of the REAs – four of them, actually – have gone down the path of AMR, automatic meter reading, which is a bit different than the AMI, automated metering infrastructure, and I should say they've successfully implemented that technology. Some are actually innovative and really use an airplane today to read all of their meters. They've gone from a physical meter-reading process, where meters lots of times were estimated over the years, to today, where they read all of their members' meters every month. So the bills are accurate, and the members are happy. It's been a very successful project.

A major concern, I guess, that we've had with this project – and I go back to 2008 – was the whole concept of hourly reads. The whole smart grid and smart meter concept is a great idea. Where we have the concern is with reading the meters on an hourly basis. That's generally from a cost perspective, to set up the back-office systems, the meters, to actually set all that process up, operate it, maintain it, and replace it in the future.

The second issue that I think we have with that concept is hourly reads. In some other jurisdictions what's happened is that during peak periods – for example, between 5 and 7 o'clock daily – retailers have set up peak rates. If you take California, for example, their rates during peak are 10 times what the normal rate is. If you use our example here, if you're paying 6 cents a kilowatt hour for your energy, for that period of time you will be paying 60 cents. For some of our farming members that creates a major concern just because of the way their operations flow. An example of that is in the hog, dairy, and bird production. They wouldn't be able to change their processes to take advantage of off-peak rates. When you're drying grain, you're drying grain. When you need the hog barn fans to come on, they have to come on. You can't wait two hours and say: well, okay; we'll do something different. Now, that's not to say they couldn't put in a generator or do something like that to offset that peak. How efficient and effective that is would be another point.

Our concern is what it's going to do, first of all, to the cost and, second of all, to the hourly and to the monthly bills for the farming community and, I guess, residential and small commercial as well. I guess one of the examples that I use is that the result of this is to change our usage habits and behaviour by sending what we call price signals to the consumer. We're hopefully thinking that that will change our habits. So instead of turning our dishwasher on at 6 o'clock, we'll wait till 8 o'clock, which is fine, and that's not that difficult for us to do. There are things that you can do, and there are things that are difficult to do.

The other part of that is that our culture and our lifestyle may need to be adjusted in order for us to be able to achieve those goals. We all go to work at relatively the same time, and we all come home at relatively the same time. Our children do the same thing from school. So between 5 o'clock and 7 o'clock at night, usually, is when you are at home and you make supper and you do whatever you do, and everyone goes off to do whatever they do after that. Where the issue would be is: can any of us really change our habits, and is this the right way to go about doing it?

I guess what we've proposed is: instead of forcing Albertans to change their habits, are there other ways that we could achieve the same savings? That being: can we do something with technology and education versus making those changes? I guess the issue that we have is that if we increase the power bills for all the consumers in the province, meaning farm and residential, by 30 per cent just on the distribution side, on the energy side for the peak, plus we have to increase it for paying for AMI or smart grid and we increase for the transmission system, at some point in time we will have a backlash from the consumers. So we need to consider that in the business case and in the process to move forward.

Research and technology. What our proposal is – if you think about it from the fuel source of the generator to the appliance in your house and everything between, there is a lot or work being done on those processes. The thinking is that we could achieve the same savings in usage if we could use technology and also education to meet those goals. Now, the education piece would be more around energy savings programs, those types of things, where we would learn to use the electric energy more efficiently.

The other point is that we think we should use pilot projects in this smart grid deployment. Instead of going into this whole process without knowing where we're going to go and how we're going to get there, if we would use the process of piloting certain customer groups – meaning rural, residential, whatever – use the piloting concept and use the results of the pilot to determine the Alberta market and what would be best for us. I think it's also important that once we do the pilot, we actually sit down and examine where we are and what we're doing and move forward from there.

9:50

I think we've made our concerns known since 2008 with this project, meaning the AMI hourly process. We just did another position paper last week or a couple of weeks ago, that we sent to everyone, with regard to smart grid and our position on that. Our concerns are still the impact on consumers for the total package, the cost versus benefit analysis – we need to do that; what's it going to do to the ordinary power bill? – and the current availability of required technology.

Sometimes in the rural areas we don't really have the technology that we see in the cities. For example, high-speed Internet is available everywhere in most urban areas. If you go to lots of rural areas, that may not be available. So implementing this technology might not be quite as simple as it is in the urban. I think that there's lots of work being done in the U.S. on this whole process, and we can learn a lot from what they've done already, the errors they've made. [A timer sounded]

The Chair: Thank you very much. I think you were pretty well finished anyway, and the 15 minutes is up.

Mr. Nagel: I am. Thank you very much.

The Chair: I do have a couple of questions on the list already, so we'll just go directly to them, starting with Mr. VanderBurg, please.

Mr. VanderBurg: Well, thanks for your presentation, and thanks for being so active as an organization on this topic. I tell you, you've kept me educated and on the edge of my chair on these issues. I have talked to some of your members that have seemed to resolve the meter reading issue and the more accurate billing issue. How has AMR helped your organization's members with that as a whole?

My second question. You briefly mentioned transmission. Have you a position on these proposals for underground lines and all

Albertans paying for them? If that's a proposal, will you be intervening on behalf of rural Alberta?

Mr. Rockel: I'll talk about the AMR. The REAs that we're involved in are very active in AMR. In fact, the Lakeland REA under Glenn, when he was working there, did a lot of experimenting with various things. They were the first ones to use the airplane to take the readings. One of the problems in Rocky, where I'm from – we installed the AMR meters, and there was no demand for them. The customer didn't really, you know, ask for it. But once we started installing them, all of a sudden there was a big rush: "When do we get ours? We're tired of reading these meters and sending the information in every month." Sometimes we got very accurate readings; sometimes we had to do some estimating.

The AMR thing has been the ideal thing for all REAs that we have been in contact with. They really like it. It solves all our problems. The hourly reads are very expensive. We install our meters, including all the equipment, for somewhere around $87. That's a meter, all the background equipment, and the installation. I've been told – I don't have the figures with me – that to put in an AMI with hourly reads would cost at least 10 times that amount of money, which is $800 plus per member; some people are saying that it's up to $2,000. So it's very, very expensive, and there's no real return that we can see. Now, we believe in good technology, keeping up to date with things, and maybe down the road there might be some real benefit.

Personally, on transmission we believe in a reliable system, because if the system isn't reliable, it's going to affect us in the country. If it goes down, everybody's lights go out; the power is off. To get it back on, whether it's a transmission or distribution system, it does affect us as members.

Underground: well, if it goes by my house, maybe I should pay for it, but if it goes by the neighbour's, he should pay for it. That's my personal thing.

Any comments?

Mr. Hennig: Yeah, just with AMRs. The five REAs in Alberta were the first utilities in the world to read meters by aircraft, which is a major milestone – we're early adopters of technology – costing between 30 cents and 40 cents per read per site. Compared to some of the bigger utilities, the one out in my area charges $8 for a wire-line carrier monthly read to take out of the O and M pool.

With respect to transmission lines I guess our position, although we haven't developed it yet, would be much the same as our concern about AMI. We can't find a jurisdiction in the world where AMI deployment has not involved significant dollars from government, especially in the U.S. They're spending billions. Even China is subsidizing some of their utilities, to the tune of billions of dollars, to deploy AMIs.

That's okay in markets where you have a greater percentage of variable consumption. For example, Alberta has about an 82 per cent utilization rate, which means that at any point in time 82 per cent of the power in the province is being used. When you go to other jurisdictions like Ontario or California, it's only 40 per cent, perhaps even up to 56 per cent, I believe, in California. So your variable demand is a lot higher and requires a lot more managing. What a lot of these utilities are trying to do with AMIs, like California, is get to an 80 per cent utilization rate. We're there already. It's difficult to find the cost benefit.

When we talk of the cost involved, the AESO people have told me that it's anywhere from a thousand dollars per site per meter. Some jurisdictions in the U.S. have been talking about $2,000. Merv just said about $800 per site. I don't know what the number is.

When it comes to transmission lines and whether we put them underground or not, I think we take the same approach in that, you know, if there's a benefit, yes, we should pay for it. Those who benefit from it should pay for it. But we really should do a proper business case for some of these deployments, and we're volunteering in the rural areas to try and pilot some of this stuff to make sure that we have a sound business case for it.

Mr. VanderBurg: Thank you.

The Chair: Thank you very much.

Mr. Jacobs, please.

Mr. Jacobs: Thank you very much, Mr. Chairman. Thanks for your presentation, gentlemen. I certainly have been one that's been very interested and supportive of REAs and recognize the contribution you have made to historically making sure that rural Alberta had access to electricity. Thank you for that.

Could one of you please explain to me the usage in Alberta of electricity from an industrial point of view versus a consumer? And I'll put farmers in the consumer point of view. What percentage of electricity is used in Alberta by industry or large users, who would obviously maybe already benefit from AMI or AMR, versus the average consumer?

Secondly, could you be a little more definitive? You know, I'm not sure that many people understand the difference between AMI and AMR, especially relative to the costs. You already suggested to us that the costs are several times higher for AMI. Could you please just be a little more definitive on why that is and what constitutes AMI?

Mr. Nagel: Okay. Well, I guess, first, I think the industrial-commercial load in the province is approximately 70 per cent. I think residential is something like 16, and the farm type is 4 per cent. If you take the rural areas and the residential load, whatever we do to reduce isn't going to have a huge effect on the overall picture in the province. The industrials in lots of cases have interval meters, and they collect the data at 15-minute intervals already. So I guess I would say that even though we would do a whole bunch of things to save energy, over the overall picture it would probably be the 70 per cent group that could provide the biggest savings.

10:00

The difference in AMI and AMR. That's, I guess, a situation that's gone on for quite a while. AMR is data flow between the meter or the customer and the office, so it's a one-way communication flow. AMI, from an industry perspective, is two-way communication; in other words, the information flows from the meter to the office, and the office can access information to the meter. So if you come to the office and say, "I'd like to know what my meter reading is," they'd be able to put it into the computer and give you the answer of what it is at any given point.

The Department of Energy's definition of AMI is the same as I said for AMI, only add hourly readings. When we say AMI in Alberta, that's what we mean; in other words, we get hourly data, right?

Mr. Jacobs: Thank you.

The Chair: Okay. Thank you very much.

I believe we have somebody online. Could you introduce yourself, please?

Mr. Boutilier: Yes. Good morning. It's Guy Boutilier, MLA, Fort McMurray-Wood Buffalo.

The Chair: Thank you very much. Welcome, Mr. Boutilier. We're just in the middle of a discussion with the REA's, so we'll go to our next question.

Mr. Lindsay, please.

Mr. Lindsay: Thank you, Chair. And thank you for that presentation and also for providing your perspective on how AMI in particular may or may not benefit all of your consumers. It's interesting that only 15 per cent of power in Alberta is used by what we call residential homeowners, so there is another 85 per cent out there. I'm convinced that the vast majority of them would not benefit from AMI; some would. In any event, there certainly would be some benefits in larger urban areas for people who have the ability, you know, to load up their needs at different times. They have that ability; some don't. Anyway, I think, in my mind anyway, we'd need to do a really good economic analysis before we'd ever put something like this into play, and I think your recommendation of a pilot is probably the way to go. There is some evidence out there of some that have done this.

Again, good presentation, and thanks for being here today.

Mr. Rockel: There's an old saying that some people go all out and spend a dollar just to save a nickel. I hope that this doesn't end up being one of those things.

The Chair: Okay. Any other questions?

I was just going to make a comment, and that is that, again, you've already explained that probably 80 per cent of the usage in Alberta is large industrial or commercial operators that probably measure their usage on a 15-minute or hourly basis, anyway. I'm familiar with a greenhouse operation that lives close to me. They contract, I think, $50,000 or $60,000 worth of electricity per month, and they're watching their computer all day long. There are times when they would turn the power on to turn their lights on to increase their crop growth, but there are times when the electricity is costing them more than what the crop is worth, so they just don't turn it on. They actually can sell the power back into the grid and make more money selling power than they can raising vegetables. Because they already have the technology to do this, this is a very interesting way to buy and sell electricity for consumers.

I don't know if you want to comment on that, but I think that happens more already out there.

Mr. Astner: Just a minor point, too, is that here in Alberta, of course, we're fortunate to have natural gas. Other jurisdictions rely very heavily on electricity for not only air conditioning but also heating, which gives them more ability to be flexible than what we do here in Alberta in their energy consumption as well.

The Chair: Okay. Did you have another question, Mr. VanderBurg?

Mr. VanderBurg: I have an REA in Whitecourt-Ste. Anne that decided to sell, as you know. It was sad to see an icon in our area that for many years served our rural residents very well; the board and the members became near and dear to their REA. But over the years I guess the executive didn't see that there was an advantage for the REA to stay. They made the decision to put the question out, and it ended up that they did sell to Fortis. Do you see this as a trend in rural Alberta, or do you see that most REAs are still viable?

Mr. Rockel: We hope it's not a trend. Yes, they are viable. We're working with the REAs. Yes, at times there will be some hitches here and there. Some of them are having a little bit of financial problems, and we're working with some organizations to help that. You know, there are some underlying factors regarding that sale, that I don't want to go into right now. We wish it would not have happened. However, we will work with any REA that needs the help.

Mr. VanderBurg: I agree. I wish it wouldn't have happened as well. I think that it's caused some eyes to be opened in the other REAs in our constituency, and I hope that maybe both our residents and government can learn by the process as well.

Mr. Rockel: Yeah. Thank you.

The Chair: Okay. There are no further questions, and our time is just about out.

I want to thank you, gentlemen, for coming in and presenting to us. It's possible that we'll have a report sometime later. We'll have to deal with that at the end of the meeting. If we do, then you'll be able to access that as well.

Mr. Rockel: Thanks for giving us the opportunity.

The Chair: You're welcome to stay and listen to the next presentation as well if you like.

We will go to our next presenter, and that is the Independent Power Producers Society of Alberta.

Independent Power Producers Society of Alberta

Mr. Bahry: Thank you very much for the opportunity to present this morning. Our presentation is entitled Building Confidence in Alberta's Competitive Power Market.

As MLAs are aware, our market provides choice to consumers in how they purchase their power. Consumers are also asked to bear the cost of new transmission in order to deliver competitively priced power to their homes and businesses. But we're not sure if consumers really know how this market works and how it works to price the electricity that they consume. It's our hope that MLAs, the media, and the public will gain confidence in our market by learning more about it.

With that, we'll cover six topic areas in today's presentation: we'll provide a bit of an overview about IPPSA, we'll provide an update from the 2009 presentation, we'll discuss how markets work in general, then how Alberta's wholesale market works, how the residential market works, and then we'll provide our concluding observations.

IPPSA was founded in 1993 as a forum for generator dialogue and as an advocate for competition in Alberta's electricity market. IPPSA has 100 members, and our board includes Canada's leading power producers. Of interest, IPPSA members are actively building power plants to service the needs of Canadians from coast to coast thanks in part to the knowledge of building and operating efficient generation in Alberta's competitive market. Alberta IPPs are active in British Columbia, Saskatchewan, Ontario, Quebec, New Brunswick, the U.S., and across the globe.

As you may recall from our presentation last year, generators have built 5,600 megawatts of new supply since 1993. That's equivalent to one and a half SaskPowers of new supply. Alberta's open market has met the fastest growing demand for power in Canada by far. The market has attracted new entrants. From three utilities Alberta

now has over 200 market participants and 30-plus suppliers. Today wholesale prices are very soft thanks to the abundance of supply and low natural gas prices. Roughly $3 billion has been returned to consumers in residual value. That comes in the form of Balancing Pool credits that you'll see on your bill. Finally, another point to mention is that our fleet's fuel economy has improved dramatically thanks to the addition of new, efficient gas, no-emission wind, of course, and low-emission, supercritical coal generation.

10:10

Let's turn our attention to the point of our presentation. As you may appreciate, Alberta's wholesale power market follows the laws of supply and demand. At the highest level our market behaves like any other commodity: oil, gas, food, shelter, clothing, pizza, or pickup trucks. Some factors that increase price include rising demand; rising input costs such as natural gas, concrete, or steel; and shortages of supply such as short-term generator outages or transmission outages. Factors that lower price include when supply is in excess of demand or when natural gas prices remain soft.

Here's another way of looking at it. As you know, this is just simply a demand curve. When demand increases, if you follow that quantity line to the right, price rises. Similarly, with supply the price will fall as supply increases. Price is set at the intersection of supply and demand. These principles are at work in Alberta's wholesale market, as I'll now describe, as they work in any commodity market.

In Alberta the real-time wholesale market is facilitated by the Alberta Electric System Operator. All supply in the province, no matter where it's located, submits offers of a quantity of megawatts it wants to sell and a price it wants to sell it at. The market has a price floor of zero dollars and a price cap of $999. The system operator dispatches or orders on supply from the cheapest to most expensive until the volume of demand in the market is met. The wholesale price is set by the offer of the last unit needed to meet demand. All wholesale consumers pay that spot price, and all generators dispatched at that time receive that price.

It's also of note that ensuring sufficient transmission is really important to the success of our market. Transmission allows more supply to connect. It also allows more demand to connect. More supply means more competitive offers in the market. The deeper the competition, the deeper the market liquidity, we call it.

Let's take these concepts and drill that down a bit further in how the spot market works. Here's simply a representation of those demand and supply curves, and I've added some more detail about supply in particular. You'll note that the demand line is vertical, meaning that few wholesale customers respond to price. As our colleagues the REAs previously mentioned, a lot of our load is industrial, and very little responds to price. So no matter where that price is along that vertical line, consumers continue to consume. A smart meter could potentially allow consumers to respond in real time, and that would change the nature of the curve.

The demand line during the day will move to the right as we consume more, and as we consume more, the price rises accordingly. Also, at night the demand curve will shift to the left as demand falls. Where it intersects with the supply line, the resulting price occurs, and again the intersection of supply and demand is where price is set.

Our demand averages 8,500 megawatts, has peaked at 10,200. We have about 12,500 megawatts of supply in Alberta's market. It's important to note here that 6,500 megawatts of that supply offer zero for their volumes. As I've indicated before, the system operator takes all offers and begins dispatching them from cheapest to most expensive until demand is met. Coal units and cogen plants are very inflexible. They offer their volumes due to operational reasons. Coal cannot come down. It can't dispatch down easily. Cogens provide steam and power to their industrial hosts. They're also somewhat inflexible. So these folks are in the market as price takers. If you've been to a car auction, one analogy is when you offer your car in at no reserve. That doesn't mean you're offering it for free. It simply means you expect there will be a competitive market, that the market is going to price your car, and you will sell it at what the market will bear.

What typically happens then is that gas units in our fleet are more flexible. They can be dispatched on and off several times within an hour if need be. They will then offer a price. Again, because our demand also exceeds the amount of coal or cogen we have, we then go into the gas offers, and they are much more flexible. They can offer a price and be dispatched up or down. Importantly, in this graph any offers of supply not needed to meet demand, here in the light grey, do not get paid. If you want to make money in Alberta's power market, you have to offer your volumes cheaper than the next guy, and that's fundamentally how competition works.

Let's provide some further examples of this to perhaps help the analogy along. If a coal plant trips in this particular example, the supply curve, the blue line, will shift to the left, and a new gas unit's offers are setting the market price. That's a higher unit than the unit in the previous slide; I'm just kind of playing with this a bit. You'll see in the graphs that we have the current dynamic. If you lose a coal plant, the new gas unit would set the price, which makes abundant sense because if you lose supply and demand is where it's at, the price should rise. Again, this is functioning like any idea of a commodity market should.

Another example is that if wind comes on, we're adding supply, so the blue curve then shifts to the right, and the price falls. The price, again, you'll see, is falling relative to where it was before with the addition of supply. Again, this is how any commodity market works.

Some final observations about the wholesale market. Since electricity cannot be stored, demand and supply are balanced minute by minute. Short-term outages, the loss of supply, can lead to short-term price spikes, and short-term bursts of supply, for example wind, can lead to short-term price softening, as you'd expect.

A second observation. Alberta's power market is extremely transparent. Supply and demand can be observed minute to minute on the system operator's website. I've taken a bit of a screen capture here, and you'll see that what is circled in orange is the current level of demand, in blue is the current level of supply, and again where the two intersect is price. The system operator tracks the entirety of the supply fleet, as you'll see in this graph, and its current status, so we can watch the market change, behave, and adapt, just like you would the stock market. Again, it's entirely transparent on the system operator's website.

A third observation is that Alberta's power prices are strongly correlated to Alberta's natural gas prices. As I've mentioned before, it's because the gas units are what typically set price. Gas units submit offers that reflect their cost of natural gas. As you see in this graph, the light blue is the power price in megawatt hours, and the dark blue is the cost of natural gas in GJs. The prices more or less have trended over the last few years. Again, as I've indicated before, in the last few years wholesale market prices have fallen as natural gas prices have fallen.

A final observation about today's wholesale market prices. This is, again, the price graph on the left, and I've compared that against a study of the cost of new entry that we had commissioned earlier this spring from Hatch energy. These are their evaluations of the levelized cost of adding a new plant to a marketplace. You'll see pulverized coal, $100 to $140 a megawatt hour; wind, $85; the

north, large hydro, $70 and up; and nuclear, $100. These are based on $5 gas prices for the combined cycle and cogens. Gas prices are now at $3, so the prices would have fallen as a result. You'll see that, again, building a new plant in today's market outside of gas would be extremely challenging in light of where wholesale market prices are today.

Alberta generators understand the cyclical risks of our commodity market. Generators need the government to have confidence to let the market work both when prices are low and when they are high. That's, in a nutshell, the wholesale market.

The next issue, of course, is: how do we translate the value of this competitive wholesale power market to residential customers? I'll provide a brief summary of how that market works. Alberta residential consumers receive their power either via long-term contracts or via the regulated rate option. Both are related to wholesale market prices. Under an RRO providers have their plans to procure power approved by the regulator, the Alberta Utilities Commission. RRO prices are determined on a month-ahead basis and procured from wholesale suppliers. Contracts, the ones that we can sign for long term, can be based on a pure monthly flow through of wholesale prices or can be based on forward wholesale price estimates. In other words, if I'm a retailer, I look at the forward price. It looks like 50 bucks. That's how much I have to pay for power plus a markup and a profit. I can turn it around and sell it to you for 6 cents or 7 cents. So they do look at wholesale market fundamentals when they price their retail contracts.

10:20

Important to note also is that residential forward contracting plays a key role in the wholesale market. Retailers, if they have secured sufficient customers for those contracts, go to the wholesale market, again, to meet that demand. If power producers don't have sufficient supply to meet that demand, they take that cue and build a new power plant. If a retailer contracts with a new generator, it can then take that contract to meet demand to help finance their future investments. So there's an important dynamic between buyers and sellers in the wholesale market and in the residential market.

Let's look at where RRO prices are. This is a comparison of wholesale market prices over time against RRO prices. There are some differences. The wholesale price is flat – it's an average of 24-hour pricing – whereas the RRO price is shaped. There are some specifics here, but the RRO pricing reflects the fact that we consume more during the peak periods, which is often a higher price, so there's a little bit of difference between the designs. In general, pointing again to the last two years, we're seeing how the RRO prices that consumers are paying are reflecting the similar falling-off of prices in the wholesale market, again in light of natural gas prices and softening market conditions.

Now, important to note: in contrasting Alberta's market design to that of a regulated industry, our price, you'll see, changes with supply and demand. It changes with fuel costs. In a regulated market, in particular under recessions, you've got a lot of fixed costs. You're guaranteed as a generator in a regulated market your fixed costs plus variable costs plus a rate of return no matter what the underlying economy is. If demand shrinks in those markets, rates often rise because the costs of production remain fixed. In our market, again, investors take a risk. If the price falls off, that again is their risk, and consumers can benefit under an economic slowdown as market prices fall off.

In conclusion, we've got reasons to believe that Alberta's power market has been very competitive and very successful for Albertans. For these chief reasons, as I mentioned before, supply has met the fastest growing demand for power in Canada, and consumers have benefited as we've been able to keep the lights on in light of our profound economic growth. Consumers benefit because competition keeps a downward pressure on price. When prices are below replacement cost, consumers benefit. Prices have fallen to reflect falling natural gas prices and abundant supply. In addition, we're expecting that another thousand megawatts are under construction this year and into the end of 2011, so more supply is indeed coming on.

Finally, Alberta generators understand the cyclical risks of our commodity market. Generators need the government to have confidence to let the market work both when prices are low and when they are high. It is our hope that by explaining how the market works, MLAs will have greater confidence in Alberta's competitive power market.

With that, thank you very much for your patience, and I'm pleased to take your questions.

The Chair: Well, thank you very much, Mr. Bahry.

We will go to questions. We'll start with Mr. Lindsay, but before that, I'll ask Mr. Boutilier. If you have any questions, I'll put you on the list.

Mr. Boutilier: No. I'll wait. Maybe at the conclusion of the questions.

The Chair: Okay.

Mr. Boutilier: Thank you very much for the presentation, though. I found it very interesting. I do have one question if you don't mind, Mr. Chairman. It was on the graph when you made reference to industrial users. I believe the line was quite vertical, indicating its inelasticity to price?

Mr. Bahry: Yes.

Mr. Boutilier: I'd like you to in just 30 seconds briefly explain how that could change in the future.

Mr. Bahry: It could change for two reasons. If we raised the price cap – and it's raised in Texas. It's 3,000 bucks a megawatt hour, and in Australia it's $10,000. As the price gets higher and higher, consumers then make an active choice to invest in technology that allows them to follow the price, and as it spikes in the spot market, they can curtail in response to higher prices. In other words, you send a price signal to consumers, and they'll respond. The power market would work the same way.

It could also change if we do roll out the smart grid, and residential consumers can somehow have their appliances trip, what have you. That could also affect that demand curve in response to spot market prices.

Those are two, to the extreme, on how we could change this curve.

Mr. Boutilier: Thank you, Mr. Chair.

The Chair: Okay. Thank you, Mr. Boutilier.

We'll go to Mr. Lindsay, please.

Mr. Lindsay: Thank you, Chair. An excellent presentation. I had a couple of questions, though, on your slides from page 4, how the markets work. You indicate there, in fact you state that prices fall as supply increases. I think that in today's market the opposite is true because as supply increases, based on how the Balancing Pool

works, my understanding is that the more expensive generation comes online and, therefore, the prices tend to go up. I'd like you to possibly give me a little better explanation or more explanation on that.

The other thing. On page 9 at the bottom in 5.0 you say that the regulated rate option "shows a correlation to wholesale prices." It does that, but my understanding would be that since the regulated rate option is an average price and the wholesale is a real-time price, the opposite would be true. I'm not sure if I'm looking at the graph right, but that's the observation I'd make.

I have a question for you, and I'm interested in your opinion. If you base it on the fact that 15 per cent of electrical consumption in Alberta is residential consumption and all Albertans use residential power, in looking at it from the Balancing Pool perspective, what is your opinion if the first 15 per cent of power coming into the pool was set aside for residential users, which would then keep the price down to all Albertans?

Mr. Bahry: Well, a lot of questions there. Let me tackle the first question, that we have abundant supply and the price falls. My assertion today is that because we have so much supply – and this graph is one avenue of showing it – prices have fallen because offers have to be reduced to the system operator in order to be dispatched. Again, there's a great length of supply, and to be dispatched, you have to offer a progressively lower and lower price to ensure any kind of revenue. As we've seen in a later graph, the price indeed has fallen – this is the light blue line – over the last few years as supply has grown in excess of demand. We've got 12,500 megawatts of supply, 8,500 on average of demand, and we should expect that the excess of supply is pushing prices down.

On the RRO point, the RRO is a monthly flow through whereas – you're right – the spot price is just that. It's a spot price minute by minute. The flow through is migrated to a month ahead. It used to have a blended component, where it had some term contracts. You'd procure part of that RRO six months ahead, six-month power. Now it's monthly flow through. It's reflecting closer to the wholesale market price underlying fundamentals.

On the 15 per cent. I think you'd mentioned: let's reserve the first part of the market to serve consumers. I'm not sure that carving out any part of the market would work. I'm sure the industrial consumers would say that they should be carved out to get their first tranche of cheap power first. The market works, again, to aggregate demand and supply. The total demand intersects with the total supply regardless of where it comes from. Carving out the residential market and providing them with some kind of preferred access to cheap power: to my mind, the wholesale market has provided cheap power for all consumers, competitive-priced power. Again, power right now, at year to date, below $50 per megawatt hour is a very attractive price for all consumers.

The Chair: Thank you very much.

Mr. VanderBurg: Evan, I regard you as one of the brightest minds in Alberta on power, and I've had the ability to learn from you over the last number of years, but I think you're too quiet on the federal policy. I get the impression that the feds are trying to eliminate coal production in Alberta. We have an abundance of good clean coal here in Alberta. Our must-run system is based on coal generation, and I'm quite concerned that the competitive advantage of Albertans, both at home and at work, will diminish if the feds get their way. How come you've been so quiet on this issue?

Mr. Bahry: Well, we as an association don't want to pick winners and losers amongst fuel types that compete in the marketplace. We are fuel neutral. We are pro competition. If you can build a better mousetrap via a gas-fired plant or wind unit to meet consumer demand or a cheap coal plant or a nuclear plant, by all means come to the market and compete against your fellow generator. We don't pick fuel types.

10:30

The issue, as I mentioned, with coal is that while coal may be a price taker in a market and may offer zero, it's by no means zero-dollar cost. This graph I've popped up again shows what the cost of building a new coal plant is, about a hundred bucks to $140 per megawatt hour. For current markets trading at $50, coal is simply uneconomic. It's very difficult to justify that kind of investment in today's market. The markets can of course change, and generators build plants for 20- to 30-year lives, so they assume where price may go. But today's current price environment, not just federal policy, makes building coal an expensive proposition.

They've got very, very expensive fixed costs. They need to recover those fixed costs over the life of that investment in a spot market. Again, as they typically offer as price takers, they hope that the gas price is high enough over the life of their investment, that the gas guys are offering in a price that reflects a cost that they can recover as well. They kind of hope to recover their costs based on a market design where gas is setting the market price.

Hopefully, that helps answer the question. Again, we promote a level playing field for any type of generator to come to the market and compete, if it can, by undercutting its competitors.

Mr. VanderBurg: Thank you.

The Chair: Thank you very much.

Mr. Jacobs.

Mr. Jacobs: Thank you, Mr. Chairman. Evan, thank you for your presentation. I confess that I have trouble understanding all the mechanics of electricity and pricing, balancing pools, regulated rate option, et cetera, et cetera. I'm trying to learn, and presentations like this help.

First of all, I wondered if you had any thoughts on the AMI/AMR issue, which the previous presenters talked about.

Secondly, on page 5, on the top chart, the fifth bullet, you talk about how wholesale prices are set, the auction method. I still have trouble understanding this. Keep in mind that my background as a rancher is selling cattle by auction. I think maybe I'd like to sell cattle this way. Could you just elaborate a little bit more on that?

Mr. Bahry: Sure. Let me start with your auction question first. Again, as we've said before, all generators, no matter what fuel they consume in their production, compete in the same market. The system operator takes all offers on a daily basis of volume, from a coal plant, 450 megs, to a gas plant, 100 megawatts. Each generator puts a price attached to that volume. The system operator then starts dispatching those plants to meet demand from lowest to highest until demand is met. Why coal and other units typically offer zero is that they are not flexible to be dispatched off. Remember that one graph that I showed with these guys in the grey: if they're not dispatched, they can sit in the weeds until, say, for example, including the trips, they're needed again. They can wait. They come on.

Coal doesn't have that same luxury. If you turn a coal plant off, it may take a day or two to come back. Cogens, of course, can't come off because they're providing steam and power to their industrial host: the oil sands refinery, pipeline, petrochemical

facility, you name it. They get provided power. They offer in and hope that the price set by the gas guys is sufficient for them to recover their costs. The market price, again, that is required to meet demand is provided to all generators.

Coming back to your point about an auction, you can sell cattle or sell a car at no reserve. That's a zero-dollar offer, effectively. You're assuming that because of what you're selling and the market is competitive, someone is going to buy that and give you a fair price. You just know: I've got to sell. Today I want to move this cattle, or today I want to move this car; therefore, I'm going to let the market determine the price for me. That's effectively how this mechanism works.

I apologize. I'm trying to make this as simple as possible to provide clarity, but I don't know if I'm succeeding or not.

On your question of AMR and AMI, we've participated in the smart grid inquiry, as did our colleagues at the REA. I think we're all asking the questions: what exactly do we have in mind for a smart grid? How far do we want this to go? What are the cost-benefit calculations for consumers? We've all provided similar input to that inquiry. It's now before the commission to examine that a bit.

I kind of like the idea of having residential consumers participate in the spot market more. The market should provide new innovation and new choice, and having us at our homes manage our appliances better, respond to real-time pricing I think is a potential evolution as we get to smart homes and what have you. In a market that sends a price signal like ours, we are in a good position to adopt technologies because we do show consumers the real price of power at that given moment. Alberta has a unique opportunity to adopt some of these technologies because we do send a price signal for power.

Mr. Jacobs: Thank you.

The Chair: Thank you very much.

We'll go to Mr. Anderson. We have about four or five minutes, and then we'll go to Mr. Dallas.

Mr. Anderson: Thanks, Evan. That was a really good presentation, very informative.

Kind of the same question as Broyce here on how the price is determined. I understand the reserve analogy. You know, I get that. I still think it's a little odd. It seems to me that there would be a better market mechanism to get a fair price. As people make their bids, they bid for that power, they buy that power, just like on a real market. It would seem to me that that would create more competition. It would actually bring down prices because you would be essentially forced to go onto the market and give your best price, and then people would purchase it at the best price. This just kind of seems to be quite artificial. It almost seems to incent at the end of the day a high price, the highest price possible for the power just depending on what the demand is for that period.

Can you help me understand it? Is there any way we can look at making this more market driven, a little bit more competitive?

Mr. Bahry: Well, I'd view this as extremely competitive because, again, we are forced as generators to come in one spot and compete against each other side by side to meet demand, to hit that demand curve line. So you're pooling all sorts of fuels to compete. Wind competes against cogen, against coal, against natural gas to meet that demand in one place.

We can as customers of course do bilateral transactions with retailers and negotiate with them, and that's one mechanism that occurs outside of the spot price. But this is the same mechanism that oil and gas operate on. Alberta, for example, when it sells its crude oil is a price taker. It offers what it sells to the market and achieves a differential with the west Texas intermediate or whatever type of bitumen end product, heavy oil, it's selling. We are price takers when it comes to oil or natural gas, for that matter. It's a continental market. We offer our supply in, and the market, which is the intersection of supply and demand, where buyers and sellers intersect, is what price we receive for our commodities.

This is not an uncommon design for how commodity markets work, if that's any help.

Mr. Anderson: Okay. Maybe just a point of clarification, though. When you can go out and buy a commodity, you'll just buy it at the price it is that day. You don't go to the end of the day and say: at the end of the day it was this price, so everyone pays that price for a barrel of oil. They pay the price at the time that they buy it. It is actually a little different than that because under this system it's almost like, you know: we'll take whatever the highest bid is. Whatever it ends up at, the highest point, that's what everyone is going to pay. So it's a little different.

Mr. Bahry: Sure. When global crude oil pricing two years ago hit $147 a barrel, Alberta producers received that price. It was a global clearing price for crude oil, similar to this clearing price. They may have been prepared to sell it at less than that, and maybe they hedged, so they did it bilateral outside that spot price. But if you're selling into a spot market, that's the nature of the design, that everyone who sold at that time achieves that price. Whether it's 147 bucks a barrel for crude or today's $80 per barrel of crude, there's a global spot market which we're trading in.

That analogy holds true for how power works. You get the price at the market of the time.

The Chair: Okay. Thank you.

We've just got time for one quick question. Mr. Dallas.

Mr. Dallas: Well, actually, Mr. Chair, I think Mr. Anderson in his second question got to the heart of where I was trying to go, so I'll pass.

The Chair: Okay. Mr. Lindsay, you've got about 15 seconds.

10:40

Mr. Lindsay: Fifteen seconds. Well, I just wanted a question. You talked about competitiveness, but my understanding is that the Balancing Pool works on the lowest generation coming in first, and as it ramps up – say the lowest is $40, and it ramps up to $90; even the lowest guy then gets $90. Is that how that works? I don't understand how that can be competitive.

Mr. Bahry: Because, again, like the crude oil example, you're offering into the market as a price taker. It works both ways. If the price is soft, we get that same price, too. Today, if the price is below your cost because the market has tremendous amount of supply and supply is exceeding demand, it works both ways, so we're recovering less from that market, from that same market. Your anxiety is when price spikes, but when price is soft, that happens, too. If you're adding now, no matter what your cost is, you're getting 50 bucks a megawatt hour this year. In fact, it's 30 bucks this month no matter what your cost is. But that's what the market is bearing today because supply is long and gas prices are soft. Our guys are only recovering the spot price even when it falls, as it's fallen in the last few years.

The Chair: Thank you very much, Mr. Bahry. This concludes our time that we have allotted for this.

We'll take a 10-minute break. We'll reconvene at 10 minutes to 11.

[The committee adjourned from 10:41 a.m. to 10:50 a.m.]

The Chair: Well, thank you, everyone, for returning to the meeting. We'll get the meeting back to order.

What I'll do is welcome Mr. David Huggill from the Canadian Wind Energy Association. What we'll do, first of all, is introduce ourselves because I think you were not here earlier when we did that.

I believe Len Mitzel is on the phone now. Is that correct? Mr. Mitzel, are you there? Well, go ahead, everybody that's on the phone, anyway. Mr. Mitzel, are you on the phone?

Mr. Mitzel: Yes, I am.

The Chair: Okay. Go ahead and introduce yourself.

Mr. Mitzel: Len Mitzel, Cypress-Medicine Hat.

The Chair: Okay. I believe Mr. Boutilier might still be there. I don't hear him.

I'll go to my right, and we'll introduce ourselves.

Ms Blakeman: Good morning, everyone. My name is Laurie Blakeman, and I'd like to welcome you all to my fabulous constituency of Edmonton-Centre. I am also pleased today to serve as vice-chair of the committee.

Mr. VanderBurg: George VanderBurg, Whitecourt-Ste. Anne.

Mr. Jacobs: Broyce Jacobs, Cardston-Taber-Warner.

Mr. Anderson: Rob Anderson, Airdrie-Chestermere.

Dr. Massolin: Good morning. Philip Massolin, committee research co-ordinator, Legislative Assembly Office.

Mr. Dallas: Cal Dallas, MLA, Red Deer-South.

Mr. Lindsay: Good morning. Fred Lindsay, Stony Plain.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: I'm Ray Prins, MLA for Lacombe-Ponoka.

I would say, Mr. Huggill, just go ahead. You have about 15 minutes for your presentation. I'll keep track of questions, and when you're finished, we'll go right into questions. Please go ahead.

Canadian Wind Energy Association

Mr. Huggill: Great. Good morning, and thank you, Mr. Chair, ladies and gentlemen, for the opportunity to once again be with you and provide a quick update in terms of the wind industry here in Alberta. I'll provide a quick snapshot from a Canadian perspective and then get into identifying some issues and some opportunities that we've got here in the province.

I apologize. I believe my presentation was late in arriving. Happily, I'm able to blame Ottawa for that. We were having some internal dealings within CanWEA, so my apologies.

On the screen is a snapshot of the installed capacity within the country as of last week, and I'm happy to report that this map will have to be updated once again at the end of October. You'll see that Ontario and Quebec are currently ahead of us. As I say, at the end of October Alberta will be just tipping 700 megawatts installed capacity in the province. We're quite anxious to see Alberta once again retain its lead as an industry champion with respect to the wind industry going across the country.

Very quickly in terms of identifying some issues that we're currently facing here in Alberta, as I'm sure some of you are aware, EcoEnergy, the federal incentive that was available for renewable energy projects across the country – it wasn't specific to wind – has essentially run its course. It's been fully allocated ahead of schedule, and as a result that federal incentive is no longer available to projects here in Alberta, which hit Alberta actually a little bit harder than all other jurisdictions across the country. Essentially, the absence of long-term contracts, PPAs or EPAs, is what is hurting the projects here given the market that my colleague previously outlined in the presentation. On top of that, the existing price of carbon that we've got right now further exacerbates that financial challenge. We're quite pleased that all indications are that there is now a movement afoot to address that, so we're seeing that issue as an opportunity going forward.

As I presented in the fall, access to reliable and cost-effective transmission remains one of the more critically important issues in this province, not specific to wind, not driven by wind, but it's certainly one thing that is of utmost importance for our industry. Associated with that is that once wind gets onto the grid, how it's treated with respect to the other generation forms is another critically important issue, one that we follow, obviously, on a very close basis.

Lastly, the regulatory approvals and the permitting process are starting to have some negative impacts on our industry. We think, again, that although it's an issue now, we see this as an opportunity going forward in terms of trying to proactively address some of these issues.

Turning quickly to opportunities that we see in Alberta, there's no question that the commitment to investment in infrastructure that we've seen in the province is something that we fully support. This is particularly prevalent in the southeast corner, the southeast reinforcement. That is moving forward, and as recently as the beginning of this week AUC approval for the first set of milestones and triggers continues to move forward. Of course, associated with that, in-service dates and hitting those targets, hitting those milestones will be critically important. Again, we're looking forward to working collaboratively with the TFOs in ensuring that that happens.

The communication strategy that we see taking place within Alberta, specifically identifying the northeast corner: we see an opportunity in terms of the wind industry and CanWEA playing an active and participatory role within that whole communication strategy. It's important to recognize that CanWEA advocates the sustainable and responsible development of wind. We're not advocating the replacement of all forms of generation with wind. We feel that there's an opportunity for increased generation diversification within the province, and that's really what our focus is. Essentially, we think there's a bigger piece of the pie that wind can play, particularly in Alberta, so we're looking forward to being part of that conversation that's taking place. Alberta is known as an energy province. Again, given that utility-scale wind was born in this province – up until December 2008 we were the Canadian leader in that – we feel that we have something to provide that further augments Alberta's position as an energy leader in this country.

Hand in hand with that is the provincial energy strategy, that identifies the growing level of importance of renewable energy in the province. Again, we see that as an opportunity to work collaboratively with the various stakeholders.

I mentioned that how wind is treated once it gets onto the system remains critically important. We remain actively engaged with the Alberta Electric System Operator, AESO, with respect to the ever-increasing number of issues and items that we're dealing with. I've listed a short few there: the short- and long-term wind integration studies that are currently before stakeholders right now, the intertie capacity of the province. You may be aware that from our industry's perspective geographic diversity is fundamentally important in terms of dealing with and addressing issues such as variability of our generation source. That's why the advent of the southeast reinforcement is particularly important as it moves our industry out of sort of the bundle of the southwest corner and stretches it across the southern portion of the province.

In terms of other opportunities, we are looking forward to the Department of Energy's forthcoming opportunity to provide stakeholder engagement on the renewable energy policy, the review process that we're anticipating. Our understanding is that that will take place this fall.

As well, across the province there's a growing level of interest in raising Albertans' level of what's referred to as energy literacy. There are a number of entities that are undertaking this. Some of them are associated with the government; some of them are not. But there seems to be a general interest, and I think it's part of the communication strategy that we see in the province right now.

In terms of understanding and raising that general awareness of energy within the province, again, we see that as another opportunity. One of the things that CanWEA has focused on nationally is really making sure that the right information is given to the right people to make informed decisions. Peer-reviewed, science-based information is infinitely more useful than information that isn't. Again, in Alberta we're very fortunate in that we have the luxury of actual numbers and actual data. The industry is mature enough that we're able to see some of the economic development opportunities associated with our industry, and I think it's fair to say that right across the southern portion and moving up into the south-central portion of the province, there is a growing level of interest among the communities to look at what the opportunities may be with our industry.

Finally, the land-use framework that is currently working its way through the process is also an opportunity with respect to sort of the large-scale land-use regional planning. We're very pleased with the South Saskatchewan regional plan, which incorporates a significant number of the projects that are currently moving forward, and CanWEA is taking an active role in terms of being involved in that whole process.

That's some information about who and what we are. Happy to entertain questions. Hopefully, that was useful.

11:00

The Chair: Okay. Thank you very much.

We'll start with some questions. The first hand I saw was Mr. Lindsay's.

Mr. Lindsay: Thank you. Thanks for the presentation. Certainly, that update was very informative. The question I had. You did mention at the start that the federal allocation for subsidies, I guess, has run out. What is the average cost per megawatt hour to run one of these wind facilities based on today's costs?

Mr. Huggill: One of the things that you'll find with CanWEA is that it's difficult to provide you with a number. The number of variables that are associated with it are numerous, certainly not the least of which is the jurisdiction in which they're involved. The technology, your access to the turbines, the negotiated price that you have – again, economies of scale usually dictate that larger entities have access to a better price with respect to that – global demand for the technology: all those things impact the price, so it's difficult to put a dollar number on it.

Mr. Lindsay: Maybe an easier question, then, would be: how much per megawatt hour was the federal subsidy?

Mr. Huggill: It was 1 cent a kilowatt hour for the first 10 years of operation.

The Chair: Okay. That answers your questions.

Mr. VanderBurg: I have some constituents that have invested in wind generation in the U.S., and they're eager to have the line built into Alberta so they can get that power up to their customers in Alberta. Your organization seems to be so silent on the fact that we have an opportunity to bring power from the U.S. into Alberta and strengthen our grid and strengthen the ability to buy wind power. All I hear from the critics out there is that this line is being built to ship power from Alberta into the States, and in fact for my constituents their millions of dollars of investment is to bring that power from the States to Alberta customers. How come you're so quiet on this issue?

Mr. Huggill: As the Canadian Wind Energy Association we're interested in seeing the projects built in Canada versus in the United States and importing the power. That's really our focus, to see the industry built here. Within the United States I think it's fair to say that the policy regime that you've seen over the last 18 months has certainly been a driving force with respect to, you know, the presence and the ability of wind to both get built and connect. Our interest is really on building those wind facilities in this province. We're quite pleased that that line is available, and we're hoping that there's an opportunity. Again, as I mentioned, in terms of being part of the energy conversation Alberta is an energy province, and we look to export that energy. We would like renewable energy to be part of that conversation as well.

Mr. VanderBurg: But you do recognize that that line is two ways. It's import and export.

Mr. Huggill: Absolutely. Yes. Certainly, I think that that's a segue into the conversation about, again, as my colleague previously identified, the unique market play that is in Alberta. What does increased intertie capacity mean with respect to obviously the exports from Alberta and the imports into the province? Those are all fundamental questions that we don't have a set answer for at this point, but it's certainly something we've got to keep our eye on going forward.

Mr. VanderBurg: Thank you.

The Chair: You're finished?

Mr. Jacobs, please.

Mr. Jacobs: Thank you, Mr. Chairman. Thanks for your presentation, David. As a long-term resident of southwest Alberta I certainly understand the power of wind and the potential of wind. My first question has to do with economics of wind electricity given the present scenario around natural gas. You know, we now suddenly decided we have unlimited amounts of natural gas in North America.

The price of natural gas is definitely much lower than it was five years ago. How does this affect the economics of wind power, when obviously natural gas is so much cheaper and can produce electricity at a cheaper rate? Could you comment on that?

My second question. You know, as I drive from Macleod to my ranch I see intertie lines being built to take some of the electricity that's being produced by wind power in southwestern Alberta. Are we making good progress on the interties? Are we increasing our ability to move this electricity from point of generation to point of consumption, or do we need to do more work on that intertie connection piece?

Mr. Huggill: I'll answer the first question with respect to the pricing of natural gas. Absolutely, that is impacting the economics of wind. Our industry, not unlike many other forms of power generation, is extremely capital intensive at the front end, so we're seeing that there definitely was a very tight convergence between wind and other forms of, essentially, fossil-based generation. That convergence, while it's taking place, has certainly softened with the price of natural gas.

I will say, though, in terms of new global installation with respect to wind, 2009 was the first time wind overtook natural gas globally. It's always been sort of a horse race between wind and natural gas, and in 2009 there was more wind installed than natural gas at a time when those prices were, you know, starting to tank. It will be interesting to see how 2010 plays out and what it does to that particular horse race.

With respect to the access to transmission and just for clarification you mentioned interties. Are you talking about taking it outside the province or just in terms of moving it within the province?

Mr. Jacobs: Well, the grid. There's been a limit on the amount of wind generation that can be built in southwestern Alberta because we don't have the transmission ability to get it into the grid. The intertie, I mean, refers to the ability to bring the power out of the wind generation areas into the grid.

Mr. Huggill: Thank you, and you're absolutely right. From our perspective access to the grid has been a significant barrier for generation going forward. Our understanding is that the Pincher to Lethbridge line will be energized, hopefully, later this month. That's, obviously, essentially to accommodate facilities, I believe, in your area.

I guess a comment would be, depending on whom you speak with, that that may be three years longer or later than was first anticipated, so the planning of the transmission, the delivery in terms of in-service dates are critically important. The southeast reinforcement, which is part and parcel of that whole interconnection within the southern part of the province: we're pleased to see that that is moving forward. As I say, it's our understanding that the AUC in terms of the milestone and phasing that's associated with that rather significant build-out has now moved forward. We'll be interested in working with the TFOs to make sure that in-service dates are met and to continue to allow the financing and our projects to move forward. It's a very astute observation because that is important. Stringing lines is far more critical in terms of advancing our industry than, you know, the permitting and applications. I mean, we need this stuff on the ground and ready to provide the electricity to Albertans.

I would like to add that the whole issue around transmission build-out and the investment in infrastructure we're very encouraged to see is not driven by our industry. It's a stability and reliability issue, from our understanding. We certainly, obviously, stand to reap benefits from it. It isn't, you know, a wind-specific issue, but we are happy that it is able to accommodate wind.

Mr. Jacobs: Thank you very much.

The Chair: Thank you.

Mr. Dallas, please.

Mr. Dallas: Thanks, Mr. Chair. David, thank you very much for an excellent presentation. A couple of questions. One, it's hard not to be impressed by the amount of installed capacity in the province, but I think that's a story that a lot of Albertans, perhaps, are not completely aware of. I know it's a part of the blessing of our geography and climate here, the opportunities, but on a per capita basis I would suggest that we significantly lead the country. Perhaps that's a way of presenting that information to Albertans. It would really resonate in terms of Albertans' commitment to this type of energy.

11:10

I'm curious. You didn't mention any microgeneration opportunities, the farmyard residential opportunities, and I realize that those are on a much smaller scale, but I wonder if you could just comment about the opportunity and the economics around that type of equipment.

Mr. Huggill: Yeah. Thank you. That's, again, a very good question because it is an issue, obviously. When CanWEA attends a trade show, we have a scale model of a utility-sized turbine, one of the machines that you see on the screen, and there used to be a time when 90 per cent of the people that came up to the booth would basically say: you know, I want to buy one of those right now, so I can put it on my garage or on my ranch. The level of interest in what we refer to as small-scale wind is significant, and I'm pleased to indicate that CanWEA is one of only three international associations that actually has dedicated a resource specifically to that. We have a small wind manager whose sole job is to look exactly at the issue that you've raised, and that's the small scale. That can be what we refer to as microgeneration in terms of somebody wanting to augment or get off the grid, and it also incorporates things like community wind projects. Certainly, in some of the more isolated and remote regions there is absolutely an opportunity for our industry.

The issue of, you know, changing climate: we're now starting to see some of the tangible examples of that in remote and isolated communities that, for example, rely on winter roads to stockpile diesel, which is essentially a form of generation. As winter roads come in later and go out earlier, that stockpile is now threatened somewhat, and there is an excellent tie-in with wind, again, augmenting. I want to be clear. We're not talking about replacement. We're simply talking about augmenting and maybe easing the reliance on that form of power generation, and we certainly see, particularly from the First Nations and, again, isolated and remote communities, a very, very sustained level of interest in the industry and seeing how they can get tapped into it.

Going back to how we started the question session, though, certainly economics do play a role in that. The machines that I'm speaking of when I talk about utility-scale wind, on aggregate they're coming in, again recognizing the variability across the country and the differences in the jurisdictions, somewhere around $2.5 million to $2.6 million installed per megawatt, and that's all in in terms of the pricing. So it's not cheap, but it does help address some of the sort of more pervasive issues that we're starting to see some communities dealing with.

Mr. Dallas: Thank you.

The Chair: Thank you. I just have a little follow-up question on the microgeneration. Is there an easy way to determine the feasibility of these things? Like, you'd have to put up one of these little wind meters, but for how long of a period of time would you have to measure the wind, and what would the process be to do that?

Mr. Huggill: You're speaking specifically about micro- or small-scale wind?

The Chair: Micro, like in small-scale farming or remote areas.

Mr. Huggill: That's going to depend on what size of turbine or infrastructure you're looking at, but you do want to measure the wind for a variety of reasons. One, you want to make sure that it's going to make sense to invest in that technology. Typically, it sort of falls out between 10 months and a year for microscale, but I could certainly follow up and provide you more detail if you're interested.

The Chair: Certainly.

Mr. Lindsay.

Mr. Lindsay: Thank you. I certainly believe that there's a place for wind, you know, in a generation mix within our province, but when you take into consideration that transmission is not part of the Balancing Pool equation – and my understanding is that the average wind generation only operates about 30 per cent of the time – I guess the question that I have is: is money invested in transmission when it's only going to be utilized 30 per cent of the time a good investment for consumers in Alberta?

Mr. Huggill: That's an absolutely fair question. What we're finding with the needs applications that are going in from AESO and to the AUC in terms of looking at that is that that's precisely the questions, you know, that they're grappling with. What's happening and what you're seeing is that where the projects are being built, certainly first prize is to make sure that those lines are fully optimized. What we're finding, particularly with the wind regime we have in the southern portion of the province, is that it's actually pushing closer to 40 per cent in terms of capacity factor. It falls on the system operator to make sure that the balancing of that, in terms of fully utilizing those lines, is fundamentally important.

I mentioned the issue of geographic diversity. There's no modelling that indicates that the wind stops blowing in all places all at once. You know, if one facility is ramping down, again, it speaks to the fairly sophisticated modelling that takes place with respect to the wind regime. Going to the economics and the costing of these facilities, there's a great deal of data that goes into siting them, and they're looking at making sure that those lines are fully optimized.

It is a fair question, and I think that, again, it's one that we're watching. We want to make sure of those lines, particularly given the level of interest in the whole issue around transmission build in this province.

The Chair: Thank you. That's the end of my list of questions.

Mr. Mitzel, are you still online? Do you have a question?

Mr. Mitzel: Yes, I am. Thanks, Mr. Chairman. Just a quick comment, I guess. I think any questions that I may have had have been answered. Being right in the middle of what was mentioned as the southeast reinforcement or the southern reinforcement, I'm very familiar with this. Thank you very much for that presentation. Actually, your comments answered any of the points that I may have had.

You did talk about the interest that is there for microgeneration. I think probably the only thing – and I'm talking about utility scale – that seems to come up, for the most part, is the very lengthy time period that's involved in order to have all of the regulations and approvals done in order to move ahead. I was told by a couple of the wind energy companies that certainly the reason that they haven't started building and moving ahead more quickly is because the transmission reinforcement is still in some of the final stages of approvals before they can move. I guess it would be very good to get a shovel in the ground and get moving with this.

Mr. Huggill: Agreed.

The Chair: Would you like to comment on that?

Mr. Huggill: Absolutely. I think I touched on it in terms of the importance of meeting those in-service dates and following the needs applications that go in with respect to the transmission.

The Chair: So the challenges would be transmission and regulatory approvals?

Mr. Huggill: And the financing.

The Chair: Okay. Any further questions?

If none, then I want to thank you, Mr. Huggill, for your presentation.

We will move directly to the next group, and that is Enmax Corporation. We'll give them a minute to set up here, and then we'll start with them.

I'd like to welcome Mr. Holden with Enmax Corporation. I believe you have somebody else with you. Both of you will be at the table?

Mr. Todd: I was going to just sit as an observer.

The Chair: You can sit at the table if you want.

Mr. Todd: Thank you.

The Chair: Were you here when we introduced ourselves a few minutes ago?

Mr. Todd: I was, but Mr. Holden was not.

The Chair: Then we will do that again. We'll start on my right, and we'll go around the table and introduce ourselves for your convenience.

Ms Blakeman: Well, gentlemen, my name is Laurie Blakeman. I would like to thank you for travelling and welcome you to my fabulous constituency of Edmonton-Centre. I'm also pleased to serve as the deputy chair of the committee today.

Mr. VanderBurg: George VanderBurg, Whitecourt-Ste. Anne.

Mr. Jacobs: Broyce Jacobs, Cardston-Taber-Warner.

Mr. Anderson: Rob Anderson, Airdrie-Chestermere.

Mr. Taylor: Dave Taylor, Calgary-Currie.

Dr. Massolin: Good morning. Philip Massolin, committee research co-ordinator, Legislative Assembly Office.

Mr. Dallas: Good morning. Cal Dallas, Red Deer-South.

Mr. Lindsay: Good morning, Gary. Fred Lindsay, Stony Plain.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Ray Prins, MLA for Lacombe-Ponoka and chair of the committee.

Online I believe we have one more.

Mr. Mitzel: Len Mitzel, MLA, Cypress-Medicine Hat. Good morning.

11:20

The Chair: Thank you very much.

Mr. Holden, go ahead, please, with your presentation. You have about 15 minutes, and then we'll have about 15 minutes for questions afterwards.

Enmax Corporation

Mr. Holden: Great. Thank you very much. I thought I would start out with a bit of an overview of where Enmax is at these days. Being the municipally owned utility in Calgary, there's usually some interest in what our mandate is and our strategy and where we're at in the marketplace. We have a mandate to represent our shareholder but also to participate in the deregulated market. We feel we have a strong interest to represent consumers of Alberta, and part of my presentation today will show what that interest is looking like not only now but into the future. We see ourselves as being in a position to lead with some innovation and some new energy ideas, and I'll share some of those with you today. Very much part of our mandate given to us by our shareholder is to build a legacy of sustainable energy in Alberta.

We've been growing the business since 2005. Prices have come off lately. In 2009 revenues have dropped, but during that same period our earnings have grown. Of course, our shareholder is very pleased with this as we give 30 per cent of these earnings back to them as a dividend. We lead Alberta in low prices, we've been continually increasing our market share, and we expect that our ability to bring prices from new generation in the future will maintain a low price environment for a long time.

We fully expect energy contract prices to stay in the 6- to 7-cent range for industrial and commercial customers and the 7- to 8-cent range for residential customers until well past 2020, and I'm going to show you some of the reasons why we can be so confident with that projection in the latter part of the presentation. Essentially, we see a future where Alberta can continue to have low-cost power if we make the right decisions and choices along the way.

In that process, of course, we're continuing to grow our return on equity for our shareholder, which has delivered a growing enterprise value. In 2005 we thought we might be worth about $1.7 billion, and today we think we might be worth about $4.2 billion in total enterprise value. The key reason for that is we now have sold more kilowatt hours outside of Calgary than we have inside, and we've done that through participation in the competitive retail market. The importance and the reason I put this into the presentation today was to demonstrate and articulate our view that deregulation in Alberta has been a big success because we found the balance of growing a company in a competitive market and keeping prices low for consumers. In numbers, we expect to exceed 700,000 customers in Alberta by the end of the year.

Some of the ways that we've done that in our efforts to serve the consumers as part of our mandate is that in 2007 we began a shift to gas-based power. Some of you might know – Mr. Lindsay would recall – that I have a history in the electricity industry in Alberta in working at TransAlta operating the coal facilities that they had and have learned the perspective that coal in the long run was going to be more expensive than gas. So in 2007 we began our shift to gas-based power, and that's principally the way in which we think prices will be kept low for consumers.

We also in 2005 changed the way that consumers contract for power. Prior to 2005 consumers were faced with very complicated contracts that had penalties to get out of. We led the way in 2005 by making those contracts a guaranteed price for consumers without a guarantee to us that they would pay if they were to move out of the province or even switch to a competitor.

We introduced district energy to Calgary in 2009, and we just commissioned our first district energy distribution centre on 9th Avenue in downtown Calgary, that will collect waste heat from a gas-fired power plant and distribute it to buildings.

We also in 2010 launched a home generation program where we'll be offering residences the option to either buy a contract from an energy provider or put a solar panel or a micro wind generator or a combination of the two on their home. I'll talk a little bit more about that in a second.

The shift towards gas-based power started with our acquisition of the Calgary Energy Centre at Balzac. Last year we built the Crossfield peaking plant, we're in the process of permitting the Bonnybrook cogeneration plant in downtown Calgary, and we're in the final stages of AUC approval for the Shepard energy plant in east Calgary. The combination of those generating plants would see the Calgary area have approximately 1,000 or, if you include the peaking plant, something in the order of 1,300 megawatts of power for distribution in southern Alberta.

The reasons we've made these decisions are not only because these are low-cost assets, but they also create a very welcoming environment for new wind generation. As wind generation gets added in southern Alberta, these gas-fired power plants have the ability to run or not run, depending on how much wind is blowing. I draw a contrast to that strategy to one where baseload generators are added to the system that will constantly be in conflict with wind when it blows. We believe that this is the principal way to open the door for greater capacity in the wind side of the market. Clearly, we need transmission to connect those wind farms in, but more importantly we need assets that have the ability to adapt with the wind load.

I mentioned that we're starting a micro wind and solar power program. We initiated this program two years ago for employees of Enmax. We allowed employees to subscribe to wind generators on their properties and helped with the installation of those facilities as part of being an employee. Of course, it was a taxable benefit if anyone is keeping notes on that sort of thing. The employees made lots of choices. We've put in dozens of these already through the process established in Alberta, where carbon penalties are put into a pool and redistributed through the CCEMC tech fund. We've worked with the tech fund folks to start a program to roll out a thousand of these sites in Alberta in the next couple of years.

In conjunction with that, we've started our solar PV. You're seeing some pictures here of some early adopters of solar PV. We've come up, again through the tech fund mechanism, with a

program where employees can spend $1,000 up front, which effectively covers the installation of the panel, and pay $30 a month for the panel itself. We expect in most cases that the homeowner would save more than $30 a month on their energy bill. So the solar world has really arrived in Alberta with the launch of this program, and we're planning 9,000 sites initially in the first couple of years of the program.

Now, this is in stark contrast to other jurisdictions in the world, where they've put feed-in tariffs in place to make this same thing happen and then require all energy users on the grid to pay for those solar panels. We've decided it was better and probably more of an Alberta solution to have the end-user pay and use CO_2 penalty dollars to create the offset.

What is the future for consumers from our perspective? We see more home generation options. We see the launching of cogeneration at the home in the next year or two. We see more consumer-focused contracts, where the consumer will have more options, and I'll explain some of those in a moment. We see an easy transition to electric transportation. The advent of the electric car is going to hit us in 2011-2012. We'll start to see more options from the car manufacturers for electric vehicles, and given that electric vehicles cost approximately 7 or 8 cents a litre to fill, we see them as becoming very popular. So having our grid adaptable and ready to transition to electric transportation is an important thing for utilities to consider these days.

11:30

We also are setting up partnerships with utilities to conserve, where we'll be offering energy contracts that promote conservation, and I'll explain to you what we mean there in a moment.

Just to run down a couple of the consumer choices that we'll be bringing to the market in 2011, I've already mentioned the solar panel options and the microwind options, but we expect fully that a partnership on home generation would occur, where we would buy the power from a homeowner that had cogeneration in their home. Certainly, that would be true with solar and microwind as well.

The solar power partnership contract that we're coming up with is something where the solar power partner would get a discount on their power by virtue of having solar power on their roof. This is highly economic. In case you're wondering, this is not a subsidy. This is us recognizing that the solar power is coming on peak and that the balance of their energy needs would be off peak; therefore, they deserve a cheaper price. If someone does elect for a solar panel and pays for that solar panel by the month, then they will enjoy the benefits of cheaper power for the balance of the day. We're prepared to make those commitments on a five-year basis, in the same way that we would offer a contract for energy in the normal fashion.

We're also going to be offering an EasyMax contract for electric car owners where they will get 4-cent power provided they charge their cars at night. The 4-cent power would mean, roughly, that a car could fill up for 5 cents or 6 cents a litre, making it even that much more competitive to gas.

We're also coming up with an energy-miser contract, where if a homeowner is able to save energy on peak, we'd be prepared to buy it back from them at 12 cents. Picture a contract that would be normally an 8-cent contract, and if someone is able to save energy on peak, we would give them a reward to effectively sell it back to us at a premium, knowing full well that peaking power in Alberta costs a premium.

To summarize, our business plan is to align with customers in all ways. Any decision we make would be to think of the marketplace through their eyes. Any policy direction we support would be to think of it through their eyes, and clearly that includes choosing generation that will keep prices low like natural gas. We also choose to locate generation to minimize the transmission spend – clearly, that's a big cost in our market – and that supports the decisions that we've made so far. All of this together we think will build a legacy for the company that is one of long-term sustainability.

Thank you. That was my 15 minutes. I'd be happy to take any questions.

The Chair: Well, thank you very much, Mr. Holden.

The first question will go to Mr. VanderBurg.

Mr. VanderBurg: Mr. Holden, I'm one of your 700,000 customers and one that doesn't reside in Calgary and one that signed a 6-cent contract. It expired, and now I'm on the last days of my 7-cent contract. Are you going to offer the solar PV to rural Albertans as well as your customer base that's in Calgary?

Mr. Holden: We absolutely are. I'll answer that in a little more detail, but I also want to add one thing to your previous comment. We have also offered to Albertans $100 credit if they combine their electricity and gas, which makes their 7-cent contract or their 8-cent contract on average about 1 cent lower. Our price for most of our customers is in around 7 cents now. In your case you were in early and got the cheaper one. We think the opportunity to keep those prices, maybe even drop them, is possible in the future.

But, yes, to answer your other question about solar. We are establishing five locations in Alberta that the installation crews would operate out of, and they would have an extended reach into the rural community.

Mr. VanderBurg: And how do we sign up?

Mr. Holden: We're starting a marketing campaign in the next 30 days or so, with instructions on how to get on the installation list. It'll be a website-based sign-up process, and you'll be given a date of when a crew would be showing up.

Mr. VanderBurg: Thank you.

The Chair: Thank you.

Mr. Anderson: Great presentation, Gary.

Mr. Holden: Thank you.

Mr. Anderson: Three questions for you. A couple of them are pretty quick. First off, are you in Airdrie-Chestermere, my constituency, right now? That's the first question.

The second one. We just saw a presentation from IPPSA regarding the cost of building a natural gas generating station and comparing that to some of the others. It looks like it's become quite economical. What numbers do you have, like a dollar per megawatt hour cost? The numbers he gave us were $70 to $80 per megawatt hour.

The third question. Obviously, with Alberta growing, we have a need for increased electricity generation. Of course, with this whole Bill 50 debate the question is: could that be done without the access transmission lines? Does Enmax have the ability to produce the power needed close to site, close to the city of Calgary, for example, to negate the need for those massive transmission line builds?

Mr. Holden: Well, the first answer is that $70 to $80 is a good

number. I'd say it probably is a high number. If our Shepard plant in east Calgary were operating today, the power out of that plant would probably produce a good rate of return in this year, at around 6 cents instead of 7 cents or 8 cents. We're thinking 7 cents to 8 cents is a good long-term projection, but we're optimistic that that could be beaten. That's driven mostly by the view we have of natural gas prices.

The second part of your question. You know, we're aware that when our generation comes online in Calgary – and keep in mind that there is also a transmission line coming from Montana into the Lethbridge area – the summation of all of that capacity will go a long way to replacing new-demand growth in Alberta. It'll go a long way to even replacing some of the coal plants as they retire. To the extent that that lessens the load on the transmission grid, then Albertans will benefit from that.

We calculated that the AESO plan of 2008 was the right plan. It was far less expensive than Bill 50, probably $10 billion less, and we see the prize of Albertans getting a $10 billion cheaper transmission bill as being worthy of chasing. The generation in the south would do a lot to do that.

Mr. Anderson: And you're in Airdrie and Chestermere and that?

Mr. Holden: Oh, yes. Thank you. Yeah, you can sign up in Airdrie, for sure.

Mr. Anderson: Good to know.

The Chair: Thank you.

Mr. Lindsay: Thank you, Gary. Again, an excellent presentation. I'm also a customer of yours. I've found that especially since deregulation your company has certainly been very forward thinking and innovative. Obviously, today your initiatives around electric cars and solar panels are an indicator of that.

You mentioned the good mix between gas, combined cycle, and wind. The question I have around that is: would you see that generation as part of the Balancing Pool or part of the must-run plan or a different scenario altogether?

Mr. Holden: Yeah. That's a good question. It's a common question because gas can come in three forms, actually. You could have gas cogeneration, you could have gas combined cycle, and you could have gas peaking. Not all of them work well with wind. If it's a must-run cogeneration, then it could also be somewhat in conflict with wind if they were to both want to run at the same time. We see a blend of all three as being necessary. We see a blend of some peaking plants even if there was a lot of solar in the market.

I have a very sort of clear view of solar, that we should have as much solar in every city as we have air conditioning. So if you were to sum up how much air conditioning is in Edmonton, that's how much solar we need. If you were to sum up how much air conditioning is in Phoenix, then that's how much solar they need. Because they work exactly together.

11:40

Even with that, you still need peaking plants. You need peaking plants that can come in quickly to balance the system on a very rapid basis. The plant we built at Crossfield can ramp up in less than 10 minutes. We still need those kinds of gas facilities. Sometimes wind comes on quickly. In fact, it almost always comes on quickly.

The ability to shut off a plant is just as important as to turn one on quickly. In the plants we're designing in the Calgary area, we're designing not only the rapid turn-on but also the ability to shut it off quickly as the wind comes on. Those things are going to be highly beneficial because that's what's going to allow more wind capacity to be added.

The Chair: Is that it, Mr. Lindsay? Okay.

Mr. Jacobs.

Mr. Jacobs: Thank you very much, Mr. Chairman. Gary, I'm going to sort of ask you a question which you may think is a set-up question, but I'm asking it sincerely. As I hear you talk, you know, you advocate for wind generation, and you seem to be advocating for minimal transmission, the least amount of transmission possible.

I have a constituent who lives in Montreal but has bought a country residential acreage in my constituency, near Mountain View. He is totally against wind turbines. Even though he's an environmentalist, he doesn't believe in wind turbines. When I questioned him one day, I said: "Well, how can you believe in, you know, nature and everything natural and be against wind power? Because it's obviously very natural." He said, "Well, I'm not against wind power; I'm just against turbines in rural Alberta because they destroy the view." I said, "Well, where would you like to build the turbines?" He said, "Right outside Calgary." He said, "I want to surround Calgary with hundreds of thousands of wind turbines."

I'm just thinking, you know, obviously, that would go along well with your plan for no transmission because you could build all these wind turbines around Calgary and kill two birds with one stone.

Mr. Holden: Your two birds comment wasn't a pun, I'm sure. Right?

Mr. Jacobs: Well, the question is obviously a little bit funny.

Mr. Holden: No, no. It's a good thing to stimulate thought – right? – to think of a bunch of wind turbines surrounding the city.

There is lots of advantage to putting wind on the upper ridge of a hill that has nothing but farmland in front of it because the wind tends to generate a lot of energy when there's nothing blocking it. I think the primary reason why southern Alberta was chosen for a wind site was because of the almost unique circumstances of how the wind funnels through the mountains and comes out across the prairie. In the wind business we tend to look for those locations. While Calgary might be windy at times, it's nowhere near as windy as southern Alberta. I think the predominant variable is simply: how much wind is there?

I also know the economics of wind because we've built a number of wind farms. The economics are very touchy, meaning the difference between 39 per cent wind loading and 34 per cent wind loading is the difference between it going ahead and not going ahead. So you have to be very careful where you locate these things, and there are limits. It's also why you don't see them all over Alberta.

It would be great to see more geographic dispersion of wind load because the way it is now, the plants all work together. In fact, they hurt each other's economics because when the wind blows, they all drive the price down together. So it's not great; it would be better if they were scattered all over. But you can't hope that wind blows; you can only go to where it is.

Mr. Jacobs: I'll tell my friend you don't want a million turbines around Calgary. Okay?

Thank you, Mr. Chairman.

The Chair: Thank you very much.
Ms Blakeman.

Ms Blakeman: Thank you very much. You've referenced deregulation a couple of times today during your presentation, and I'm wondering if Enmax still regards deregulation as creating uncertainty. Or has this become more predictable for you?

Mr. Holden: Well, I'm a huge fan of the predictability of consumer choice as long as the providers give good choices. When we invented the five-year, fixed-price contract with no penalty, we genuinely believed that that was going to be the way in which consumers will be able to get away from the volatility of energy prices. Under the old model there was no guarantee that all the decisions that would be made in the marketplace would be good for consumers. Under the new model if consumers have choices, they can ignore the bad decisions. You know, I'm very genuine in my feeling that we'll be able to keep prices where they are well into the 2020-plus period. That's a guarantee that we never could have made under regulation. That's one aspect of it. There are a lot of bad decisions that get made in the marketplace that shareholders now have to take the heat for instead of the consumer. That's why I like deregulation.

I think it's also true that innovation has come because of deregulation. There was a time when we only had three generators making decisions in this province, and the last time I counted, now we have something like 34. So 34 different companies are now putting their intellectual power behind unique ideas, and it's creating a very rich environment for smart things to happen.

Ms Blakeman: Just as a follow-up to that, then, Enmax and EPCOR still enjoy a very unique position with regard to the FOIP legislation in this province in that they should be covered under public bodies, and they asked for and received an exemption to that because of the uncertainty around deregulation. If that's not an issue now – it doesn't seem to be; you're doing very well – and the FOIP Act is currently being looked at, is there any problem with now having FOIP apply to both yourself and to EPCOR? Do you have any argument against it?

Mr. Holden: Well, I'm not an expert on this matter, but I do worry that when you're in competition, that set of legislation can be misused by competitors. I don't have any specific expertise in some of the other subtleties, but I would worry if my competitor could use that tool to gain a competitive advantage for themselves.

Ms Blakeman: All the exceptions and exemptions would apply in the same way they apply to everybody else.

Mr. Holden: Yeah. If you're confident in that, then I'm not sure of the other subtle reasons why that would be a problem.

Ms Blakeman: Good. Thank you.

Mr. VanderBurg: A number of years ago I challenged you, and you came to the plate with the EasyMax contract. Good for you. You know, I didn't think it was fair for consumers to pay the penalty in and out. Now you're making some pretty bold statements on a 2020 vision of where our power will be. Are you going to come to the plate with a 10-year contract?

Mr. Holden: We would like to. There are barriers to that now. We would need a change in the regulations. Currently there's a five-year limit. If there were the opportunity for longer term contracts, we would probably step up to the plate with that.

Mr. VanderBurg: Are you saying that you'd like us to advocate for the ability for a 10-year contract?

Mr. Holden: Or just lifting the restriction.

Mr. VanderBurg: Look forward to a letter.

Mr. Holden: Okay.

The Chair: Thank you.
I believe we have another person on the line. Is that correct?

Mr. Berger: Yeah, Ray. I'm back now.

The Chair: Okay. Thank you.
Do you have any questions, Mr. Mitzel or Mr. Berger?

Mr. Berger: No.

The Chair: Okay. Then if there are no further questions, I just have a little question. A while ago when you were talking about electric cars, you were talking about price per litre and price per kilowatt. How does that compare, and how big do you think that market is going to be for fuelling up electric cars?

Mr. Holden: Well, I think that in the early days of electric cars the restriction will be the supply. You know, we're likely to be considered a small market relative to the markets in New York and California and Europe. So we'll probably struggle with the fact that we'll get a limited supply and probably have to pay a bit of a premium for those limited supplies. The equation for creating 7 cents a litre versus, say, a hundred for a gasoline car is simply taking, you know, an EasyMax contract at 8 cents a kilowatt hour and calculating how much of that energy it would take to fill a car and then dividing it by a typical miles per gallon. You can get less than 10 per cent of the cost electrically as you can with gasoline.

11:50

The Chair: Thank you very much. That actually draws us to the conclusion of our half hour. Thank you to Mr. Holden and, I believe, Mr. Todd for your presentation.

Mr. Holden: Thank you.

The Chair: We'll move directly to Capital Power Corporation. I'd like to welcome the Capital Power Corporation people. Were you here when we introduced ourselves a while ago?

Mr. Oosterbaan: No, we weren't.

The Chair: Okay. Then what we'll do is introduce ourselves for the record and for your benefit, and then we will go directly to your presentation. We'll start on this side.

Ms Blakeman: Well, gentlemen, thank you for giving me the opportunity to welcome you to my fabulous constituency of Edmonton-Centre. My name is Laurie Blakeman, and I'm also serving as the vice-chair of the committee today.

Mr. VanderBurg: George VanderBurg, Whitecourt-Ste. Anne.

Mr. Jacobs: Broyce Jacobs, Cardston-Taber-Warner.

Mr. Anderson: Rob Anderson, Airdrie-Chestermere.

Dr. Massolin: Good morning. Philip Massolin, committee research co-ordinator, Legislative Assembly Office.

Mr. Dallas: Cal Dallas, Red Deer-South.

Mr. Lindsay: Good morning. Fred Lindsay, Stony Plain.

Mrs. Sawchuk: Karen Sawchuk, committee clerk.

The Chair: Thank you. Ray Prins, MLA for Lacombe-Ponoka.

We have a couple of people on the telephone. Go ahead and introduce yourselves.

Mr. Mitzel: Len Mitzel, Cypress-Medicine Hat.

The Chair: Evan must just be away from the phone.

Okay. Go ahead and introduce yourselves, and then proceed with your presentation. You have about 15 minutes, and then we'll take some questions.

Mr. Oosterbaan: Thank you. Good morning. I'm Jim Oosterbaan, senior vice-president of commercial services with Capital Power.

Mr. May: I'm Dwain May, senior manager of government relations for Capital Power.

Capital Power Corporation

Mr. Oosterbaan: Thank you to the committee for your invitation this morning. We're here to talk a little bit about the generation side of the business. We won't be touching on the commercial side or, I would say, the residential side, as I think Gary did in his comments. You should have a copy of the presentation. It's in front of you. It's the slides that I'll be going through. Certainly, I will not read that for you.

Just moving on to slide 3, Capital Power, you may be aware, is an IPO, initial public offering, spinoff of the generation assets of EPCOR Utilities. We're a publicly traded entity now on the Toronto Stock Exchange. We're headquartered in Edmonton. We have 31 power plants in various jurisdictions in Canada and the United States with a stated target of growing to 10,000 megawatts of generation capacity by 2020. We think we're on track for that. We are in the process of closing a purchase of a 275-megawatt gas-fired generation facility in British Columbia and have a number of other wind projects that we've announced in British Columbia and Ontario that will go into service over the next couple of years.

Just quickly reviewing the Alberta electricity timeline. I think all of you are familiar with this. You know, from our perspective Alberta has already made a number of critical decisions that I think will frame the electricity system for the next 40 years. As you know, these are the types of timelines that you look at when you're building generation and transmission facilities. Competitive electricity markets, as you've heard, no doubt, require policy stability in order to give investors confidence to develop generation – and we certainly believe that has happened – as well as ensuring that all generators in the province compete on a level playing field. Certainly, I think there are rules in place that look to address that. We also do need, however, a transmission system that continues to support open access for all generators to ensure that we do have competition at the generation level, though.

Also, I think the unique part of the Alberta market design is that there really are no public dollars at risk here with respect to decisions to build and operate generation in Alberta. Those decisions are made at the risk of the shareholder that's making those investments. Since 2000 Capital Power has invested more than $1.8 billion in new generation facilities in the province, so I think we've got some familiarity with that, and those investments are really made with a long-term view of the market. While current prices are a consideration again, you are looking over a 30- to 40-year time horizon as you look at making those investments.

One thing I would note because I don't think it probably gets enough prominence is that in 2008 the government of Alberta did release an energy strategy, and that was based, certainly, on consultation with some distinguished Albertans, who in turn talked to a lot of Albertans as they came to those conclusions. That, actually, is a very good framework as you look at Alberta developing its energy endowments as it goes forward.

Just to talk a little bit more about market design, again you'll probably have to refer to the slides in front of you. That's a bit of an eye test; we apologize for that. Alberta is a unique market in North America. There's really only one other market that has a similar design, and that's Texas, a very large market compared to Alberta. As you can see, the advantages are outlined there. Power is sold on the least-cost basis at the wholesale level. There is expertise that's brought to bear as development occurs as a result of private-sector initiative and innovation, and certainly market forces help determine the type and timing of generation that's brought onto the system. However, the downside to that, of course, is that there is a loss of price certainty for consumers, which is something that we've seen, but then again the market has adapted to that.

You know, as you measure the success of a market design, you certainly look at a couple of things. One is the availability of supply and whether it's coming on a timely basis to meet the demands of the marketplace; the second one, of course, being choice for consumers. On both counts Alberta has done quite well. The statistics bear that out. Since deregulation in 2000 more than 3,000 megawatts of new generation has been added to the Alberta generation system. More than 1,000 megawatts are going to be added over the next year, a lot of that primarily wind. Another 1,500 megawatts has been approved for construction in Alberta. Now, whether it's built is another question. And there are more than 10,000 megawatts of named projects sitting in the queue with respect to new generation that's being considered for the province. Again, I offer that up, certainly, as a sign, at least from the wholesale side of the business, that deregulation is working. On the consumer side, whether you're large industrial, mid-size commercial, or residential, you have seen the advent of many sellers of electricity with all the options and creativity that goes with that. So on both counts you find that the Alberta market design has been successful.

We're active in the Ontario market. Again, that's a regulated market. We have assets there right now. We certainly are aware of the fact that Ontario is offering 13 cents a kilowatt hour to build new wind farms, and certainly they've been able to add thousands of megawatts as a result of that. But that's compared to the price of 6.5 cents that they charge their consumers, so again the 7-cent gap. Of course, that ultimately will end up being borne by the ratepayers as you go forward. The difference is not dissimilar to what you see as well in the province of British Columbia. Certainly, one of the things that encourages the wise use of electricity is making sure that consumers do see price signals, and Alberta does have a regime that allows that to happen.

12:00

Now, with respect to the transmission policy, the energy-only

market design means that generation has been built in economic locations over the years, but a couple things, of course, come to mind. There has been no new generation added to the province in the last 20 years other than the line to Fort McMurray and then the line that's been recently energized by ATCO, that goes to the northwest part of the province.

With respect to what we're seeing as far as reserve margins, which is something that we look at from a technical basis, despite some of the economic challenges we've had in Alberta, the AESO and others would suggest that they're starting to fall below the 15 per cent range, which from a system reliability perspective is something that is of some concern to us.

With respect to another factor that I think you need to keep in mind, even though we've had a moderate summer, we did have three emergency alerts that were issued earlier this year by the AESO. That means that there is some congestion on the system, which starts to expose customers to some danger.

With respect to some of the other issues that I've identified on that, the existing transmission policy does provide, I think, the kind of stability that we're looking for and that as a developer of generation we would certainly encourage and would like to see continued going forward.

Now, Alberta has massive endowments in all of the forms of hydrocarbon and conventional oil: natural gas, natural gas liquids, coal to name a few. We believe that going forward over the longer term there will be opportunities to use coal again, to develop new plants in a responsible manner. The current federal regime with respect to capital stock turnover is something that certainly has our support. It does limit the life of existing plants to no more than 45 years and indicates that any new generation coming on the system must meet natural gas standards. We're supportive of that.

With respect to the plan itself it certainly stops the transfer of funds from Alberta to other provinces that would occur in other regimes that are being considered, which we think is important. We believe that the capital stock turnover approach does over time deliver real reductions in greenhouse gas emissions and also the other emissions which are critical as well, which are NOx, SOx, and particulate matter, and, more importantly, allows an early transition to a newer environment that has lower carbon intensity.

Certainly, we expect that over time other jurisdictions will catch up to Alberta and start to levy a tax on carbon emissions. We think that's been very effective in this province from the point of view of sending price signals to all users as far as managing their use of carbon. We've made millions of dollars of investments with industry and with farmers in this province to encourage the sequestration of carbon in response to those types of price signals.

Greenhouse gases are a global issue, and we want to ensure that there is harmonization between the federal government and the provincial government going forward. We continue to be involved in research to find ways to reduce the amount of carbon that's being produced by the combustion of coal. We're heavily involved with TransAlta and Project Pioneer, which is, again, looking at trying to find ways to have low carbon emissions from the combustion of coal.

Another thing I think you should be aware of because you've heard some reference to it is sort of this looming retirement of the coal generation fleet in Alberta. I think the facts, certainly, are plain in that. Those retirements are going to occur in a measured way probably over the next 15 to 20 years, which allows time for the system and the province to adapt to that change.

For example, in 2018 there are about 500 megawatts of coal that would be scheduled to retire. If you look at the 2020-2025 period, again, about 1,400 megawatts of coal will be retiring over that five-year period. Another 150 megawatts, for example, would retire in 2020. So over this 10-year period you're looking at about 2,000 megawatts of coal retiring. Again, that's a period starting in 2018. We still have some time yet as a province and as an industry to respond to those opportunities.

With respect to other technologies as you look at the investments that the province has made in carbon capture and storage, you know, it's very similar to what was done before that with AOSTRA, which was the precursor to the oil sands development that went on there. The province made some very wise investments at that point in time that resulted in the industry that you see today. This kind of seed money, we think, is important to continue to provide the opportunity for Alberta to develop the endowments that it already has.

Just sort of to close off, our position is that many of the critical decisions have already been made. We believe Alberta has done an excellent job establishing a competitive framework for the industry to meet generation requirements in the most economic manner. As a result of that, certainly, Capital Power and its predecessor company, EPCOR, invested almost $1.8 billion in power generation plants that are either currently running or will be running in the next quarter. Transmission development is a critical part of that and should lead load growth in generation development as we continue to grow as a province.

Those are my comments, Mr. Chairman. Thank you.

The Chair: Well, thank you very much. We do have some questions, so I'll begin with Ms Blakeman.

Ms Blakeman: Thank you very much. You heard me question the representatives from Enmax about whether they felt certainty or predictability had been achieved with deregulation, so my corresponding question to you is: is this new entity of Capital Power Corporation subject to FOIP and PIPA or just the PIPA act for the freedom of information and protection of privacy?

Mr. Oosterbaan: I'm not sure. I believe we are subject to FOIP, but we don't service any customers anymore except for a small number of large industrials. We've been out of the retail game for a number of years now as far as selling to residential and smaller end-use customers.

Ms Blakeman: Okay. With the number of plants that you're looking at decommissioning now, what kind of decommission or restoration fund is planned or set aside or in the works for those sites as they come to retirement?

Mr. Oosterbaan: The first retirement that we have of our coal fleet is in, I think, 2032.

Ms Blakeman: Except for Rossdale.

Mr. Oosterbaan: Well, Rossdale: there's work being done on that. Money has been set aside for that, and we are continuing, I think, to work with the community to find alternative uses for the site. That work is continuing. I believe also EPCOR is taking the lead on that as far as working with the local community to come up with a plan for that. But I believe there has been money set aside to deal with the remediation of that site.

Ms Blakeman: And the future sites fall under you or under EPCOR?

Mr. Oosterbaan: Well, the Rossdale plant is a legacy plant with respect to the split between ourselves, but all the other plants – the

Genesee plants, Clover Bar – are the responsibility of Capital Power. The first plant that retires would be in, I think, 2030, 2029. At that point those sites will be remediated and brought back to whatever the legislation of the day would suggest.

Ms Blakeman: And the money is set aside for that.

Mr. Oosterbaan: We will be setting aside money for that, yes.

Ms Blakeman: Thanks.

The Chair: Mr. Lindsay.

Mr. Lindsay: Thank you. Thanks for the excellent presentation and for putting things in perspective regarding transmission because I believe that we need a strong transmission background in the province as well.

On page 3 you talk about transmission development, and I think in your fourth bullet you talk about if the province starts subsidizing plans to be built in lieu of transmission. Correct me if I'm wrong, but I think we're already there with must-run generation in the southern part of the province. Many on the committee may not realize it – and, again, correct me if I'm wrong – but I believe that the extra cost of must-run generation is shared by all consumers across the province. That is a concern of mine. If you could just elaborate on that, I'd appreciate it.

Mr. Oosterbaan: Certainly. TMR has been offered historically by the province. Our view going forward is that it shouldn't be the basis for building new generation. From our perspective, you know, that does exist – I believe the Calgary Energy Centre and Joffre are the two plants that do have it – but in our view with respect to building and siting new generation in the province, that shouldn't be a factor. I mean, that's a nonmarket intervention, and that helps, maybe, justify plants that otherwise would not be justified.

Mr. Lindsay: Again, if you could comment, I believe that the extra cost of the must-run is shared by all.

Mr. Oosterbaan: It's borne by all consumers.

12:10

Mr. Lindsay: Thank you.

Mr. VanderBurg: Even though Mr. Lindsay has most of the coal plants for this area in his constituency, I too have a lot of constituents that work at your plants. They tell me that the figure of shutting down a coal plant after 45 years that the federal government is proposing is flawed and that the people that work in your plant say that these plants can run well beyond 45 years, into 60 years plus. I'd like to hear your comments, and I'd like to know if you agree with the 45 years that the feds have set aside, because all Albertans have paid for those plants.

Mr. Oosterbaan: Well, certainly, I think the bar in the legislation is that if you can bring down the emissions of the plant to NG, natural gas, combined cycle levels by the end of the 45 years, life extensions are possible. Certainly, our work with TransAlta is looking to try and do it if, in fact, we can achieve that.

Again, with our first coal plant going offline in sort of the late 2020s, early 2030s period, we're confident that we should be able to find the solution to reduce the carbon impact of burning coal.

Our overall hypothesis is that coal will still remain a significant contributor to the North American energy mix despite the current legislation that you see right now. It accounts for about 50 per cent of the U.S. generation mix. That will decline over time, but still it will have a role to play, which tells you that there will be money continuing to be spent on developing a solution for that, so we're confident that that will be the case.

I mean, we think 45 years is a fair compromise given all the other issues that we're dealing with at the time, so we'll respect that agreement. But, again, we're certainly working very hard to extend, to find opportunities to bring down the emissions to a level that's compliant with the legislation of the day, which would be natural gas combined cycle level or lower.

Mr. VanderBurg: Further to that, you know, I have second-generation families working in your plants. Can we expect many future generations working at those similar sites, just with a different fuel load? Is that what you're saying?

Mr. Oosterbaan: Or with a different technology application. That's certainly what we would be striving to accomplish.

Mr. VanderBurg: Good.

Mr. Anderson: Thanks for your presentation. I do have several issues with it or questions that I'd like clarified if I could. First, there's an assumption throughout your presentation that gas prices will be increasing, it seems, somewhat dramatically. I mean, obviously, gas prices over time may go back up, but with the new technologies, the new supplies that are out there now, I think this is an assumption that, clearly, you probably need to rethink a little bit because it's not in line with what the economics and the experts are saying. Natural gas is going to be a low-price fuel for a very long time. That would be one thing to take a look at.

The second thing is regarding greenhouse gases. Obviously, you're excited about lowering your greenhouse gas footprint. Natural gas is actually a 30 to 40 per cent lower carbon footprint than coal-generated power, so that might be something to consider in your future plans going forward for what you want to invest in. Maybe you are making investments in natural gas generation. I'd like to hear about that if you are.

Third, you talk about a level playing field. In your presentation what you've asked for and what you're saying that the government has done a good job on is that they're subsidizing carbon capture and storage technology. They're subsidizing your transmission lines that you need to get the power where you want it to go. We already know coal pays significantly lower royalties than natural gas. I'm a big fan of a level playing field, and I think coal plants should be open for as long as they possibly can. But to say that there is a level playing field right now when, essentially, you are being subsidized by this government: I just don't think that that matches. So I'd like your comments on that.

Let's just go with those three, and if you can give me some answers on those, that would be helpful.

Mr. Oosterbaan: Well, certainly. With respect to natural gas prices, you know, over the long term they will increase. I sort of reject your assumption that they will stay low for a long time. This is very similar to gas markets when we had the massive surpluses when we had deregulation in 1985, the same kind of scenario. We called it the gas sausage, the gas balloon, whatever it was, but that passed. I expect that you will see the same kind of reaction by markets in the U.S. and Canada. If gas does stay at a low price for a long time, you will see increasing uses of natural gas, so the

demand should go up. I think the laws of economics haven't been repealed with respect to that, so I would reject your assumption that it will stay low for a long time.

Mr. Anderson: I note your rejection, and I reject that. Thanks.

Mr. Oosterbaan: As far as natural gas investment, I think, you know, that clearly the province has made a statement with respect to building new coal-fired facilities when they've indicated that they won't permit anything other than plants that are meeting an NGCC standard. We accept that. We need to find a way as an industry to respond to that direction, so you won't see us building any more new coal plants or at least applying to do that.

You know, as we look at investments in other markets, we are focused on natural gas because that's what the stock market is expecting at this point in time. We won't rule out looking, however, at the appropriate coal-fired assets in other jurisdictions as part of a potential acquisition because we believe we have expertise with that and we certainly want to lever that to the extent we can. A recent acquisition, for example, the island generation facility in British Columbia, is a natural gas-fired facility, and we'll be looking at others as we progress.

As far as the level playing field, you know, royalty regimes are a tool wielded by the government, I think, to encourage economic activity, so I can't comment on whether coal is too high or too low or whether natural gas is too high or too low. I think you've seen recent activity on the hydrocarbon side that suggests that sometimes these royalty rates can change, though.

Mr. Anderson: You can comment that, of course, it's higher for natural gas than it is for coal for power generation.

Mr. Oosterbaan: Well, yeah. I'm not sure if the suggestion is that somehow Capital Power is being subsidized by the provincial government. Again, I just don't understand that one. I've never heard that one before and, certainly, welcome the facts.

Clearly, the decision to build transmission is based on long-established rules with respect to cost allocation and what I would call causality with respect to: those who generate the costs end up incurring those costs. In Alberta, for example, about 16 per cent is borne by the residential segment of the market, and then the remainder is borne by industrial and commercial customers. I think that, you know, in the absence of competition to build transmission lines, you have to go to a regulated model. Is it a subsidy? Certainly, I don't believe it is because all Albertans enjoy the benefits of having a stable, reliable transmission system, which is also a tool for economic development.

The Chair: Okay. Mr. Jacobs.

Mr. Jacobs: Thank you. Thanks for your presentation. I just a have a question on the last bullet on the transmission development item on page 3. You talk about mandated interties. Well, let me ask: would you consider the intertie in southern Alberta to bring wind energy into the grid as a mandated intertie? If so, I'd just like to make the point that, you know, if we're going to develop wind energy, we need transmission to bring the electricity from point of generation.

We have another line in southern Alberta called the MATL line, which brings energy from a wind farm in Montana. That line will send electricity both ways. There are times during the year when Albertans would actually benefit from the possibility of lower prices of electricity generation in Montana.

There are two examples of intertie lines. You know, I was just interested in your comments. Could you clarify in light of my question your point on interties?

12:20

Mr. Oosterbaan: Happy to. I think it's more a technical point around capacity between Alberta and other markets. We believe that if you allow market forces to work, then the transmission ends up being built over time. Albertans should be allowed to enjoy the benefits of options with respect to electricity production, and certainly we're not opposed to wind development in this province. In fact, one of the reasons we built the Clover Bar facilities just outside the city of Edmonton is so that we have – now, that's a peaking facility that's designed to deal with the kinds of volatility that you see in wind production in the province, though. From our perspective the mandate is more around just ensuring that you allow market forces to determine what should be happening on transmission interties as opposed to having them mandated by the AESO or other authorities.

Mr. Jacobs: Okay. Thank you.

The Chair: Thank you. I just have one quick question, that is: could you comment on – and you didn't bring this up – the efficiencies of altitude or elevation above sea level on generation, say in gas-fired plants?

Mr. Oosterbaan: Well, certainly, it does have an impact on output. I mean, with respect to the altitude, sort of the lower the facility, the less efficient it is. That's just a fact of science; that's not something that's made up. I think it does have an impact. Generally, there are a number of factors that go into siting a generation facility, but that can be a significant one. I think you've heard an earlier comment about the impact. For example, if a gas plant produces, let's say, at 50 per cent, the price that it needs to sort of be economic could be, say, $90 to $100. If it's at 80 to 90 per cent, then the price could be $50 to $60 per megawatt in order to break even. The impact of altitude does have an impact on that percentage: it goes down, so the prices that you need to hit your rate of return actually have to go up. So it does have an impact.

The Chair: Would it be significant enough to determine where you would site your generators in Alberta?

Mr. Oosterbaan: It is one of the considerations.

The Chair: Okay. Thank you.

Mr. VanderBurg: Well, Jim, I didn't think you had the proper opportunity to respond to this accusation by some opposition critics. I've heard this before, that the Alberta government is subsidizing Capital Power Corporation, and I know that's not the fact. Can you clear that up for the record here? You know, it's a good time while you're on *Hansard* and a recording. I don't think you had a fair time to respond to that.

Mr. Oosterbaan: Thank you. I think, again, that with respect to being subsidized, we reject that outright. I think that from our perspective investments that have been made have been in response to the market structures of the day as established by the governments, which in turn were, I think, designed to elicit certain responses from the private sector. I think that has happened. I think that going forward, we have full disclosure and transparency in what

we do, what our investment decisions are with returns that we earn because that's what the market demands of us. Again, from my perspective it's just something that, as I say, we reject outright.

Thank you.

Mr. VanderBurg: Thank you.

The Chair: Well, lookit there: we're out of time. Thank you very much to Jim and Dwain.

Mr. Oosterbaan: My thanks to the committee. Thank you.

The Chair: What we have to do is just a couple small items of business for the committee. You're welcome to stay for a few minutes. Do any members have other items for discussion under other business?

Then I'm going to turn it over to Dr. Massolin. I think he wants to speak on the possibility of a report.

Dr. Massolin: Yes. Thank you, Mr. Chair. As you will recall and other committee members also may recall, last year in November this committee heard presentations during public meetings, and a report was produced by the research staff of the Legislative Assembly Office summarizing those presentations. I'm wondering, Mr. Chair, whether or not the committee would like us to do that this time around as well.

Mr. VanderBurg: Well, I'd like to comment on that. First of all, I want to pass by the comment that I have the report. I'm sure it's bedside reading material for all of us that are on this committee. I would make a motion that

> the research section prepare a draft report summarizing the presentations heard today by the Standing Committee on Resources and Environment for distribution to the relevant government of Alberta ministries and that the chair and deputy chair be authorized to review and approve the draft report on behalf of the committee.

The Chair: Thank you very much. Any comments on that motion? All in favour? That's carried.

The next item is the date of the next meeting, and I believe that'll be at the call of the chair.

I would be looking for a motion to adjourn.

Mr. Lindsay: So moved.

The Chair: Okay. All in favour? That's carried. Thank you.

[The committee adjourned at 12:25 p.m.]

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